



**ADDRESSING GLOBAL
CHALLENGES - EXPLORING
SOCIO-CULTURAL DYNAMICS
AND SUSTAINABLE SOLUTIONS
IN A CHANGING WORLD**

Edited by
Parfait M. Eloundou-Enyegue



ADDRESSING GLOBAL CHALLENGES – EXPLORING SOCIO-CULTURAL DYNAMICS AND SUSTAINABLE SOLUTIONS IN A CHANGING WORLD

The International Symposium on Humanities and Social Sciences: Addressing Global Challenges-Exploring Socio-Cultural Dynamics and Sustainable Solutions in a Changing World (ISHSS 2023) unfolds as a crucial academic undertaking, centred around the overarching theme of intellectual synergy and inquiry. This conference serves as a vibrant forum, facilitating discussions on a wide array of subjects within the realms of humanities and social sciences.

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Parfait Eloundou-Enyegue, PhD, is Professor of Global Development. His scholarly interests are in population and development. He has taught in multiple countries in North America, Africa, and Asia, has led efforts to build demographic capacity in Africa. He has consulted with several international organizations and has served on multiple scientific and advisory boards. Has also contributed to prominent UN reports on Global Development and on the Environment.



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Preface

The 2023 International Symposium on Humanities and Social Sciences: Addressing Global Challenges-Exploring Socio-Cultural Dynamics and Sustainable Solutions in a Changing World (ISHSS 2023) will take place on August 11–13, 2023 in Macau, China. The conference aims to bring together the world’s top minds, cutting-edge theories, and latest research findings to explore and share the latest developments and future directions in interdisciplinary research in humanities and social sciences. The conference will provide a platform for scholars and researchers from different fields to exchange and share their latest research findings and experiences, and to promote interdisciplinary cooperation and understanding.

ISHSS 2023 focuses on high-quality presentations and papers with solid theoretical foundations, unique ideas, scientific research methods, in-depth analysis, and abundant research value. We invite scholars, researchers, and experts from all over the world to participate in this conference. The scope of this conference encompasses disciplines within the humanities and social sciences, with a main focus on three special topics: the survival and subversion of history, sociological research in a global context, and the interaction of regional development and political policy. The conference will feature keynote speeches given by renowned scholars, as well as oral/poster presentations covering a broad range of popular topics. Accepted papers will be included in the ISHSS 2023 Conference Proceedings, which will undergo independent peer-review procedures to meet the requirements of international publication standard.

Finally, we would like to express our sincere gratitude to all the authors who, through their insightful presentations and papers, generously contributed to the vibrant exchange of scientific information. Your valuable contributions have significantly enriched the intellectual atmosphere, underscoring the importance of such interactions in ensuring the success and longevity of scientific conferences of this nature.

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International relations and diplomacy



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North Korea's denuclearization: Obstacles and prospects from multinational aspect

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ABSTRACT: The Korean peninsula's denuclearization has been the international community's focus of attention. The international community has tried to force North Korea to abandon its nukes program through negotiations and by imposing sanctions. North Korea's denuclearization process depends on various factors, including multinational factors, geopolitics, and North Korea's politics and social development. The dialogue and cooperation between South Korea and the US have progressed. Meanwhile, the different positions and interests of the US and South Korea, without enough mutual trust, all lead to negotiation difficulties. The US also uses and exaggerates North Korea's nuclear issue to serve its interests. South Korea believes in diplomatic mediation and negotiation but still imposes sanctions against North Korea due to pressure from the US. China has significant strategic interests in the Korean peninsula, and its position on denuclearization has not always been aligned with that of the US and South Korea. Confronted with the most potent East Asian security architecture since the demise of the Cold War, China has developed policies to resist US influence in its neighborhood rather than negotiating a comprehensive denuclearization agreement. Considering the political stability and economic development of North Korea, Kim Jong-un's regime has faced multiple pressures over the past few years, so he may use his nuclear weapons program to consolidate his political position. The prospect of North Korea's denuclearization remains challenging and uncertain.

Keywords: North Korea's Denuclearization, US, South Korea, China, Security

1 INTRODUCTION

The security perception of North Korea, officially the Democratic People's Republic of Korea (DPRK), has always been dominated by external threats, primarily from the US and South Korea, officially the Republic of Korea (ROK). The country's leaders believe it has justified its nuclear program as a means of deterring aggression and ensuring its survival. Thus, DPRK has been reluctant to give up its nukes. However, the international community regards it as a menace to regional stability and global non-proliferation efforts and has been working toward denuclearizing the Korean Peninsula. Korean Peninsula denuclearization is a crucial goal for regional and international security. The failure of previous negotiations and agreements, such as the 1994 Agreed Framework and the 2005 Six-Party Talks, has shown that denuclearization is a complex and challenging task. This paper analyzes the obstacles and prospects for denuclearization on the Korean Peninsula with the latest

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international development of international communities from the aspects of both North Korea and other countries, including the US, South Korea, and China.

2 US ASPECT OF DENUCLEARIZATION

2.1 *US effort for denuclearization: negotiations and sanctions*

The US and China are the two countries with the most clout outside the region. The first point to make is that the US has made significant efforts to promote North Korean disarmament. The US and DPRK signed the Agreed Framework in 1994, with the goal of freezing DPRK's nuclear program in exchange the US gave North Korea two light-water reactors for energy generation. The accord was initially effective, but in the early 2000s, DPRK resumed its nuclear program. Since then, the US and other members of the international society have sought to negotiate an end to DPRK's nuclear program.

One factor is the continued lack of trust between the US and DPRK. While there have been some steps toward engagement and diplomacy, both sides still have deep-rooted mistrust and suspicion. Tensions and mistrust between the US and DPRK have persisted in recent years. In 2019, the US and DPRK held a summit in Hanoi, and North Korea wants the US to lift five sanctions adopted by the United Nations in 2016–2017; however, Washington believes these sanctions are central to exerting maximum pressure on North Korea (Nguyen, 2019). Therefore, the US refused to countermand economic sanctions against DPRK in exchange for limited denuclearization measures. The North Korean delegation accused the US of trying to disrupt the negotiation process with several unrealistic demands. And at the Stockholm Summit in the same year, the negotiations quickly collapsed, with both sides unable to reach a consensus on DPRK's nuclear program and sanctions. This is undoubtedly a repetition of the traumatic events at the Hanoi summit (Hong, 2019). In 2020, the dynamiting of the liaison office in Panmunjom, jointly managed with South Korea, one of the main communication channels between the two countries, increased tensions between DPRK and the US. For their part, North Korea has expressed its frustration with the hostile and sanctioned policies of the US. In 2021, DPRK conducted several ballistic missile tests that were deemed to violate UN Security Council sanctions resolutions (U.S. Department of Defense 2022). The US condemned North Korea's actions and said it would continue to impose sanctions on the country. These events show that tensions and mistrust between the US and DPRK still exist despite attempts to resolve issues through dialogue between the two sides at particular times.

The US took a firm stance on DPRK's nuclear program, insisting that North Korea give up its nukes before receiving any concessions. This approach was a way to pressure DPRK to make concessions and agree to denuclearization. Nevertheless, this repression has backfired. This policy included intensified economic sanctions and diplomatic isolation of DPRK in the belief that these measures would pressure North Korea to negotiate. For example, The United States has imposed financial sanctions on North Korea, which include freezing North Korean assets held in US banks and prohibiting US banks from doing business with North Korean banks. This has made it difficult for North Korea to access foreign currency, which it needs to fund its nuclear program. The US has also imposed diplomatic sanctions on DPRK, which include limiting North Korean officials' ability to travel abroad and restricting the North Korean embassy's operations in the US. This has made it difficult for DPRK to engage in diplomatic negotiations and obtain information about the outside world.

These sanctions have had a significant impact on the DPRK, particularly on the North Korean economy, causing significant harm. Sanctions have made it difficult for the DPRK to get foreign cash, resulting in shortages of vital products and a rise in the cost of living for regular North Koreans. North Korea's capacity to acquire technology and other products

required to further its nuclear program has also been hampered by sanctions. However, the efficacy of the punishments is debatable. According to some observers, the sanctions have put tremendous pressure on North Korea and have contributed to its desire to talk with the US and South Korea.

However, the sanctions have had little effect on modifying DPRK's behavior and have only served to further isolate the government and its people. This will heighten North Korea's knowledge of the situation, speed up its nuke development, and make it less likely that DPRK would give up its nukes.

The danger of a United States-South Korean alliance and a US military presence in the southern half of the Korean peninsula makes denuclearization unachievable and a deterrent for North Korea. DPRK will not denuclearize unless the US eliminates its "threat" shift.

However, the requirements of North Korea may have substantial ramifications for US worldwide policy. The United States' position in East Asia is one of the pillars of its global system. The US has been promoting DPRK's denuclearization process because DPRK's nuclear weapons may threaten the United States' military allies in East Asia and its power. Because of this, the United States may also be using and exaggerating the DPRK's nuclear issue to safeguard its benefits.

2.2 *Why the US exaggerates the DPRK's nuclear issue?*

The US has been encouraging DPRK's disarmament process because it has threatened the US military allies in East Asia as well as its power. Given this, the US may be using and exaggerating the Korean peninsula nuclear crisis to protect its own interests.

Another reason the US may overstate the North Korean nuclear threat is for national security reasons. The US has a strong interest in retaining global hegemony and portraying DPRK's nuclear program as a threat to that position would assist in unnerving US allies in East Asia, such as Japan and ROK, while also strengthening US military connections with them. DPRK's nuclear arsenal provides the regime with some influence in international affairs. Assume DPRK utilizes its nuclear program to negotiate and obtain concessions from other East Asian countries. This will erode the United States' influence in East Asia. Furthermore, sanctioning and weakening North Korea is in US benefits in the region. The US has maintained a military presence in South Korea since the 1950s, and the presence of DPRK's nukes threatens its security. Relying on the threat of DPRK, the US can better strengthen its military presence in East Asia, especially the Korean Peninsula, and then suppress its biggest opponent: the rising China.

In addition, the US can also use North Korea's denuclearization as an ideological entry point. Attention has also been paid to enhancing the public opinion image of the US by exaggerating the danger of nukes in DPRK under the patriarchal dictatorship and the efforts of the liberal Democratic party led by the United States to denuclearize it. The media, especially in the United States, often paints North Korea as an irrational and unpredictable state ruled by a nuclear-obsessed dictator. This narrative captivates the viewer and reader and draws a lot of attention. Of course, this narrative is not entirely accurate. DPRK's nuclear program is motivated more by strategic interests than irrationality. DPRK uses its nuclear program to obtain concessions from other countries and maintain its security. However, such concessions are also unacceptable to the US (Evans 2021).

In short, although the DPRK's nuclear issue is a legitimate concern of global security, and the United States has indeed done some things to promote North Korea's denuclearization, the United States may also exaggerate this issue for various reasons. With such a complex mentality, the United States needs more willpower and motivation to change the status quo for North Korea to achieve denuclearization truly (Kim, 2019). The United States blindly exerts pressure, which has the opposite effect.

3 CHINA'S ATTITUDE TOWARD DENUCLEARIZATION AND THE REASONS

Unlike the US, China has not been so excited about North Korean disarmament, nor has it advocated the use of sanctions to coerce North Korea. However, China has been an important factor in the ongoing attempts to denuclearize North Korea because it feels DPRK's nuclear program endangers regional stability and its national security.

China has taken a variety of steps to resolve the issue in recent years, including backing UN sanctions on North Korea, calling for engagement and negotiations between DPRK and the US, and acting as a mediator between the two countries. While supporting the international community's push for North Korean disarmament, China has also taken several steps that other players, such as the US, have not recognized. For example, China supports economic sanctions against DPRK in the UN. However, simultaneously, it still maintains the status of DPRK's largest trading partner and provides North Korea with many necessary materials to maintain North Korea's existence (Eleanor 2019).

There are various compelling reasons for China to adopt these steps. One reason for this is that China considers DPRK's nuclear program to be a danger to regional stability and national security. China is concerned that DPRK's nuclear activities could destabilize the region and lead to a nuclear arms race in Northeast Asia. This anxiety culminated in 2017 when DPRK conducted a nuclear test near the Changbai Mountains on the Chinese-North Korean border. China even contemplated taking a more direct approach to stop North Korea, but ultimately decided against it. China is also afraid that DPRK's nuclear programme would lead to conflict in the country since DPRK has built nuclear facilities far from South Korea's southern border to safeguard the safety of its nuclear facilities, but this is quite near to China. As a result, for its own security, China must help North Korea denuclearize.

Another reason for China's engagement in North Korean disarmament is the need to preserve influence over the country. China regards the DPRK as a buffer against the US and its regional allies and seeks to maintain influence over North Korean actions in order to channel North Korea's energy against the US. By encouraging communication and talks, China seeks to avoid a confrontation that would result in the collapse of DPRK's regime and the loss of strategic buffers, since the resulting high number of refugees would have a significant impact on Northeast China. Or worse, if South Korea and the US troops stationed in South Korea take the opportunity to go north, China's northeastern border may face a pro-American regime with a US military presence, which is a disastrous consequence for China. Therefore, China hopes to increase its influence by participating in the North Korean denuclearization agreement to ensure North Korea will not have problems.

Despite this, China is still not as active as the US on the issue of DPRK's denuclearization because DPRK is China's traditional ally. Even if China is worried about DPRK's nuclear issue, it will not take too much pressure or sanctions to deal with it (Kim, 2020). It can help itself to contain the United States' allies but adopt more negotiation methods.

In summary, China has taken several measures to denuclearize North Korea. These include supporting sanctions, advocating for dialogue and negotiations, and imposing economic sanctions on North Korea (China-North Korea Senior Study Group, 2019). However, it should be noted that China's efforts to achieve denuclearization are based on concerns about regional stability and national security while wishing to maintain its influence on North Korea and its economic interests in the region.

4 SOUTH KOREA'S ASPECT OF DENUCLEARIZATION

As another regime on the Korean peninsula, South Korea's position toward North Korea's denuclearization requires scrutiny. South Korea's activities and influence, as a distinct state founded by the same nation, have also complicated and changed the circumstances of North Korea's denuclearization.

4.1 *South Korean government's actions – negotiations*

Officially, the South Korean government has long campaigned for and is actively working toward the Korean peninsula's denuclearization. In recent years, the South Korean government has played a critical role in supporting communication and talks on disarmament concerns between North Korea and the international community. South Korea has likewise taken several steps. The basic goal is to maintain moderate interaction with North Korea while applying pressure.

On the bright side, a significant recent move by the ROK government in this regard is the so-called "Moon Jae-in Peace Initiative," named after former President Moon Jae-in in 2017. The initiative aims to promote peaceful and stable development on the peninsula through dialogue, cooperation, and reconciliation between North and South Korea (Kim 2018). This strategy also includes promoting nuclear disarmament. As part of this strategy, the South Korean government has taken a number of mild steps to promote disarmament. The most prominent of these is active engagement with North Korea: The ROK government has attempted to engage DPRK through numerous avenues, including high-level discussions and summits between the leaders of the two nations: Moon Jae-in and Kim Jong-un. The summit marked the climax of this trend. The discussions focused on a variety of disarmament concerns, including eliminating DPRK's nuclear weapons program and creating a peaceful regime on the peninsula.

However, with the end of Moon Jae-in's tenure (2017–2022), the ROK government's dialogue with DPRK has gradually decreased. The relationship between the two sides has continued to cool down to the previous state.

4.2 *South Korea's sanctions against North Korea*

Since the presidency of Yoon Seok-yeol in 2022, South Korea's current means of dealing with North Korea in terms of denuclearization is mainly following in the footsteps of the United States: especially sanctions (Yonhap News Agency 2023). These sanctions include those promoted by the United Nations and other international organizations, and some sanctions were initiated by the ROK government. In addition to the primary economic import and export sanctions, due to the unique nature of the relationship between the two Koreas, South Korea has also imposed a travel ban on North Korean officials and individuals suspected of participating in the country's weapons program. The measure limits DPRK's ability to conduct international business and diplomacy (AI Jazeera and News Agencies 2023).

However, it is worth noting that some countries have criticized South Korea's sanctions for being too limited in scope and failing to achieve the intended purpose. Others argue that sanctions could harm ordinary North Korean citizens by exacerbating humanitarian concerns, and other approaches, such as peaceful negotiations, may be more effective in achieving denuclearization. Despite these arguments, South Korea now continues to advocate sanctions as a vital tool in its efforts to promote the Korean peninsula's denuclearization.

4.3 *Reasons why South Korea takes sanctions instead of maintaining negotiations*

South Korea's sanctions have a clear rationale: through limiting North Korea's access to international commerce, finance, and diplomacy, South Korea seeks to impose economic and diplomatic pressure on the DPRK to eventually denuclearize. The administration regards DPRK's nuclear program as a major danger to regional stability and security. Sanctions are also seen as an important instrument in forcing North Korea to relinquish its nuclear program. At the same time, as the US's most significant ally in Northeast Asia, South Korea must impose harsh sanctions in order to meet the alliance's criteria, particularly those of the US.

The US has stated that conversations with North Korea should take place only under certain conditions, such as when North Korea expresses a willingness to denuclearize and takes significant actions toward that aim. Negotiations without these criteria, according to the US, would be pointless and would only help to legitimize DPRK's nuclear program. Sanctions, according to the US, can be an effective instrument for increasing pressure on DPRK.

While the United States has urged South Korea to apply harsh restrictions on North Korea, South Korea has its own interests and concerns regarding North Korea. South Korea has had a more conciliatory attitude to North Korea and has been more open to engagement and discussions. South Korea has also been concerned about the influence of sanctions on the common people on the other side of the peninsula and has sought to balance its pressure policy with humanitarian aid. This may be because the South Korean side still regards those affected by the sanctions in North Korea as their compatriots.

Of course, South Korea also tried to communicate with DPRK about the nuclear issue by participating in the Six-Party Talks (SPT) and holding bilateral meetings. On the other hand, due to mutual distrust between the US and DPRK, the failure of the SPT, and the continuance of DPRK's nuclear program, it has been difficult for South Korea, a US ally, to gain North Korea's trust. On the other hand, South Korean domestic trust in the North Korean dictatorship is low due to its own pro-US strategy and propaganda. The two countries are more inclined to confrontation rather than cooperation. This led to the resignation of the Moon Jae-in regime, which supported reconciliation. The subsequent South Korean Yoon Se-yue regime decided to continue to follow the United States and adopt sanctions rather than cooperation and exchanges on the North Korean nuclear issue (Yeung, 2022).

5 NORTH KOREA'S ASPECT OF DENUCLEARIZATION: OBSTACLES AND PROSPECTS

North Korea's reluctance to denuclearize can be attributed to several factors. First, the leadership's will to maintain the Kim dynasty's grip on power plays a significant role. Kim Jong-un sees nuclear weapons as an essential tool to safeguard the regime's stability and his family's legacy. Second, the country's propaganda machinery has effectively convinced the North Korean population that nuclear weapons are essential for survival. Therefore, any move to denuclearize would be perceived as a sign of weakness and a betrayal of the regime's legitimacy.

Despite the resistance to denuclearization, there are some prospects for progress. North Korea's leadership recognizes that their economy's poor state requires external aid and investment, which is heavily restricted due to international sanctions. Therefore, DPRK may be willing to negotiate on denuclearization to ease these restrictions. In 2005, against the background of the Six-Party Talks (SPT), the 19 September agreement was declared to be the foundation of denuclearization in exchange for security, economic, and political incentives to DPRK. The statement focuses on: "DPRK's commitment toward the abandonment of all nukes and existing nuclear programs and its returning to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and International Atomic Energy Agency (IAEA) safeguards as soon as possible" (Kwak 2007). Moreover, the Biden administration has demonstrated a willingness to engage in diplomacy with DPRK, signaling a possible path toward a peaceful resolution. Consequently, a peaceful settlement of the nuke issue is a prerequisite for establishing confidence between the US and DPRK, hence the requirement for the two countries to engage in mutual confidence-building measures (Kwak 2003). Moreover, North Korea has also had positive "engagement" with the US in recent years. In June 2018, the North Korean chairman met with an American president who was then in office in Singapore and reaffirmed his commitment to denuclearizing the Korean Peninsula (Liptak 2018).

Moreover, if North Korea wants to stabilize its collapsed economy, it should proactively commit to returning to the SPT and make concessions on denuclearization. The US wishes

North Korea to rejoin the SPT first, after which the two issues—easing sanctions and a peace agreement—can be considered. In contrast, North Korea prefers to first negotiate the lifting of UN sanctions and a peace agreement before returning to the SPT. Both positions are opposite (Kwak 2010). Therefore, a satisfactory formula for both Pyongyang and Washington would be parallel talks at the same time on critical events such as a peace agreement, lifting of United Nations sanctions, and denuclearization of Korean peninsula.

Overall, DPRK's security perception has been the primary obstacle to denuclearization on the Korean Peninsula. The country's leaders view nuclear weapons as essential for survival, and the population sees them as a symbol of national pride and strength. Furthermore, North Korea's leadership may be willing to negotiate for economic benefits. While the prospects for progress are uncertain, diplomacy remains the best approach toward achieving denuclearization and lasting peace on the Korean Peninsula.

6 DISCUSSION OF INTERNATIONAL SANCTIONS, OTHER COUNTRIES AND INSTITUTES

In addition to the factors discussed above, other multinational factors are also crucial in the prospects for achieving denuclearization. One of the most significant factors is the role of international sanctions, which have been a vital tool in pressuring North Korea to denuclearize. However, the effectiveness of these sanctions has been debated, with some arguing that they have not succeeded in changing North Korea's behavior and have instead caused significant harm to the country's economy and people. Economic penalties are effective when citizens exert pressure on their leaders to change course as a result of financial problems (Brewer 2018; Hufbauer 1983). Yet, North Korea lacks this kind of democratic system. Instead, sanctions create a "rally round the flag effect" against outside pressure, enabling political endorsement and directing the population's resentment toward outsiders. Sanctions cause suffering to civilians, especially the most vulnerable groups in the target nations, while those in authority remain relatively unscathed (Ali 2000; Schrijver 1994).

Another factor is the role of regional powers, such as South Korea and Japan, in facilitating denuclearisation on the Korean Peninsula. Both countries have been affected by DPRK's nuclear and missile programs and are vested in promoting security and stability in the region. However, their positions on denuclearization may sometimes align with those of the US, China, and Russia, which can complicate efforts to negotiate a comprehensive agreement.

The role of some authoritative international organizations, such as the UN and the IAEA, is also significant. These organizations have played a crucial role in monitoring DPRK's nuclear program and verifying the country's compliance with international agreements. However, their effectiveness relies on the willingness of North Korea to collaborate and provide access to its facilities.

7 CONCLUSION

Considering the previously discussed factors and the international environment, the prospects for achieving the Korean Peninsula's denuclearization are mixed. On the one hand, there have been some positive developments, such as the meetings between DPRK and ROK leaders in 2018 and the subsequent summit between Kim Jong-un and Donald Trump in the same year. These meetings were seen as a positive step toward resolving tensions on the peninsula and laying the groundwork for further negotiations on denuclearization.

However, progress has since stalled, and the prospects for achieving a comprehensive and verifiable denuclearization deal remain uncertain. Several factors contribute to this, including the complex political and security dynamics on the Peninsula and the broader geopolitical context.

The US has taken a firm stance insisting that DPRK must abandon its nukes before any concessions. Together with other members of the international society, the US has attempted to negotiate with DPRK to end its nuclear program. In addition, the US has implemented financial and diplomatic sanctions against North Korea, making it difficult for DPRK to obtain funds to support its nuclear program. The military influence in ROK is a core element of the US's strategy to maintain global security in East Asia. DPRK's nukes may threaten the US's military allies in East Asia and its security. Therefore, the US may use and exaggerate the North Korean nuclear issue to serve its interests.

South Korea has also pursued diplomatic negotiation and sanctions as the means for denuclearization while promoting peace on the Peninsula. President Moon Jae-in has been actively seeking a meeting with Kim Jong-un. The first inter-Korean summit in 2018 was a signal of progress. To reduce tensions and advance prosperity and peace, the two Korean Peninsula nations have cooperated with North Korea in sports, culture, and economy. Moon Jae-in has also actively sought cooperation with the US and other countries. However, because of mutual distrust between the US and DPRK and a lack of trust in the North Korean regime, South Korea has imposed sanctions on North Korea rather than a more conciliatory approach.

Another factor is the broader geopolitical context, including the role of China. China has significant strategic interests in the Korean Peninsula, and its positions on denuclearization are not always aligned with those of the US and South Korea. Particularly in the current international society, China is directly confronted with the most formidable East Asian security structure since the Cold War and needs to confront that structure. To maintain the regime, China has formulated policies to resist US influence in its neighborhood. China's failure hitherto to prevent Pyongyang's nuclear ambitions reflects its unwillingness rather than its inability (Wang 2018). This can complicate efforts to negotiate a comprehensive and lasting denuclearization agreement.

In summary, the prospects for North Korea's denuclearisation remain challenging but possible. DPRK's security concerns and aspirations must be addressed while upholding global non-proliferation norms. The international community should continue to work toward a comprehensive and verifiable denuclearization deal, which will require sustained diplomatic efforts, innovative approaches, and the involvement of multiple stakeholders.

AUTHOR CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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The image of the “other” in popular culture and diplomatic relations between China and Japan—Japanese anime and Chinese television drama as examples

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ABSTRACT: Among the soft power in most countries today, popular culture plays a pivotal role in international influence and communication. China and Japan are economic and cultural powers in the world, and the popular culture of the two countries has an obvious the “other” form in shaping each other. Taking the most representative Japanese anime and Chinese television drama in the cultural industries of the two countries as examples, this paper compares and analyzes the image of the “other” in Chinese and Japanese popular culture in three time periods, that is, the hostile “other” before China’s reform and opening up, the friendly “other” in the 1980s and 1990s when the economy was booming and open and accessible, and the vigilance of the “other” since the 21st century. This paper clarifies the multiple factors that influence the image mentioned above formation from the perspectives of the development of politics, economy, and social culture. The behavior of official diplomacy affects the collective psychology of the public, and the psychology of the mass group will have a particularly negative effect on diplomacy.

Keywords: Sino-Japanese Relations, Popular Culture, Image of the “Other”, Japanese Anime, Chinese Television Drama

1 INTRODUCTION

Popular culture mainly includes commercial film and television works, best-selling literature, popular songs, leisure newspapers, idol star entertainment, and video game animation. It has the characteristics of commodity, popularity, entertainment, and dependence on mass media. Although popular culture is not the whole of a country’s culture, it is essential to its cultural transmission to the international community. It carries a country’s rich national spirit and unique values and is the foundation for a country to build cultural power.

In modern society, popular culture is one of the important ways for people to understand and perceive their self-identity in the collective identity. The national image instills a sense of national pride and cohesion in the people of a country, which helps to unite the people and form a national and ethnic identity. However, national identity must be compared with the “other” to produce meaning. Traditionally, the government has played a dominant role in the construction of the national image, but today the international discourse space and the construction of the national image are increasingly influenced by popular culture and people’s knowledge of “self” and “other” is more important, mostly from popular culture in everyday life. The mass media and other popular cultural products continue to produce national images that conform to the public imagination for people to consume, making

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popular culture the most important source of foreign-related information for the public in modern society (Ge 2022).

The East Asian cultural circle has been separated by a strip of water since ancient times. In recent years, the rise of cultural and public diplomacy has significantly impacted international relations. At the same time, after China's reform and opening up, the diversity and influence of Chinese popular culture have also grown. This article takes Japanese commercial animation and Chinese television drama (TV drama) as the main observation objects in popular culture. It sorts out the three periods before China's reform and opening up, the 1990s to the beginning of the 21st century and since the global financial crisis in 2008, and analyzes the two countries. The culture has experienced extreme one-sided symbolic shaping of the "other" image of the other country, objective and rational integrative shaping, and multi-style shaping of the coexistence of opposition and tolerance. By analyzing the multiple reasons behind the different images in different periods, it clarifies the complex cultural and psychological contradictions between the Chinese and Japanese people, as well as the influence relationship between the public psychology behind popular culture and official diplomacy.

2 EXTREMELY ONE-SIDED SYMBOLIC OPPOSITE IMAGES BEFORE THE 1980S

2.1 *China's demonization and clowning of Japan*

The development of Chinese TV drama began after the founding of the People's Republic of China in 1949. At that time, the TV dramas produced and broadcast by the state TV stations were mainly about the achievements of socialist construction, and the works about Japan were all anti-war works, such as children's TV dramas like *Little Hero Yu Lai* and film works like *Little Soldier Zhang Ga*, *Battle of the Tunnels* and *Plain Guerrillas*. These works portrayed many obscene, evil, ruthless, and ridiculous Japanese soldiers and officers. The Japanese army was always a rabble, greedy for life and death, and scattered at the first battle. Japanese officers were often rude and bullied by the Chinese people. During this period, the image of the Japanese in movies and dramas reflected the cruel and vicious image of the Japanese invaders. It formed the new characteristics of the comical and ridiculous clown image and the cowardly one defeated at the first blow.

On the one hand, these images of Japan reflected China's national pride as a newly built country. However, on the other hand, because of China's political needs at that time, the policy of "serving politics in art and literature" portrayed the Japanese only as a cowardly and outwardly strong enemy. During this period, movies also used this technique of denigrating the Japanese to contrast and emphasize the great image of the Chinese people as invincible, brave, and fearless. This clownish, jocular image of Japan was also because normal diplomatic relations between China and Japan were not established during this period. The Chinese people at that time had no access to any information about Japan, nor was it possible to contact the Japanese directly or understand them objectively. Even after the restoration of diplomatic relations between China and Japan in 1972, Japan and the Japanese people were still unknown to most Chinese people. Hence, the images of the Japanese people reflected in film and television continued the images of invaders and ghosts from the past (Liu 2011).

2.2 *Japan's "orientalism" shaping of China*

From the 1960s to the 1980s, Japan's economy recovered and developed rapidly, and the Japanese anime industry grew bigger and stronger. However, the Japanese anime of that period portrayed the Japanese as the heroes who saved the world and led the world together with the United States and the developed countries of Europe. There were few images of China.

At that time, China's economy was backward, its international status was low, and the political and economic gap between China and Japan was gradually coming to the fore. Moreover, China and Japan had just established diplomatic relations, and there were few exchanges between the two countries. Although China had entered the vision of the Japanese people, it still needed to be in a better position than the developed Western countries (Fang 2018).

Since the Meiji Restoration, Japan has accepted the Western scientific and technological civilization system and attributed its social psychology to the West. Western culture has had a significant influence on Japan. Therefore, in order to elucidate its symbols under Orientalism and construct its discourse, Japan has added the stereotype of Orientalism to other countries that are also great Oriental cultural countries, such as China, thus forming its own "Western superiors" to the gaze of "oriental inferiors".

During this period, Japanese anime works basically showed the oriental alienation of modern China, and the image of China was stuck in the backward Qing Dynasty in the 19th century and the chaotic Republic of China in the first half of the 20th century, more often China was presented by the Yellow Peril image of evil witchcraft and divination. For example, in *JoJo's Bizarre Adventure: Phantom Blood*, the villain Dio, who wanted to kill the protagonist's father, bought poison from an eastern man with a beard, squinting eyes, and a sharp mouth. Then after Dio was defeated by the protagonist, the evil Eastern man saved him because he divined Dio's extraordinary fate, causing the death of the protagonist's family. This Yellow Peril image is ideally in line with the oriental style of character images, and almost all Japanese anime during this period depicted Westerners and society, and culture as positive and trendy while ignoring and belittling Eastern culture represented by Chinese elements.

3 OBJECTIVE AND FRIENDLY IMAGES FROM THE 1990S TO THE EARLY 21ST CENTURY

3.1 *China's authenticity, advanced shaping of Japan*

During this period, the Chinese people were significantly enriched in material life and freed from the shackles of the Cultural Revolution. Various social trends, such as democracy, humanism, and humanitarianism, have emerged, all of which have influenced the ideology of the Chinese people.

On the one hand, in the past, there was only one identity of soldiers in film and television works. In the film and television works made in China after the reform and opening up, the Japanese were given more identities. Many of these works were played by Japanese actors and filmed in Japan, which is very different from the characters played by Chinese actors in the past. For example, Emperor Meiji and Prime Minister Ito Hirobumi in *Towards the Republic*, the teacher in the Taiwanese film *The Horn of No. 7*. In the anti-Japanese films and dramas, many Japanese soldiers are also shown as contradictory and real human beings instead of evil spirits. For example, the Japanese soldier Kadokawa in *Nanking*, Nanking is a somewhat shy Japanese soldier, a weak Japanese figure, who finally kills himself with a gun because he cannot bear his inner torment.

Therefore, in the film and television works of this period, the image of the Japanese people is more realistic than before. While portraying them, the works can look more objectively at human nature and Japanese national values and reinterpret contemporary Chinese thinking about war. The human nature of the invaders should not be condoned, and the light of humanity in war should be celebrated across national and ethnic lines.

On the other hand, the public also perceives Japan's advanced technology and modern civilization daily, and positive impressions of Japan's urbanized life appear in dramas (Fang 2021). Many Chinese idol urban dramas contain aspirations of Japan's fashion and advanced technology. China has remade many popular Japanese idol dramas, which have won praise and love of many viewers.

Since the establishment of diplomatic relations between China and Japan and China's reform and opening up, China has grown in power and played an increasingly important role on the world stage. China has become more tolerant, understanding, and rational than ever before. With the culmination of exchanges between China and Japan, the two peoples have engaged in various forms of interaction on a broader and deeper scale than ever before. The 1993 Kono Talks and the 1995 Murayama Talks, among others, have shown Japan's official apology to China and its desire to develop peaceful and friendly Sino-Japanese relations. The changes in Chinese society and the deepening of exchanges between China and Japan from the official sector to the private sector have inevitably contributed to the transformation of the image of the Japanese in various literary works, including film and television works (Wang and Li 2012).

3.2 *Japan's diverse and dynamic shaping of China*

In the 1990s, with the end of the Cold War, China's economy continued to develop under the guidance of the reform and opening-up policy, and its international status improved. At that time, Chinese images gradually entered Japanese animation works (Gui 2012).

During this period, Japan's understanding of the Chinese image was deeply influenced by Hong Kong films. The main characteristics of Chinese characters are women's cheongsam buns, men's robes, Tang suits with long braids, and the inseparable elements of kung fu; the characters are primarily lively and vivid. For example, the hero Syaoran Li in *Cardcaptor Sakura* has a good and firm personality. He collects clown cards with the heroine Sakura. The relationship between friendship and love is often discussed by the audience. Both Kai and Rock Lee in *Naruto* are charming and respectable hardworking people, and both have stories that make the audience excited, warm, and emotional.

Since the Asian financial crisis in the 1990s, the Japanese economy has been in a downturn or recession. For this reason, the Japanese government has made various efforts. The first choice of economic growth point includes the cultural industry, along with the auto and electronic industries (Wang & Dong 2011). Japan is vigorously developing its overseas markets. Concerning China, while exporting its animation films to China, it is also actively accepting the export of Chinese culture in the new era. The image of China in Japanese animation works is also constantly updated. Many young Chinese people also have a subtle yearning for Japanese culture.

4 DIVERSE IMAGES AFTER HEIGHTENED CONFLICT SINCE THE 2008 GLOBAL FINANCIAL CRISIS

4.1 *China's mixed attitudes towards Japan with dominance of negative elements*

The pain of the modern history of China and Japan for the Chinese nation is still remembered by the Chinese people. Unresolved historical issues and territorial disputes have also caused ups and downs in Sino-Japan relations. In 2005, protest marches erupted across China because then-Japanese Prime Minister Junichiro Koizumi visited the Yasukuni Shrine, which enshrines Class-A war criminals from World War II. In 2012, the Senkaku Islands sovereignty incident also caused a great uproar. As a result, the Chinese people's anti-Japanese attitudes became severe (Fang 2021), which pushed the cold Sino-Japanese relations to the bottom.

At this stage, the degree of commercialization of Chinese TV dramas has also fully formed a mature industrial chain. The presentation of Japanese elements in TV dramas is divided into two aspects. There is a factual background of Japanese social civilization's high standards and quality in idol city dramas. More TV dramas, however, are anti-Japanese, made by the culture industry to satisfy the popular nationalist and anti-Japanese sentiment. At that time, anti-Japanese dramas such as *Legend of the Plainclothes Team Behind the Enemy Rear* were shoddy and ridiculous. When the common people fought the Japanese soldiers,

they invented the “fruit grenade”. Whether peppers, carrots, or other vegetables can be used as weapons to kill the enemy. What’s more, in the TV drama *Anti-Japanese Heroes*, the protagonists all have unique skills, even more, skilled than the martial arts masters in kung fu movies. One day when the Japanese army attacked, the protagonist tore the Japanese soldier in half with his hands. These absurd plots in the inferior film and television works often shock some of the audience and make them feel confused, helpless, and even angry.

Compared with the Japanese animation industry, the image of Japan in the Chinese film and television industry has been solid, non-innovative, and of increasingly low quality and depth. Due to the official cultural policy of patriotic education and the influence of the mainstream media, most works show a one-sided and superficial understanding against Japanese culture, and the concept of developing cultural creation with the times is lacking. At the same time, the self-centeredness of the nation-state has deepened again, the fierce pride of the public has erupted, the radicalization and mechanization of mainstream values and beliefs, and the inertia of most people’s thinking has also made the self-centeredness of the nation-state deepen again. As mentioned in the Frankfurt School’s critique of the cultural industry, the cultural industry inevitably leads to the decay and degradation of culture. The principle of profit places commercial values above social values, leading to the deterioration of culture (Xu 2015).

4.2 *Japan’s portrait of China as a “powerful but failed” imaginary enemy*

Since the beginning of the 21st century, the world has become increasingly multipolar and globalized. At the same time, a populist trend of anti-globalization has emerged in the wake of the massive financial crisis (Xia 2021). For Japan, China is an object of cooperation and exchange, reflected in the increasing importance of Chinese characters in anime. However, Japan’s right-wing government and media have also embraced the Western view “threat of China,” which regards China’s growing military power as a significant threat to Japan and other neighboring countries, causing anxiety among Japanese citizens. Japan’s attitude toward China has changed, and as a result, most of the images of the Chinese state in Japanese anime are powerful and lack positive value. At the same time, Japan is often presented as a victimized or positive role [3].

For example, in the anime *Jörmungand*, China is portrayed as anti-realistic and insulting: the Chinese government takes advantage of African laws, and Chinese soldiers attack UN peacekeepers. In *Code Geass: Lelouch of the Rebellion*, the Chinese Federation ruling Asia is corrupt and backward, with eunuchs in power, and is eventually helped by the Japanese Area 11 forces. In *Terra Formars*, China is also the public enemy of the people of Earth. Japan confidently presents itself as the world’s leading power in anime. However, after the international action begins, Japan becomes the victim, and China goes from non-existent to villain invading other countries. In these animations, China is portrayed as the world’s superpower, exaggerating the image of China as a powerful and hegemonic country. Japan is portrayed as a weak country lacking its sovereignty in the shadow of the powerful, emphasizing the crisis consciousness of modern Japanese society toward China.

On the other hand, the concept of value nihilism that gradually emerged from the disappointment of the collapse of Japan’s bubble economy is also prominent in Japanese anime, which is reflected in the questioning of the rationality of justice and the dismantling of the concept of revenge in traditional Japanese culture (Hu 2021). The need for revenge in traditional Japanese culture is being dismantled. For example, in the famous anime *Attack on Titan*, the author expresses this idea by depicting a patriotic child who is taught from childhood to avenge the justice of the enemy, only to find out that her own country is the evil party that distorts history and invades other countries, and finally becomes confused and miserable. The capital-led culture industry has an inevitably entertainment-corrupting character in its cultural production to satisfy the audience’s immediate, transient pleasure (Li 2013). The over-entertainment of culture makes its popular cultural output prone to carry a biased ideology that softens the seriousness of reality and history.

5 CONCLUSION

Since modern times, the popular culture of China and Japan has portrayed each other as the “other” in the wrong way. From the hostile “other” before China’s reform and opening up to the friendly “other” in the 1980s and 1990s, when the economy took off, and the country was open and free, to the suspicious “other” since the 21st century.

On the one hand, Chinese and Japanese popular culture reflect the complex cultural and psychological contradictions between the people. The national memory of wars in history has created a psychological gap that can hardly be healed. However, the common desire for peace and friendship is also felt in economic and cultural exchanges, resulting in the ambivalence of “love and hate” among most people. On the other hand, the relationship between the people’s psychology behind popular culture and official diplomacy is also reflected. The primary manifestation is that official diplomatic behavior influences the collective psychology of the public, and extreme and controversial political actions lead to widespread resistance expressed in mainstream culture. This form is somewhat unidirectional, as the mass psychology of the public is reflected in popular culture and thus has a particular influence on official diplomatic behavior. In the case of the “war wolf diplomacy” over the past two years, the style, which is influenced by the nationalist sentiment of the Chinese people, has shaken the world in some way.

The formation of popular culture is subject to the control and influence of many factors. With the further development of science and technology and social economy, the culture will undoubtedly become more diversified and complex. For China and Japan, when the fundamental goal is still peace and development, the two countries should communicate and cooperate more, learn from each other’s strengths, and complement each other’s weaknesses while respecting and understanding the “other” to achieve long-term development.

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Analysis of China-Laos relations—from the perspective of U.S.-China strategic competition, ASEAN and Laos

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ABSTRACT: With the intensifying of the strategic competition between the United States of America (U.S.) and China and the growing influence of Association of Southeast Asian Nations (ASEAN) as a critical inter-state organization, the international community is increasingly concerned about ASEAN countries and their foreign relations. China attaches great importance to its neighbors, and most ASEAN members are China's neighbors with an essential role in the U.S. Indo-Pacific strategy. There is still the problem of third-party competition in China's cooperation with ASEAN. Under the international pattern of U.S.-China strategic competition, ASEAN countries generally remain neutral between China and the U.S. There is some variability in choosing sides. In contrast, Laos remains neutral but relatively favorable to China. Chinese aid projects, such as the China-Laos Railway, are of great importance to the economic development of Laos. China's "Belt and Road" initiative and East Asian economic and trade cooperation after the Regional Comprehensive Economic Partnership (RCEP) comes into effect. The current national relations between China and Laos vigorously safeguard the national interests of both countries and are in line with diplomatic expectations. Laos has an important strategic position, and maintaining good diplomatic relations is conducive to enhancing China's national influence in ASEAN and maintaining China's national security. In the meantime, Laos can obtain international aid projects and vast economic development space in cooperation with China. Laos' developing situation is not optimistic, including weak comprehensive national power, a slight competitive advantage compared to other ASEAN countries, a lack of qualified labor force, a poor business environment, and geographical constraints. Thus, Laos and China have solid complementary development. This paper argues that the relations between the two countries and Laos' foreign policies' preference for China will not be easily changed in the longer term, and there is the prospect for further development.

Keywords: China-Laos Relations, ASEAN, U.S.-China Strategic Competition

1 INTRODUCTION

Since the United States of America (U.S.) officially launched the Indo-Pacific Economic Framework (IPEF) in May 2022, a new chapter of the U.S.-China strategic competition has been opened. The policy helps reinforce the "American-centric" phenomenon in international political studies. The fact that some of China's neighboring countries have joined the IPEF has led to the need of China for more vigilance and attention to the U.S. As one of the countries with many neighbors, China's relations with its neighboring countries and regions are complicated and diverse in international politics. Under such international relations, Association of Southeast Asian Nations (ASEAN) is an essential player in the U.S. Indo-Pacific strategy

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and an important regional state organization in the development of China's neighboring diplomacy. China and Laos are traditionally friendly neighbors, and political ties between the two countries have always been very close. The leaders of both countries have highly valued the traditional friendship between each other, and the cooperation between the two countries has been deepening in political, economic, and cultural aspects. However, due to the complex and diverse international environment mentioned above, the cooperation and relations between the two countries have been affected.

The paper will first analyze ASEAN's foreign strategy and overall attitude in the context of the U.S. Indo-Pacific strategy and China's neighborhood strategy, as well as the competition issues in China-ASEAN cooperation. Influenced by the diversity of ASEAN's member states and its development factors, studies of China and ASEAN member countries in domestic and foreign academia have been more biased toward countries that have received more social attention and appeal, such as Thailand, Vietnam, and Singapore, and less attention has been paid to Laos as China's neighboring country. Scholar studies on this category of Southeast Asian countries provide an essential foundation for this paper to explore the development of Laos and China-Laos relations and provide a comparative object for this study. The paper will also explain the driving factors of friendly relations between China and Laos in different areas, the main reasons for the current state of relations between China and Laos, and the future trends of relations between the two countries in the context of Laos' development conditions.

2 THE INTERNATIONAL SITUATION AND ASEAN IN ITS CONTEXT

2.1 *U.S. "Indo-Pacific strategy" to strengthen the U.S. presence in the Indo-Pacific region*

The Biden administration has high expectations for ASEAN's role in the Indo-Pacific Strategy and strongly hopes that ASEAN member countries can fully use their superior geography to compensate for the relative lack of U.S. "control" in the Asian region across the Pacific Ocean—Indo-Pacific Economic Framework, which emphasizes rules-based rather than trade-based approaches. Of the 14 Indo-Pacific countries participating in the framework, all but the United States, Australia, New Zealand, and Fiji are neighbors or neighbors of China. The composition of this membership organization, although divided by the geographical boundaries of the Indian and Pacific Oceans, likewise forms an encircling network around China's southern border from a geographical perspective. Regarding the strategic planning of the U.S. Indo-Pacific framework, Southeast Asia is mentioned 12 times in the U.S. Indo-Pacific Strategy report released in 2022, and ASEAN appears 19 times (Zhang & Zhang 2023).

Although most countries uphold the diplomatic strategy of not choosing sides and not provoking conflicts among significant powers under the theme of peace and development to avoid the negative impact of their involvement in the competition of significant powers (Zhang 2021). With the U.S. government's continuous pressure in many areas under the Indo-Pacific Strategy Report, China's neighboring countries are more likely to have divergent attitudes toward China and the U.S. to protect their national interests from infringement and maintain the security and stability of their geopolitical and international environment.

2.2 *China's periphery policy*

Whether the U.S. adopts the "Indo-Pacific Strategy" or not, China has always been consistent in its peripheral policy, intending to become a good neighbor and a good partner, to strengthen good neighborly ties, to intensify regional cooperation, and to push China's

exchanges and cooperation with its neighbors to a new high. The choice of this foreign policy is based on two main reasons: first, China and its neighboring countries have similar geographical conditions, intertwined historical stories of development, and a high degree of similarity in traditional culture. Adopting this foreign policy aligns with China's moral culture of friendship with the outside world. It is conducive to promoting the exchange and progress of different outstanding civilizations based on maintaining cultural diversity. Second, China adheres to the "Belt and Road" initiative and is committed to building a community of human destiny. The neighboring countries are essential regions for China to promote international trade and bilateral relations development fully.

Meanwhile, influenced by China's strong manufacturing industry, relatively cheap labor force, and strong domestic and foreign consumer markets, China has become an indispensable trade partner for most countries in the international community, especially neighboring countries. According to the trade analysis between ASEAN and its major trading partners in 2020, China ranked first among ASEAN's trading partners with US\$516.88 billion in import and export value (ASEAN 2021). Due to China's growing economic influence in East Asia and globally, its importance and specificity led to China's economic impact being transformed into political influence, strengthening its attractiveness and the stickiness of its international relations with neighboring countries in several ways.

2.3 *ASEAN's attitude under the U.S.-China strategic competition*

2.3.1 *Generally neutral attitudes*

According to the analysis in the context of international relations theory, the power competition between the United States and China, as superpowers with vital positions in today's global situation, is likely to harm the interests of the relevant international community members in the era of globalization. Compared with the E.U., ASEAN is generally weak and needs help to stand alone in the game of great powers.

In general, ASEAN has remained relatively neutral in the current international situation dominated by the U.S.-China strategic competition. As an interstate organization, ASEAN has always followed global trends to maintain the stability and interests of the organization. It is because of the low level of internal unity, the need for more highly vocal countries, and the fact that China and the U.S. have influence in ASEAN countries.

Therefore, ASEAN as a whole may adopt a hedging strategy to change the strategic principle of "economic dependence on China and security dependence on the United States" that has been upheld by Southeast Asian countries. First, while maintaining the region's security through extra-territorial powers, they will also further explore the economic development opportunities therein, avoiding the loss of options due to excessive economic dependence on a particular international player. Second, based on maintaining good economic cooperation with the regional power, i.e., China, they will transform economic ties into political ties to strengthen the role of regional security and reduce the exposure of Southeast Asian countries to the pressure and threats of extra-territorial powers. This is one of the critical considerations in most ASEAN countries' diplomatic choices and strategic decisions.

2.3.2 *Seriously divided internally*

According to the "Southeast Asia Situation Report 2022" released by the ISEAS-Yusof Ishak Institute in Singapore, the attitude of Southeast Asian member states is relatively polarized on the issue of "choosing sides." Regarding country-region choice, 64.2%, 81.5%, and 81.8% of Brunei, Cambodia, and Laos choose to side with China. In comparison, 92%, 83.5%, 77.9%, and 73.6% of Myanmar, the Philippines, Singapore, and Vietnam choose the United States, and 50% of Indonesia see both China and the United States as threats to their development (Zhang & Zhang 2023). Based on the above data, Laos and Cambodia are the two ASEAN countries with populations most inclined to develop relations with China.

As the world situation changes, different countries' attitudes toward China and the U.S. are iteratively updated.

2.4 *China-ASEAN cooperation with third-party competition*

As the third largest economy in Asia and the sixth largest in the world, ASEAN has special geographical conditions, such as connecting the Pacific Ocean and the Indian Ocean, abundant freshwater resources, and sufficient tropical heat and sunshine. Coupled with the influence of social factors such as the Straits of Malacca and good cheap labor, ASEAN is attractive. Its major trading partners occupy a vital position in the ASEAN market, and in recent years, countries have been more competitive than complementary in ASEAN (Wang & Zhang 2022).

In addition to intra-ASEAN investments, relevant foreign investments come from the U.S., Japan, the E.U., and Hong Kong, which are all strong competitors of Chinese foreign investments. According to the primary source countries/regions of ASEAN foreign investment in 2016–2020, China ranked fifth in the world in 2019–2020. Since its establishment, ASEAN has signed Federal Transit Administrations (FTAs) with China, Japan, South Korea, India, Australia, the E.U., and other larger economies worldwide. From the perspective of FTAs alone, China-ASEAN-related trade agreements must have obvious superiority and contestable strength. With the presence of non-ASEAN members other than China in the latest Regional Comprehensive Economic Partnership (RCEP), which comes into effect in 2022, it is undeniable that China and other ASEAN trade partners have competition.

The above data indicate that ASEAN countries may tend to absorb investments from foreign countries. Assets from China are mainly invested in manufacturing, real estate, and wholesale and retail sectors, where the barriers to entry are low, competitors are more numerous, and the difficulty factor is high. Price advantage becomes the most important means for Chinese foreign investors to win. Secondly, relatively well-developed ASEAN countries such as Singapore and Indonesia are more inclined to high-tech fields with more development opportunities, such as IT and chips. It is difficult for China to be the first choice of ASEAN countries in high-precision areas.

3 ANALYSIS OF CHINA-LAOS RELATIONS

3.1 *The practice of friendly relations between China and Laos*

With the official entry into force of RCEP in 2022, coupled with the original good policies of the China-ASEAN FTA, the degree of free trade between China and Laos has taken a new step forward. Various trade agreements between the two countries have reduced the trade costs of Chinese and Lao enterprises in many aspects, such as tariff exemptions, simplified customs clearance procedures (e.g., RCEP 6-hour release policy for perishable goods), reduced trade frictions and ensured trade security to enhance bilateral trade confidence.

As for the actual transportation of goods, the China-Laos Railway, starting from December 3, 2021, has become the actual transportation carrier for the trade of enterprises from both sides as a strategic project between China's "Belt and Road" initiative and Laos' goal of "transforming land-locked countries into land-linked countries." As of November 3, 2022, 11 months since the start, the China-Laos Railway has transported 9.86 million tons of goods (National Development and Reform Commission 2023). Simultaneously, the efficiency of customs clearance continues to improve at the China-Laos Railway's port Mohan, with the average clearance time for inbound and outbound cargo compressed from 40 hours in the beginning to 5 hours at present and the fastest 2 hours and 30 minutes to complete the train drive departure using the "Railway Express" mode (Kunming Daily 2022). The two provide official-level trade protection policies and safe, stable, and affordable transportation

carriers. They also provide enterprises with a platform and opportunity to avoid the risk of damage to their interests due to unfair competition and other illegal acts to obtain stable trade partners and expand their marketing and profit space, and solve the practical problems of cooperation between enterprises of both sides in a comprehensive and multi-dimensional manner, thus promoting the development of China. This has solved the practical difficulties in the cooperation between enterprises of both sides in a thorough and multi-dimensional way, thus enabling the harmonious and win-win development of import and export trade between China and Laos.

Given the low level of domestic infrastructure improvement in Laos, life convenience has been affected to a certain extent. With the cooperation of China and Laos in building the first expressway in Laos, the expressway from Vientiane to Vang Vieng was open to traffic in December 2020; coupled with the smooth opening of the China-Laos Railway mentioned above, the transportation capacity between China and Laos has been dramatically improved, and the cities along the two routes in Laos can be better integrated into the regional interconnection network, which has opened up the transportation barriers for local enterprises and people. This will break the transportation barriers in “going out” and “coming in” for local enterprises and people.

Second, the construction and opening of the China-Laos Railway have facilitated the transportation of goods between China and Laos and the economic cooperation between China and Thailand, Malaysia, Singapore, and other countries through transit trade to a great extent. Nearly 90% of the cross-border goods of the China-Laos railroad are transited through Laos and southward to Thailand, Malaysia, and Singapore, covering more than ten countries and regions along the “Belt and Road” Initiative (China News 2023). In the long term, the transit trade capacity of the China-Laos railroad will make it more difficult for Laos to compete with its neighboring countries. However, it is also a new development opportunity for Laos to find another way to build itself as a professional, stable, and safe transit hub for overland cargo trade between Southeast Asian countries and China.

During COVID-19, China’s medical experts assisted Laos in combating the epidemic and helped Laos upgrade its prevention, control, and treatment programs. China also provided free assistance for vaccines, nucleic acid testing laboratories, and a large amount of material assistance to favorably safeguard the lives and health of the Lao people through international cooperation. China’s various assistance projects to Laos have extensively covered many basic needs of the Lao people, significantly improving their quality of life.

3.2 Reasons for the developing of Sino-Laos relations

First, the current security situation between China and Laos is relatively stable. Regarding historical factors, bilateral relations have been fully restored and developed since the normalization of relations between China and Laos in 1989. There have been no obvious historical entanglements as neighbors. Thanks to the rapid demarcation of the bilateral border between the two countries after the normalization of relations between China and Laos, there are no territorial conflicts or other related security issues. Compared to countries like Myanmar and the Philippines, with China having had security interests for a more extended period, China and Laos have a close political, economic, and military partnership, with greater mutual support and coordination. Although there are inevitably some problems of criminal activities and illegal cross-border practices between the two countries, the cooperation and friendly relations between the two countries continue to strengthen. The friendly practices in various fields between China and Laos have inevitably brought the two countries closer together and laid a good foundation for economic cooperation and cultural exchanges between the two countries.

From the perspective of practical interest orientation, the current established relations and diplomatic attitudes between China and Laos align with both sides’ interests.

From China's perspective, Laos is a vital node country in the "Belt and Road" construction and has an important strategic position in China's foreign relations. China has strengthened its military cooperation and strategic dialogue with Laos to consolidate and enhance strategic mutual trust between the two countries. Maintaining friendly ties with Laos in its current state can enhance China's influence among ASEAN countries and enable Laos, a landlocked country, to play a pivotal role in linking the Land Silk Road and the Maritime Silk Road more closely. In international affairs, Laos has always firmly supported China's position and identified with China's role and influence.

As for Laos, limited to its conditions and comprehensive strength, Laos has been able to implement specific international aid and infrastructure assistance to Laos through its excellent diplomatic mediation ability, and in this case, maintaining neutrality or a relative attitude toward China will not have a more significant impact on its development environment. As a landlocked country, Laos' relative preference for China will be beneficial to expand its export market and promoting its economic development through international trade. Even though the price advantage and good quality of Chinese products will inevitably affect the market share of local Lao enterprises and reduce their profitability, strengthening trade cooperation with China at this stage will significantly expand the total amount of imports and exports in international trade between China and Laos.

Laos has always maintained its right to choose and has not entered relevant military agreements threatening China's national security. Laos will unlikely become a geographic area where the U.S. will soon pose a threat across the Pacific. Given the current situation, it will not threaten China's national security in the longer term. The Philippines, which has opened its military bases to the U.S. and signed the Visiting Forces Agreement, has posed a potential threat to China's national security. In contrast, Laos has few threats or claims to China's national security. Cooperation between the two sides in the security field also helps maintain regional peace and stability, which is essential for developing countries and the region.

4 FUTURE DEVELOPMENT OF CHINA-LAOS RELATIONS FROM THE PERSPECTIVE OF LAOS

4.1 *Relatively weak comprehensive national power*

As one of the ASEAN member countries, Laos has been disturbed by external wars and other unstable factors for nearly 100 years, and the overall level of domestic development is poor. The total domestic economy (USD 19.1 billion) and GDP per capita (USD 2,630) of Laos performed relatively poorly when compared with the average ASEAN data of the real economy of each country (USD 30.2 billion) and ASEAN GDP per capita (USD 4,500) in the same period. There are also internal problems related to a high inflation rate (5.10%), a high percentage of foreign debt stock (94.1%), and an oil crisis that could be more conducive to rapid domestic economic development (ASEAN 2021). This is also the fundamental reason affecting the weak overall competitiveness of various industries and other fields in Laos and the serious difficulty factor of domestic development. The scale and growth rate of bilateral trade between Laos and China have increased in recent years. Combined with the trade data for 2017–2021 and the growth trend for 2022 announced by the Ministry of Commerce and Trade of Laos, China is the leading import and export country of Laos, and both import and export commodities account for 20% to 50% of Laos' global trade. Maintaining this good bilateral trade partnership has had a more pronounced effect on promoting Laos' economic development to solve various financial problems in the country (Lao Trade Portal 2022).

Constrained by natural geographical factors, Laos has a poor industrial structure and lacks modern development. Being the only landlocked country in Southeast Asia, Laos is

surrounded by mountains to the north and neighbors on all sides, which means that the country's economic development is deprived of opportunities for economic exchanges with other countries and the natural transportation opportunities of shipping. In addition, Laos has a mountainous terrain with few plains, which also needs more options for agricultural development from the topography. Compared to tropical agricultural powers such as Thailand, Vietnam, and Indonesia, Laos is less competitive in crop yield, quality, transportation, and storage capacity while struggling to develop a distinctive and attractive complete industrial chain.

In terms of industrial structure, Laos' industry grew by 5.6% in 2019 (lower than the expected 8.3%), accounting for 31.4% of the country's GDP, while the service sector will grow by 6.9% (higher than the expected 6.6%), accounting for 42.3% of GDP. Due to the decline of mineral resources development (mainly gold and copper) in Laos, industrial development has been less than expected and relatively limited (ASEAN 2021). However, regarding the construction of various types of large-scale infrastructure in Laos, its own weak industry and construction sector make it difficult for Laos to be self-reliant to meet social development needs. However, regarding the construction of various types of major infrastructure in Laos, the country's weak industrial and construction sectors make it difficult for Laos to be self-reliant in meeting its social development needs. This situation, which negatively constrains Laos' development, has successfully become a favorable factor for Laos to seek international cooperation and overseas assistance in the game of great powers. After the China-Laos Railway and China-Laos Expressway, there is still more room for cooperation between China and Laos in infrastructure in Laos (Lao Trade Portal 2022).

4.2 *Poor conditions for external economic development*

The quality of labor in Laos is challenging to meet the labor demand of foreign enterprises. One of the reasons for the shortage of quality labor, especially skilled labor, is the low wages in Laos, which leads to an annual influx of tens of thousands of skilled laborers to work in Thailand. Foreign investment enterprises need help finding enough local quality labor to develop large-scale economic projects. In contrast, the relatively weak policy support for foreign workers in Laos increases the labor costs for foreign enterprises to grow. Chinese workers in Laos can help train more skilled workers and professionals, strengthen vocational training for various types of jobs, and enhance their competitiveness to meet the needs of the domestic market. The cooperation and its cheap labor advantage will substantially increase the share of quality labor in Laos and attract more foreign firms to invest. Secondly, for China, transferring some labor-intensive industries to Southeast Asian countries such as Laos will help China to upgrade its industrial chain composition to a higher level (China Daily 2023).

Restricted by economic development, Laos' imperfect business environment makes it difficult for foreign investment enterprises to provide reasonable security and development space, reducing their business confidence and willingness to invest. First, in the global ranking of the investment climate of ASEAN member countries, Laos was ranked 113 in global competitiveness in 2019 (at the bottom of the list of member countries in the data) and ranked 154 in the business environment in 2020 (only above Myanmar, at the second bottom of the list of member countries); second, in the 2020 e-government development index of ASEAN member countries published by the United Nations, Laos has a "medium" level, but it is ranked 167th (the last among the ASEAN member countries 2021). Today, the actors of international cooperation and trade pay much attention to the security, stability, and quality of services of the object of collaboration. The above two types of data show that Laos is relatively uncompetitive with other member countries in the field of the investment environment.

Regardless of the objective and subjective factors contributing to the above realities and the extent to which the Lao government will invest in improving them, the current situation

makes it difficult for Laos to be the first choice for cooperation and investment from other countries. The following measures can be taken in collaboration with China to solve the investment environment problems in Laos: China can provide more favorable investment policies, e.g., tax exemptions, preferential loans, export credits, etc., to address the environmental issues in Laos; China can also strengthen communication and coordination with the Lao government to negotiate a more transparent and stable investment policy and improve the predictability and stability, therefore attracting more Chinese companies to invest in Laos.

5 CONCLUSION

In current international society, there are still various kinds of competition between major countries regarding power, status, and influence. Due to the deepening of globalization, the impact of the match between China and the U.S. on the national interests of small countries will be more significant. However, unlike in the past, the importance of the attitudes of small countries toward influential major country and their behavioral choices in strategic competition is now more concern and emphasized. From this point of view, combined with China's adherence to a friendly neighboring foreign policy, the attitude of ASEAN as a whole and its member states in choosing their sides deserves attention, among which it is undeniable that there is uncontrollable competition from other international actors in the cooperation between China and the countries of ASEAN, which will have a pessimistic impact on China's competitiveness in the competition between China and the United States (Cao 2021).

Specifically, the current reality of ASEAN's overall neutrality in seeking a hedging strategy implies a more polarized and more serious internal behavioral choice. Based on this phenomenon, this paper selects the relatively low-attention niche topic of China-Laos relations and examines the following findings. First, the current international relations between China and Laos are constituted by a large number of previous friendly practices and cooperation promotion between the two countries, which are in line with the vision of China's peripheral foreign policy objectives; second, the current status of China-Laos relations is not only based on their robust security and stability but more importantly, they satisfy the interests of both sides, i.e., the enormous power's. Second, the current situation of Sino-Lao relations is not only based on its strong security and stability but also on meeting the interests of both sides, namely, the international influence and the need to choose sides for small countries and the focus of small countries on seeking economic and international cooperation with large countries. Third, based on the current situation in Laos and geographical factors, the partnership between China and Laos is mainly led by China. However, the vital economic and industrial complementarity between the two countries must be addressed and will effectively promote the future development of China-Laos relations.

The two countries will maintain the current diplomatic relations or further deepen them in the future, which will be "beneficial" to their respective national interests. The future cooperation between China and Laos is promising, with many areas to be explored and substantial expansion. As the economies of China and Laos continue to grow, trade and investment cooperation between the two countries will be further strengthened. In particular, China's strengthening of economic cooperation with Southeast Asian countries under the "Belt and Road" initiative will provide more opportunities and space for political and economic cooperation between China and Laos. Therefore, for a relatively long period, neither China nor Laos will break the current balance and stir up unnecessary conflicts. Even if Laos favors the U.S. in its future development and choice of sides, it will also maintain a friendly attitude with China at the official diplomatic level, considering various factors such as geopolitics, balancing interests and losses, and avoiding involvement in unnecessary great power games.

This study on China-Laos relations mainly discusses Laos in the context of ASEAN in general. However, in the future, it can further delve into the cross-sectional comparison

between Laos and other member states and discuss whether the choices of other countries with more comprehensive power will impact Laos' diplomatic decisions. At the same time, a specific analysis of the history of China's international relations with Laos and typical diplomatic behavior will better help us understand the behavior of small neighboring countries that are more influenced by the power competition between major countries in the international context of the U.S.-China strategic competition, and facilitate the formulation of more real, practical and applicable foreign strategies by significant powers.

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How consensus building affects U.S. foreign policy toward East Asia: The U.S. under the Trump Era and the Biden Era as examples

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ABSTRACT: In recent years, the U.S. foreign policy focus has gradually shifted eastward, and its foreign policy toward East Asia has received attention. Through an integrated discussion of U.S. foreign policy in East Asia, we analyze the logic behind U.S. practical interactions with East Asian countries and regions during the Trump and Biden eras. The U.S. foreign policy in East Asia emphasizes consensus building and promotes “values diplomacy,” and due to its relatively weakened power, it intends to build friendly alliances in East Asia based on its own interests to create opportunities for rationalizing U.S. involvement in East Asian affairs in order to prevent being marginalized. The motivation for this behavior is likely to be the U.S. habit and expertise in subjective identity shaping of countries and regions, as well as the intention to anticipate the behavior of others, and the interplay of the changing power structure in East Asia and the high level of U.S. attention. China is sticking to the bottom line in this regard, responding flexibly in its policies, maintaining a good image as a great power, and actively achieving friendly interactions with neighboring countries in a bid to develop peaceful Sino-U.S. relations.

Keywords: U.S. diplomacy, East Asian regional policy, values diplomacy, consensus building

1 INTRODUCTION

After the Cold War, cooperation has been the theme of East Asian countries, and the “East Asian integration” is an important manifestation of it. Even as an extraterritorial country, the United States is still the most important external factor influencing cooperation in East Asia. However, with the rise of China and the intensification of domestic racial conflicts, the influence of the United States in East Asia has begun to weaken. As a result, the U.S. has embarked on a “return to the Asia-Pacific” strategy, launching “forward deployed” diplomacy on the political front; consolidating alliances and active alliances on the military front; and dominating the Asia-Pacific economic cooperation mechanism that excludes China on the economic front. The U.S. foreign policy in East Asia has been changing and has profoundly affected the structure and order of the region and has been the focus of scholars in related fields.

In the eyes of most scholars, the logic of U.S. diplomacy is mostly conducted on the framework of the hegemonic stability theory represented by Charles P. Kindleberger. But the academy has overlooked the impact of consensus building on U.S. foreign policy. Unlike the Trump administration, the Biden administration intends for the United States to regain the trust of its allies and increase its own influence in East Asia, which requires certain initiatives to lead other countries to give and value the role played by the United States in East Asia, as well as to rethink the identity of other countries associated with it.

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Japan and South Korea also compete with the U.S. in certain high-tech fields, but the U.S. still classifies them as “allies. Thus, the U.S. definition of “friend” and “enemy” is not only based on the threat of objective strength, but more likely due to the existence of consensus between the two sides. From the Trump administration to the Biden administration, the U.S. diplomatic attitude toward its East Asian allies has changed from slackness to positivity in order to prevent being marginalized in East Asia, with the intention of rationalizing interference in domestic affairs and thus enhancing its own discourse in East Asia.

With the rise of China as the world’s second largest economy, the U.S. is growing “status anxiety”. In addition, the U.S. fears that it will be excluded from the cooperation process in East Asia as the region’s cooperation intensifies. To explore whether the U.S. diplomatic logic in East Asia is deeply related to the consensus shaping of the countries in the region, the U.S. policy orientation toward the major countries and regions in East Asia in the past decade can be perceived by analyzing and comparing the foreign policy toward the major countries and regions in East Asia during the Trump and Biden periods. Exploring the roots of the foreign policy shift toward East Asia under the change of period can effectively respond to the reasonable concerns of the United States toward East Asia and seek to induce and encourage the United States to play an active role in the development of the East Asian region.

2 OVERVIEW OF U.S. FOREIGN POLICY AND ITS VALUES DIPLOMACY

After the end of World War II and the beginning of the Cold War confrontation between the United States and the Soviet Union, the United States placed special emphasis on the sharp ideological contradictions between the two sides. It was strongly critical of the socialist camp, concerned about democracy and freedom in other regional countries, and used values diplomacy as a strategy to contain the Soviet Union and expand itself. After the beginning of the Cold War, the “democratic peace theory” view of “mutual benefit and trust” entered the picture. The United States actively intervened in other countries based on humanitarianism, with the intention of spreading the American concept of “democracy and freedom” and drawing more countries into the democratic fold, and the dramatic changes in Soviet and Eastern European societies could not be separated from the reputed “peaceful evolution of the West”. And the victory of the Cold War strengthened the belief within the United States that it was more convinced that it was the main purveyor of liberal and democratic values in other countries of the world (Philip *et al.* 2003).

Values diplomacy is a form of diplomacy dominated by domestic mainstream values, and Western values diplomacy in the Chinese perspective is a diplomatic tool based on the principles of values such as freedom, democracy and human rights, which have a strong values dimension (Li & Zhang 2009). U.S. values diplomacy reflects U.S. values aspirations, and its underlying philosophy is to spread the personal freedom and political democracy that the American people believe into the international community and to contribute to the peace and stability of so-called democratic societies. The real purpose is to safeguard its own interests and ensure that its hegemonic position is not threatened in order to allow the United States to better dominate the international community.

The U.S. government specializes in the “export of democratic culture” as a means to make people around the world measure the justice of their governments by the values recognized by the U.S. and to rationalize interference in the internal affairs of other countries under the slogan of “human rights” (Guo 2013). For example, in the Kosovo war that broke out in 1999, the U.S. intervened militarily in the Federal Republic of Yugoslavia in the name of stopping “ethnic cleansing,” demonstrating the kernel of action that human rights are above sovereignty. The U.S. selectively undertook overseas affairs on humanitarian grounds, but its real purpose was to consolidate the U.S. led military alliance (such as NATO at the time) by means of military intervention.

In order to grasp the strategic dynamics in East Asia and contain China's competitive power against the United States, the U.S. national security strategy on China has increased year by year, and it is common for the United States to interfere in China's internal affairs under the slogan of freedom, human rights, and other values. In 2022, the U.S. targeted China to implement the "Uighur Forced Labor Prevention Act" to promote human rights violations and abuses in China's Xinjiang to the world with the intention of interfering in Xinjiang's internal affairs with human rights issues. Economically, the U.S. imposes sanctions on trade in cotton and other related products from Xinjiang, claiming to the international community that all products produced in China's Xinjiang region are "forced labor products" and that participation in trade is contrary to "democratic" principles. In addition, the U.S. has encouraged Tibetan autonomy, using the diplomatic rhetoric of "protecting the rights, autonomy and dignity of Tibetans" to create internal contradictions in China for the purpose of dividing the country.

Under the Obama administration, the "Asia-Pacific rebalancing strategy" was proposed, and its strategic framework encompasses the multilateral relationship structure and economic and military policies of East Asian countries, reflecting the Obama administration's intention to lay out its strategy in East Asia and focus on Southeast Asian diplomacy (Wu 2012). The strategy takes into account the economic, security, and diplomatic aspects of East Asia, reflecting the U.S. values-based diplomacy that deepens alliances to gain access to multiple parties in order to consolidate U.S. leadership in East Asia.

As the U.S. strategic center of gravity has shifted eastward in recent years, the Trump administration has emphasized the slogan of "America First," advocated peace through strength, returned to a strategic framework based on great power competition, supplemented by geopolitical competition, and attempted to make other countries unable to ignore its position in East Asia with great strength and assertive means. The performance of U.S. values diplomacy has weakened significantly in this period, and even Trump believes that values foreign policy has burdened the U.S. He no longer uses "alliances" to draw friends but tends to use a "transactional" attitude to facilitate cooperation.

From the Trump period to the Biden period, foreign policy has shown a swing back from neo-isolationism to internationalism. As its hegemonic position is under attack due to the imbalance of the U.S. economy and the intensification of racial conflicts after the Cold War, Trump's tough diplomacy has caused a rift in the relationship between former U.S. allies, and the Biden administration is trying to repair the relationship in order to restore the image of the U.S. leader, reunite allies, and gain the approval of most countries internationally (An 2022).

The U.S. emphasizes a rules-based order in East Asia, taking advantage of the concerns of other countries in the region about the rise of China to increase their dependence on the U.S. in order to effectively hedge against and prevent the Chinese "threat". On the military front, the U.S. has conducted joint military exercises with the Philippines and other countries, and the U.S.-Japan bilateral security alliance has become closer. On the economic front, the Biden administration has engaged in "multilateral cooperation" with its allies in the field of high technology, inviting Japan, South Korea and Taiwan to join the "Chip 4 Alliance", and imposing sanctions and decoupling on China.

3 U.S. IDENTITY SHAPING IN EAST ASIA

The U.S. is good at shaping the identities of different countries or regions in East Asia, such as dividing the "Indo-Pacific" region and treating China as a "revisionist power" that violates democracy. This reflects that in U.S. foreign policy, building a consensus between different countries as "enemies" or "friends" is one of the strategic focuses.

The U.S. self-identification in the Asia-Pacific region dates back to the latter half of the 20th century, when successive administrations generally believed that the United States had a responsibility to "save the world" because of its religion and values. For example, it sees

itself as a “balancer” in the Asia-Pacific region, able to prevent the emergence of hegemony in the region by sending troops and providing support; it can assume the role of an “impartial mediator” because it has little history of serious disputes with countries in the region and has the status of an “impartial mediator”; and it can be the ultimate “guarantor of security” because of its strong military power (Department of Defense 1990). Thus, the United States has always positioned itself as a guide in East Asia, and for East Asian countries, it has mostly achieved diplomacy with the tendency to contain “enemies” and support “friends”, emphasizing “consensus building” as an effective guide for its foreign relations.

4 CONSTRUCTIVIST ANALYSIS OF U.S. DIPLOMACY

The foreign policy of the United States in modern times is mostly analyzed from a hegemonic perspective, however, perception affects individual behavior and form affects social structure. During the administration of different leaders, the United States defined the identity of East Asian countries differently and its corresponding foreign policy changed.

4.1 *Subjective identity shaping*

During the Trump administration, the “Indo-Pacific” strategy was formulated with India as an important strategic fulcrum, and the United States together with three pro-American countries: Japan, Australia, and India are the main structures of the strategy. But the concept of the scope of the “Indo-Pacific” is not clear, and its legitimacy and rationality are open to question. The real purpose of the US as a fulcrum to contain China’s development is to bring China and Russia into the US-led East Asian order and to better ensure its own discourse in East Asia (Wang 2019). The Biden administration, for its part, promotes a scenario of increased great power competition, defining China as a “revisionist power” intent on changing the “free and open, rules-based international order.” The United States sees itself as obligated to save its allies and partners from the coercion of these “victims” by regional powers (Jia and Zhang 2023).

Based on its own strategic goals, the United States has subjectively shaped the identities of East Asian countries and the “Indo-Pacific” region, and the definition of the concept has changed according to its subjective consciousness. From the Trump era to the Biden era, the focus has shifted from putting all parties at the service of the United States to building friendly alliances in order to give the United States more space for operation as a “friend” in its initiatives toward East Asia. In Biden’s context, the U.S. is the “hero” who saves the small countries of East Asia and plays a decisive role in checking and balancing the forces in East Asia.

4.2 *Expectations for the countries in the region*

In Trump’s “Indo-Pacific” strategy, the four countries, the U.S., Japan, India and Australia, have become partners because they share “liberal democratic values”. The Biden administration attaches more importance to “small multilateral diplomacy” and the integration of “Indo-Pacific” allies and partners to make the “Indo-Pacific” strategy a group. Japan, South Korea and other developed countries are strong in some areas, but the U.S. seems to ignore the threats, firmly considering them as “allies” and “China, Russia and North Korea” as “enemies”. Based on its own interests, the U.S. does not consider Japan, South Korea, and India to be threats at this stage, so it has drawn these countries into an alliance on the grounds that “there is a shared understanding of values.

The United States has given different meanings to the rights of “allies” and “enemies”, and even though objectively they have the same effect on the U.S., the U.S. government’s self-awareness has subjectively elevated the threat of “enemies” to itself.

4.3 *Interaction of structures and actors*

The “Indo-Pacific” strategy brings together countries with similar ideologies, and in contrast to the Obama administration’s original concept of “Asia-Pacific,” the “Indo-Pacific” adds South Asia, so that China is no longer at the center. This shows that the Trump administration intends to expand its strategic map to South Asia and the Indian Ocean (Zhang 2020). Biden’s “mini-multilateral diplomacy” aims to integrate the loosely related countries in East Asia and form a fixed informal organization to communicate more easily with the United States.

From the Trump administration to the Biden administration, U.S. foreign policy has further expanded within East Asia. The reasons for its actions in East Asia are that the rise of emerging market countries such as China and India has made the U.S. anxious about the marginalization of East Asia, and the changing power structure in East Asia has prompted the U.S. to actively make alliances and exert pressure on China in the region. At the same time, the heightened U.S. attention to East Asia has also elicited cooperative intentions from countries in the region, driving a dynamic shift in the global strategic center of gravity eastward, which reflects the countervailing effect of structure on actors.

5 CONSTRUCTIVIST ANALYSIS OF U.S. DIPLOMACY

The U.S. wants to reshape its leadership responsibilities in the world in favor of a rules-based social order, and essentially still covets hegemonic status in an attempt to undo the relative erosion of U.S. power and cooperate with its allies against China. In addition to ideological differences, a more important reason for the U.S. to define China as an “enemy” is to suppress Chinese influence in East Asia so that the U.S. can more smoothly unite with its allies to dominate the East Asian order. In the face of U.S. attempts to interfere in China’s internal affairs by constantly testing the bottom line, China has taken a firm stand on issues of principle and countered with a flexible policy. On issues such as “Taiwan independence” and “Tibetan independence,” China has firmly stated its political position of “one China” and countered U.S. human rights propaganda with friendly facts. On economic trade, China is still actively negotiating with the United States to reach a friendly trade relationship between the two sides.

China still needs to maintain its image as a great power and develop peaceful diplomacy with its neighboring countries if it is not to be bound by U.S. values-based diplomacy. The U.S. has taken advantage of the neighboring countries’ concerns about China’s rise to guide the neighboring countries to carry out confrontation with China. By establishing stable and friendly relations with neighboring countries, China can effectively prevent the U.S. from threatening China’s security, and at the same time obtain more diplomatic resources and enhance its diplomatic capital for playing games with the U.S. As “peace and development” is the theme of the times that China agrees with, strengthening friendly interactions with neighboring countries can also further promote relations with U.S. allies and partners and indirectly contribute to the peaceful development of Sino-U.S. relations (Chen 2018).

6 CONCLUSION

Through the case studies, this paper finds that the United States has always been good at declaring the righteousness of its actions with the slogan of “human rights”, drawing in more allies with common interests through values diplomacy, and bringing strength together within the alliance, even rationalizing interference in the internal affairs of other countries. Although the values-based diplomacy of the United States under Trump is no longer evident, the Biden administration is now making great efforts to repair U.S. alliances in East Asia, intending to build a rule-based East Asian order.

U.S. foreign policy in East Asia also emphasizes consensus formation, and roles within the East Asian region are defined and responded to subjectively by the United States. Moreover, while the U.S. has constructed the structure of the East Asian region, there has been a trend toward integration in East Asia due to external influences. Thus, the subjective nature of consensus building, the dominance of U.S. self-awareness, and the countervailing role of structures and actors in U.S. East Asian foreign policy are the logic behind its actions. This can be explained by the shift in policy focus from the Trump administration's fervent "unilateralism" or "bilateralism" to the "mini-multilateral diplomacy" actively constructed by the Biden administration.

In the paper, the constructivist analysis of US diplomacy in East Asia is only based on a general understanding of the impact of national cognition on the material world, without fully considering whether it is the self-awareness generated by leaders or other factors in the country that form a "consensus shaping", thus affecting the logic of diplomatic relations. In the future, further research can be carried out in the leading parties of "consensus building" to facilitate in-depth study on this topic.

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From the perspective of cross-border data flow challenges and countermeasures of China's joining CPTPP

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ABSTRACT: The Comprehensive and Progressive Trans-Pacific Partnership (CPTPP) Agreement is a free trade agreement made by Asia-Pacific countries. China has been actively seeking to join the agreement since it came into effect in 2018. However, there is a conflict between the existing domestic legal norms in China and CPTPP provisions in the regulation of the flowing cross-border data, resulting in problems such as unclear classification standards, hindering the implementation of the process, and conservative legislative value orientation that does not conform to CPTPP's purpose of encouraging free data flow. Based on this, from three levels of legislation, law enforcement and judicature, this paper analyzes the legal regulation problems of the flowing cross-border data after China's entry into CPTPP and puts forward corresponding solutions.

Keywords: CPTPP, Cross-border data flow, Personal information, Administer

1 INTRODUCTION

From a technical perspective, the cross-border flow of data refers to the physical movement of data across sovereign countries. This paper discusses “cross-border flow of data” as a legal term, which means “electronic information records generated in one country are read, stored, used or processed by private entities or public authorities in other countries (collectively referred to as ‘processing’)” (UNCTC 1984 & Martina 2017). With the fast development of the digital economy, data has become an indispensable and important resource for national economic development in the new era, integrating economic value and strategic value. However, countries around the world still have not reached a broad consensus on the cross-border flow of data, and international disputes based on such legal conflicts abound. When promoting China's further participation in economic globalization and expanding its participation in the changeable agreements of the world economy are concerned, the significance of cross-border data flow law to China becomes more obvious. In the process of actively seeking the breakthrough point of participating in the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), some scholars pointed out that the weakness of China is the cross-border data flow (Zhang 2022). Thus, to further promote China's entry into CPTPP as soon as possible, it is necessary to construct and

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improve the legal system of cross-border data flow in China. This paper explores the difficulties and challenges of China's connection with CPTPP in cross-border data flow, and puts forward corresponding countermeasures and solutions, with a view to putting forward useful suggestions for China to join CPTPP as soon as possible.

2 PROVISIONS ON CROSS-BORDER DATA FLOW IN CPTPP

In terms of cross-border data flow, CPTPP's clauses are mainly distributed in e-commerce chapters, showing the characteristics of compatibility, freedom of cross-border data flow, and flexibility of exception clauses.

2.1 *The high standards and compatibility of personal information protection*

In CPTPP, personal information rules are characterized by both high standards and compatibility. First of all, the "high" standard of CPTPP's protection for e-commerce users is reflected in the second paragraph of Article 14.8. On the one hand, it requires member States to provide protection in the form of a legal framework. On the other hand, it is manifested in the illegal infringement of personal information in paragraph 3, which requires member states to strive to adopt a non-discriminatory approach within their jurisdiction. Second, when facing e-commerce users, the contracting parties should at least provide protection information including how natural persons seek remedies and the requirements of relevant compliance practices of enterprises.

2.2 *The freedom and inclusiveness of cross-border data flow*

In the regulation of CPTPP transnational data flow, first of all, the first paragraph of Article 14.11 not only allows parties to set their own regulatory requirements but also reminds them of the relevant rights of other parties in a relaxed manner. The relaxed attitude here reflects the tendency to pursue the concept of freedom. Second, paragraph 2 explicitly requires each contract. At the same time, paragraph 3 restricts the compliance of this means, that is, it requires that the measure should meet the conditions of "rationality" and "limitation" at the same time. However, vague terms such as arbitrary, reasonable, disguised form, and required limit in paragraph 3 leave a lot of room for interpretation for the contracting parties.

3 THE LEGAL REGULATION OF CROSS-BORDER DATA FLOW IN CHINA

With the digital economy developing continuously in China, the domestic legal system framework of data cross-border flow management has gradually formed, which can be divided into two categories.

3.1 *Legal regulation of outbound data*

The *Cybersecurity Law of the People's Republic of China (Cybersecurity Law)* published in November 2016 clarifies the basic principles for China's data to be provided overseas. The *Data Security Law of the People's Republic of China (Data Security Law)* was introduced in June 2021, which improved the legal system by supplementing the *Cybersecurity Law* for the cross-border flow of important data. The *Personal Information Protection Law of the People's Republic of China (Personal Information Protection Law)* was considered and promulgated in August 2021. It comprehensively builds the cross-border flow mechanism for the protection of personal information. Based on the various laws and regulations that have

come into effect and are under consultation, the rules of outbound data flow under China's domestic law can be summarized in two dimensions: data processors (subjects) and data (objects).

General data processors must meet one of the following requirements in order to process personal information according to Article 38(1) of the *Personal Information Protection Law*. First, they must pass the security evaluation conducted by the State Cyberspace Administration. Second, according to the Cyberspace Administration's provisions, they must hold a personal information protection certification issued by a professional institution. Third, they must sign a contract with overseas beneficiaries in accordance with the State Cyberspace Administration's model contract. General data processors must additionally adhere to two layered requirements when sending personal data abroad. First, the data processor must take appropriate steps to guarantee that the overseas recipient's treatment of personal information complies with the *Personal Information Protection Law* protection criteria (Personal Information Protection Law of the People's Republic of China). Second, the data processor must fulfill its obligation to inform individuals and obtain their individual consent (Personal Information Protection Law of the People's Republic of China).

General data processors transmitting important data outside the nation must pass the security evaluation conducted by the Cyberspace Administration. Important information has to do with both public interest and national security. According to Article 11 of the *Several Provisions on the Management of Automobile Data Security (for Trial Implementation)*, data of great importance must be stored in the territory, and if it is provided outside the nation for business purposes, it must pass the security evaluation conducted by the Cyberspace Administration in collaboration with the relevant State Council departments. Article 4 of the *Measures of Data Cross-border Transfer Security Assessment* stipulates that data processors who send important data abroad are required to notify the State Cyberspace Administration of their data exit security evaluation via their local provincial Cyberspace Administration.

Important data processors only can provide personal information or important data overseas that have already been stored in the territory and passed the safety assessment. Important data processors mainly refer to operators of critical information infrastructures, and under some laws, they also include enterprises and state agencies that process a specific amount of data (such as Personal Information Protection Law of the People's Republic of China). A key information infrastructure operator has an impact on national security public interests and human livelihood. In general, data that they generate and collect on Chinese soil should be stored there. However, when it becomes absolutely necessary to transfer data outside of China for business purposes, a security evaluation must be performed in accordance with the guidelines established by the Cyberspace Administration in collaboration with the appropriate departments (Cybersecurity Law of the People's Republic of China). The departure criteria are the same at this stage regardless of the type of data the object is.

3.2 Legal regulation of outbound data

For data or information entry, only the *Measures for Network Data Security Management (Draft for Public Comments)* has provisions. Its Article 41 states that a security gateway is established to prevent the spread of foreign information that is forbidden by legal and administrative restrictions from being published or transmitted. In Article 12(2) of the *Cybersecurity Law*, it is stated what constitutes "information" that is not permitted to be published or communicated by laws and administrative rules, including the information that engages in harming national security, inciting subversion of the national regime or the overthrow of the Socialist system, endangering national unity, propagating of terrorism and extremism, etc. For such undesirable information, the Chinese government has established a cross-border security gateway to prohibit the cross-border flow.

4 CHINA'S DIFFICULTIES IN CONNECTING WITH CPTPP IN TERMS OF CROSS-BORDER DATA FLOW

4.1 *Domestic legislation: the system is harsh and difficult to connect with the public*

Judging from the issue of cross-border data flow, the domestic legal system is not yet capable of fully implementing higher-level rules. In addition, the new international digital trade rules and standards are likely to exceed the acceptable level of the existing legal system framework in China.

4.1.1 *The system is too strict*

Some of China's regulations on cross-border data flows could make doing business abroad more difficult than necessary. In short, if there are other alternative measures, but with less burden, the parties should take that alternative measure. China's Data Security Law, Personal Information Protection Law, and Exit Safety Assessment are aimed at "one thing, one discussion" in advance before leaving the country. The *Data Exit Safety Assessment Method (draft for comment)* also requires that Before sending data overseas, data processors should do a self-assessment of data egress risks. Results of data exit assessments only have a two-year validity window, and the legal environment of the recipient's location changes and data is provided overseas during the validity period (Measures for the Management of Data Security in the Field of Industry and Information Technology). In contrast, China's existing regulations and legislative trends are more stringent, which may have a greater impact and burden on international digital trade. When participating in relevant negotiations in the future.

4.1.2 *It is difficult to connect public policies*

The purpose of limiting the exchange of data across borders in China may not meet the necessary requirements of "legitimate public policy objectives" in CPTPP. CPTPP and RCEP have different requirements, and there is no regulation that parties can decide their own legitimate public policy objectives. Therefore, if the above-mentioned limitations on cross-border data flow in China are to invoke the exception of "legitimate public policy objectives", it will be difficult to fully prove its legitimacy and necessity in the negotiations.

4.2 *Extraterritorial law enforcement: paying too much attention to "defense"*

4.2.1 *Blank extraterritorial jurisdiction*

China's data legislation does not explicitly stipulate the content of extraterritorial jurisdiction. When providing digital products or services across borders, due to the lack of physical existence, the legal connection between the provider and the consumer's location is obviously weakened, which makes it difficult for administrative to exercise jurisdiction. When it comes to data leaving the country, the *Data Security Law* and the *Cyber Security Law* only limit the jurisdiction of data within the territory, but in practice, it is normal for overseas Chinese-funded data enterprises to collect and process their own data outside the territory. This not only leaves a gap in extraterritorial jurisdiction of data but also raises concerns about infringing on a country's data sovereignty when obtaining evidence. Different from China's legislative path, the "data controller" standard of the US "CLOUD Act" (S.2383-CLOUD Act and H.R.4943-CLOUD Act) and the "effect principle" of the EU's *General Data Protection Regulation* provides the legal basis for exercising extraterritorial jurisdiction. The territorial limitation of China's legislative jurisdiction, coupled with the small number of bilateral judicial assistance agreements signed, leads to the result that China's extraterritorial jurisdiction can only reluctantly implement jurisdiction based on relevant data legal provisions and general foreign-related case jurisdiction rules.

4.2.2 *Pay too much attention to “defense” in data retrieval*

China’s cross-border data retrieval emphasizes too much on “defense”. Traditional international law enforcement cooperation methods find it challenging to adequately address the issue of cross-border collection of electronic evidence in the quickly evolving digital world. The United States has begun to explore new solutions. For example, the *Clarify Lawful Overseas Use of Data Act* stipulates that as long as communications, records, or other information are owned, supervised or controlled by service providers, regardless of whether they are stored in the United States, service providers have the obligation to save, back up and disclose the corresponding contents. Adopting the standard of “data controller” to infinitely expand the scope of cross-border data retrieval, while other countries’ institutions need “appropriate government review” to retrieve data in the United States. This bill has broken the international judicial or law enforcement cooperation system (Zhang 2020). On the contrary, China focuses more on sovereign interests in the cross-border collection of law enforcement data, that is, it adopts a “defensive” strategy and formulates special provisions in legislation to resist the “long-arm jurisdiction” of the USA and the EU. According to the *International Criminal Judicial Assistance Law of People’s Republic of China*, the *Data Security Law* and the *Personal Information Protection Law*, relevant institutions follow the principles of equality and reciprocity when handling requests from overseas institutions for access to domestic data. Relevant entities shall not provide domestic data or personal information to overseas institutions without approval (Data Security Law of the People’s Republic of China). As for the legal procedures and time limit for the application, review, and approval of cross-border collection of law enforcement data, it still needs to be further clarified. Article 42 of the *Personal Information Protection Law* also stipulates the right to take reciprocal measures to deal with foreign discriminatory practices and specially introduces a list system that restricts or even prohibits the provision of personal information, but how to use this list system well remains to be detailed.

4.3 *Judicial procedure: the application of law is “mechanical”*

4.3.1 *The trial mode is too traditional*

For cyberspace, the intangible nature of data and its difficulty in control and management make the legal regulation of cross-border circulation particularly difficult. At the same time, because data flows around the world all the time, cases arising from data regulation often involve many regions and countries and often have the characteristics of wide influence and high social concern. In the substantive trial, there are still some difficulties in this kind of case, such as vague legal provisions and difficulty in measuring the damage consequences. In China, the trial mode still adopts traditional offline processing, which is not suitable for data cases in which most of the evidence is stored on the Internet in the form of network codes and information. In addition, the participation of professional data technicians in the trial of cases in China is not sufficient.

4.3.2 *Lack of international cooperation and protection mechanisms outside the territory*

Courts in common law countries can intervene in the cross-border protection of data flow by way of precedent, and European courts can even rule that legal documents such as the *European Privacy Shield Agreement* are invalid by way of precedent (Chen 2021). However, China, as a statutory country, judges’ specific cases mainly according to relevant laws and regulations. In terms of various news media and academic exchanges, the actions of Chinese courts are relatively limited, which leads to low international judicial influence (Shen 2022). Under such circumstances, this makes China’s international cooperation and protection mechanism for cross-border data flow abroad relatively lacking. Since the cross-border flow of data is a two-way interaction between entry and exit, it is particularly important to establish a multilateral cooperative data protection mechanism on a global scale for protecting and managing China’s data. However, at present, only the proposal of

e-commerce rules and RCEP documents under the WTO system come into effect in China, which is far from enough for the international cooperation and protection mechanism of data abroad.

5 SUGGESTIONS ON THE CROSS-BORDER FLOW OF CPTPP DATA IN CHINA'S DOMESTIC LAW

5.1 *Optimizing the legislative system*

5.1.1 *Renew the concept, giving consideration to national information security, personal privacy protection and freedom of data flow*

China should grasp the security red line, pay close attention to data security issues, and at the same time take the development principles into account to serve its interests. That is to say, on the basis of adhering to the development in safety, an exception clause that combines both should be set up. However, at present, the free trade agreements concluded in China rarely involve cross-border data flow and exception clauses, and the provisions on exception clauses in 104 bilateral investment agreements signed with foreign countries also have problems such as fragmented content and single provisions. China should reasonably set up exception clauses to balance the security and development issues, and supplement exception clauses by upgrading bilateral investment agreements or signing protocols to safeguard China's legal regulation right on cross-border data flow. First of all, in terms of the mode, for the negotiation of provisions related to cross-border data flow, data localization and cross-border data flow rules can be set reasonably in combination with broad exception clauses. With cross-border data flow as the principle and restricted flow as the exception, the "principle + exception" legislative mode is adopted to include security values conducive to China's development into the provisions. Second, in terms of content arrangement, combined with the relevant contents of CPTPP, the exception is stipulated by open enumeration. China should reasonably set up exception clauses in free trade agreements. The security exception in China's free trade agreement should not be stipulated by the overly vague provisions in CPTPP. The security exception with strong fuzziness is conducive to covering more new problems in the field of digital trade and facilitating the supervision of cross-border data flow in developing countries. Therefore, China needs to fully consider the characteristics of digital trade and further clarify the applicable standards of the terms in the setting of exception clauses.

5.1.2 *Define the safety assessment standards*

Under the condition of technical ability, study and improve the multi-path of China data leaving the country. From China's point of view, with the continuous improvement of network and data security technology and industrial capacity, "equal protection" can be considered as an independent legal reason for data leaving the country. In addition, the specific application of safety assessment measures should be designed reasonably to minimize the restrictive impact of domestic regulations on international trade. Data exit security assessment has become a legal system through *Network Security Law*, *Data Security Law*, and *Personal Information Protection Law*, which plays a key role in the current cross-border data flow management in China. It is unrealistic to abolish this system, but there is still a big operational question about how to implement the system. At present, the *Regulations on Network Data Security Management* and the *Measures for Data Exit Security Assessment*, which further implement the data exit security assessment, are still in the stage of legislative drafting and deliberation, and their related system designs can be amended and improved. In order to comply with the requirements of high-level trade agreements like the CPTPP, it is advised that the stringency of the data exit monitoring requirements in these two laws and regulations should be appropriately amended.

5.2 *Improve the extraterritorial law enforcement rules*

The content of procedural law is currently less present in domestic law's rules on the protection of personal information and data security in cross-border data flow. The *Civil Procedure Law of People's Republic of China*, *Rules on Countering Unjustified Extraterritorial Application of Foreign Legislation and Other Measures (Blocking Measures)*, and other laws must be cited in the procedural law's content, and there is no specific mechanism for extraterritorial jurisdiction over cross-border data flows. It is required to improve the pertinent legal provisions and adequately broaden the extraterritorial applicability of laws in order to address the issue of extraterritorial law enforcement.

5.2.1 *Providing extraterritorial jurisdiction according to the grade type of data*

To lessen the risk of data compliance, different jurisdictions should be mandated based on the various levels and types of data. Extraterritorial jurisdiction is an extension of domestic jurisdiction, and the division standard of domestic jurisdiction in China can also be applied to extraterritorial jurisdiction to a certain extent. One of the classifications divides jurisdiction into exclusive jurisdiction and arbitrary jurisdiction. The former is to unconditionally subordinate those legal relations closely related to national public policies and vital interests to the exclusive jurisdiction of the country excluding the jurisdiction of other national courts (Huo 2017). According to Article 5 of the *Notice of the State Cyberspace Administration on Public Solicitation of Opinions on the Regulations on Network Data Security Management (Draft for Comment)*, data can be classified into general data, important data, and core data. The state strictly secures core data while prioritizing the protection of personal information and important data. As a result, assuming exclusive jurisdiction over the core data in cross-border data flow can be considered, or the *Blocking Measures* and the principle of inconvenient court jurisdiction to stop foreign courts from having jurisdiction over China's core data can be used when necessary. For personal information and important data, Judges have discretion to apply exclusive jurisdiction based on the significance of the data in various contexts. For general data, arbitrary jurisdiction shall apply.

5.2.2 *Appropriately expand judicial jurisdiction and refine the legal procedures for cross-border data retrieval*

Drawing on the beneficial experience of Europe and the United States, jurisdiction in China should be appropriately expanded and shifted from "conservative" to "aggressive". Traditionally, China mainly applies the principle of territorial jurisdiction and physical connection standards to international civil and commercial cases, but the application of the principle of territorial jurisdiction and physical connection standards in cross-border data flow cases is somewhat one-sided and conservative. In order to deal with this problem, China can learn from the reasonable content of the *U.S. CLOUD Act (S.2383-CLOUD Act & H. R.4943-CLOUD Act)* and implement the "data controller standard" in cross-border data flows. It's also worthy to learn the "dual jurisdiction standard" adopted by the EU, which is based on "territorial jurisdiction" and "citizen jurisdiction". It can be applied to protect China's interests and data security. However, it is also essential to be alert to potential international criticism of China's enlargement of its cross-border data flow jurisdiction. By using court precedents, the EU has created the forum prudence principle in order to limit the scope of extraterritorial jurisdiction (Xu 2021). This method merits serving as an illustration.

In terms of specific procedures, cross-border electronic evidence collecting cannot be conducted in practice using the conventional court assistance procedure. Some scholars believe that the "one-line" evidence collection procedure of direct cooperation between the law enforcement agencies of the requesting country and the requested country should be stipulated, to reduce the multiple audits of the requesting country and the requested country. It is necessary to stipulate that the law enforcement agencies of a country can directly collect evidence electronically and explore the establishment of "electronic" judicial assistance

procedures (Feng 2019). This idea is enlightening, and it is necessary to consider amending the law or issuing judicial interpretations to specify the terms of cross-border electronic evidence collection.

5.3 *Improve the judicial protection mechanism*

5.3.1 *Optimize the court handling mechanism*

As mentioned above, cases involving cross-border data flow are based on the Internet, and most of the corresponding data are saved in the form of electronic evidence, which may involve overseas subjects. The mode of handling cases online can be adopted in the whole process, supplemented by offline cases, optimizing the admissibility rules of electronic evidence, and introducing blockchain and other technologies to assist in the identification of evidence. Meanwhile, such cases are highly professional and have high requirements for the regional economy and network construction. At present, there are three Internet courts in China. This kind of new and improved court system is an attempt to “try first” in the developed areas of the Internet industry in line with the requirements of data network cases. Within these courts, cross-border data flow cases should be distinguished from general Internet cases. A special trial team can also be set up for the trial and adjudication of cross-border data flow cases, and the relevant judges and jurors should focus on selecting people with professional experience, familiarity with overseas data laws and agreements, and knowledge of the Internet and data.

5.3.2 *Take an active part in the governance of global cross-border data*

China’s judicial influence is seriously incompatible with China’s actual economic strength and the development level of the Internet industry. China can first learn from the form of guiding cases issued by the Supreme People’s Court, where typical cases of cross-border data flow are selected and reported by Internet courts, and translated, published, and distributed internationally by judicial organs such as the Supreme Court, so as to spread China’s judicial ideas on cross-border data flow by guiding cases. Meanwhile, an international platform should be built for legal exchange of data. By strengthening publicity and holding forums, on the one hand, it is essential to draw lessons from foreign judicial thoughts like Europe’s and America’s. On the other hand, basic views in China should be spread around the world so that the world can understand and be familiar with them. Especially for judges and jurors, establishing a normal and stable communication mechanism can not only spread and carry forward the legal concept of data in China but also improve the governance level of data cases in China through dialogue with each other.

6 CONCLUSION

As early as the predecessor of CPTPP, the Trans-Pacific Partnership Agreement (TPP), China made great efforts and positive actions to join the TPP. After the United States withdrew from the TPP, it was transformed into CPTPP. On September 16th, 2021, China formally applied for membership. The significance of participating in CPTPP is self-evident. Economic integration, opening the market, and international cooperation are the best ways to prosper economic development. CPTPP has greatly promoted the removal of trade and tariff barriers and is the most powerful response to trade protectionism. Although there are still many unresolved issues including the conflict of laws and regulations, and the negotiation process is still unclear, it is predictable that in the future, China will become the mainstay of CPTPP and contribute China’s strength to the Pacific Rim and even the world economy.

AUTHOR CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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Relations between China and Thailand after the establishment of the People's Republic of China

Analysis of the reasons for the change from antagonism to cooperation

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ABSTRACT: In the 1950s, China and Thailand were in a state of antagonism stemming from the Cold War after the establishment of the People's Republic of China (PRC). The influence of extraterritorial powers led to the confrontation between the two countries based on actual state interests. In this case, the impact of the United States was crucial. However, the 1970s saw dramatic changes in international and regional situations, the rise of the Third World, and the development of the Non-Aligned Movement. Based on their interests, China and Thailand established formal diplomatic relations in response to the changing international and regional situation and the adjustment of their diplomatic strategies, which allowed the two countries to shift rapidly from antagonism to cooperation and exchange in many fields, including economy and culture. From the perspective of Realism in International Relations, it can be seen that conformity among small states, the influence of geopolitical forces, the impact of extraterritorial powers, and the world economic and political situation are the main factors influencing the relations between China and Thailand. Nevertheless, the fundamental causes lie in the actual gains and losses of the national interests of both countries.

Keywords: Sino-Thai Relations, China, Thailand, Extraterritorial Powers, National interest

1 INTRODUCTION

China and Thailand have had disputes, disagreements, and close cooperation and communication. Since the establishment of the People's Republic of China (PRC), Sino-Thai relations were once long subjected to the influence and even direct interference of extraterritorial powers. Thus, the two countries were in a state of antagonism. However, since the diplomatic relations between China and Thailand in 1975, both sides have created a mutually beneficial situation concerning their national and shared interests.

In November 2022, President Xi Jinping visited Thailand, and both sides announced that they would build a more stable, prosperous, and sustainable China-Thailand community with a shared future. The resulting question is how China and Thailand have realized a seamless transformation from antagonism to close cooperation and how has the

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harmonious, friendly, and mutually beneficial situation between the two countries governments been created since the establishment of diplomatic relations. This study will explore and analyze the history of Sino-Thai relations after the establishment of the PRC, especially the trend of the Chinese and Thai governments to deal with bilateral issues under the framework of realism theory in International Relations to understand the reasons for the antagonism and cooperation between China and Thailand and to analyze the bilateral relations in the era of the Cold War.

2 SINO-THAI RELATIONS IN THE 1950S–1970S

2.1 *Overview of relations between China and Thailand in the 1950s and 1970s*

China and Thailand were in different blocs in the mid-1950s-1970s, and the relations between the two governments were in a state of antagonism and hostility. Thus, no diplomatic ties were established during the period. Extraterritorial powers and ideological rivalry influenced the relation between the two countries. From the perspective of realism theory in international relations, the sovereign state is the subject of international relations, and national interests are the starting and ending point of the foreign policy of the sovereign state because, for any international party, prevention from harm and threat is the most fundamental goal of its participation in international activities (Shen & Zou 2022). We argue that the primary reasons for this relation lie in the external contradictions of the PRC and the influence of the United States on Thailand. The reasons for this period of Sino-Thai relations, which were more antagonistic and hostile than cooperative and communicative, are also largely influenced by this view.

2.2 *Reasons for antagonistic and hostile relations- from the perspective of China and Thailand*

From Thailand's perspective, in the 1950s, Thailand was relatively poor in economic terms, lacked a sense of security in terms of regional security, and was in constant political turmoil. Therefore, the Thai government of Luang Phibunsongkhram, which came to power through a coup, chose to follow the U.S. diplomatically and formed a strategic alliance to some extent by signing economic and technical assistance and military agreements. This also led Thailand to follow the U.S.-led Western camp in refusing to recognize the PRC internationally. At home, the government implemented an anti-communist and anti-Chinese policy based on its real interests by treating the domestic Chinese as spies for the Chinese government (Zhao 2016).

2.3 *Influence of extraterritorial powers and international environment*

A significant influence on Sino-Thai relations during this period was the impact of the Cold War. As an extraterritorial power, the United States "allies" in South-east Asia were the front line in the "containment of communism," especially in the containment of China and Soviet-backed Vietnam to export its revolution to the outside world. From the beginning to the end, the United States has been an essential factor influencing Sino-Thai relations (Liao 2016).

And for the socialist camp, Thailand's constitutional monarchy was one of the irreconcilable contradictions in the ideology of communist society. Although the "Five Principles of Peaceful Coexistence" proposed by China in the 1950s clearly stated "non-interference in each other's internal affairs," the Chinese government and citizens remained hostile on all fronts toward Thailand, an "ally" of the United States, based on the influence of the "international communist movement" and Cold War. Meanwhile, China also

cooperated with the Soviet-led “International Communist Movement” in exporting the revolution to Thailand.

However, the U.S. gradually changed its attitude toward China with a series of events, such as the deterioration of Sino-Soviet relations in the 1960s, the easing of Sino-American relations in the early 1970s, and the U.S. withdrawal from Vietnam in 1973. This also resulted in the resumption of communication and interaction between the Chinese and Thai governments during this period, which was affected by the Cold War. Tentative contacts between the two governments began to take place. Still, the two countries did not yet establish diplomatic relations during this period, and their official attitudes remained antagonistic and hostile. Hence, the primary form of contact and exchange remained unofficial.

2.4 *Limited contacts*

Relations between the two countries were with particular progress during this period. In 1955, during the Bandung Conference in Indonesia, under the instructions of Chairman Mao Zedong, the personal wisdom of Premier Zhou Enlai, and the influence of third-world countries generated by the Non-Aligned Movement other than the U.S. and the Soviet Union, the first contacts between the governments of China and Thailand were achieved. This offered a glimmer of hope for interaction between the two countries (Liu 2008). Nevertheless, the development of Sino-Thai relations was soon suspended by the U.S. In October 1958, then Defense Minister Sarit Thanarat seized power through a military coup with the support of the U.S. He completely abandoned the previous government’s policy toward China at the behest of the U.S. and announced a ban on all relations with China. From then until the eve of the establishment of diplomatic relations between China and Thailand in the 1970s, all interactions came to a halt, and relations between the two countries remained in a state of complete antagonism and hostility for a long time.

3 ESTABLISHMENT OF DIPLOMATIC RELATIONS BETWEEN CHINA AND THAILAND

On July 1, 1975, China and Thailand formally established diplomatic relations, which, to the outside world, suddenly changed from a state of antagonism and hostility to friendship almost instantly. The authors believe that the reasons for this sudden change mainly were the altered external environment, which resulted from the judgment and joint actions of the two countries, taking into account their situation and the geopolitical landscape of the time while weighing their respective national interests and external influences.

3.1 *The transformation and concrete practice at the early stage of the establishment of diplomatic relations*

China and Thailand established diplomatic relations in 1975. Since then, there have been exchanges and cooperations in economic, political, and even military aspects. The transformation has been mainly manifested in political and economic interactions.

3.1.1 *Political exchanges between China and Thailand*

The first is the political exchange, the most crucial basis for developing relations between the two sides. As early as 1965, China had diplomatic ties and a certain degree of contact with Thailand. In 1975, when King Bhumibol Adulyadej of Thailand visited China, the relations between China and Thailand became closer. Since then, there has been fruitful cooperation between the two countries in various fields. According to statistics, the following Chinese leaders have visited Thailand: Vice Premier Li Lanqing (1998), President Jiang Zemin

(1999), Chairman Li Peng (1999), Vice President Hu Jintao (2000), Premier Zhu Rongji (2001), etc. Among the Thai leaders who visited China were: Queen Sirikit (representing King Bhumibol in 2000), Crown Prince Vajiralongkorn (1998), Princess Sirindhorn (15 times visits from 1981 to 2002) and Princess Chulabhorn (2000, 2001), and other key members of the royal family, as well as Prime Minister Chuan Ripai (1999), Prime Minister Thaksin (2001), National Assembly President Vanno (1998), etc. (Economic and Commercial Office of the Embassy of the People's Republic of China in the Kingdom of Thailand 2012). A certain degree of political exchange between China and Thailand has contributed to the economic development of both countries.

3.1.2 *Economic cooperation and trade between China and Thailand*

Economic and trade relations between China and Thailand have also developed rapidly since establishing diplomatic relations between the two countries. Bilateral business and marketing began as early as 1972. However, because China was a significant country with backward industrial development at that time, while Thailand was a major agricultural and newly industrialized country, the trade exchange was still relatively small. China imported most agricultural products such as rubber, timber, tea, tobacco, rice, and other light industrial products from Thailand. This shows that after the diplomatic relations between China and Thailand, the two sides have political exchanges and maintain good cooperation in economic and trade ties. After establishing diplomatic relations between China and Thailand in 1975, China's most significant imports from Thailand were daily necessities, textiles, footwear, furniture, toys, and other light industrial products, while Thailand mainly imported agricultural products from China. After 1978, China began exporting large agricultural products to Thailand, primarily rice, rubber, and tea.

After establishing diplomatic relations between Thailand and China, trade between the two countries developed rapidly. A new stage was reached after the signing of the Economic and Trade Cooperation Agreement in March 1978. To solve the trade issues between the two countries, the two governments negotiated and signed a "China-Thailand Joint Trade Committee" in 1985, chaired by an official at the deputy ministerial level of both countries, replacing the previous Thailand-China Trade Cooperation Federation. It is responsible for trade and other related economic cooperation and for removing obstacles to economic and trade cooperation between the two countries to achieve a wide range of financial and trade cooperation.

Under the auspices of the Committee, bilateral trade between the two countries grew to 14.17 billion baht in 1986 and 22.94 billion baht in 1987, and 481.29 billion baht in 2003. In 2003, Thailand was China's 18th-largest trading partner in terms of trade volume, while China was Thailand's fourth-largest trading partner. Former Chinese Ambassador to Thailand Zhang Jiuheng believes that "economic and trade cooperation between Thailand and China is expanding, as more Chinese officials and private trade delegations are visiting Thailand than ever" (Li 2015).

Especially after 1989, the trade volume between China and Thailand has grown significantly again. There is significant complementarity between the two countries regarding economics and trade. During 1987–1997, bilateral trade between Thailand and China moved into a period of rapid growth, with bilateral trade between Thailand and China growing faster in scale and an annual average trade deficit of approximately US\$56.45 million over the 11-year period.

During 1998–2011, bilateral trade between Thailand and China continued to grow in scale and pace of development, with Thailand's trade deficit with China averaging US\$1.509 billion per annum. In particular, after recovering from the 1997–1998 Asian financial crisis, Thailand's economy maintained an average annual growth rate of 4% from 2000 to 2008. The structure of Thailand's exports changed during this period, mainly exporting electro-mechanical products, agricultural products, and jewelry and jade. Thailand's exports

account for more than half of its GDP and have been the primary force of economic development (Zheng 2014).

3.2 *Impact of the changes in the international situation*

The international situation changed significantly in the 1960s and 1970s, with the military power balance between the two superpowers of the United States and the Soviet Union shifting in favor of the Soviet Union. The United States was weakened, and its hegemony was challenged by its long period of foreign expansion, mainly due to the Vietnam War. Meanwhile, the Soviet Union seized the opportunity to expand its armaments and influence worldwide based on its increasing military power. In the fierce competition between the two sides, a strategic posture of *détente* emerged (Wu & Yang 2020).

3.2.1 *The Sino-Soviet split and the wave of establishing diplomatic relations*

The changes in Sino-Soviet relations have influenced the international order to a certain extent. The conflict period in Sino-Soviet relations between 1959 and 1964 had an indispensable impact on establishing diplomatic relations between China and Thailand compared to the other periods in Sino-Soviet ties, such as the honeymoon period 1949–1953, the frictional period 1953–1956 and the disagreement period 1956–1959 (Chen 2007). First and foremost, among these was the changing relationship between the socialist countries. As the two major powers in the socialist camp, China and the Soviet Union became essential in this change in the international situation. During the 1940s and 1960s, a series of chauvinist acts by the Soviet Union directly undermined the interests of other socialist countries. One of the triggers for the deterioration of Sino-Soviet relations was the Soviet Union's wholesale repudiation of Stalin after the 20th Congress of the Communist Party of the Soviet Union in 1956, which caused the Communist Party of the Soviet Union to gradually extend the ideological differences between the two parties to the relationship between the two countries. This was followed by the Soviet-created bloodshed on Zhenbao Island in 1969, formally breaking the relationship between China and the Soviet Union.

At the same time, dramatic changes were taking place in the capitalist camp, which silently contributed to strengthening Sino-Thai relations and establishing formal diplomatic relationships. With the establishment of the French Fifth Republic, Charles de Gaulle returned to power and proposed the “Gaullisme”. France then withdrew from NATO and became the first Western country to openly establish diplomatic relations with China, against the will of the United States. This was followed by the Japanese Cabinet's “autonomous Asian diplomacy” in 1964 and the establishment of diplomatic relations between China and Japan eight years later, in September 1972. In response, the United States adjusted its foreign policy and adopted a contraction strategy in Asia. In July 1969, the Nixon Doctrine was introduced, and in February 1972, Nixon visited China.

3.2.2 *The non-aligned movement and the rise of third world countries*

In February 1974, Mao Zedong proposed the strategic idea of dividing the “three worlds”. He said, “I think the United States and the Soviet Union are the first worlds. The middle faction, Japan, Europe, Australia, and Canada, are the second world. We are the third world.” “The third world has a large population.” “Asia, except Japan, is the Third World. The whole of Africa is the Third World and Latin America is also the Third World.” In April 1974, Deng Xiaoping elaborated on this idea at the sixth special session of the United Nations General Assembly. He declared that China was a socialist country and a developing country, which means that China belongs to the Third World (Wu & Yang 2020).

3.2.3 *Geopolitics of the Indo-China peninsula*

An essential factor beyond the above is the influence of the geopolitics of the Indo-China Peninsula region and the regional situation at the time on Sino-Thai relations (Sun 2020).

The changing situation in the Indo-China Peninsula has also contributed to de-escalating Sino-Thai relations. Although the second stage of the Vietnam War (i.e., the U.S.-Vietnam War) ended in 1975, tensions in the Indo-China Peninsula region remained unabated. On the one hand, China played a part in mediating the situation. Still, tensions between China and Vietnam began to arise due to the perception of the Vietnamese authorities that China's actions during the multi-party negotiations violated Vietnam's national interests, along with the deterioration of Sino-Soviet relations and contacts between China and the United States. On the other hand, the death of Ho Chi Minh, the unification of Vietnam, and the support of the Soviet Union led to the expansion of Vietnam's ambition to establish the so-called "Indochina Federation", which threatened Thailand's national security. Also, the withdrawal of U.S. troops made it necessary for Thailand to seek assistance from a strong regional power, which led Thailand to look to China and befriend it.

3.2.4 *Impact of changes in the international situation on Thailand*

Nixon's visit to China had a profound impact. The adjustment of the U.S. policy made Thai leaders reflect on the effectiveness of the U.S. policy of anti-China, anti-communism, and isolation of China, as well as the result of Thailand following the U.S. policy for so many years. The breakthrough in Sino-American relations and the changes and developments in the world order prompted Thai leaders to realize that they should change their policy toward China, make amicable relations with China, and develop friendly ties to calm the Communist subversion in the country and safeguard Thai national interests (Zheng 2014). Therefore, diplomatic relations between China and Thailand were promoted by the act of Japan and the capitalist countries led by the U.S., which established diplomatic relations with China one after another.

3.3 *The wave of establishing diplomatic relations in China*

To safeguard China's security and resist the menace of the hegemony of the Soviet Union, Mao Zedong proposed the "One Line" strategy in 1973 when he met with Kissinger, the Secretary of State of the United States, aiming to strengthen the cooperation and unite the power with countries like the United States, Japan, Pakistan, Iran, Turkey, Europe, and other international forces to oppose the hegemony of the Soviet Union jointly. The proposition of the "One Line" strategy laid a solid foundation for the subsequent wave of the establishment of diplomatic relations, including the establishment of diplomatic relations between China and Thailand (Wu & Yang 2020).

The rise of the Third World and the progress of the Non-Aligned Movement not only shook the bipolar structure but also allowed China to gain the trust of more than 130 developing countries in Asia, Africa, Latin America, and other regions, which had promoted the establishment of formal diplomatic relations between China and Thailand to some extent.

4 CONCLUSION

In general, since the foundation of the PRC and until the formal establishment the diplomatic relations in 1975, the two countries have continually adjusted the way of handling bilateral relations and concrete actions according to the specific actual situation, which is the reason why China and Thailand were able to change from a state of full-scale antagonism to a form of friendship and cooperation quickly after the establishment of diplomatic relations. Sino-Thai relations were generally antagonistic during the 1950s and 1970s. The combination of the Cold War pattern, the contradictions between China and Thailand, ideological rivalry, and the respective domestic situations of the two countries made them antagonistic on all fronts. The private and small-scale official contacts were the only primary contacts

between the two countries based on specific issues and regional problems. In 1975, bilateral relations were elevated during this period after the establishment of diplomatic relations between the Thai and Chinese governments under the influence of the factors mentioned above. The abrupt transition was followed by multifaceted cooperation based on genuine interests and the international and regional context of post-establishment diplomatic relations. The formal establishment of diplomatic relations between China and Thailand in 1975 took place against the background of the establishing boom in the PRC, the changes in relations between socialist countries in the socialist camp, and the radical changes in the capitalist camp. This is because of the Nixon Doctrine, the normalization of relations between China and the United States, and the growing number of countries that established diplomatic relations with China during this period. The turbulence in the region also created objective conditions and relevance for cooperation between China and Thailand at other levels.

In conclusion, from a realist perspective of international relations, the herd mentality among small states, the influence of geopolitical powers, extraterritorial powers, and the world economic and political situation all directly affect the changes in the relationship between China and Thailand. But fundamentally, all the factors ultimately act on the two countries' mutual concerns and direct interests. As the ancient Chinese saying goes, "the direct interests of the two countries are the reason for the gathering", and the direct interests of the two countries are completely involved in the handling of the relations between China and Thailand, which makes the bilateral relations seem to be completely linked with "interests", and it seems to be direct and "pure". That's why China and Thailand can shift from confrontation to friendship and cooperation in a short transition.

AUTHOR CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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Collaborative security model in East Asia: Possibilities and challenges

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ABSTRACT: With the apparent changes in the global situation in the last two decades and the remarkable improvement of China's comprehensive national power, to cope with the ever-changing world community and expand its influence, this paper attempts to explain a new regional cooperation mechanism under the leadership of China, that is, "collaborative security model". The feasibility and infeasibility reflected by the application of this model in East Asia is the focus of this paper. As a new mode of cooperation, it has two sides, and it needs to find and improve defects while being affirmed. Based on seeking to ease the contradictions among big countries to the greatest extent, it pursues equal participation in governance and cooperation among countries. This is an accurate grasp of fundamental contradictions, and it is also the embodiment of Chinese morality and responsibility. Of course, the influence of contradictions among major powers on inter-regional cooperation is emphasized in this model, which is also one of the difficulties to be faced in its implementation. In addition, the unique characteristics of East Asia need to be taken into account, such as similar cultural traditions and numerous historical controversies. If China can explore a more fair and scientific regional cooperation mechanism while meeting its development needs, it is worth looking forward to.

Keywords: Collaborative Security, Regional Cooperation, East Asia, China-US Competition

1 INTRODUCTION

Since the 21st century, with the changes in the international community and global security, regional security in East Asia has also been changing and developing. China has been gradually building a new type of diplomatic cooperation in response to the current state of the international environment. The cooperation mainly focuses on two points: first, enhancing China's appeal to create a "community of destiny" in East Asia; second, adhering to safeguarding national sovereignty in its foreign affairs.

Under the above background, the authors propose a new Chinese-led vision of cooperation in East Asia, which could be summarized as the "Chinese framework of collaborative security". This pattern reflects not only a realist security perspective on the regional

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condition but also a constructivist confidence in international norms of behavior. It is a product of the complexity and history of security politics in East Asia and is essential for maintaining a long-term stability in the region.

While collaborative security possesses a certain degree of possibility, there are also several problems in the proposed framework. The rise of China, the increased integration of the ASEAN region, and the deepening of bilateral relations such as Sino-Japanese and Sino-Korean relations under the tide of globalization have all opened up possibilities for the development of the concept. However, East Asia also faces many troublesome issues: whether the impact of the Sino-US conflict in East Asia will lead to the development of this framework; whether the sensitivity of the countries in East Asia regarding their territories and national sovereignty will lead to various conflicts and disputes; whether history, as a double-sided mirror, will contribute to the peaceful evolution of East Asia while at the same time sowing new roots of trouble among countries with historical entanglements. Based on the development history of the East Asian region and China, this paper initiates a comprehensive discussion on the feasibility and challenges of China's collaborative security model and explores the insights gained from it regarding security development in the East Asian region.

2 BACKGROUND OF CHINESE COLLABORATIVE SECURITY MODEL

In recent years, the evolution of the security environment in East Asia has once become a focal issue of great concern to the international community. The security cooperation model in East Asia mainly includes the alliance security represented by the United States and the ASEAN cooperative security (Zhu 2006). As China rises peacefully and gradually becomes an essential polar in the world, this paper proposes a brand-new, China-led security development model in East Asia—Chinese framework of collaborative security.

The model is a regional security model of shared governance within a collaborative framework of countries, where China promotes and other countries co-manage regional security affairs on an equal footing, thus forming a relational structure that can be called a regional security society (Wang 1998). The theoretical background of this model relies on two main factors, the rise of China and the more peaceful and stable development history of the East Asian region.

China is the only permanent member of the UN Security Council in East Asia and has been the second-largest economy in the world since 2010. In 2012, China first proposed the concept of the “Community of Human Destiny”, and in 2013 proposed the strategic concept of the “21st Century Maritime Silk Road”, so-called the “Belt and Road” initiative. In April 2022, President Xi Jinping issued a global security initiative at the Boao Forum for Asia, proposing Chinese solutions to eliminate the root causes of international conflicts and achieve long-term world peace and security.

At the same time, China has been committed to promoting security dialogue and cooperation in East Asia. Its continuous efforts to promote security dialogue among relevant East Asian countries have long been an indispensable and significant factor in promoting long-term stability and prosperity in East Asia (Zhong 2022). For example, China has been involved in negotiations on the nuclear issue of the Korean Peninsula since the beginning of this century. At the same time, China is also a member of the ASEAN Regional Forum. As a significant power in East Asia, China has not only put forward a new security concept in the context of its national development strategy to meet the requirements of the developing international situation but is also deepening its interaction with East Asian countries and trying to achieve an optimal combination based on interaction to create a new order in the East Asian region.

Based on historical factors and the impact of economic globalization, the development of East Asia has been relatively peaceful and stable (Ruan and Fang 2017). ASEAN was established in 1967, and all its member states have a history of being colonized. Therefore, maintaining national sovereignty and independence is a common philosophy of all countries.

The ASEAN Charter, signed at the end of 2007, has made some crucial adjustments to the institutional structure of ASEAN, making it a more compact structure with more apparent objectives and ways to achieve political, economic, and security integration. In addition, bilateral relations between China and ASEAN countries, such as the essential bilateral relations between China and Japan, China and Korea, and Japan and Korea, have remained generally peaceful and stable. Despite a small amount of friction, the economic and trade relations have deepened in the context of globalization and regionalization (Hurrell 1997).

3 POSSIBILITIES OF CHINESE COLLABORATIVE SECURITY IN EAST ASIA

3.1 *The rise of China and its influence on collaborative security*

According to Marx's historical materialism, there are contradictions between productive forces and relations of production, economic base, and superstructure in any society. Still, the coordination between relations of production and the development of productive forces enables the production to adapt to and promote the development of productive forces. The same is true of the economic base and superstructure. Therefore, it is essential to correctly handle the contradiction between productive forces and relations of production, economic base, and superstructure for promoting the development of society. The security cooperation in East Asia also follows Marx's theory mentioned above. Judging from the security situation in East Asia, the fundamental reason for the contradictions and conflicts between countries and the instability of international relations is the contradiction of productive forces and relations of production. Therefore, China's cooperative security attaches great importance to the material first, strives to improve the production conditions of material life, and coordinates the relationship between productivity and production relations to promote security cooperation in East Asia (Cheng 2009).

Since the 21st century, China's rapid development has changed the international situation and significantly impacted the East Asian region as its national status, economy, and military power have gradually increased. China's Collaborative Security Framework is a new concept for reconstructing security and cooperation mechanisms in East Asia. Its feasibility is increasing with introduction of the "Community of Human Destiny" and the narrowing of the power gap between China and the United States.

First, China plays a significant role in the model of collaborative security, so the core point of the model must be China's development and comprehensive power, which is what we call "The rise of China". "China's rise" began as a Western phrase used by Western scholars to discuss various aspects of China's changes since the reform and opening up.

What's more, China's rise is evident in the growth of its economy, trade, and military power, also in the essential diplomatic strategies and cooperation initiatives that China has undertaken in recent years, including China's accession to the WTO, the establishment of the Shanghai Cooperation Organization, the promotion of China-ASEAN "10 + 1" and China-Japan-ASEAN "10 + 3" regional cooperation, and the establishment of the "Asian Investment Bank".

3.2 *China's adherence to the principle of equality*

In East Asian security cooperation, China does not seek single dominance or common dominance with other big countries (Luo 2010). In the 21st century, although China has become a vital force, under the current international conditions, due to the contradiction between powers, many big countries have worries and misunderstandings in other countries. At present, the security of some countries, such as Japan, South Korea, and the Philippines, is mainly provided by the United States, and the security of East Asia depends partly on the United States. In contrast, the overseas security strategy of the United States is often

hegemonic. Its overseas military bases bring not so much a sense of security to local people as a controversy and a blow to national pride.

In supporting the cooperation in East Asia, China, as a partner which firmly believes in equality, has been working for the cooperation strategy for security interests with other East Asian countries to develop security cooperation and solve security problems on an equal footing. China believes big countries can ease their conflicts through consultation and cooperation and participate in regional governance with other relevant countries based on equality (Luo 2010).

4 CHALLENGES OF CHINESE COLLABORATIVE SECURITY IN EAST ASIA

Regarding the current condition, the collaborative security model is still at the theoretical level, and the actual results achieved are relatively limited. There is no doubt that many reasons lead to this phenomenon. This part will explore these challenges according to the concept of collaborative security and the concrete situation in East Asia.

4.1 *China-US competition*

The first is the contradiction between China and the United States. According to the definition, the core of the collaborative security model is to realize the cooperative governance of all regional countries based on coordination among major powers. Therefore, the key to implementing this model lies in whether the big countries in the region can agree on conflicts and differences. The interaction between the major powers shaped international relations in every era at that time. The change in the global system depended on the balance of power and strategic interaction among the major powers (Liu 2018). In East Asia, the core of the security situation is Sino-US relations, and the critical condition for implementing collaborative security is the ease of Sino-US contradictions.

However, the structural contradictions between China and the United States have caused significant obstacles to implementing collaborative security in East Asia. The reason for the antagonism between China and the United States and the deepening of the contradiction is the declining hegemony of the United States in the world and the expansion of China's influence. The change of this strength is most evident in East Asia, and the contradictions and conflicts caused by it are also the most intense. China has experienced decades of keeping a low profile after the reform and opening up since the 1980s, and its comprehensive national power has been significantly improved. To obtain international status matching Chinese economic dominance and guarantee further development, China will inevitably adjust its essential attitude in foreign policy and become more proactive. This new change will inevitably cause conflicts with the original world order dominated by the United States.

The American government is also gradually realizing the above structural contradictions, and they want to avoid the emergence of a security system that excludes themselves from East Asia (Yang 2006). The Obama administration's "Asia-Pacific rebalancing" strategy, continuous strengthening of naval and air forces, and deepening cooperation with allies are all exerting pressure on China intentionally or unintentionally (Liu 2017). In addition, the South China Sea and the Korean nuclear issues have always existed. The United States has continuously used these contradictions to intensify its oppression of China. China has also taken corresponding responses and measures, which is one of the reasons why China advocates the collaborative security model (Liu 2017). In this way, China can establish a regional order dominated by China to cope with the pressure from the United States.

Whether it is the United States to maintain global hegemony and the genuine interests of East Asia or the inevitable requirement of regional discourse power after China's strength is enhanced, contradictions between China and the United States in East Asia are enormous and almost impossible to coordinate and solve in a short period. This implements the

collaborative security model's lack of necessary preconditions and is also one of the essential manifestations of its infeasibility.

4.2 *Historical entanglement*

Due to the particular historical and cultural conditions, there are extensive historical entanglements and cultural disputes among East Asian countries. Historical issues have always been one of the factors that influence and even determine politics. Other national communities' different understanding of history has always had a real and potentially significant impact on their relations (Shi 2009). In particular, ancient China has been in a dominant position in the long history of East Asia and has had a considerable influence on the historical process of neighboring countries. At the economic level, ancient China maintained its dominant position in international trade through tribute trade. At the political level, the "Suzerain-vassal" system maintained by various dynasties made ancient China enjoy a detached position as a "suzerain" in East Asia. In a word, China has long appeared as an image of the "Celestial Empire" in the history of East Asia.

With the historical image of the "Suzerain" in East Asia, it is difficult for China, as a world-leading power, to ultimately win the trust of neighboring small countries regarding security. Although China's development may be over-amplified, for countries that are not very powerful, every move of big countries may give them a sense of crisis. If China continues implementing its leading regional security model, small countries' sense of crisis may be aggravated, leading to a loss of trust. Especially in the modern international system, all countries attach great importance to independence and sovereignty and are unwilling to take any risk of returning to the dominated state in history. Some nationalists may even distort the "model of collaborative security" into the intervention of big countries and reshape the "East Asian tributary system". As a member of East Asian countries, China has more extensive interests in this region. In contrast, as a big country outside the area, the United States pursues more political and economic interests in East Asia. Hence, most East Asian countries are more willing to lean strategically toward the United States.

Besides, East Asian countries have had many problems in history, such as the ownership of traditional culture, apologies and compensation after the war, etc. These problems generally have existed for a long time with many countries involved. This will quickly lead to disputes and even shirking responsibilities among countries in East Asia. In addition, due to the accumulation of problems, it is likely to arouse the dissatisfaction of the governments and people of the countries concerned, leading to adverse effects beyond the issues themselves. These problems and negative effects are intertwined, further increasing the difficulty of solving them. At the same time, it also causes excellent resistance to implementing collaborative security.

4.3 *Territorial disputes*

This contradiction is often more sensitive and undebatable than economic interests and cultural disputes. A territorial dispute refers to conflicts between two or more states claiming sovereignty over the same territory. This contradiction is widespread all over the world. Especially with the development of marine technology, the importance of sea power is increasing. Many territorial disputes extend from land to islands and oceans, for example, the conflict between China and Japan over Diaoyu Island, the South China Sea issue between China and the Philippines, etc. The key to these contradictions lies in the fact that territorial disputes are related to national sovereignty. It is almost impossible for governments and people of all countries to make concessions on this issue, and naturally, the contradictions are challenging to solve. Moreover, besides the need to defend national sovereignty, the economic and strategic values of the territory are more attractive, which makes territorial disputes more complicated. The long-term existence of these problems will inevitably negatively impact the relations between countries and then hinder the implementation of the collaborative security model.

4.4 *Lack of cooperating motivation in other East Asian countries*

There is a trust crisis between China, Japan, Korea, and Japan due to historical and territorial issues. At the same time, facing the rise of China, East Asian countries also worry about the uncertainty of whether China will take back by military force the disputed areas in the South China Sea occupied by some ASEAN countries (Yang 2006). With China's increasing comprehensive national power, China's diplomatic initiative is rising. China is more active than before in maintaining the security of its neighboring territorial water and developing and participating in global economic governance in other parts of the world. In some areas, it has been actively building new mechanisms China even takes a stricter stance in safeguarding its maritime interests, which has exerted tremendous psychological pressure on neighboring countries. If China continues to advocate the security model led by itself in East Asia, it needs to consider the acceptance of neighboring countries (Liu 2017).

After the Cold War, the international community was in decentralized anarchy. In addition, after the Second World War, many countries' independence was won with hardship and difficulties. East Asian countries have cherished their sovereignty and been very cautious about sovereignty issues (Yang 2006). Therefore, the national consciousness of some countries in East Asia is powerful, and they will be very alert and sensitive as long as sovereignty issues are involved. Although China's development may be over-amplified, for countries that are not very strong, every move of a big country may make them feel a sense of crisis. If the leadership of big countries continues to be promoted, this sense of emergency may be aggravated and even cause a loss of trust.

4.5 *Lack of dialogue and cooperation mechanism*

In addition, some security dialogues and cooperation mechanisms, created after the end of the Cold War for consultations on security issues among East Asian countries, have become increasingly weak. The mechanism is loose and has no mandatory binding force on member states. Its symbolic significance is far greater than its practical functions. Although it provides a platform for countries to communicate, it does not have the defect of jumping out of the mechanism (Yang 2006). In promoting security, there is no robust mechanism for East Asian relations based on shared values and interests (Yang 2006). Most of the existing problems in East Asia belong to long-term issues. It is challenging to coordinate because it involves too many national interests (Zhao 2011). This will significantly challenge the cooperative security model. Taking North Korea's nuclear issue as an example, North Korea's development of atomic weapons has caused a series of security and diplomatic problems. There are as many interested parties as the United States, China, South Korea, Russia, and Japan. To peacefully resolve the Korean nuclear issue since the early 1990s, the Chinese government actively mediated and facilitated the tripartite talks on the nuclear issue with the participation of North Korea, China, and the United States in April 2003. By June 2008, the Six-Party Talks had reached the sixth round. However, more than a decade later, the six-party talks have made no progress, North Korean denuclearization has not made progress. With the tension of the global security situation, the prospect has become increasingly slim. The difficulties in solving and communicating the issues in East Asia can be seen. At the same time, this is also a typical case that reflects the infeasibility of the collaborative security model.

5 CONCLUSION

With the rise of China, the collaborative security model may be expected to become a new type of regional cooperation mechanism in the international community and will gradually play its role under the leadership of China. It promotes other countries to participate in regional governance on the premise that the big countries in the region coordinate

contradictions as much as possible and on the principle of equality. It must be admitted that this model indicates China's goals and demands as a world power and a regional power in Asia, which could be more conducive to the wide acceptance of this cooperation mechanism subjectively. Secondly, the particular characteristics of East Asia determine that the region is easily interfered with and influenced by foreign powers, which is mainly manifested in the influence of the United States as a "world hegemony". In addition, the complicated interest relations and historical entanglements among countries, the lack of cooperation motivation, and existing cooperation mechanisms among East Asian countries have caused significant obstacles to the collaborative security model. However, focusing on this model, its ideas have specific innovation and desirability. If the contradictions between big countries could be eased to the greatest extent and an effective communication and operation mechanism could be established, implementing this model is possible. Moreover, this model is expected to make it more feasible to establish a more scientific regional cooperation mechanism. At least, it will be a reasonable attempt.

As mentioned earlier, the more relevant information is needed because the collaborative security model is still in the theoretical exploration stage. This does increase the difficulty of the study, but it also will inevitably lead to thin content. Of course, with the gradual implementation of this model, the authors believe there will be more convincing information and data to study. This will also be the focus of this paper in the future, aiming at the specific implementation of the collaborative security model for a more in-depth study.

AUTHOR CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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Vietnam's construction of historical memory of China and its impact on bilateral relations

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ABSTRACT: The development of history after the Cold War provides new materials and perspectives for the study of international relations. These changes have also increased academic attention to discussing the relevance of historical memory to international relations. This paper attempts to take the development of Sino-Vietnamese relations as an example to discuss the formation process of Vietnam's historical memory of China and the influence of these memories on Sino-Vietnamese relations from modern times to the Cold War period. Before the colonial era, Vietnam was subject to the Chinese system of authority while maintaining Vietnamese independence. The French colonization of Vietnam and the rise of modern Vietnamese nationalism lead Vietnamese elites to re-examine the historical memory of China and Vietnam. Some Vietnamese elites try to discard the cultural influence brought by China to Vietnam and publicize the Sino-Vietnamese war in history as the indomitable spirit of the Vietnamese nation. Other Vietnamese revolutionaries focused on exploring friendship with their Chinese counterparts and saw the similar history and culture of the two countries as the foundation of their alliance. During the Cold War, Vietnamese leaders with different "views on China" dominated Vietnam's diplomatic attitude toward China successively, which made Vietnam's historical memory of China change during the three Indochina Wars.

Keywords: Historical Memory, Vietnam, Sino-Vietnamese Relations, East Asian International Relations

1 INTRODUCTION

China and Vietnam have a very long diplomatic history, having many cultural and historical similarities and intersections. However, the alliance between China and Vietnam broke down in the 1980s, eventually leading to war. This article attempts to review the change process in Vietnam's historical memory of China in the different periods and combine these memories with theoretical analysis to discuss the relevance between national historical memory and the changing of the Sino-Vietnam relationship. This article begins with a review of the diplomatic history of China and Vietnam, briefly analyzing how war and tribute relations between China and Vietnam have defined the pattern of interaction between the two sides and the Vietnamese perception of China. After French colonization disrupted the Sino-Vietnam traditional diplomatic system and introduced a Western education system and Latin characters, the Vietnamese elite, who were educated by the French, developed a new historical memory of the Sino-Vietnamese relationship, seeing China as both an ally and a potential threat. This complex perception contributed to the changes in the Sino-Vietnamese alliance during the Cold War.

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2 CONFUCIANISM, WAR AND TRIBUTE RELATIONS

Among the many Southeast Asian countries, Vietnam shares the closest cultural and social structures with China. The presence of China provided an important reference for the other, and Vietnam's internal social construction was influenced by Chinese civilization along with its concept of international order. Confucianism and the Chinese political structure helped Vietnam to create a high degree of national integration and identity in the feudal period, particularly in Confucianism which emphasized 'loyalty' (忠君) and the 'orthodoxy' (正统) and helped the Annamese dynasties to their reign. Even during the French colonial period, Confucianism's emphasis on patriotism was promoted by Vietnamese intellectuals, who translated the Four Books and Five Classics (四书五经) into modern Vietnamese script in the 1930s and opened Confucian institutions and temples in the 1950s to spread Confucianism. The existence of Confucianism helped the Vietnamese to maintain their national identity with the history of feudal dynasties, and Confucianism became one of the core ideas that contributed to the formation of modern Vietnamese nationalism (Nguyen 2009).

Based on a common Confucian culture, ancient Vietnam also established a similar concept of international order in East Asia to that of China, and Vietnam also played an important role in China's tribute system. Because the tributary system played the main form of diplomacy between China and its neighbors until the 19th century, Vietnam identified with the Chinese international order and accepted its subordination to its hierarchy of the tribute system for most of its history.

However, the tribute system was not always stable. When civil wars and dynastic changes occurred in China, China needed to re-establish the tribute system after the new dynasties were set up. Vietnam attempted to break away from the Chinese tribute system when China's power declined, and because of that military conflicts erupted between the two countries. According to Vietnam's historical records, China invaded Vietnam several times during the Han to Qing dynasties and eventually forced Vietnam back into submission to the Chinese international order.

The military confrontation with China and Confucianism combined to catalyze Vietnamese nationalism. China played a paradoxical role as 'the other' in the development of Vietnamese nationalism. On one hand, China was Vietnam's suzerain state, and the enfeoffment of the Chinese emperor was an important form of authentication of the legitimacy of the Vietnamese regime. Vietnam naturally saw itself as a country that shared the common tribute hierarchy with China, which also controlled the other smaller tribes or countries than Vietnam. On the other hand, Vietnam also saw China as its main existential threat and strategic rival. Although Vietnam did not seek to maintain equal status with China in the international order and referred to itself as a vassal state of China, Vietnamese history books still refer to Vietnam as the Southern dynasty and to China as the Northern dynasty, thus highlighting Vietnam's sovereignty and independence (Zhong *et al.* 2023). International relations based on Confucian patriarchy profoundly influenced the bilateral relations between Vietnam and China even after the end of the tributary system.

3 VIETNAMESE REINTERPRETATION OF SINO-VIETNAMESE HISTORY DURING THE FRENCH COLONIZATION

With the signing of the Treaty of Tientsin in 1885 between the Qing dynasty and France, Vietnam broke away from the Chinese tribute system and became a French colony. During the colonial period from 1885 to 1945, Vietnam began to modernize under the influence of France and developed a modern nationalist perception and historical memory. During this period, the image of China also changed in the eyes of the Vietnamese, and the historical memory of Vietnam in relation to China provided an important source of national myth for the Vietnamese national independence movement.

The French social transformation of Vietnam was all-encompassing, including education and culture. In order to sever the cultural ties between Vietnam and China, the French colonial government and missionaries designed Vietnamese in the Latin alphabet and spread it throughout the whole of Vietnam. The traditional Confucian schools fell under French suppression. In 1918, when the last imperial examinations were held, the French education system became the only option for most Vietnamese elites (Chen 2005). Modern Vietnamese intellectuals learned a different consciousness from that of traditional Confucian civilization through French education, and this educational reform led to a change in Vietnamese perceptions of China through the influence of French oriental views. Under French colonization, the influence of the French intellectuals' view of China profoundly affected Vietnam, causing a shift in the latter's attitude towards China. The Vietnamese learned to criticize Confucianism through the French. As the French philosopher Montesquieu Chinese characters described, Chinese characters are extremely complicated to learn, and one must read what is written in books, which is Confucianism. As a result, the Chinese devote a great part of their lives to interpreting Confucianism (He *et al.* 2011). The French colonial government opened local schools in Vietnam for the Vietnamese elite to study French culture and the works of French intellectuals, thus transmitting the French critique of Confucianism and China to the Vietnamese. China no longer played the role of Vietnam's mentor and elder brother. Instead, it became the "backward Other" that the modernized Vietnamese elite criticized. They advocated for Vietnam to remove the Chinese characters and rid itself of the influence of Chinese civilization. Some Vietnamese scholars consider it a blessing that Vietnam got rid of Chinese characters early compared to Chinese intellectuals who advocated Latinization (Yang 2018).

In addition, the Vietnamese elites also believed that the decline of China was an important reason for Vietnam's decline. Some Vietnamese historians argued that China, as the sovereign state of Vietnam, had failed in its duty to protect Vietnam, so Vietnam needed to recognize the decline of China and get rid of Chinese influence in order to gain national independence. For example, the Vietnamese historian Tran Cuong Kim says: "Since the ancient era, we have recognized China as a superior country and adhered to the practice of paying tribute. Whenever Vietnam met troubles, we still counted on China to come to our rescue. Since the nineteenth century, the Western European countries have become stronger and the Westerners have made many territorial advances, while China's power has been weakened." (Trần and Dai 2020). Under the impact and reform of Western civilization, Vietnamese intellectuals abandoned their traditional view of China as the "Elder brother" and rejected Chinese influences while compiling history.

The French colonization also helped the development of Vietnamese nationalism, prompting Vietnamese intellectuals to reinterpret the diplomatic history between Vietnam and China. The Latin alphabet and the modern printing brought by France helped the growth and spread of nationalism in Vietnam. Vietnamese elites established schools and newspapers under French rule to popularize Vietnamese history and culture, which promoted their idea of national independence. Till the 1920s, Vietnam had several newspapers with a daily circulation of 15,000 copies in the Vietnamese language (Liu 2022). With the new Vietnamese character and printing technology, Vietnamese nationalist intellectuals established modern nationalist ideas in the interpretation and popularization of historical memory.

Some Vietnamese historians tried to build up the Vietnamese national spirit by rewriting the history of China and Vietnam. Vietnamese historians had outlined the entirety of the ancient Sino-Vietnamese war as a Chinese invasion of Vietnam, including Chinese rule in Annam during the Qin and Han dynasties. These historians emphasized the indomitable spirit of the Vietnamese people in their resistance to China. Other Vietnamese scholars reinterpreted the Chinese tribute system, interpreting the tribute hierarchy as an unequal system designed by China to invade and control Vietnam (Liu 2022). Along with nationalism historiography, the Vietnamese elites equated the image of the Chinese dynasty

with that of the modern French colonialists to establish the independent spirit of the Vietnamese nation. In calling on the Vietnamese to resist the French colonialists, Ho Chi Minh also appealed to the Vietnamese to follow the history of the ancient Annam Chen dynasty in resisting the invasion of the Chinese Yuan dynasty (Ho 1962).

On the other hand, the suppression of Vietnam's indigenous independence movement by the French colonial government resulted in some Vietnamese revolutionists being exiled to China to seek help. The 1911 Revolution in China inspired them to take a more positive view of China and Sino-Vietnamese relations. Phan Boi Chau, a famous leader in the Vietnamese revolutionary movement, developed a friendship with the Chinese revolutionary Sun Yat-sen during his exile in Japan and China. Differing from other Western-educational Vietnam intellectuals, Phan saw the common Confucianism culture of Vietnam and China as a link between the two East Asian national revolutionary alliances, and the Chinese revolutionaries could be important supporters of the Vietnamese independence movement (Yu 2006).

Overall, China played a contradictory role in Vietnam during the French colonial period. While some Vietnamese nationalist intellectuals rejected and criticized the negative impact of China on Vietnam in ancient times, others actively collaborated with the Chinese revolutionaries and emphasized the Sino-Vietnam cultural closeness and fraternal relations in history. With the collapse of the tribute system, the historical memory of China in Vietnam during the French colonial period was greatly influenced by the modernization and nationalist movements in Vietnam and became a complex 'other' in the eyes of Vietnam.

4 CHANGING VIEWS ON VIETNAM'S HISTORY OF CHINA DURING THE COLD WAR

With the end of the French colonial power under the Japanese invasion, the Viet Minh took advantage of the power vacuum in the Indochinese peninsula after the Second World War. When Japan was defeated, Ho Chi Minh turned to the People's Republic of China to prevent the French from recolonizing Vietnam, which brought China back into the geopolitics in the Indochinese peninsula after the 19th century. Through substantial Chinese aid, Viet Minh defeated the French at Dien Bien Phu. China and Vietnam were also getting closer at this stage.

Ho Chi Minh traced the friendship between China and Vietnam back to the history of the two countries, using history to provide a basis for trust in the Sino-Vietnamese alliance. When addressing the Chinese diaspora in Vietnam, Ho Chi Minh emphasized the fraternal ties between China and Vietnam that had lasted for thousands of years, stating that the relationship between Sino-Vietnam is like blood that is thicker than water (Yang 2018). While the alliance between China and Vietnam was established on the different national independence movements against colonialism, Ho Chi Minh traced this alliance back to a much older period, attempting to interpret the trust between the two sides as a result of cultural genes. Overall, from 1949 to 1954, Vietnam focused more on the positive aspects of Sino-Vietnamese history, using history to enhance Sino-Vietnam reliance.

However, the outcome of the Geneva Conference created a rift between China and Vietnam. After tough negotiations, China and the Soviet Union persuaded the Viet Minh to agree to a peace proposal dividing Vietnam into two countries and separating Cambodia and Laos from Vietnam. This led to the collapse of the Viet Minh's vision of an Indochinese federation. Although Ho Chi Minh eventually agreed to Zhou Enlai's proposal, there were many officers in the Viet Minh who thought that the results of the Geneva Conference were unacceptable.

As a result of domestic dissatisfaction with the outcome of the Geneva Conference, China became the target of some discontent voices. Some members of the Viet Minh believed China sacrificed Vietnam's interests for the Chinese own security consideration. Some Viet Minh leaders argued that the Communist Party of China was akin to the feudal dynasties of

ancient China, treating Vietnam as a Chinese vassal state. Moreover, the government of the Republic of South Vietnam also emphasized the history of the ancient Chinese invasion of Vietnam for anti-communist needs, thus portraying China as a threat to Vietnam's national independence (Yang 2018).

The Sino-Vietnamese alliance lasted until the 1970s and ended with the withdrawal of the United States from Vietnam. With the death of Ho Chi Minh and Lê Duẩn as the leader of Vietnam, the relationship between China and Vietnam deteriorated sharply. Lê Duẩn knew less about China than Ho Chi Minh but more about the Soviet Union; in addition, he did not feel the same affection for China in terms of revolutionary comradeship or cultural identity as Ho Chi Minh. With the establishment of diplomatic relations between China and the United States and China's support for the Khmer Rouge, Vietnam's attitude toward China became worse than in any other period, culminating in a large military conflict in 1979. During the long period of the Sino-Vietnamese border war, Vietnam began to issue a large number of artworks of ancient Vietnamese resistance to the Chinese invaders, and the history of China's invasion of Vietnam was constantly emphasized in official historical education, promoting China as an imperialist and vendetta enemy (Hoàng 1988).

There are many academic explanations for the dramatic changes in Sino-Vietnamese relations during the Cold War, and most of the research focused on geopolitical and ideological discussions. Historians provide a cultural perspective on Sino-Vietnamese relations to explain the establishment and collapse of the alliance. According to Brantly Womack, Vietnam and China historically had an asymmetrical pattern of diplomacy, and this asymmetry has led to structural illusions that, in some cases, have reinforced the antagonism between the two nations (Womack 2003). Whether under the hierarchical order of Confucianism or the revolutionary alliance of communism, Vietnam, as a small country, was always wary of China to avoid its own subjugation and assimilation. However, Vietnam also sought China's support in the face of invasion by the French and Americans. When the international situation changed, the elites of Vietnam adjusted the elaborating pattern of historical memory, modifying and deleting it to make it fit the needs of changing realities and politics (Xiong & Chen 2017). The contradictory image of China has always featured prominently in the international cognitive landscape of Vietnamese elites, and the history associated with China will be part of what Vietnamese elites will have to think about as they attempt to capture the future of the Vietnamese nation.

5 CONCLUSION

The cultural and power changes of the Indo-China Peninsula in modern times have led to a change in Vietnam's historical memory of China. As Vietnam's largest neighbor and teacher of classical culture, China plays a unique position in Vietnamese's diplomatic strategy and nationalism myth. During the French colonial period, China's influence on Vietnam became the object of criticism by modern Vietnamese intellectuals, while the history of Vietnamese resistance to China became the source of the spirit of Vietnamese nationalism. As Vietnam's anti-colonial struggle developed, the importance of China as an ally again prevailed, and the history of cooperation between Chinese and Vietnamese leaders in the national independence movement helped to build consensus between the two nations. However, as external threats faded, China and Vietnam returned to facing conflicts over ideology and reality interests. Negative memories of Sino-Vietnamese history again influenced the Vietnamese elite's perception of China.

The impact of historical memory on international relations is often indirect. On one hand, it usually becomes a source of legitimacy for leaders who make decisions. On the other hand, leaders tend to study the patterns of the past to forecast future relationships. Ho Chi Minh often spoke of the historical friendship between China and Vietnam, thus providing a basis for trust in their cooperation, while on the opposite, Lê Duẩn emphasized more on China's

historical oppression of Vietnam, thus ensuring the legitimacy of his anti-Chinese and close to the Soviet Union strategy.

Furthermore, historical memory can be a catalyst for policies that lead to strategic miscalculations by leaders and elites at times, which can exaggerate threats and exacerbate the victim mentality. For Vietnam, a long history of colonization has heightened the elite's sensitivity to national security and led to a sense of distrust of the great powers. Even though the Chinese Communist Party shares a similar revolutionary friendship and anti-colonialism history with the Viet Minh, China's vantage power and the invasion memories of Sino-Vietnam history make it impossible to dispel Vietnam's doubt about China.

With the end of the Cold War, Sino-Vietnamese relations have returned to peace and cooperation, and the leaders of China and Vietnam have tended to refer to their historical friendship when they meet. With the rise of China and the confrontation between the US and China, global society will also concern Vietnam which occupies an important place in the geopolitics of East Asia. How China and Vietnam work together to build the historical memory of both countries and provide a new path for their diplomacy and regional situation will be a crucial task for the whole of East Asia security.

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A study on phonetic transfer from the view of loanwords and its influence on cross-cultural communication

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ABSTRACT: Loanwords involve phonetics and phonology, perspective, lexical system, cross-cultural communication and language contact, and other linguistics or non-linguistics elements. After a loanword was borrowed from a source language and into Mandarin-Chinese, the sound of the loanword changed but is still similar to the source word. Aiming to find out how loanwords influence second language acquisition and cross-cultural communication and start from it, the paper analyzes unmarked vertex vowels and their transfer in different English learning stages. The research designed a corpus that consisted of three-word lists, conducted through perspective experiments, questionnaires, and phonetic experiments on six Mandarin-Chinese speaking participants, and made an investigation on phonetics and phonology transfer by using loanwords as a starting point. The result showed that loanwords will lead to positive L1 transfers for beginners, as similar phones could also make positive transfers for beginners. When it comes to advanced learners, similar segments would make negative transfers.

Keywords: SLA, L1 Transfer, Loanword, Vowel diagram

1 INTRODUCTION

In recent years, the world has changed a lot and the demand for cross-cultural communication is getting to increase apace. Language is the precondition for cross-cultural communication, and language is also the carrier of culture. Without a doubt, it is of great necessity to learn a second language well in this era of globalization. For a country such as China, a thousand miles away from an English-speaking country, learning from teachers at school is definitely the most fundamental way for Chinese. That makes second language acquisition (SLA) a very essential research focus. For English as a foreign language (EFL) learner, listening and speaking a second language serve the most important role in cross-cultural communication. In other words, phonetics and phonology are essential in SLA study. Also, in cross-cultural communication, loanword is a typical product. During a long time of cross-cultural communication, especially in recent two hundred years, a number of loanwords (loanwords here are transliterated words, refer to words of which sounds and meanings are borrowed from foreign languages, different from paraphrased words) in Mandarin-Chinese from English language (Ye and Xu 2010). That has directly influenced Mandarin-Chinese in phonology, lexical system, grammar, and so on.

Second language acquisition has been popular for decades. At the same time, how L1 influences speakers to learn a second language at different learning stages is an important part of SLA. The research is wondering how loanwords influence Mandarin-Chinese native speakers learning English.

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For L1 transfer, at the very beginning, the Contrastive Analysis Hypothesis was put forward by researchers used to compare two languages and find the difference to predict the features in SLA (Lado 1957; Ellis 1994). Later in 1968, Flege came up with the Speech Learning Model (SLM), which divided the similarity of two languages into four levels: L2 learners will assimilate very similar speech, slightly different speech, and allophone to the phonetic categories of the native language, while new phonemes will establish new phonetic categories (Flege 1995). The former thought it should be easier to learn similar parts of L1 and L2 in SLA, while the latter thought similar elements of two languages should be hard to learn and it would be more difficult if these two phonemes were more similar (Ellis 1994; Flege 1995). These two points may be applicable to different stages. Shi F. revealed that at the early level, similar vowels would lead to a positive transfer for beginners (Gao and Shi 2006).

Markedness theory also plays an important role. In 1977, Eckman raised the Markedness Differential Hypothesis (MDH) which stated that not all differences between the mother language and the target language led to difficulties and transfers. When the mother language is marked while the target language is unmarked, it is unlikely to transfer (Eckman 1977).

Both the sound and meaning of loanwords are borrowed from foreign languages (Ye and Xu 2010). People can even consider loanwords as almost English phonetic transcription in Chinese characters. By default, Mandarin-Chinese speakers will not expect these words as borrowed things, it is natural to speak to them. So as a part of Mandarin-Chinese, loanwords have formed their own phonology. In the process of borrowing, some are one-on-one mapping to the same or similar phones, some are changed, and some phones are, these occur in every place (Yu 2010).

As loanwords are similar to English words, they use Mandarin-Chinese loanword phonology. The paper focuses on loanword and try to find out whether they have a particular influence on SLA, and which kind of L1 transfer will lead to. Besides, the paper starts with loanwords and discovers how unmarked vertex vowels affect on L1 transfer in different learning levels.

2 METHOD

There were six participants in the research. Three of them were beginners in English, the rest three were Chinese college students with at least 15 years of English learning experience. All these participants were native Mandarin-Chinese speakers, and they did not speak any other Chinese dialects in any situation.

For all six participants, the researcher designed a word list (see appendix) which had ten Mandarin loanwords from English, and all six participants had read these English words, the research then analyzed the pronunciation to find the influence of L1 transfer. For three beginners, they were first asked to do a perception test: the test consisted of two parts. First, beginners looked while listening to the record of ten source words of loanwords in English. Then, ten core words (shown in the appendix) were chosen randomly from the Swadesh List, the same way as the first step (Swadesh 1955). After that, they would read these ten core words. At the same time, ten questionnaires were sent to English-major college students to test whether they could understand what three beginners pronounced.

From the pronunciation of loanwords, in order to make a further study on L1 transfer in phonetics, another word list consisted of words from both Mandarin-Chinese and English with the same vowels and consonants before a certain vowel (shown in appendix). That is, formants would get closely influenced by consonants, which would make these data more comparable. the research used Praat to extract the formants (F1 F2) of these three vowels. Mono channel and 44100HZ are chosen during recording with iPhone or Macbook as a mic. After getting these formants from four participants and a male RP English speaker from an online dictionary, these formants were put into a table to calculate the average frequency of

formants. Next, the study plotted them in the coordinate system to obtain the triangular vowel diagram of Mandarin, L2, and English vertex vowels. They will be shown separately and then in the same diagram.

3 RESULT AND DISCUSSION

3.1 Perception of beginners

From the experiment above, the researcher got the data from the perception test. Then, the researcher put these data into a statistics processing and got the result (Table 1).

Table 1. Recognition rate of a perception experiment.

Number of participants (beginners)	Recognition rate (source words with audio)	Recognition rate (source words without audio)	Recognition rate (core words)
1	60%	40%	40%
2	70%	50%	50%
3	60%	50%	40%
Average	63.3%	46.7%	46.7%

From Table 1, before listening to the audio of two-word lists, three beginners could understand nearly the same number of words of these two. However, after listening to the audio, the recognition rate of core words kept still while the rate of source words went up. However, before the experiment, the researcher predicted that by listening to the record of the source words, beginners can understand at least eight of ten words. That means loanwords can really help this language speakers learn this foreign language at the very beginning. Then from the questionnaires, the average rate of whether they can understand the beginners' pronunciation was calculated (see Table 2).

Table 2. Recognition rate of words from questionnaires.

Number of beginners	Rate of source words (A/V)	Rate of core words (A/V)
1	70%	49.5%
2	54.6%	39.4%
3	60%	40%

By calculating the average rate, the experiment found that beginners were able to pronounce source words in a way more easily understandable. Though contexts make a decisive significance for a word, without the context, the rate may not be very accurate, but we can find a general result from it (Firth 1968). Above all from perception experiments, because of the similar pronunciation of Mandarin and RP, for beginners, it is a positive transfer.

3.2 L1 transfer for beginners

At the same time, the author analyzed their pronunciation record and thought the main reason that a beginner (or even an advanced learner) pronounced the foreign language (L2) from their mother language e (L1), they pronounced L2 by L1 phonology. They used existing phonemes to replace similar phonemes and they used Mandarin-Chinese syllable structure to pronounce English, while others, they tended to pronounce as Pinyin.

All mandarin speakers have learned Pinyin at a very early age in primary school, so Pinyin influenced a lot on the transfer. From word lists 1 and 2, for example, two beginners speak /xumɛn/ for human, that is how Pinyin works and this word can exactly be spelled in Pinyin's way. That is, similar elements like similar phonemes can help learn L2 at the very beginning, and it can make L1 speakers master more features of L2. It is a positive transfer.

3.3 L1 transfer for beginners

Advanced learners pronounced all these ten source words very similar to native speakers': they can differ [θ] and [s], as well as they did not add a vowel at the end of 'CVC' structure to make it become a 'CVCV' structure that most commonly appeared in Mandarin Chinese and so on. So, an advanced L2 learner is always capable of pronouncing those phones that do not exist in their mother language, while other phones exist in L1, whether they were still willing to pronounce like what their mother language does or not. After analyzing three college students' record, the research found typical error features when Mandarin speakers speak English (see Table 3).

Table 3. Typical error features of advanced learners.

English	L1 transfer
[g] [d]	[k] [t]
[tʃ] [dʒ]	[tʃʰ] [tʃ]

Table 3 focused on consonants, and it reveals that an advanced speaker also uses L1 phonology to pronounce those phones that exist in their mother language as the research predicted. Mandarin native speakers kept on pronouncing voiceless fricatives instead of voiced ones in English. By comparing with the results of English beginners, this proved the Speech Learning Model that a speaker will learn similar phones as the last step in pronunciation and sometimes they may even not learn that because this difference is too tiny to discover or notice for them (Eckman 1977).

When it comes to vowels, in Mandarin-Chinese, there are seven pure vowels from the phoneme system, which are /a/ /i/ /u/ /y/ /ə/ /i/ /ə/. As some of these phonemes have more than one phones in it, the corpus uses them by simply leading with a non-nasal consonant, like /p^ha/, the corpus is shown in the Appendix. In English (Received Pronunciation), it has five pure vowels from phoneme system, which are /a/ /i/ /u/ /e/ /o/. Obviously, all of them have short and long contradictions, but the paper will only talk about these short vowels.

In the word list of loanwords, /a/ /i/ and /u/ appear most often. Both in English (Received pronunciation) and Mandarin-Chinese, these three vertex phonemes are the most important and include many phones. For example, in mandarin, /a/ consists of four vowels: [a], [a], [A] (small letter capital A, this is merely used in Chinese linguistics, a phone at the middle place between [a] and [a].) and [ɛ]. So, the researcher analyzed those data. Audios from three advanced learner participants (there was an English native speaker from an online dictionary) were analyzed by praat, and formants F1 and F2 were extracted. In this study, the formants of Mandarin and English vertex vowels were extracted by praat and averaged (see Table 4), and then plotted in the coordinate system to obtain the triangular vowel diagram of Mandarin and English vertex vowels. It is shown in Figures 1 and 2.

Figures 1–4 directly uncover the reason why an L2 learner is always discovered he or she has a so-called accent from the vowel system.

The Mandarin vowel diagram is closer to an equilateral triangle, while the three sides of the English vowel diagram are obviously of different lengths, in which the line between /i/ and /a/ is longer than the rest two lines, and the overall distribution is closer to an obtuse triangle.

Table 4. The average frequency of the first and second formants (F1 F2).

		Mandarin		L2		Native speaker	
		F1	F2	F1	F2	F1	F2
Male (average)	/a/	966	1502	747	1362		
	/i/	324	2512	369	2066		
	/u/	339	738	400	1356		
Female (average)	/a/	923	1447	629	1042		
	/i/	401	2820	388	2588		
	/u/	363	716	424	942		
Average Frequency	/a/	944.5	1474.5	688	1202	617	1404
	/i/	362.5	2666	378.5	2327	453	1971
	/u/	351	727	412	1149	432	1569

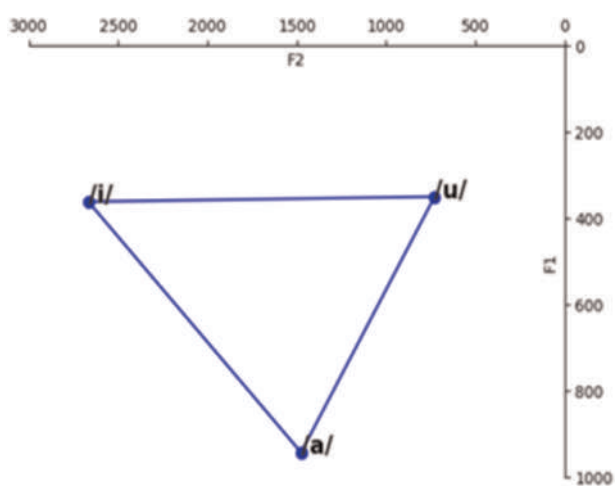


Figure 1. Mandarin-Chinese vowel diagram.

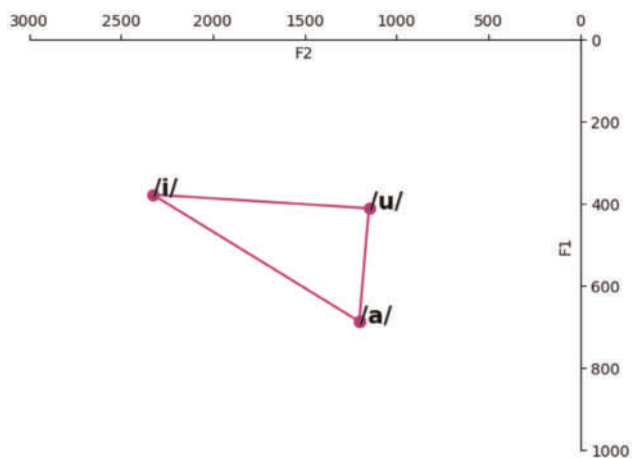


Figure 2. Received pronunciation vowel diagram.

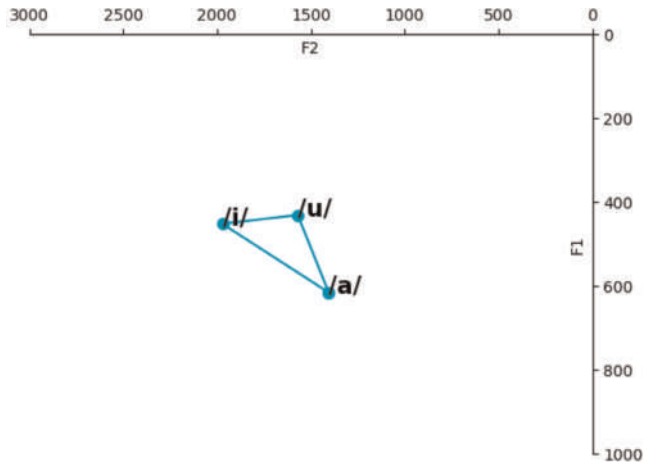


Figure 3. L2 vowel diagram.

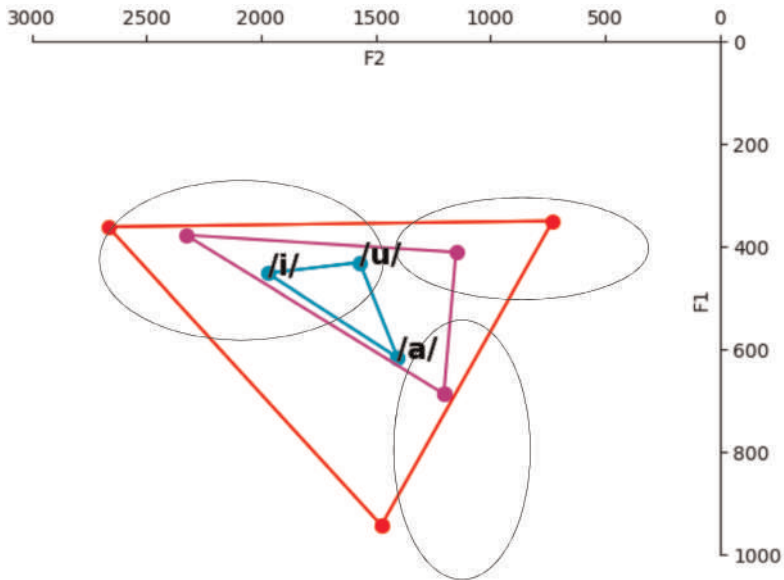


Figure 4. Mandarin-Chinese vowel diagram.

The paper put these two-vertex vowel diagrams in the same coordinate system and compare them. It is easy to find out that Mandarin-Chinese vowels have a larger distribution area than received pronunciation. This means that Mandarin-Chinese has a further front vowel /i/, a further back vowel /u/, and a lower but further front low vowel /a/. At this time, the paper can predict about L1 transfer by Speech Learning Model (SLM) that these four Chinese college students will not pronounce vertex vowels extremely accurately because they are extremely similar.

Chinese participants were then asked to read English words that once had been pronounced by English native speakers (RP). Extracted from the way the research just used in RP and Mandarin, a vowel diagram appeared and compared it with Mandarin and RP in the same coordinate system. The new vowel diagram is of a middle distribution area between Mandarin-Chinese and English (Figure 4). As the paper has predicted, when Chinese students read these words, all these vertex vowels are placed nearly in the middle of Mandarin-Chinese and RP English. It is obviously a negative transfer. These advanced Mandarin-Chinese native speakers are still under the influence of L1 transfer, and they prefer to use phonemes in Mandarin to replace those in RP English. Furthermore, from a phone perspective, short high vowel /i/ and /u/ in RP English are /ɪ/ and /ʊ/, not the same as those in Chinese /i/ and /u/, so when a Mandarin-Chinese speaker is speaking English, it is not difficult to observe the accent.

3.4 *Influence on cross-cultural communication*

Loanwords were born from cross-cultural communication, from language connection. Now, those loanwords from English are exerting a strong impact on the Chinese language and Chinese culture. On one hand, from Chinese loanwords, the author discovered a strong influence of L1 transfer. Though loanwords are not the same as idiomatic translations, Chinese translators tended to use disyllabic words and combine the meaning and pronunciation together. The former one, contemporary Chinese uses disyllabic words very often. The latter one meets the language psychology of Mandarin-Chinese native speakers (Ye and Xu 2010).

On the other hand, loanwords show the Chinese cultural self-confidence, and they have enriched Mandarin-Chinese vocabulary and Chinese culture.

3.5 *Implications for EFL pedagogies*

This is a part of the transcription of the interview from an advanced learner.

“I know there may be some differences between Mandarin-Chinese and English (RP), but it is really abstract. I just insist on pronouncing these RP vowels as what I do in Mandarin. Besides, most of my English teachers even did not mention the difference that maybe nearly almost nobody will focus on this tiny part of English and no English exams focus on it neither.”

From this interview, the main fact is obvious that the Chinese College Entrance Examination system does not focus on speech: even if they pay some attention to speech, they would mainly focus on colloquial expressions, fluency and whether they can communicate with an English native speaker, not on detailed phonemes or accent. As a speaking language teacher, it is important to explore effective methods of phonetics teaching to help students improve their ability to distinguish sounds and learn the correct pronunciation. If learners can become aware of the phonetic differences between their native language and the target language, and make the appropriate adjustments, they can reduce negative transfer in phonetic acquisition. At the same time, by comparing and finding similar phonetic rules in both languages, learners can experience positive transfer in phonetic acquisition (Zhang 2016). For loanwords, it is useful to attract students' interest at the beginning, but teachers should announce the differences between loanwords and source words.

4 CONCLUSION

Thus far, after these experiments and analyses, the paper has discussed loanwords' influence on SLA and L1(Mandarin-Chinese) transfer from phonetics and phonology view. Though without doubt, the research needs further study, the present study at least can clearly get these results.

- (a) As one of the results of cross-cultural communication and language contact, loanwords can make contribution to second language acquisition for beginners. This means that they have a positive impact on beginners, especially in helping them learn pronunciation.
- (b) Different stages of second language learners match different L1 transfer theories (or hypotheses) in phonetics and phonology. For beginners, traditional L1 transfer as Ellis's is more adapted for them, while the speech learning model could describe advanced learners' pronunciation more accurately. For similar phones, it would be a positive transfer for beginners. At the same time, it is a negative transfer for advanced learners. Indeed, these two, or more, L1 transfer theories are united in essence. For unmarkedness, vertex vowels /a/ /i/ and /u/, Mandarin-Chinese native speakers will learn them at the very beginning time, but even if they are advanced learners, it would still be hard to pronounce without an accent in these phones.

There are two main limits in this research.

First, phonetics has segmental and suprasegmental phonemes. The paper merely focuses on segmental features. From suprasegmental perspective, there are also a huge number of second language acquisition questions waiting to be solved. For example, in Mandarin, how four tones in Chinese words influence the stress of English words.

Second, it would be much better if the loanwords corpus had been designed with contexts instead of a word list. Contexts make a decisive significance for a word, when a word is used, it would never appear without any context, so for those participants who had filled out questionnaires, their judgment for whether they could understand beginners may be not accurate.

For further study, researcher will perfect the corpus, and find some way to put loanwords into context. More advanced learners with living and study experience in English-speaking countries will get enrolled, and English-major student participants will be considered. Besides, with thousands of years of human civilization, Chinese (Mandarin and other dialects such as Wu language and Ke language) have plenty of loanwords from languages all over the world, those loanwords and dialects could be considered in further study and analysis of their mutual effect on another language learning experience.

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APPENDIX

Corpus: Word List 1

English Words	Loanwords in Mandarin	IPA of Mandarin Loanwords
sofa	沙发	/ʃa55 fa55/
poker	扑克	/pʰu35 kə51/
curry	咖喱	/ka55 li51/
cocoa	可可	/kʰə213 kʰə213/
radar	雷达	/le35 ta35/
tank	坦克	/tʰan213 kə51/
jeep	吉普	/ji35 pʰu213/
microphone	麦克风	/mai51 kʰə51 fəŋ55/
brandy	白兰地	/pai35 lan35 ti51/
marathon	马拉松	/ma213 la55 suŋ55/

Corpus: Word List 2

Words from Swadesh List	Mandarin
human	人类
square	广场
louse	虱子
feather	羽毛
one	一
die	死亡
not	不
tongue	舌头
thick	厚的
worm	幼虫

Corpus: Word List 3

Mandarin	Mandarin-IPA	English-RP
啪	/pʰa/	papa/public
它	/tʰa/	tuck
拉	/la/	latin/luck
批	/pʰi/	pick/peak
踢	/tʰi/	tip/teeth
哩	/li/	lip/leak
扑	/pʰu/	push/pool
突	/tʰu/	took/tool
撸	/lu/	look/loop

Faith at the forefront: An analysis of the contributions and dilemmas of faith-based organizations to global governance and human rights issues

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ABSTRACT: Faith-based organizations (FBOs) are increasingly prominent in global governance, particularly human rights. However, there still needs to be more literature that provides in-depth research on the role of FBOs in this field and their place in global governance. Based on several academic papers and case analyses, this study delves into FBOs' functions, challenges, and recommendations in global environmental governance and human rights discourse. It tries to reveal the multiple roles of FBOs in global governance, such as contributing to having strong influence and authority by providing moral authority and common belief principles, completing synergy with governments and international organizations by engaging in consultations and building partnerships, and advancing the process of global governance by raising public awareness and completing the transformation process of turning belief values into practical actions. However, FBOs' engagement in these areas simultaneously faces many challenges, including tensions between religion and secularism, conflicts between human rights concepts and religious beliefs, and political and economic pressures. This paper argues that while FBOs face many challenges in global governance, their unique strengths and influence give them the potential to contribute to global human rights and governance actively. Therefore, this paper suggests that future global governance strategies must better recognize and utilize the role of FBOs and establish more effective cooperation mechanisms to advance global governance. Moving forward, it is crucial for academic research to thoroughly examine the role and obstacles faced by FBOs in these specific areas.

Keywords: Faith-Based Organizations (FBOs), Global Governance, Human Rights Discourse, Religious-Secular Tensions, Inclusive and Diverse Policies

1 INTRODUCTION

With the deepening of globalization, the international community has paid increasing attention to addressing and promoting global governance issues and human rights. Global development faces many challenges, including ethnic conflicts, environmental degradation, and refugee crises. These issues seriously threaten the stability and development of the international community. Governments and international organizations must collaborate and work together to find solutions. In addition, although traditional NGOs play an essential role in global governance and human rights protection, their capacity and resources are limited. In this regard, faith-based organizations, civil society organizations, and

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prominent nongovernmental actors with unique values and modes of action are becoming increasingly important.

In contrast to other NGOs, faith-based organizations (FBOs) have deep religious convictions and a sense of moral responsibility that enables them to play a unique role in global governance by better-mobilizing community and volunteer resources to overcome limited material resources and capacity issues. However, the implications and challenges in these areas have yet to receive sufficient attention. Among the existing studies, some are on the role of FBOs in global governance and human rights affairs. For example, the current research on FBOs has focused on specific religious beliefs, certain problem areas, or certain parts of the world. Nevertheless, only a few studies have thoroughly examined and evaluated the involvement of FBOs and how it affects the development of human rights on a global scale.

Therefore, the significance of this study lies in filling the macro research gap of the role and challenges in global governance and human rights discourse. This study will conduct an in-depth analysis of the challenges faced by FBOs in global environmental governance and human rights discourse through case studies. These cases will cover different religious traditions, geographical regions, and problem domains to reveal the diversity and complexity of FBOs. It will help to gain a deeper understanding of the function of FBOs in international relations and public administration, highlighting their role and impact in global governance and human rights affairs. Finally, this study will provide strategic recommendations for FBOs to improve participation models and address challenges. It will also provide theoretical and practical insights for policymakers and relevant practitioners, enabling them to collaborate more effectively with FBOs to promote global environmental governance and human rights development.

2 PARTICIPATION AND FUNCTIONS OF FBOS IN GLOBAL GOVERNANCE

FBOs participate in various aspects of global governance in many different ways. They play a crucial role in relief and development assistance and in multiple areas, such as environmental protection, human rights advocacy, and public health. However, this broad engagement also exposes them to complex responsibilities and challenges. In other words, how FBOs engage and their responsibilities in global governance reflect their uniqueness and great potential as NGOs to play an essential role in global governance.

2.1 *Religion as moral authority*

FBOs' faith base provides the moral authority and motivation for their involvement in global governance. In other words, FBOs use the same faith traditions to provide values, principles, and guidelines for action for their organizations. This unique cultural identity gives them high prestige and recognition in society, giving them authority and persuasiveness in addressing global issues. As a result, they are a positive force in advocating for and realizing human rights.

On the one hand, FBOs promote certain behavior and norms by invoking religious teachings and moral codes. In this way, FBOs can influence people's values and attitudes and change policymakers' decisions to promote the realization and protection of human rights. For example, Christian churches in Uganda promote public health and preventive measures by encouraging moral decision-making and sexual abstinence to help people better prevent and treat HIV (Tomalin 2019). On the other hand, FBOs promote democracy and justice by organizing and mobilizing communities to promote human rights and social justice, fight for the rights and interests of oppressed and vulnerable groups, and challenge government and other power structures. For example, Islamic Relief's Islamic faith-based health care programs have increased the spread and recognition of the Islamic faith by helping people who conform to its values, expanding their community ties, and improving

people's living conditions and fundamental rights (Palmer 2011). According to Palmer, Islamic Relief has effectively gained the trust and respect of local people by emphasizing Islamic teachings of charity, justice, and care and integrating them into the local culture to promote shared values (Palmer 2011).

In the process, FBOs have accumulated a wealth of human, material and financial resources. These resources have enabled them to carry out projects and promotional activities on a global scale. At the same time, FBOs can use and allocate these resources effectively to strengthen their participation in global governance and human rights discourse. Brown and Cooley highlight the role of FBOs in global governance, explaining that they exert influence through education, philanthropy, dialogue, and the promotion of religious values (Brown and Cooley 2021). The soft power of these religious organizations allows them to build partnerships and promote development projects at the international level. In other words, FBOs can use their religious beliefs and moral values to provide moral support for human rights norms, especially for the poor and vulnerable (Brown and Cooley 2021). This moral support provides legitimacy and impetus for developing human rights norms and promotes broader social acceptance of and adherence to religion.

2.2 Promote global governance

FBOs promote their role in global governance by building partnerships with international organizations, governments, NGOs, and other faith-based organizations to form transnational networks. On the one hand, May and Zuber argue that FBOs actively engage in dialogue and cooperation with governments, NGOs, and other stakeholders through participation in policy development, international conferences, and consultation processes (May and Zuber 2021). This dialogue and collaboration help build consensus, regulate conflict, and facilitate network building and synergistic action across sectors and borders. Meanwhile, these networks provide a platform for FBOs to share information, experiences, and resources that help achieve common goals. The specific mode of operation is that FBOs usually have strong ties with local communities. They learn about the local culture and traditional practices by establishing community connections, which allows them to develop better plans and programs to meet the needs and expectations of the local population. In addition, through community connections, FBOs are able to build a good reputation and trusting relationships in the local area, which helps to increase the influence of FBOs in the local discourse. For example, Christian churches in the Mityana district of Uganda have established the Local Health and Education Project to provide medical and health services to the local population by building relationships with the local community (Boyd 2015). The organization's success in the area is due to its cooperation with the local government and other NGOs and its trusting relationship with the local population.

On the other hand, FBOs build alliances and partnerships that help advance human rights and social justice agendas (Haynes 2014; Berger 2018). For example, in Nigeria, local FBOs have partnered with the local government and the World Health Organization to advance a nationwide vaccination program (O'Sullivan and Murdie 2017). FBOs have provided significant support and assistance to the vaccination program, including providing space for vaccination efforts, recruiting, and training volunteers, and promoting the vaccination program, among other actions. Moreover, the World Health Organization worked with the U.S. faith-based organization Samaritan's Purse in Liberia in response to the 2014–2015 Ebola outbreak (O'Sullivan and Murdie 2017). Together, they set up treatment centers on the ground to provide much-needed medical assistance. This collaboration yielded remarkable results and helped to contain the spread of the outbreak (O'Sullivan and Murdie 2017). As well, the World Health Organization has partnered with Christian churches to provide health services and relief through their worldwide network of services, sometimes even in areas that governments cannot reach (Tomasini 2017). Similarly, Islamic Relief provides emergency assistance to poor and conflict-affected populations and long-term development

projects by partnering with local communities (Palmer 2011). This collaboration promotes equity and inclusiveness in global health.

The above cases suggest that FBOs emerge largely as ethical entrepreneurs, advancing human rights norms as they advocate and implement principles of health equity and social justice amid global health crises (Menjívar 2006; Palmer 2011). It also supports Haynes' view that one of the multiple roles of FBOs in global governance is service delivery. They often carry out relief, development, and humanitarian assistance projects globally, providing key services to vulnerable groups, such as education, health care, and social security (Berger 2018; Haynes 2014). Furthermore, FBOs have proven to play a partnership-building role in global governance. They establish partnerships with other NGOs, governments, and international organizations to jointly address global issues such as poverty, disease, and environmental degradation (Berger 2018; Haynes 2014).

2.3 *Raising public awareness*

FBOs play an advocacy role in global governance by raising public awareness. They promote international attention and solutions to global issues through awareness campaigns, education, training activities, and policy advocacy (Haynes 2014; Berger 2018). For example, FBOs are directly involved in global environmental governance and human rights discourse by actively initiating projects and advocacy activities. These projects and activities cover a variety of topics, such as environmental education, ecological conservation, refugee support, and human rights protection. Through project implementation and advocacy activities, the act helps strengthen public attention and support for global governance and human rights discourse, translates faith values into practical actions to further promote the improvement of relevant policies and practices, and advances global governance and human rights processes.

3 CHALLENGES IN THE GLOBAL ENVIRONMENTAL GOVERNANCE AND HUMAN RIGHTS DISCOURSE

The functions of FBOs and their importance in global environmental governance and human rights discourse must be considered, yet, just as they have unique strengths, FBOs also face several challenges. These challenges largely stem from the particular nature of FBOs, including their faith base and complex relationships with governments, international organizations, and other NGOs. Therefore, understanding and addressing FBOs' challenges in global environmental governance and human rights discourse requires an in-depth study of their precise nature and the complex issues that arise from it.

3.1 *Tensions between the religious and secular worlds*

The involvement of FBOs in international governance may raise tensions between religion and secularism. On the one hand, religious groups may over emphasize the importance of moral, ethical, and faith-based values in environmental and human rights issues; on the other hand, secularists may be concerned that religious groups are trying to promote particular faith-based perspectives in global governance (Ager and Ager 2021). Such tensions can lead to crises of trust and difficulties in cooperation. In the context of recent history, the role of religion in national security has come to the fore. The impact of religious NGOs on national security varies in domestic and foreign political contexts. In countries and regions with intense ethnic, national, and religious conflicts in Asia, Africa, and Latin America, religious NGOs often become catalysts and triggers for various social and political conflicts and even pose serious security threats. Not only are these organizations unable to make significant contributions to regional harmony and stability, they may even use their prestige and influence to respond in their own interests when there are obvious personal or organizational

interests. According to UN Secretary-General Antonio Guterres, religious leaders can even use their influence positively or negatively. Some of them have used their position to spread messages of hatred and hostility, thereby inciting violence (United Nations 2023). Though, many take responsibility for preventing violence and incitement to violence, spreading messages of peace, tolerance, acceptance and mutual respect, and acting to reduce tensions between communities (United Nations 2023).

3.2 *Conflict between human rights concepts and religious beliefs*

Over the long haul, parts of religion may struggle to keep up with The Times. Under the objective circumstances of today's social development, diversified personality and social characteristics have become the mainstream thought of the vast majority of society. Which means, in human rights discourse, religious institutions may promote specific social and moral values that may conflict with the universal values of human rights normative development. For example, some religious teachings may contradict international human rights standards regarding women's rights, gender equality, and LGBTQ+ rights (Bush 2020). Such conflicts may lead to questioning the contribution of FBOs in human rights protection and advocacy and weaken their influence in global governance. Specifically, some Christian churches have responded to AIDS in Uganda by preaching asceticism and opposition to homosexuality, thereby limiting inclusive human rights development (Boyd 2015). It is because FBOs may be influenced in practice by their values and doctrines, resulting in their inability to support the implementation of human rights norms adequately and to reflect social pluralism and inclusiveness honestly. For example, as religious organizations, some FBOs may hold different moral positions or even discriminate on issues such as gay rights, abortion, and contraception, which may affect their role in advancing human rights norms (Smith 2016). FBOs may propagate and defend existing power structures and inequalities in this case. As a result, because FBOs' identities and values are linked to specific religious and cultural contexts, they may face resentment and rejection from other communities and groups and suffer difficulties in cross-cultural and cross-religious dialogue.

3.3 *Political and economic challenges and external pressures*

Political-economic challenges and external pressures may influence FBOs' engagement in global environmental governance and human rights. Political pressures may come from national governments, which may attempt to limit FBOs' activities and influence to preserve national interests and sovereignty (Sidel 2021). For example, some governments may attempt to limit the expansion of religious beliefs, thereby limiting and controlling the activities and influence of FBOs. Sidel notes that some governments may scrutinize FBOs, or worse, intervene directly in the activities of FBOs. These initiatives can directly and indirectly limit the space for organizations to operate and grow. The government's policy of suppressing religion and using prolonged censorship to disallow operations can sometimes even cause an existential crisis for FBOs (Brown and Cooley 2021; Sidel 2021).

Economic challenges include funding shortages, aid dependence, and competitive fundraising (Bano 2021). For example, FBOs may receive external funding, and these organizations may control or interfere with FBO actions to some extent, resulting in future activities being subject to the political and economic interests of donors, leading them to be subject to broader power structures during project implementation (Boyd 2015). For example, Qatari philanthropic organizations' investments in the health sector may be influenced by the Qatari government so that their projects and funding allocations are aligned with the government's strategic goals (Deloffre 2017). It may lead to the maintenance of hegemonic structures in some cases. Some international donors may impose conditions that require FBOs to adopt specific methods and practices in their projects, which may not align with the needs and culture of local communities.

In addition, FBOs may face competition and pressure from other international organizations, NGOs, and the private sector (Brown and Cooley 2021). Even the influence and role of some FBOs may vary across countries and regions depending on the political environment and resource allocation (Narayanan 2019). In such cases, FBOs will gradually break away from the traditional neutrality characteristics of international organizations and become an extension of similar purposeful enterprise organizations. Thus, FBO involvement may perpetuate human rights norms, allowing powerful actors to control and influence the process of human rights norm-setting and implementation, which is inconsistent with the behavioural entrepreneurial image of FBOs seeking to achieve counter-hegemonic goals.

4 RECOMMENDATIONS ON HOW TO WORK EFFECTIVELY WITH FBOS

FBOs need to actively seek ways to improve the status quo and increase efficiency as they face the challenges of global governance. More research is also needed to explore how to effectively leverage the strengths of FBOs to advance global environmental governance and human rights development.

First, to address the challenges in the global environmental governance and human rights discourse, there is a need for a sustained, open and honest dialogue among governments, international organizations and FBOs. This dialogue can be achieved through regular meetings, consultations, and exchanges. Through these channels of dialogue, parties can improve their understanding of each other positions, goals, and needs, thereby eliminating misunderstandings and misinformation. This process can help overcome tensions between religion and secularism and lay the groundwork for cooperation (Ager and Ager 2021).

Second, all parties should focus on common goals and interests in addressing global environmental governance and human rights issues. To achieve this goal, all parties need to respect each other differences and avoid being caught in a conflict of ideological and faith-based perspectives. Focusing on universal values and goals, such as respecting human dignity, promoting equality, and protecting vulnerable groups, will help achieve consensus and cooperation (Bush 2020).

Third, policymakers need to pay attention to the perspectives and contributions of different faith traditions on human rights and environmental issues to develop inclusive, pluralistic policies. It means respecting and protecting religious diversity while ensuring that policies do not have a discriminatory impact on a particular faith tradition. To achieve the goal, policymakers must be well-informed about the perspectives and claims of various faith traditions and take them into account in the policy development process (Sidel 2021).

5 CONCLUSION

In conclusion, this paper provides a comprehensive and in-depth study of the role and influence of faith-based organizations (FBOs) in global environmental governance and human rights discourse regarding their role in global governance, their unique roles, and the challenges and issues they face. This paper looks at the multiple roles of FBOs while also finding that the role of FBOs in global governance can sometimes be at odds with national interests and other interests. However, while FBOs play an essential role in global governance, they face several challenges. In response to these challenges and problems, this paper puts forward a series of policy recommendations, including how to effectively work with FBOs to promote global governance and human rights development and how to enhance the influence and efficiency of FBOs in global governance. These recommendations are made not only to help FBOs participate more effectively in global governance but also to help them better cope with existing challenges and problems. This paper's research holds significance for both theory and practical applications. Theoretically, this paper deepens the

understanding of the role and influence of FBOs in global governance and provides new perspectives and insights for research in related fields. Practically speaking, the findings and recommendations of this paper can provide references for policymakers and practitioners to help them work more effectively with FBOs to promote global human rights and the environment. However, the research in this paper also has certain limitations. First, this paper has mainly focused on the global-level participation and impact of FBOs. More research must be done on their role and impact at the local and national levels to comprehensively understand and assess their contributions and roles in global governance. Second, this paper analyzes the participation patterns and challenges faced by FBOs mainly from a macro perspective, and the research on their specific action strategies and practice processes needs to be further deepened. In conclusion, the function and impact of FBOs in global governance is a complex and important topic that requires continuous and in-depth research. Therefore, future research needs to build on this foundation, further deepen the understanding of FBOs, and propose more effective policy recommendations to utilize the resources and advantages of FBOs better to promote global governance development.

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Tying the knot: A comparative study of marriage ceremonies among emigrant and native Korean minority

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ABSTRACT: Wedding culture is a vehicle to show the history, culture, and beliefs of a nation. As one of the Chinese minorities, Korean minority traditional weddings also reflect the unique ethnicity of Korean minority people. However, with the popularity of modern weddings, more and more people have abandoned traditional Korean minority weddings. This paper uses a combination of quantitative and qualitative research to explore the situation of Korean minority wedding heritage among immigrants and indigenous Korean minority people. A comparative study was conducted using the living environment as the variable. From an anthropological perspective, qualitative and quantitative studies were conducted in parallel. The conclusion is that people have greatly diluted Korean minority traditional weddings regardless of where they live, and the dilution is very serious in the out-migrated areas.

Keywords: Korean minority, wedding ceremony, life ceremony, comparative study

1 INTRODUCTION

The Korean minority people of China, one of the ethnic minorities in China, began to settle in China more than a hundred years ago. Due to the historical background, the Korean minority people usually live in the northeastern provinces, thus forming a separate ethnic culture. With the change of time, some Korean minority people moved out to other cities and settled in a scattered manner (Park & Cho 1995). Therefore, in this paper, Korean minority people in China are divided into two categories: local Korean minority people in China and migrant Korean minority people in China. The native Korean minority in China refers to those who still live in the Korean minority settlements in the northeastern provinces where both parents are Korean minorities (e.g., Korean minority descendants living in the Korean minority settlements in Yanbian, Jilin) (Chang 1997; Lee 2021; Woo-Gil 2001). Chinese immigrant Korean minorities are those whose parents are both Korean minorities living outside of the Northeastern provinces (e.g., Korean minority descendants living outside of the Northeastern provinces such as Beijing and Shanghai).

As an important part of life rituals, the wedding ceremony is also a way to show the three-dimensional cultural characteristics of a nation. The Korean minority people have always regarded weddings as the most important life ritual, so Korean minority weddings largely reflect the colorful characteristics of their nation (Lee 1987). First of all, wedding ceremonies can help people understand traditional Korean minority culture. By studying Korean minority marriages, one can understand the values and behavioral norms of traditional Korean minority culture. Marriage as a social institution reflects local culture, customs, and moral norms, and is of great significance for the study of local culture, history, and social structure

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(Gao 2008; Ken *et al.* 2010; Park 1987). Second, Korean minority weddings enrich the study of the diversity of human marriage institutions. There is a very rich diversity of human marriage systems, and the study of marriage systems in different cultural contexts can provide more cases and references for people to explore the diversity of human marriage systems. Third, Korean minority weddings promote cross-cultural communication and understanding. Studying Korean minority marriages can promote intercultural communication and understanding. By gaining a deeper understanding of the rituals, customs and traditions of Korean minority marriages, understanding and respect between different cultures can be enhanced, while cross-cultural communication and cooperation can also be promoted. Finally, Korean minority weddings promote the preservation and transmission of local culture. In the context of the rapid development of modern society and globalization, many traditional cultures are at risk of disappearing and being forgotten. Studying Korean minority weddings can promote the preservation and transmission of this traditional culture and provide an important historical and social context for future generations to understand and appreciate Korean minority culture (Kendall 2014).

2 LITERATURE REVIEW

Nowadays, based on reading and summarizing the literature related to Korean minority weddings, this research has distilled the unique points of traditional Korean minority weddings compared to other weddings that they have jointly come up with and summarized four major features: First, people will wear traditional Korean minority wedding clothes. The bride will usually wear a gorgeous traditional Korean minority wedding dress, usually in red. The wedding dresses come in a variety of styles and may include long robes, long skirts, shawls, etc. The groom, on the other hand, will usually wear traditional Korean minority men's clothing. The men's attire is usually a combination of a long robe and pants, which may also have some embroidery and decoration. The colors may echo the bride's wedding dress. In addition to the bride's and groom's attire, wedding participants will also wear traditional Korean minority clothing. Family elders and relatives usually choose traditional Korean minority costumes for weddings to show respect for traditional culture. There are many precautions involved, such as the groom's mother wearing a blue Korean minority dress and the bride's mother wearing a pink Korean minority dress, etc.

The second feature is that the bride and groom exchange gifts at the wedding. Usually, the groom will give gifts to the bride during the wedding ceremony, and the bride will give gifts back to the groom. These gifts can be items of practical value or symbolic meaning. For the bride, the groom may give her jewelry, silk embroidery, traditional dresses, etc; For the groom, the bride may give back handicrafts, paintings, calligraphy, high-end gifts (such as gold watches, etc.)

Third, receive the "big table". The big table is the most prominent feature of Korean minority weddings. It is a stepped table filled with a variety of Korean minority food with beautiful symbolic meaning. One of the most distinctive features is the rooster with red dates or red peppers in its mouth (usually placed in the middle of the table), as this symbolizes the elimination of disasters and the proliferation of children. When receiving the big table, the bride and groom usually drink a cup of wine together, eat the same egg, and do other small rituals. In addition, the groom has to wring the neck of the chicken, as this symbolizes great satisfaction with the big table ceremony. Sometimes, the couple also has to still a ladle together, if the mouth of the ladle is facing upwards it means having a daughter, while the ladle is facing downwards it symbolizes having a son (Kuhn-Osius 2013).

Fourth, Family and friends singing and dancing performance. After the ceremony of the bride and groom is completed, friends and relatives will sing and dance around the bride and groom in front of the stage wearing traditional Korean minority costumes. Singing and dancing by friends and relatives is one of the very important and popular activities in Korean

minority weddings (Leeds-Hurwitz 2002). It demonstrates the enthusiasm, unity, and joy of the family and friends, and brings blessings and blessings to the newlyweds. In this activity, family and friends can dance together, motivate each other and celebrate this special moment together.

The current literature on Korean minority weddings has focused on two forms. The first form is an objective introductory description of the traditional Korean minority wedding rituals in terms of their flow and symbolism (Leeds-Hurwitz 2002). The second form is to compare the ancient and modern changes in Korean minority weddings with the timeline and to prove the gradual integration of traditional weddings with modern civilization through evidence. Most of the studies rely on the historical materials and documents handed down by the Korean minority people to conduct a comprehensive study, so they are highly repetitive and lack a deeper analysis from an anthropological perspective, starting from the current real perception of “people”, and therefore the real inheritance of Korean minority weddings today is very vague (Chen 2022; Shin 2019). In addition, the influence of the local and migrant populations on their culture is rarely taken into account. Based on these research gaps, this paper compares the Korean minority traditional wedding heritage in two different regions, migrant and resident, through qualitative and quantitative research (online questionnaires and interviews) conducted from April 26th to May 10th, 2023, based on Korean minority people living in or moving out of the Yanbian Korean minority, Autonomous Prefecture, and ultimately concludes that the hypothesis is very different. This research gap was filled, both in terms of living within the Korean minority and in terms of the number of people living in the Korean minority.

3 METHODOLOGY

Based on the literature review and background research, the question posed in this paper is: What is the inheritance of Korean minority traditional weddings among the migrant Korean minority and the indigenous Korean minority? In this regard, the author proposes the hypothesis that the Korean minority elements of weddings in Korean minority settlements have been diluted or even eliminated compared to those in Korean minority settlements, while most of the people living in Korean minority settlements still retain this traditional wedding due to cultural and regional factors.

This study used a combination of quantitative and qualitative research (online questionnaires and interviews). The quantitative study provides objective data on the transmission of Korean minority weddings and makes the results more convincing. At the same time, the larger sample size used in the quantitative study provides more extensive and representative data for a comprehensive analysis of Korean minority weddings. Qualitative research, on the other hand, can provide an in-depth understanding of the traditional culture of the people behind Korean minority weddings through in-depth interviews, observations, and textual analysis. Qualitative research can also capture more detailed and descriptive information that can help the researcher gain insight into aspects of Korean minority weddings such as rituals, traditions, and relationships of regional influence.

The interview questions and the questionnaire questions were divided into 3 levels and 11 questions were designed. The first question to the third question can target the characteristics and background of the people, the fourth question to the sixth question is indirectly to understand the respondents' collective memory that makes them think about the Korean minority wedding, and the seventh question to the eleventh question is directly to understand the respondents' inner spiritual life about the Korean minority wedding. The online questionnaire distribution and interviews were conducted from April 26 to May 20, 2023.

Interview Questions include a sequence of following open-structured options. These options are listed below. For the basic information, three questions are raised, How old are you, are you married and where do you usually live now? Then eight questions are designed to detect the volition of interviewees. They are from 'Do you know the traditional Korean

minority wedding ceremony' to 'Do you think the Korean minority wedding ceremony should be preserved or improved'.

With the open-structured interview, more quantitative questions are covered in the Questionnaire with the same direction. The questionnaire collects the age, marriage condition, and living place while several self-evaluation and cultural reflection questions are also included. These questions are presented below. They are 'Are you aware of the traditional Korean minority wedding ceremony', 'As a Korean minority people, would you prefer a traditional Korean wedding ceremony or a modern Western-style wedding ceremony', 'Why choose this form of wedding', with options from that 'the older generation of parents like it' or 'It can better pass on Korean culture and show Korean identity'. By asking what you think is essential in a traditional Korean minority wedding ceremony, four basic elements of traditional rituals are listed: Wearing Korean minority wedding clothes, exchange of gifts between the couple, receiving the "big table", dancing, and song after the ceremony. More evaluation questions like 'Which parts of the traditional Korean minority wedding ceremony do you find unacceptable', 'Do you think the ceremony is too complicated or too simple for Korean minority wedding', and 'Do you feel that Western weddings are diluting the Korean minority identity'. Korean minority wedding ceremonies should be preserved or improved is also the part of self-imagination of young people. So two options are raised to support reform and innovation to maintain traditional values and better adapt to modern society, or to oppose them.

4 RESULTS AND DISCUSSIONS

Out of the questionnaires distributed, a total of 87 people's questionnaires were returned. In addition, the researcher interviewed 12 Korean minority people, including 6 people living in the Korean minority community and 6 people who had moved out.

In the questionnaire survey, 30% of the Korean minority people in the native area chose the Korean minority traditional wedding at their wedding. Among the people who moved out, only 10% even chose the Korean minority traditional wedding at their wedding. This statistic shocked me a lot, and I did not expect that even in the Korean minority settlement, Korean minority traditional weddings are not well inherited. This shows that the dilution of traditional Korean minority weddings is very serious, especially in the areas that have moved out.

In addition, no matter whether native Korean minority people or emigrant Korean minority people, more than 90% of them believe that traditional Korean minority weddings should be protected. About 80% believe that Western-style weddings and Chinese traditional weddings will reduce Korean minority identity problems. This shows that most of the Korean minority people are aware that the traditional Korean minority wedding should be preserved and passed on, even though most of them did not choose the Korean minority wedding. In the interview, Ms. Park even said, "I speak Chinese every day, eat take-out from Beijing, and live in a high-rise in Beijing, except when people pronounce my minority surname, I would even forget that I have Korean minority blood flowing through my body." Thus, it can be seen that Korean weddings are important for emphasizing identity and therefore should be protected more.

According to the questionnaire, among those who live in Korean native settlements and hold Korean minority weddings, 14 are over 40 years old and 5 are under 40 years old. Of the 5 people who moved out of the Korean minority settlement and held Korean minority weddings, 4 were over 40 years old and 1 was under 40 years old. In the interview, young people mainly raised the issue of believing that Western-style weddings are more aesthetically pleasing in terms of costumes and scenery and that links such as wringing chicken necks are unreasonable.

5 ASSUMPTIONS COMPARED AND LIMITATIONS

Both people living in the local Korean minority community and those who moved out have largely diluted Korean minority traditional weddings, but those who moved out have even

more severely diluted or even forgotten Korean minority traditional weddings. Regarding ages, in both areas, the Korean minority traditional weddings are not popular among young people. This point refutes my assumption that people who still live in the native area pass on weddings. Their actual transmission of wedding ceremonies is much weaker than I thought. But no matter where they live, they have shown ideological support for preserving traditional Korean minority wedding ceremonies.

The research is unable to confirm the authenticity of the identity. Since the questionnaire was distributed online and there was no face-to-face verification session, there is no confirmation whether all the people who filled out the questionnaire were Korean minorities, which might lead to errors in my experimental data.

After reviewing and reflecting, the author summarizes the shortcomings of this study, which is divided into four parts. The first part is online questionnaires limit the scope of data. Because Tencent Meeting software was used to conduct the online interviews, some older people could not be included in the data set for the reason that they did not know how to use this software. At the same time, the online interviews caused more distance between people. The second limitation is insufficient data volume due to insufficient distribution time. Because the researcher did not have enough time to distribute the questionnaires, the number of data was not enough, which might have a biased effect on the results. Thirdly, focused on comparing Western weddings and Korean minority traditional weddings, forgetting that there are other types of weddings, such as traditional Chinese weddings. This makes the questionnaire options not strictly include people who hold other types of weddings, which may lead to bias in the data. The fourth part is that it is impossible to know the reason behind the data. Although we got the information about the wedding heritage of the Korean minority expatriates and the Korean minority residents, the question of “why Korean minority people have a strong sense of wedding preservation but do not choose Korean minority traditional weddings by themselves” is not shown in the data.

6 CONCLUSION

The wedding ceremony – the most important life ritual of the Korean minority people – not only witnesses the movement of a person from one stage across the border to another. At the same time, traditional Korean minority weddings have a strong minority culture. However, along with the popularity of modern weddings (Western weddings, etc.), fewer and fewer people have bothered to hold and pass on traditional Korean minority weddings, which has led to the likelihood that Korean minority weddings will be washed away in the timeline by the tide of the times. Therefore, the purpose of this study is to explore the contrast of out-migration on the heritage of Korean minority traditional weddings. Using online interviews and questionnaires as tools, this study was completed by quantitative and qualitative research with each other, ultimately concluding that although both Korean minority out-migrants and those in the settlement have rituals to preserve traditional wedding culture, they both largely diluted Korean minority weddings, with the out-migrants being more serious. The follow-up can further explore the reasons behind the fact that the Korean minority people have rituals to protect, but neither of them chooses traditional weddings themselves, thus contributing to the preservation of the Korean minority wedding culture.

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Peer pressure and behavior: The relation, moderators and precaution

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ABSTRACT: This article analyses articles about peer pressure and tries to find the relationship between peer pressure and behaviors. According to these articles, peer pressure could have both positive and negative influences on people. Positive influence includes humor response, knowledge sharing, and chasing success. Negative influence includes smoking, bad sexual activity, and breaking driving rules. Then the moderators between peer pressure and behaviors are studied. Gender is one of the moderators that is shown most widely. Women, as many articles showed, usually suffer more peer pressure and are influenced dramatically compared with men. Other moderators such as psychological cues and parental influence are also studied in this article. After describing and analyzing the peer pressure and behaviors, some precautions against bad behaviors are concluded and shown. The precautions include changing social expectations to behaviors that stem from the causing factor of peer pressure, as well as changing group norms that stems from behaviors.

Keywords: Peer Pressure, Behavior, Adolescence, Precaution of Bad Behaviors

1 INTRODUCTION

Nowadays, teenagers receive more and more influence from peer pressure. They pay more attention to others' comments and are very keen to integrate into peer groups because they do not want to be isolated or pushed aside.

With the emergence of this phenomenon, peer pressure has begun to be studied. According to Brown, peer pressure is a type of pressure that is more likely to be created by teenagers' own will to conform rather than group pressure (Brown 1982). This opinion could be supported by a study conducted by Costanzo and Shaw in 1966. They asked teenagers to guess the length of lines. Teenagers were first shown 3 choices by peers and then were told that the 3 peers chose the same wrong answer. However, half of the teenagers aged 12–13 years still made the same wrong answer as the 3 peers, and one-third of all teenagers aged 10–21 chose that wrong answer (Costanzo & Shaw 1966). Apparently, teenagers aged 12–13 are more likely to change their behaviors by observing peers. According to the theory of psychosocial development by EH Erikson, teenagers begin to build a social self-image at 12 years old and face more social needs in their upcoming life. Teenagers, especially teenagers in early stage, would be more likely to conform and be influenced by peer pressure. Therefore, the author concludes that this theory, the results of this study, and Brown's opinion support each other. To sum up, peer pressure is indeed more likely to stem from conformity or not group pressure, and was regarded as a concern about whether or not one should conform to other's advice, expectations, or group norms (Ajzen 1991).

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Previous scholars believed that peer pressure could influence teenagers' behaviors greatly. Peer pressure might lead to teenagers' positive change; however, most articles show that peer pressure tends to cause more negative influence because teenage groups with bad behaviors often make up the majority. This can cause individuals to feel pressure to conform and change their behavior to fit in with the group's norms. Some people learn to smoke or use drugs to gain recognition from the group (Bahr *et al.* 2005; Urberg & Robbins 1981; Yi-Wen *et al.* 2009); Some teenagers engage in sexual activity because of words and pressure from friends, crush, or partner (Abeele *et al.* 2014; Widman *et al.* 2016); Some intentionally overspeed while driving just to show their capacity to peers (Gheorghiu *et al.* 2015; Shepherd *et al.* 2011). To solve these problems caused by peer pressure, people should use peer influence to change their behaviors. However, peer pressure does not only have a negative influence on people; some become more willing to share knowledge, become more successful, or respond with more humor because of it (Brown *et al.* 1982; Goh & Sandhu 2013; Ungruhe 2010). Thus, peer pressure could be used to influence people positively if it is handled correctly.

Meanwhile, in most situations, peer pressure would not influence teenagers' behaviors directly. There might be moderators such as gender, psychological cues, and parental influence that might be factors leading to the change in behaviors (Chan & Chan 2013; Urberg & Robbins 1981; Yi-Wen *et al.* 2009).

The relationship between peer pressure and behaviors has been researched by many people, but there is no review article summarizing this topic. Therefore, this review article aims to analyze the relationship and moderators between them and try to find precautions against bad behavior influenced by peers.

2 THE RELATION BETWEEN PEER PRESSURE AND BEHAVIOR

2.1 *Negative influence*

Most researchers think that peer pressure mostly cause bad behavior and has a negative influence on teenagers. All those bad behaviors include smoking, using drugs, having negative sexual activity, and violating the driving rules.

Smoking is frequently studied as a kind of bad behavior caused by peer pressure. According to prior studies, teenagers would change their behaviors when the number of smokers among their peers increased (Urberg & Robbins 1981). In a study carried out in 2009, a positive association was found between smoking and the response to peer cues (Yi-Wen *et al.* 2009).

There are also plenty of studies showing their relations. All in all, most researchers think that peer pressure is an important part that leads to teenagers' smoking. Some studies showed that teenagers' willingness to conform has a greater relationship with peer pressure rather than group pressure. This is also consistent with Brown's theory.

The relationship between peer pressure and using of drugs was studied by some articles. In a study conducted in 2005, 4230 adolescents showed that there was a significant effect from peers' drug use to their own usage of addictive substances. Parental, sibling, and adult usage of addictive substances also affect the influence of peer pressure as mediation (Bahr *et al.* 2005). According to Brown, these might stimulate adolescents' willingness to conform. A similar relation between drug use and peer pressure could also be found in other articles.

According to some articles, peer pressure might also lead to some negative sexual activity. It is shown that boys will be keener to have sexual activity when the number of peers' sexual activities increases. Girls might engage in negative sexual activity when they are persuaded by their partner, crush, or friends (Widman *et al.* 2016). Sometimes, this influence could even cause behaviors that pose a threat to society. Some teenagers might end up creating rumors or hurtful pictures and propagating them on social media to show their capacity (Abeele *et al.* 2014). An interview with teenagers showed that they would feel proud when they follow

this kind of behavior norm (Widman *et al.* 2016). That also shows peer pressure stems from conformity. In summary, a significant influence of peer pressure on negative sexual behavior is shown.

According to an article, the negative influence of peer pressure on driving behavior was studied. Teenagers tend to break speed limitations, ignore the 'stop' signs, or do something else that breaks driving rules (Gheorghiu *et al.* 2015). This article shows that teenagers do these activities to gain recognition from peers. This mood also comes from a desire to conform. Some other articles also studied or analyzed this relation.

Therefore, previous studies indicate that teenagers would follow many bad behaviors because of peer pressure. This peer pressure is mostly caused by a desire to conform because these negative behaviors are often considered the norm within the group.

2.2 *Positive influence*

Despite many bad behaviors, peer pressure could also have some positive influences on behaviors. It may lead to some good behavior such as knowledge sharing, chasing success, and humor response.

There are two studies carried out in Malaysia researching the relationship between knowledge sharing and peer pressure. The original and replicated studies showed that if an individual feels more of a sense of belonging in a group, she or he would tend to be more likely to obey peer pressure. This pressure usually comes from the desire to conform to others' expectations and share knowledge to benefit others (Shepherd *et al.* 2011). There are also some other articles that study this relationship in other countries.

Some researchers in Ghana studied the relationship between peer pressure and chasing success. These studies concentrate on the migration of males in Ghana. It is shown that peer pressure has a significant influence on the decisions of migrations among males. They consider migration as a success, and bringing back advanced items as a way to receive prizes from their peers (Goh & Sandhu 2013). Therefore, peer pressure does indeed have a positive influence on people's behavior in pursuit of success.

Researchers also found that peer pressure could influence humor response. Research recruits 40 university students and some models. Students are asked to read some humorous cartoons with models. The result of this study shows that students with models who often laughed would also laugh more (Ungruhe 2010). This might be because students want to conform to the models' behavior and expectations, which also demonstrate the influence of peer pressure on humor response.

According to all these analyses, people would receive positive influence from peer pressure when the group has some positive group norms. Positive influence could also stem from conformity, similar to negative influence.

3 THE MODERATING FACTORS BETWEEN PEER PRESSURE AND BEHAVIOR

3.1 *Gender*

Plenty of studies regard gender as a moderator between peer pressure and behavior. The results suggest that peer pressure has different kinds or levels of influence on different genders.

According to Brown, females suffer more from peer pressure and are more likely to be influenced by it. He found that females usually got more peer pressure in dressing, grooming, socializing, and having great opposite-sex relationships. However, males only get more peer pressure in sexual activities (Brown 1982). Obviously, Brown's conclusion of his study shows that females tend to submit to positive social expectations and therefore are positively influenced by peer pressure most of the time.

Similarly, some suggest that females tend to receive less negative influence from peer pressure. A study out by Urberg and Robbins showed that boys had an increasing urge to smoke when facing peer pressure. In contrast, girls only concentrate on the liabilities when facing peer pressure, which means females might reject negative influence autonomously (Urberg & Robbins 1981).

This phenomenon might be caused by societies' high expectations of females. As a result, females might control their behaviors more strictly to conform to this kind of expectation. Similar results could be found in smoking research carried out in Taiwan (Yi-Wen *et al.* 2009).

3.2 *Parental influence*

Because peer pressure appears among teenagers, parental influence could moderate its influence on behavior. There are some articles concentrating on the relationship between parental influence, peer pressure, and behaviors.

A study carried out in 2013 showed that teenagers with more maternal warmth were less likely to feel peer pressure, and therefore tend to receive less peer influence (Chan & Chan 2013). This study also researched the relationship between mother's control and children's peer pressure susceptibility and found that children tended to be conscious of more peer pressure if they got more mother's psychological control. The author could then conclude that a mother's positive moods could build children's healthier mentality and reduce their peer pressure and vice versa. As for behaviors, children who got more behavior control from their mothers tended to have lower peer pressure susceptibility. This could be because peer pressure is mostly manifested through a comparison of peers' behavior, and a mother's behavior control helps their children believe in their own behaviors and not overly focus on their peers' behaviors.

Other articles showed that compared to rural left-behind children, rural children with parents were less likely to smoke or drink (Chen 2012). Parents' attitudes toward drugs, their monitoring, and their attachment to the mother or father could all affect teenagers' risk-taking behavior (Bahr *et al.* 2005).

All in all, parents' behavior, especially the mother's behavior, could affect peer influence on teenagers' behavior. There are other studies with similar results.

3.3 *Psychological cues*

Psychological cues refer to the degree of susceptibility to psychological stress (Yi-Wen *et al.* 2009). Sometimes, psychological cues could influence people's behavior and may even moderate the influence of peer pressure or mediate it.

A study carried out in Taiwan showed that even though males reacted more actively to peer pressure because of gender mediation, they face less influence from psychological cues compared with females. There was a comparatively significant difference in the influence degree of psychological cues between males and females. This result means that females tend to consider smoking as a way to relieve their negative moods, such as depression, anxiety, and stress (Yi-Wen *et al.* 2009).

This study showed that psychological cues were indeed one of the moderators. It then should be studied as a moderator in further studies.

4 SUGGESTIONS FOR PRECAUTION OF BAD BEHAVIOR

4.1 *Starting from the root: Change social expectation to behavior*

The concept of peer pressure is simply whether or not to obey others' or society's expectations. In terms of moderators, some studies have been fully demonstrated that women are

usually able to reject negative peer pressure. As a result, changing expectations is an important way to prevent bad behavior.

There have been articles studying the effect of government policy on drug use. Research showed that, in late nineteenth-century Java, drug use was greatly controlled with the change of government policy which changed opium from private monopoly to government monopoly (Luijk & Ours 2003). An article published in 2003 showed that an education program about drug use was carried out in Canadian elementary schools, and its effect on preventing teenagers' drug use was evaluated. The results claimed that this education program was useful in preventing drug use and the government also ensured it was a useful policy (Office 2003). In the part of mediation and moderator, it is shown that parents' attitudes toward bad behavior may affect teenagers' risk-taking behavior. That is also a way to prevent bad behavior by changing the expectation.

In short, the change of expectations could indeed create a positive influence on people and help them weaken peer pressure's negative influence. That is why schools, parents, or some organizations could all use this way to avoid peer pressure's negative influence.

4.2 *Improving from the surface: Change group behavior norm*

The negative influence of peer pressure could be reduced by changing group behavior norms from negative norms to positive norms. This change usually takes place within a group, so group psychological counseling could be used to reach that goal.

Many articles concentrate on group psychological counseling and bad behavior. A study showed that Chinese university students who had received group psychological counseling generally corrected their internet addiction habits and enhanced their sense of group belonging, leading to a change in the group behavior norm (Kong *et al.* 2011). Other articles studied the relationship between group psychological counseling and other bad behaviors and all found that is a useful way to prevent bad behaviors.

It can be concluded that group psychological counseling could be an effective way to change group bad behavior norms. Schools and some organizations could gather some teenagers and use this method to change their bad behaviors.

5 CONCLUSION

According to this article, peer pressure would generate various impacts on teenagers' behaviors. These impacts often indirectly affect behaviors through moderators such as psychological cues, gender, and parental influence. Related practitioners could use peer pressure as a precaution against teenagers' bad behaviors. Peer influence could mainly prevent them by changing the values and actions of the peer group. Bad behaviors could also be prevented by personal psychological counseling because peer pressure is mainly caused by own willingness to conform, as stated in the introduction.

This article provided a comparatively comprehensive overview and sort out the main viewpoints of articles related to peer pressure and bad behaviors. The present study could also provide a comparatively good foundation for further study on issues such as preventive measures for bad behaviors or the relationship between behaviors and peer pressure.

In the end, the specific behaviors mentioned in this article only appear as samples and are not comprehensive, which means this paper might not be able to analyze special behaviors and lead to superficial generalization. Therefore, further studies could concentrate on the relationship between behavior that has not been deeply studied and peer pressure. Further study could also try to find more mediators or moderators which could be a new starting point for bad behavior precautions.

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Analysis of solutions for second-generation Chinese immigrants in the United States

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ABSTRACT: This study addresses the concerning issue of the gradual loss of mother tongue among immigrants, with a specific focus on second-generation Chinese immigrants in the United States. Various factors contribute to this language loss, including the pursuit of social acceptance and integration into the United States education system. The first generation also influences the language loss of the second generation. However, preserving and learning the immigrant's native language yields numerous benefits, such as enhancing intergenerational communication, strengthening family bonds, preserving cultural heritage, and fostering self-identity development. To tackle this common issue in the United States, this study proposes solutions from two key perspectives: the family and the school context. In the family context, encouraging parents to maintain and speak native language at home can be crucial in language preservation. This can be achieved through promoting bilingualism and creating an environment that values and supports the mother tongue. In the school context, implementing comprehensive language programs that support and reinforce the learning of the native language can be highly beneficial. This includes offering language classes, cultural exchange programs, and resources for language learning. Collaborations between schools and immigrant communities can create a supportive environment for language maintenance. These efforts can contribute to preserving cultural diversity, intergenerational connections, and the overall well-being of immigrant communities.

Keywords: Mother tongue loss, Second-generation Chinese immigrants, Language preservation, Intergenerational communication

1 INTRODUCTION

The United States is a diverse nation, and throughout its history, people from all over the world come to live, study, and work. Immigration to the United States has been a major trend since its earliest days. In 19 century, the national population was recorded as 92 million, and 10 million immigrants spoke a native language other than English (Rumbaut & Massey 2013). Many colleges and communities also have nearly 10,000 immigrants and international students from more than 40 countries, such as Japan, China, and Vietnam. For example, the University of Washington has very high racial diversity, and 58% percent of students are minorities or people of color (CollegeSimply (n.d.)). However, there is one common issue with language in the United States. Even though they are bilingual, most immigrant students are not fluent in speaking and using their mother tongue. They felt pain speaking and learning their mother language, especially second-generation Chinese immigrants. Chinese has also become the fastest-losing language among second-generation immigrants.

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The author interviewed a Japanese immigrant student at the University of Washington, she told the author that she felt the pain of taking Japanese weekend school when she was young, and the language she used most in a Japanese Student Association (JSA) was also English. The issue is that English is so dominant that most immigrant gradually lose their native languages, especially Chinese, where the proficiency of the young people studied deteriorated from 33.3% of the sample understanding the language very well to 19.6% (Rumbaut 2009).

Many factors cause second or third-generation immigrants to gradually lose their native tongues, such as racial, social, and educational reasons. Keeping the mother language is meaningful for the children and their families, so what does it mean for language losses?

Law asserts that the loss of a mother tongue among immigrant children has profound social and cultural implications for the entire family (Law 2014). When parents and grandparents are unable to fully communicate with their children, they experience a loss of their beliefs, values, and knowledge of their family's and nation's culture (Law 2014). The research shows that the language barriers either prevented them from communicating well with their grandchildren or affected their family relationships with them (Xu *et al.* 2018). This loss of the mother tongue also results in a diminished cultural identity. Language often serves as a means of expressing and symbolizing culture. For example, a deep understanding of ancient traditional Chinese poems can only be achieved through the study of the Chinese language. Without their mother tongues, individuals lose their connection to their cultural heritage and may experience feelings of inferiority and shame due to their perceived lack of competence in their native language (Law 2014). The absence of their mother tongues also leads to a sense of not belonging because the mother tongue is not just a common phenomenon; it is a cultural symbol of belonging and power (Oral & Lund 2022).

Moreover, the loss of native tongue in the United States is also a loss of diversity. Education in the United States has long advocated diversity among students and school curricula because diversity helps students broaden their horizons and develop an inclusive mind. The absence of the mother language also leads the education environment less diverse. The diversity and inclusiveness of a community can not only improve the happiness index of ethnic minorities but also provides a platform that enables children to learn about diverse culture from an early age. Therefore, Helping and assisting immigrants to maintain their mother tongue and support the bilingual community is a matter. This research paper taking Chinese immigrant as an example illustrates some factors that cause language losses and propose some solutions from different perspectives to help immigrants maintain their mother tongue and avoid the loss of cultures and diversity.

2 RACIAL DISCRIMINATION AND SEEKING SOCIAL ACCEPTANCE

According to much research, one of the reasons immigrants gradually lose their mother tongue is because immigrants do not want to learn and speak their mother tongue, which is strongly related to racial discrimination. Systematic racism and racial discrimination are major foundations that make up U.S. society. Such policies typically target racial minorities, and it is unfortunate that discrimination against Asian people is a normative experience in the United States (Yip *et al.* 2008). Racial discrimination against Asians is not modern but can be traced back hundreds of years ago when Chinese immigrants arrived in San Francisco during the 1840s Gold Rush. After the first major Chinese immigration during the Gold Rush, the nation started to excluded Chinese people (Kanazawa 2005). As Chinese arrived in the United States, they encountered virulent discrimination and prohibited more immigration when the Exclusion Act was published in 1882 (Kanazawa 2005). Even today, various aspects of their physical features and language remain subject to ridicule and derision.

Even though, more recently, the society and education system is starting to progressively include more diversity and cultural response pedagogy to centralize the need of people who belong to the racial minority population, discrimination towards those people is still far away from being eliminated in daily life. The first generation of immigrants is forced to assimilate to avoid the discrimination or exclusion they face. They abandon their mother tongue and choose to speak fluent English because they do not want to be persecuted and ridiculed just because of their minor identity, and they want to be recognized by the States society and other people. Abandoning the mother tongue to seek social acceptance is one of the factors that the mother language gradually loses.

For the second generation, they experience twofold. The first generation may give up their mother tongue because of their own discrimination experiences, while the second generation is influenced not only by their own experience but also by their parents. The first generation's tendency or mindset of distancing themselves from Chinese identity and language can potentially be passed on to the second generation unconsciously. When the second generation witnesses their parents experiencing unfair treatment due to being Chinese, they may also contemplate abandoning their Chinese identity, including the Chinese. The attitudes of parents toward their identity and language have a significant impact on their children. If they personally witness their parents being rejected from well-paying jobs because of their lack of fluency in English, they are more likely to prioritize English and forsake their mother tongue.

It is also normal for the second generation to experience discrimination in school. Zhang (Zhang 2010) examined the experiences of two Chinese immigrant groups in the United States and investigated their language maintenance. One Chinese girl, Tracy, moved to the United States when she was five years old. Even though Chinese was Tracy's home and community language, she dropped Chinese once she came to the United States and did not want to speak Chinese at home or school. In Zhang's (Zhang 2010) study, Tracy told others, "I don't know English, and no-one speaks with me. I don't want other people to laugh at me when I was in school, so I don't want to speak Chinese." The second immigrant generation also saw their English acquisition as an important way to integrate into society and avoid being ostracized by their peers, and they started to have a negative attitude toward their mother tongue (Zhang 2010). English is so dominant that the immigrant generation wants to drop their mother language to avoid being ostracized by others.

3 INTEGRATE INTO THE EDUCATION SYSTEM

In addition to integrating into social life better, the second generation must give up their mother tongue to participate effectively in education and classroom activities. One of the key challenges within the education system is the language barrier, which significantly impacts students who were not born in the United States, making it more difficult for them to assimilate into school and effectively communicate their needs to their classmates and teachers. In most cases, these students who do not speak English as their first language come from immigrant families, whose parents may also struggle with fluency in English and are therefore unable to effectively teach their children the language.

However, the primary medium of instruction in the United States is English. Consequently, if these children do not speak English fluently, it becomes challenging for them to achieve high grades. For instance, many elementary schools in California require students to possess proficient English writing and speaking skills at a relatively young age. Those children are evaluated through multiple reading, spelling, and writing tests at various grade levels. These exams are designed by teachers with the assumption that they can be applied universally to the entire class. However, immigrant children face greater difficulties as they need to learn and speak English more extensively while reducing their practice and usage of their native language. In order to better integrate and adapt to education in the United States, their proficiency in their mother tongue gradually diminished over time.

4 LACK OF SOCIAL INTERACTION BY MOTHER TONGUE

Active dialogue practice and sufficient immersion in language contexts are important factors in a learner's communication competence and language proficiency (Huang *et al.* 2021). People may have relied on practices that focus on rote memory for language learning through word and grammar rules, but this is different with children's language learning which happens in socially and daily interactive contexts (Li & Jeong 2020). "Social Interaction is defined as "learning through real-life or simulated real-life environment that learners could interact with objects and people, which enables learning and communication to become in context" (Li & Jeong 2020). A more interactive and authentic language (Huang *et al.* 2021). Even though immigrants are willing to learn their mother tongue, without an interactive and authentic learning environment, it becomes more difficult for immigrants to learn their mother tongue, so they drop it, especially for the second and third generations of immigrants.

Second-generation immigrants in the United States typically experience their formative years in a predominantly English-speaking country. While some first-generation may use the mother tongue for communication at home, the overall environment revolves around English. This is particularly evident in their education journey, where second-generation attend school from a young age and engage in interactions and socialization predominantly in English. The classroom setting itself is also English based.

As a result, most second-generation immigrants become more accustomed to an English-speaking environment rather than their own mother tongue. Lacking the mother language's context and interaction may lead to second-generation hard to maintain it.

During the author's research, an interview was conducted with a second-generation Japanese immigrant at the University of Washington campus. Having grown up in the United States, this individual predominantly spoke English for most of her life. It was not until she began elementary school. Her parents decided that send her to a Japanese weekend school to learn Japanese. However, the lack of Japanese as the dominant language in most aspects of her life poses a challenge for her to acquire and maintain proficiency in Japanese. The English-dominated environment and educational system significantly impact their linguistic development and proficiency in their mother tongue.

5 SOLUTIONS

The assimilation to the social and education system process experienced by immigrants, especially for the second generation, often results in the erosion of their mother tongue. This paper discussed some factors that contribute to mother tongue loss, with a particular focus on the pursuit of social identity, the desire to avoid racial discrimination, and the necessity of integrating into the United States education system. However, helping immigrants preserve their other tongue is essential because it fosters intergenerational communication and cultural heritage. By maintaining their native language, second-generation immigrants can establish a strong bond with their parents, grandparents, and ancestral roots while also contributing to the diversity of the United States education system and society. Moreover, if children have the chance to learn better their native tongue, it will also increase their ability to learn other new languages (Oral & Lund 2022). Therefore, it becomes important to recognize the challenges faced by second-generation immigrants and work towards promoting language preservation. There are two perspectives to address the mother tongue losses: from the family and school perspectives.

5.1 *Solutions: From the family perspective*

The family environment is also an essential factor in shaping the language development of immigrant children. During early childhood, children heavily rely on the presence and

guidance of their family members. Outside of school hours, most of their time is spent at home, making it essential for creating a mother tongue-rich environment. In this period, children's language skills are nurtured through interactions with family members. The home environment offers a unique opportunity for children to learn and be proactive in their mother tongue. Engaging in conversations, storytelling, and daily routines in the mother tongue helps children develop a strong foundation in their native language because the context helps language learning (Li & Jeong 2020). Moreover, children can observe and imitate their parents and grandparents to develop their language skills and acquire a native-like proficiency in the mother tongue.

5.2 *Solutions: From the school perspective*

School is also an important setting for immigrant children to maintain their mother tongue. First, active communication between teachers and parents can facilitate a deeper understanding of immigrant children's backgrounds and establish a foundation of trust and rapport. Teachers can encourage parents to share more information about their family background, including linguistic and cultural heritage. So that teachers can have an insight that can better support students in maintaining their mother tongue and respecting their cultural identity. Teachers can also support students and families in belonging to the school, and they could be a form of intercultural mediator between the school and immigrant parents (Oral & Lund 2022). For instance, teachers could make some curriculum modifications that integrate diverse cultural perspectives and induce immigrants as valid subjects of study to enhance linguistic and cultural inclusivity. Teachers can also incorporate literature, history, and cultural materials that reflect students' diverse backgrounds. Furthermore, suppose students have sacrificed of their mother tongue to assimilate into the education system. In that case, teachers can allocate additional time and resources to assist these immigrant students in learning English while encouraging the preservation of their mother tongue. Even though implementing such practice into the classroom setting can be costly, it can have a tremendous positive impact on students from different cultural backgrounds and struggle with the language barrier. Therefore, it can help those students fit into the environment to have a phenomenal educational experience they deserve.

In addition to the ways in which schools can address this issue by connecting with the families of immigrant students, schools themselves should find ways to be more supportive of immigrant students. School can help students to develop cultural confidence and pride in their heritage. In the context of this paper, the focus is on immigrant students from China, and it is important to prioritize activities that introduce traditional Chinese culture due to its rich cultural history. Schools can begin by conducting background research on students and celebrating their traditional holidays. By incorporating culture into the school's daily activities, students can feel a sense of pride in their cultural heritage, which can enhance their interest in learning and maintaining their native language.

6 CONCLUSION

This study examines the issue that mother tongue losses among immigrant children in the United States. Multiple factors contribute to this phenomenon, particularly the pursuit of social acceptance and integration into the American education system. For seeking social acceptance, it can be traced to the Gold Rush period when first-generation immigrants, in order to avoid racial discrimination and assimilate into American society, began abandoning their own culture and adapting to their surroundings. This mindset influenced the attitudes of second-generation, who also race racial discrimination or exclusion at school, leading them to give up their native tongue to be better accepted by their English-speaking peers.

The study also highlights the challenges of integrating into the American education system. The English-based education system poses difficulties for second-generation immigrants who have grown up in the nation to learn their native tongue because they are more familiar with English. On the other hand, second-generation who arrive in the United States during their formative years often prioritize practicing and using English in order to succeed academically and integrate into the classroom so that they have little chance to learn their mother tongue.

This study proposes solutions from family and school perspectives to address the language loss issue in the United States. Family should build great relationships with teachers so that teachers can give more support to immigrant children. Schools also should value immigrant students' diverse backgrounds, providing more cultural learning chances for them. The government and the nation also should recognize the value of this issue and consider relaxing immigration policies, giving these immigrants more support.

This study illustrates the issues in the United States, that can raise awareness and promote necessary changes. The maintenance of native tongue and cultural diversity benefits individuals, families, schools, communities, and society at large, and more people need to participate in addressing this issue and making changes.

This study also has some limitations. This study lacks more detailed first-hand interviews and data. Additionally, the focus is relatively narrow and only centered on Chinese immigrants. In the future, more ethnic groups, such as Asians, Hispanics, and indigenous populations, can be studied and gain a comprehensive understanding of language maintenance circumstances.

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Analysis of women’s situation in STEM in China

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ABSTRACT: In recent years, women have been granted greater opportunities to pursue careers in scientific and technological fields. Despite notable achievements, they continue to face various unfair circumstances, finding themselves in an uncomfortable predicament characterized by social injustice, family restrictions, and societal gossip, among other challenges. In light of this situation, this paper aims to examine the status of Chinese women in STEM (Science, Technology, Engineering, and Mathematics) fields and analyze the factors contributing to their lower representation. Primarily focusing on external factors that influence women’s career choices in STEM, this study also considers internal reasons. The research methodology employed is a case study approach, with the topic of “Chinese women in STEM in China” being investigated across three main sections. This study introduces the current state of Chinese women in STEM fields and provides an analysis of the prevailing situation and an in-depth exploration of the key factors that have led to this scenario: social prejudice, familial and educational constraints, and additional relevant factors. All of these elements significantly impact women’s career decisions, resulting in a dearth of female talent in STEM fields. While multiple factors contribute to this underrepresentation, societal factors remain highly influential. Traditional perceptions, prejudices, and unfair treatment strongly influence women’s inclination to pursue STEM careers, often eroding their confidence and compelling them to abandon their aspirations in this field.

Keywords: women, STEM, China, unfair situation, social factors

1 INTRODUCTION

The Feminism Movement in the 20th century had a profound impact on improving women’s social status and transforming their roles from traditional ones, such as wives and mothers, to becoming recognized as individuals. However, in China, there remains a notable disparity as most renowned scientists are men, while women researchers receive relatively little universal recognition.

With China’s remarkable progress and development, an increasing number of women have gained access to higher education and university enrollment. Notably, prominent female scientists such as Tu Youyou and Yanning have achieved remarkable accomplishments in the field of STEM. These contributions have not only fostered national development but have also positively impacted the social status of women.

The establishment of China’s first women’s university in 1984, followed by the creation of vocational schools specializing in practical and technological education, played a significant role in empowering women and fostering the rise of female scientists. Furthermore, in 1985, the Ministry of Education initiated comprehensive reforms to promote higher education. This commitment to education is in line with the proverb, “Learning math, physics, and

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chemistry well can help you live better in the world.” By 1999, thanks to the emphasis on STEM subjects and the expansion of university enrollment, more women were afforded the opportunity to study in STEM fields.

However, various factors, such as biological differences between men and women and social biases, have contributed to the underrepresentation of women in STEM, particularly in terms of achieving higher academic degrees. Investigating the causes of this phenomenon is a key focus of this paper.

The participation of Chinese women in the STEM field has a significant impact on the status of women in the scientific community. Their contributions not only promote gender equality and fairness in labor distribution but also serve as a catalyst for women’s social progress. Nonetheless, it is essential for women to continue pushing for their rights within the STEM field. Therefore, this paper aims to explore the reasons behind the low proportion of women in STEM fields and propose potential solutions.

2 ANALYSIS OF WOMEN’S STATUS IN STEM

2.1 *Negative factors*

Prejudice in a traditional society plays a significant role in the underrepresentation of Chinese women in STEM fields. In a male-dominated society, gender discrimination perpetuates the belief that “women are virtuous without talent.” This prevailing notion influences people’s perceptions and actions, shaping their interests and behaviors according to public opinion (Di *et al.* 2019). Gender stereotypes contribute to the lagging progress of women, limiting their opportunities for advancement and respect.

For instance, women often face restrictions when it comes to working in laboratories due to concerns about potential harm from radiation exposure and its impact on future maternity. Additionally, some organizations consider the biological challenges that women may encounter. The physical strength stereotype assumes that women are inherently weaker than men, leading to the assumption that they may not perform well in physically demanding tasks such as patient operations or chemical experiments. Furthermore, nursing is predominantly associated with women, while male nurses may face ridicule and stigma. These societal norms restrict the freedom of women to pursue their dreams in STEM fields.

Family concepts also play a vital role in shaping women’s choices and opportunities in STEM. Research indicates that parental expectations significantly influence women’s choice of majors, whereas men have greater freedom to choose based on their interests. Moreover, the parent’s educational background and their occupation’s connection to STEM fields influence girls’ career paths. When parents work in STEM fields, the likelihood of their daughters pursuing related careers increases. Conversely, strong parental opposition to STEM careers can force girls to abandon their aspirations, impacting their confidence. The concepts instilled by parents have a profound impact on girls’ career decisions and overall confidence (Zhou 2020).

Girls’ experiences of STEM education are closely tied to their families’ social backgrounds. Families from upper-class backgrounds often possess abundant resources to support their daughters’ pursuit of STEM fields, enabling them to freely pursue their interests, especially for those parents whose jobs are related to STEM (Kim *et al.* 2018). Parents’ trust, especially mothers’ trust, will greatly offer confidence to girls and help them gain better grades (Marx & Roman 2002). Conversely, families from more ordinary backgrounds may consider such investments unnecessary. Consequently, girls from less privileged backgrounds may lack the necessary support and resources to pursue STEM education and careers.

Schools also contribute to the underrepresentation of Chinese women in STEM. Gender biases in teacher-student interactions often perpetuate academic inequality. Girls receive fewer opportunities to engage with teachers, ask questions, or interact with lecturers compared to boys in science and mathematics classes. This biased treatment reinforces the perception that girls are

less talented than boys, eroding their interest and confidence in STEM subjects. Unfair treatment in the classroom further fosters negative attitudes towards STEM fields among girls.

Furthermore, teachers' professional knowledge, educational philosophy, and gender significantly influence girls' choices in STEM. A knowledgeable female lecturer can serve as an inspiring role model and greatly encourage girls to pursue their passion in STEM. Conversely, an arrogant and stubborn male teacher can undermine girls' confidence and discourage their pursuit of STEM subjects.

Women's inaccurate perceptions cannot be overlooked either. UNESCO's report, "Cracking the Code: Girls' and Women's Education in Science, Technology, Engineering, and Mathematics," highlights the impact of psychological factors on women in STEM fields (UNESCO 2017). Women often attach great importance to external social environments, which leads to negative self-perceptions, such as considering themselves weaker and less intelligent than males (Hill *et al.* 2010). These perceptions, influenced by societal stereotypes, greatly affect girls' motivations and confidence in pursuing STEM subjects. The difficulty of content also made fewer girls study further in STEM subjects. According to statistics from the Ministry of Education of China, in 2017, in the computer field, only 33.5% of women obtained master's degrees, and only 24.4% of women received master's degrees in civil engineering (Yang & Shen 2020). From these statistics, although more girls have the enthusiasm and desire to study STEM subjects, they will still give up on deeper and further study due to increasing pressures. However, as for under-graduate scientific research activities, women students have fewer chances than men students (Liu *et al.* 2019).

In summary, the underrepresentation of Chinese women in STEM fields is influenced by multiple factors. Prejudice in the social environment creates a shortage of female scientists and lecturers in STEM research. Societal, familial, and personal pressures impose significant challenges on women's choices and aspirations. Limited resources, gender biases, and negative perceptions hinder women's progress in STEM. Moreover, the lack of supportive peer networks and the resulting mental health issues further compound these challenges. Acknowledging and addressing these negative factors is crucial for promoting gender equality and increasing the participation of Chinese women in STEM fields. However, it is important to note that positive outcomes and efforts also contribute to nurturing female talents within academia, as discussed in the Introduction section.

2.2 Positive factor

Policies and regulations play a crucial role in promoting the participation of women in STEM fields. The research study "Research on Chinese Women's Higher Education Facing the 21st Century" conducted a questionnaire survey across universities in Beijing, Shanghai, Shandong, Heilongjiang, Guangdong, Gansu, and five women's universities. The findings revealed that the proportion of only children in the sample was 34.3%, with girls accounting for 71% of them. Furthermore, the prevalence of only children in the sample was significantly correlated with the regional characteristics of urban and rural areas (An 2002).

This correlation highlights the government's efforts to create opportunities for women to freely pursue their interests and future aspirations in universities. By implementing policies and regulations that promote gender equality in education, the government aims to address the underrepresentation of women in STEM fields. These initiatives strive to eliminate barriers and biases that restrict women's choices and opportunities in pursuing STEM education and careers.

Additionally, the government has taken steps to enhance the overall educational environment, fostering a culture of inclusivity and equal opportunity. This includes implementing measures to address gender biases in classrooms and promoting equal participation and engagement of girls in STEM subjects. By providing resources and support to educational institutions, the government aims to create a conducive learning environment that nurtures women's interest and talent in STEM.

Furthermore, the government actively collaborates with industry stakeholders to bridge the gap between academia and industry, creating more internship and job opportunities for

women in STEM fields. These collaborations facilitate practical exposure and experience, allowing women to apply their theoretical knowledge in real-world settings. By connecting academia and industry, the government helps to address the underrepresentation of women in STEM by improving career prospects and removing barriers to entry.

Moreover, the government's investment in research and development, particularly in sectors related to STEM, plays a significant role in creating a favorable ecosystem for women. By funding research projects and promoting innovation, the government encourages the active participation of women scientists and researchers. This support not only empowers women in their pursuit of scientific knowledge but also contributes to advancements in STEM fields, benefiting society as a whole.

To sum up, policies and regulations implemented by the government are instrumental in promoting the rise of women studying STEM in China. By addressing gender biases, providing scholarships, fostering an inclusive educational environment, and facilitating industry collaborations, the government plays a vital role in empowering women and increasing their participation in STEM fields. These initiatives create opportunities for women to freely choose their interests and future paths, ultimately working towards a more equitable and diverse representation of women in STEM.

3 STRATEGIES TO IMPROVE THIS PHENOMENON

Based on the analysis conducted above, several necessary solutions can be proposed to improve the representation and social status of women in STEM fields.

Firstly, it is essential to introduce more inclusive policies that encourage female scientists to engage in research activities. The government can provide financial incentives, such as establishing awards for outstanding women scientists who make innovative and creative contributions to their fields. Strict laws should be enacted to prevent falsification and fraud in the evaluation of professional titles, with organizations actively supervising these activities. Moreover, the selection process for professors should be unbiased and equal, ensuring equal opportunities for women in academia.

Furthermore, policies and regulations should be perfected to safeguard the rights and benefits that women scientists deserve. For example, the one-child policy has led to changes in fertility rates and population structure, significantly affecting gender differences in family educational investment (Tsui & Rich 2002). By implementing policies that address these issues, the government can create a more equitable environment for women pursuing STEM education and careers.

Additionally, the media plays a crucial role in shaping public perceptions. It is essential for news media to report objectively and provide a balanced account of news events related to women scientists and the promotion of STEM fields. Measures should be taken to ensure that news outlets comply with reporting standards and prevent the spread of rumors and biased information. Objective news reports are necessary to disseminate accurate information and combat stereotypes and biases.

Investment in technology and science is also crucial to encouraging more female scientists and fostering their confidence. Adequate government funding should be allocated to research projects, and initiatives such as lectures and competitions should be organized to support female researchers. Recognition through rewards and increased respect can boost their confidence and further their research endeavors.

In terms of employment, tailored support projects for women should be implemented to provide incentives and address unfair treatment. Measures should be taken to eliminate biases and concerns that hinder women's career advancement. For instance, hospitals should not doubt women's commitment to work or restrict their opportunities due to concerns about maternity leave. Creating a supportive work environment that values the emotional needs of patients can lead to better outcomes and profitability for healthcare institutions.

Women's unique perspectives and experiences can also contribute to the improvement of statistical design, experimental procedures, and surgical techniques. Employers should recognize the value that women bring to the workforce and provide equal opportunities for employment. Efforts should be made to bridge the gender gap in employment rates and salary discrepancies, ensuring that women have equal access to state-owned enterprises and government agencies. From the findings, the "female advantage" is only reflected in the college entrance examination scores and academic performance during undergraduate studies, but no "female advantage" happens in employment (Cai 2016).

Additionally, the underrepresentation of women faculty members in universities poses a challenge for female students in finding role models in STEM fields. Encouraging the hiring and promotion of women faculty members can have a positive impact on the academic output and satisfaction of female science and engineering students. Efforts should be made to increase the representation of women faculty members, providing inspiring female students with inspiring role models and mentors.

Overall, implementing these recommendations can help improve the representation and social status of women in STEM fields. Inclusive policies, financial incentives, objective media reporting, investment in technology and science, tailored support projects, and increased representation of women faculty members are all crucial to creating an environment that empowers women and allows their talents to shine in academia.

4 CONCLUSION

This study primarily examined the current situation of Chinese women in the STEM field and delved into the underlying reasons behind the lower proportion of women. It also proposed tailored solutions to address these challenges. The conclusion drawn from this study is thought-provoking. While multiple factors contribute to the underrepresentation, social factors remain significantly influential. Therefore, it is crucial for the Chinese government to implement policies that support women in STEM, coupled with a transformation in societal attitudes. By doing so, women will be provided with more opportunities to engage in experimental research. However, it is important to acknowledge certain weaknesses in this paper. For instance, the absence of questionnaires or interviews limits its persuasiveness. These research methods could have provided additional insights and strengthened the overall argument.

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The effect of studying abroad for speaking improvement

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ABSTRACT: English communication is significantly consistent with international interactions in various fields around the world. However, the improvement of English-speaking proficiency is regarded as a learning obstacle and weakness for Chinese students who will study further in foreign countries. This study used comparative methods to summarize the English learning conditions of Chinese students who study in between domestic and foreign contexts, analyzed the differences between studying in both contexts, and discussed the advantages of promoting English-speaking proficiency in study abroad. For the results of comparisons, it was found that Chinese domestic students have difficulties acquiring any chance to get authentic situations for speaking practice; in contrast, Chinese students in foreign countries find it anxious to participate in social activities due to cultural distinctions. Some previous studies also pointed out that Chinese students have intercultural communication apprehension when they start to speak with foreigners. This study also suggested that social-affective strategies should be enhanced to motivate students to fit into different situations and communicate positively to develop both language skills and individual characteristics. The limitations of this study were the lack of practical observations about studying situations between two investigated targets and a few questionnaires about perspectives from two groups. This study aims to provide some useful learning strategies for English communication promotion and help Chinese students ameliorate their speaking proficiency by realizing their individual problems.

Keywords: Comparative Education, Learning Strategy of Speaking, Motivation, Learning Context, Individual Learning

1 INTRODUCTION

Globalization has emerged as an inherent inclination toward fostering interconnectedness among nations. In numerous domains encompassing business, marketing, and academic research, there exists a considerable need for international interactions. Moreover, English continues to be the dominant language of global communication. In the context of China being a hub for productive output and cultural exchange between Asia and the rest of the world, there is growing anticipation for the country to produce a larger cohort of globally oriented, highly skilled individuals who can facilitate and enhance mutual relations among nations. Consequently, the significance of English language acquisition remains a paramount pursuit within the Chinese educational system.

Although Chinese students who study in domestic areas have various channels to practice English and its oral languages, most of the students have difficulty speaking English with native speakers or foreigners (Qin 2003). It is shown that the learning burden of English

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speaking in domestic China is more than international studying due to language context and background knowledge (Shen 2016). According to factual classroom conditions in some areas of China, speaking English is an obstacle for some low-proficiency students due to their lack of confidence, anxiety about learning environments, and inferior concentration. Some previous research points out that speaking proficiency and communication ability in English are regarded as difficult procedures for students to develop (Jianshe *et al.* 2017). To promote individual speaking proficiency, this study aims to find and provide a more efficient oral environment for self-learning and encourage Chinese students to speak English not only for personal communication but for interactive international relationships in the future. It is also expected that students can learn something from how to speak to how to communicate, from what to say to what to think, and from why to talk to why to self-identify.

The purpose of this study is to compare teaching methods of universities in two countries through their teaching purpose, teaching content, teaching design, English proficiency evaluation, and course implementation. In this study, motivation strategy is first discussed through comparative teaching methods between college students in China and international students of language courses in Canada. Secondly, the evaluation of English-speaking proficiency will be compared between China and other foreign countries. Furthermore, it is of significant importance to explore the suitability and effectiveness of foreign language courses or schools in enhancing the fluency and proficiency of English among Chinese domestic students, as well as their potential for implementation in China. The definition of Chinese domestic students in this study refers to Chinese university students who are non-English majors, but they still have to learn English due to requirements of rules or tests. Such research endeavors hold valuable implications for future studies and the development of effective teaching methodologies.

There are research questions to be considered: 1. What causes Chinese students to find it difficult to speak with native English speakers? 2. What causes Chinese students who study abroad to find it difficult to speak English? 3. What kind of positive effect can be provided through studying abroad, or in what kind of way can communication proficiency be improved?

2 DOMESTIC CONTEXTS FOR LEARNING ENGLISH SPEAKING

English classroom form in China will regard teaching purpose, teaching content, teaching design, language proficiency evaluation, and course implementation. There will be some detailed explanations and discussion of condition issues in China.

In China, English education is structured in a way that makes English courses mandatory from elementary school through high school. This requirement also extends to universities and colleges due to the College English Test Band 4 and Band 6 (CET 4/6). The CET 4/6 is a national examination serving as an objective and accurate measure of college students' English proficiency. These tests hold significance and are implemented to improve the teaching quality of college English courses, catering to both native Chinese speakers and university students. Additionally, English proficiency exams are tailored to the specific needs of different majors, aligning with distinct educational objectives built upon the foundation of CET 4/6.

In teaching methods in China, the classroom model of university English courses for non-English majors in China emphasizes teacher-centered instruction (Larry 2000). Teachers mainly provide enough material for extensive English reading and some test strategies for students to get higher grades. Students are asked to concentrate on textbooks on comprehension and thinking but neglect practical skills of expressing and communicating (Li 2005). For some non-English majors or majors without English learning, presentations and final reports that are required to perform and write in English can be good chances to improve oral English.

In the realm of learning strategies, cognitive approaches such as practice are commonly employed in English classrooms for domestic students. Additionally, although motivation strategies are widely recognized for improving speaking skills (Dornyei 1998), it appears that motivation for English speaking is rarely utilized in Chinese classrooms. There are reasons

for low motivation to speak English, which might be divided into three views. First, the College English Test Band 4 and Band 6 do not impose mandatory speaking assessments. Second, students in various majors have limited opportunities to interact and enhance their speaking abilities with foreign speakers. Last, the issue of large class sizes poses a significant obstacle to successful conversational practice among students.

Furthermore, weaknesses in studying in domestic areas of China can be summarized as linguistic and psychological factors. Linguistic factors include problems with vocabulary, grammar, pronunciation, fluency, and accuracy, while psychological factors are key problems of lack of confidence, fear of making mistakes, shyness, nervousness, and anxiety (Samanhudi 2013). Vocabulary scale and knowledge about understanding foreign knowledge are also regarded as major challenges for Chinese students.

3 STUDY-ABROAD CONTEXTS FOR LEARNING ENGLISH COMMUNICATION

English classroom forms in foreign countries will be regarding teaching purpose, teaching content, teaching design, language proficiency evaluation, and course implementation. There will be some discussions about the difficulties of living and learning in an English-speaking environment for Chinese students studying abroad. The definition of Chinese students who study abroad is that Chinese university students desire to go abroad for further education, and they have to promote English speaking and interaction with foreign societies if they continue to live and study in foreign countries.

Speaking proficiency and efficient communication ability become necessary language skills for Chinese students who have already studied abroad. Communication competence in speaking English is an essential part of survival in foreign countries. In other words, Chinese students who study abroad have to live and engage with other English-native speakers. Chinese students have to speak English in foreign countries not only for higher grades on tests but also for successful communication to reach the purposes of studying or working.

In terms of teaching methods, some courses at universities or colleges in foreign countries are designed with some specific content to promote the communication skills of Chinese students. In most foreign countries, the contents of English courses are based on pair work and interactive speaking practice. Task-based teaching and learning, which instructs students to do reports and make presentations, is used as incidental learning in the education model, such as group work or topic debates (Ellis 2003).

In learning strategy, a low-anxiety environment to speak is applied extensively and implemented viably. Designing learning to be positive and efficient is also a significant part of Chinese students' study-abroad context and contains students' emotions, engagement, relationships, meaning, and accomplishments (Cheng & Chen 2021). Chinese students in a study-abroad context can mainly use metacognitive strategies and social-affective strategies for enhancing language competence.

Moreover, studying in foreign surroundings for English promotion embodies more advantages than English learning in domestic universities in China. The first is that vocabulary knowledge and its collocations are used in a different way from traditional classes in China; for example, vocabulary and grammar are taught through textbooks, while speaking practice is always ignored due to the large classroom size and deficient evaluation of oral tests. However, in foreign countries, some courses designed for international students include practice and evaluations of presentations and interactions in class. The second point is that there are various motivations for speaking English in authentic situations, such as renting apartments, dealing with payment problems, or reserving life demands. The third merit is that the English language is utilized for individual needs and survival requirements, making it a natural and ordinary way to have initiative-based interactions with others.

Nonetheless, Chinese students are still confronted with some challenges due to barriers to integrating into the cultural background and a few introverted personalities (Xiang 2013). Although native English speakers can understand mutually what Chinese students are expressing, it remains an issue for Chinese students living in a foreign country to react in an appropriate way and respond to cultural shocks. Some courses should attach importance to cultural communications and search for more teaching approaches and learning strategies to narrow their understanding gaps.

4 DISCUSSION

As mentioned above, there are different English learning situations for Chinese students between domestic contexts and studying abroad contexts. As a matter of fact, teaching objectives between two different English-learning environments have no specific extra instructions and no prominently innovative learning strategies for speaking English. There are five dimensions to compare between two groups who study to speak English and promote communication.

The first comparison is about teaching methods. Teaching methods in universities in China should adapt to all students' learning progress, so they are generally utilized as practice, which is rote memorization of articles and basic knowledge. Although teaching methods in study-abroad contexts contain similar contents to Chinese domestic approaches, teachers there can provide more native-speaking information for students' improvement.

The second comparison is about learning strategies. Practice strategies and motivation strategies are widely used between both groups. There is one problem with the reasons to speak English. Abroad, Chinese students ought to fit into cultural differences, manners, and rules in foreign countries, so speaking English is part of studying life. From the perspective of students in China, English is not important to live, study, or even work, so the motivation to speak seems to be declining without any willingness to learn it.

The third comparison is about the evaluation of English-speaking skills. All English proficiency is evaluated by exam grades in the main fields of speaking, reading, writing, and listening skills. It is found that speaking skills may be evaluated in the terms of grammar, fluency, and logical thinking for Chinese domestic students, while they should be evaluated in terms of fluency, comprehension skills, and reaction capability for Chinese studying abroad.

The fourth comparison is about learning contexts. In China, the Chinese language has a huge influence on students' English language knowledge and oral skills. From the perspective of the study-abroad environment, however, class size includes other foreign international students, including Chinese, so English is the only language that is easy to comprehend and speak to communicate with each other.

The fifth comparison is about the individual motivation of Chinese students. Several studies indicate that it is a slow learning process for English improvement because some introverted Chinese students feel nervous when speaking English (Peng 2007). In other words, it also means that both groups of Chinese students who are shy and less motivated have trouble with communication.

5 REASONS AND EFFECTS

5.1 *Main issues to speaking English from comparison results*

There are five dimensions of teaching methods: learning strategies, evaluation, learning contexts, and individual motivation. Different learning contexts can be a major issue in

metacognitive strategies for satisfying the knowledge demands of English learning, and individual motivation seems to correlate with social-affective strategies.

Moreover, the most common cause of hardly speaking English for Chinese students who study domestically and abroad is intercultural communication apprehension (Jianshe *et al.* 2017). Therefore, Chinese students need sufficient chances to reduce their communication apprehension when speaking in public and presenting.

The universal problem is whether Chinese students have positive attitudes toward learning English or not, which means that Chinese students have different cultures and communication habits. Therefore, the comparative results of this study can be interpreted as showing how a social-affective strategy can assist with promoting English-speaking skills. It means that Chinese students have to overcome the weaknesses of shyness and introversion, which points out that motivation strategies for individual development are key to speaking confidently and producing efficiently.

Furthermore, higher anxiety about speaking English both domestically and abroad is regarded as an individual issue and a common situation in any learning strategy. Teaching methods can be suggested in some combinations, such as raising self-confidence and perfecting course designs.

5.2 *Reasons*

There are many obstacles to improving speaking skills. English learning for Chinese students can be considered a passive process. Chinese students do not have enough opportunities to use the English language for discussions and presentations. With some differences in expression habits, Chinese students have trouble changing communication ways in a short learning process.

Chinese students who study in domestic contexts may find it difficult to speak English with others. That is to say, domestic contexts seem to hardly provide opportunities and stages of English learning, even if students have higher motivation. On the contrary, Chinese students who are studying abroad have to not only learn to speak English but also express their appropriate understanding to English native speakers and perform in a different manner from the customs of the Chinese.

Last but not least, Chinese students have less concentration on language culture and correct expressions under the same conditions of sufficient teaching resources. Some introverted Chinese students may not be positively sociable with other foreigners to promote English proficiency but prefer to study through more extensive reading and listening material, such as newspapers or radio.

5.3 *Effects*

English is a language tool to connect with social relationships. Speaking English is also a way to express ideas and think in a debatable way. It is also indicated that studying abroad can contribute to releasing the pressure and anxiety of speaking English if Chinese students are in a state of motivating thinking and positive engagement. Spoken English can be improved quickly if students who study English as a foreign language attempt to overcome their fear of social occasions and shyness about making mistakes. Jianshe *et al.* have reported that intercultural communication apprehension can be reduced after participating in some studying tours, which also suggests students participate in more English activities and solve personal sociability problems (Jianshe *et al.* 2017).

In summary, it is a common point to promote English-speaking skills for Chinese students. The contents of speaking courses should be offered with not only vocabulary knowledge and correct grammatical competence but also critical thinking. Samanhudi proposed a teaching program model that a 'speaking in content' teaching program can assist well with students' improvement of communication competencies (Samanhudi 2013). As

reading is a fundamental model of learning, the preparation of reading before students speak in class is also necessary to teach students basic knowledge and tasks relating to individual growth, life, and society.

Three research questions can be answered in this section. The answer to the first question, “What causes Chinese students to find it difficult to speak with native English speakers?” can be explained as follows: Chinese students in domestic environments lack opportunities to practice speaking, and they are not confident about their grammatical competence and vocabulary knowledge. The answer to the second question, “What causes Chinese students who study abroad to find it difficult to speak English?” can be explained as follows: Chinese students who are studying abroad have less social communication and higher intercultural communication apprehension due to different cultural backgrounds, but their English proficiency can be promoted efficiently for adapting to living, studying, and working in foreign countries (Trisasanti *et al.* 2020). The third research question, “What kind of positive effect can be provided through studying abroad, or in what kind of way can communication proficiency be improved?” can be solved by speaking contexts and preparations, which are suggested for teaching courses, and their designs are considered effective approaches to help with English speaking; meanwhile, self-confidence constructions of Chinese students’ shall be a key point of developing communication competency and sociability. To conclude, the learner’s motivation strategy should be emphasized in teaching processing and considered in designing course contents.

Samanhudi has adapted from previous studies and concluded a circle of speaking in the context that the stages, including preparing before reading, detailed reading (Samanhudi 2013), group sharing, individual presentation, and reflection, shall work together and complement each other. The speaking with the content program proposed by Samanhudi can also give coordinative courses to speak and equal chances to join in every activity in class (Samanhudi 2013). This kind of method can be used to help Chinese students become familiar with English environments and be encouraged.

6 CONCLUSION

This study has compared distinct situations of learning spoken English among Chinese students in China and abroad. The results of the comparison show that individual motivation seems essential in the language learning process because speaking is a social ability for communication and expression, not only for passing tests. However, it also causes a decrease in the enthusiasm of some Chinese students who are studying in domestic environments and have difficulty speaking with other foreigners.

In combination with both teaching and learning strategies, for Chinese students who study domestically or abroad, the teaching method should be related to a more socially-effective strategy and combine meaningful training in the classroom with other cultural knowledge. Although learning strategies are provided and developed continuously, individual learning situations should not be ignored. Chinese students shall also be instructed to construct self-confidence, reduce the pressure of speaking in front of the public, and take the initiative to comprehend the usage of foreign languages. Last but not least, speaking skills or communication competency are one of the main course’s contents for teaching and instruction. It is necessary for Chinese students to break language barriers, significant to communicate from an international perspective, and introduce themselves to the world with a solid knowledge background. All in all, vocabulary learning strategy is also important for building up basic knowledge of spoken English, and at the same time, teachers have to think of some methods to encourage them to practice in some viable ways and supply more information about foreign countries for Chinese students.

The limitation of this study is that there is no sufficiently designed questionnaire to investigate and collect opinions and introspections from international students’ perspectives. Interview design and data analysis may be included for further study.

For future studies, it is expected that the practice of comparative research between Chinese domestic students and studying abroad students will be designed and implemented. Data on English language proficiency can be measured and collected for evaluating specific distinctions between two groups of Chinese students.

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A study on compulsory licensing of medicines from the perspective of international law

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ABSTRACT: Due to the needs of public health, the importance of medicines has become increasingly prominent. However, the high price of imported medicines not only prevents people from getting good treatment but also prevents medicines from playing their supposed role of curing diseases and saving lives. However, the medicines patent compulsory licensing system can effectively help people to tackle this issue. Therefore, it is essential that people should study the medicines' patent compulsory licensing. Discuss the compulsory Permission of pharmaceutical patents originate an international viewpoint using literature research and comparative analysis. First, sort out the regulations and defects of China's compulsory licensing of medicines patents, then analyze the regulations on compulsory licensing of medicines patents outside the region. On this basis, based on the defects of China's medicines patent compulsory licensing, combined with foreign experience, corresponding improvement suggestions are put forward to provide a helpful reference for China's medicines patent compulsory licensing system.

Keywords: China, Compulsory Licensing, International Law, Medicines Regulations

1 INTRODUCTION

Over a period of three years, the COVID-19 epidemic has raged worldwide, and public health crises have been pervasive, prompting countries worldwide to rethink their medicines management systems. In particular, the price of some imported basic medicines is too high, which has exacerbated the poverty of some groups and even deprived them of their lives. Although the "Agreement on Trade-Related Aspects of Intellectual Property Rights" (TRIPS Agreement) and its related declarations, resolutions, and amendments continue to advance, the pharmaceutical system is still imperfect, especially the imperfection of the compulsory licensing system for patented medicines, which makes public health security exist many hidden dangers. As far as China's medicines patent system is concerned, although China's compulsory licensing system for medicines patents is also being continuously improved, it is a pity that so far, there has been no precedent for China to initiate compulsory licensing for medicines and China's patent compulsory licensing system has been put on the shelf. Then, how to balance and coordinate the relationship between the patent rights

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with private attributes and the compulsory licensing system with public attributes so that people can play the purpose and effect of the compulsory licensing system when facing a public health crisis and calmly deal with the crisis. This issue is an important topic that requires thinking in the context of the post-epidemic era. Therefore, this article takes China's compulsory licensing of pharmaceutical patents as the research object and sorts out the problems and defects of China's regulations on compulsory licensing. Furthermore, from the international perspective, the relevant systems and cases of India, Canada, Germany, and other countries are studied, and the countermeasures to improve the compulsory licensing of medicines patents are proposed given the defects of China's compulsory licensing, and reasonable improvement directions are proposed from the perspective of international law. Promote the docking of China's compulsory licensing system with international rules. It will improve China's international status and discourse power in the compulsory licensing of medicines patents. Besides, the study will further improve the health level of China's population.

2 REGULATIONS AND SHORTCOMINGS OF COMPULSORY LICENSING IN CHINA

2.1 *China's compulsory licensing regulations*

In 1984, Article 52 of the first Patent Law of the People's Republic of China passed by China stipulated the content of compulsory licensing. However, Article 25 stipulated that the Patent Law does not apply to the patent protection of pharmaceuticals. However, the Patent Law of China amended in 1992 included medicines in the scope of patent protection. It revised the conditions for compulsory licensing, thus forming the prototype of Chinese medicines' patent compulsory licensing. In 2003, the Measures for Compulsory Licensing of Patents was China's first administrative regulation on the compulsory licensing of patents, which stipulated the procedural content of compulsory licensing of patents. In 2005, the Measures for Compulsory Licensing of Patents Involving Public Health Issues put forward more specific requirements for the compulsory licensing of medicines patents. Subsequently, the 2010 Regulations for the Implementation of the Patent Law of the People's Republic of China refined the concept and scope of medicines. In 2012, China merged the contents of the Measures for the Compulsory Licensing of Patents Involving Public Health Issues and the Regulations for the Implementation of the Patent Law of the People's Republic of China, and the State Intellectual Property Office of China issued the Measures for the Compulsory Licensing of Patents. The Measures for Compulsory Licensing of Patents uniformly stipulate the review of compulsory licensing, the ruling of compulsory licensing fees, and the termination procedures of compulsory licensing. In 2018, the Opinions on Reforming and Improving Generic Medicines Supply Guarantee and Use Policies made more stringent requirements for the compulsory licensing of medicines and proposed that when an emergency situation leads to a shortage of medicine and endangers public health, the compulsory licenses are granted. In 2020, the Patent Law was amended for the fourth time, and the compulsory licensing system for medicines patents was improved. For example, it stipulates more detailed conditions that need to be met when applying for the compulsory licensing of medicines patents and regulations on the manufacture and export of patented medicines.

2.2 *Defects in compulsory licensing system of China*

Although China is steadily enhancing the provisions on compulsory licensing of pharmaceutical patents, there are still some problems to be solved regarding legislation and legal application due to the lack of judicial practice experience.

First of all, China's restrictions on the subject of compulsory license application are too strict. China's medicines patent compulsory licensing application subjects are more restrictive than other developing countries, even developed countries. According to the requirements in the Patent Law (revised in 2020), only a few departments can apply for compulsory licenses, such as relevant competent authorities or provincial-level people's governments (Patent Law of the People's Republic of China 2020). Not only that, the Measures for Compulsory Licenses for Patent Exploitation also stipulate that if it needs to be the subject of the application for compulsory licenses, the unit first needs to have the ability to implement compulsory licenses (Measures for Compulsory Licensing of Patent Implementation 2012). This undoubtedly limits the practical application of the compulsory licensing system, not only makes it impossible for individuals to apply for compulsory licensing for the public interest but also when the unit is the subject of the application for public health since there is no specific restriction on "qualified for implementation" in the regulations. The terms are not quantified, so it is impossible to judge what are the "specific implementation conditions." Therefore, considering the need to invest a lot of human resources, material resources, and financial resources in the preliminary preparation stage, the result of this path is often to give up (Zhang & Zhang 2020). This means that the compulsory license can only be proposed by the relevant competent department of the State Council as the subject of the application. Still, this subject cannot promptly solve the Chinese people's actual needs. This provision undoubtedly directly puts the country at a disadvantage.

Secondly, the compensation standard for the compulsory licensing of medicines patents is not clear at the legislative level. Article 31.8 of the TRIPS Agreement stipulates that remuneration based on the economic value of patents granted under compulsory licensing shall be paid to right holders (Agreement on Trade 1994). As a signatory to the TRIPS Agreement, China also stipulates that patentees should enjoy the right to collect reasonable royalties when a patent is compulsorily licensed, and the fees shall be paid by the unit that obtained the license (Patent Law of the People's Republic of China 2020), and in chapter four of the Measures for Compulsory Licensing of Patents, the examination and ruling on royalties for compulsory licensing are stipulated (Measures for Compulsory Licensing of Patent Implementation 2012), but the above two laws and the TRIPS Agreement itself has no specific compensation standard was specified. Clarifying the compensation standard of the compulsory licensing system at the legal level can better implement the compulsory licensing system and help protect the applicable rights and interests of patent owners.

Finally, the administrative department for compulsory pharmaceutical patent licensing is not clear. Currently, China's compulsory licensing of medicines patents is initiated by the State Intellectual Property Office or relevant departments of the State Council and is managed by these departments. This has led to the fact that the initiation of compulsory licensing of medicines patents may involve multi-departmental cooperation or fall under the authority of multiple departments simultaneously. In 2018, the Opinions of the General Office of the State Council on Reforming and Improving the Supply Guarantee and Use Policies of Generic Medicines stated that when necessary, compulsory licensing of medicines patents needs to be reviewed by the National Health Commission, the Medicines Administration, and other State Council departments, evaluate and make relevant suggestions to the State Intellectual Property Office, and then the State Intellectual Property Office decides whether to approve the compulsory medicines license. However, this situation may involve more departments, making the communication process more complicated, and even the problem of overlapping authority. The fact that China's legislation does not specify the competent authority for compulsory licensing of pharmaceutical patents means that it is difficult to conduct compulsory licensing of medicines patents without establishing a joint mechanism by the State Council, resulting in the approval and application of compulsory licensing of pharmaceuticals compulsory licensing is hard to be applied when necessary.

3 OVERSEAS REGULATIONS ON COMPULSORY LICENSING OF PHARMACEUTICAL PATENTS

3.1 *Compulsory licensing in international treaties*

The implementation of compulsory licensing of medicines patents does not require the consent of the patentee. In fact, this measure is implemented through the coercive force of the state, so as to achieve the purpose of compulsory imitation of drugs. However, relevant authorization must be obtained in order to implement such mandatory acts, and it can only be applied when there is an emergency or when there is a possibility of endangering the public interest (Ye 2006). Compulsory licensing of pharmaceutical patents is stipulated in Article 31 of the TRIPS Agreement. That is, before compulsory licensing, one must first apply to the patentee and obtain “voluntary licensing”; “compulsory licensing” can only be used without consent. Countries may on the grounds of “public health”, “national security”, “dependence on patents” and “anti-competition”, license third parties to use pharmaceutical patented technology without the consent of the pharmaceutical patentee, but the licensee must pay the patentee a certain amount usage fee (TRIPS Agreement 1994). At the same time, from the perspective of national legislation, governments of various countries can use compulsory authorization according to their laws or regulations with the most lenient scope of determination, and there is no restriction on the use of compulsory authorization by third parties, but specific legal procedures must be followed. For the patentee, the economic benefits of the patent must also be considered, and a certain amount of economic compensation must be given, and in general, products produced under compulsory authorization can only be used domestically.

3.2 *Restrictions on the subject of compulsory license application by countries outside the region*

In foreign patent legislation, compulsory patent licenses related to general public interests are initiated mainly by applicants with conditions for implementation rather than initiated by the government. Taking Germany as an example, in addition to the non-commercial compulsory enforcement of patents directly issued by the federal government, Article 24, Paragraph 1 of the German Patent Law (German Patent Law 2021), stipulates that the market entity shall file an application under specific circumstances, and the German Federal Patent Court shall issue a non-exclusive commercial license for a specific patent based on the facts of each case. In the “Raltegravir” case, Merck applied for a compulsory license for European Patent No. 1422218, which was applied for by the patentee Shionogi in 2002 and issued in 2012, obtained authorization to cover an antiviral medicine “Raltegravir. After several negotiations and litigations between the two parties, the applicant obtained the compulsory patent license issued by the Federal Patent Court in August 2016. Article 84 of the Indian Patent Act is also similar (Indian Patents Act 1970). Any interested party (regardless of whether it holds a patent license or any other patent) may apply for a compulsory license for a patented invention that has been licensed for more than three years after meeting certain conditions. For example, the Intellectual Property Office of India approved the requestment of compulsory license of Natco because Bayer failed to set a medicines price affordable to the public and failed to ensure a sufficient supply of medicines and issued a compulsory license for Nexavar in March 2012. Retaking Canada as an example, Article 21.04.1 of its Patent Law stipulates (Patents Act of Canada 2021): “The Committee may, upon the application of any person and payment of the prescribed fee, authorize that person to directly manufacture the medicines applied for and export it to the attached (All the list of least developed countries considered by the United Nations) to Schedule 4 (only in the most urgent cases as a member of a compulsory license importing country of medicines) applicant countries or WTO members, to make, construct or use patented inventions.” It is beneficial

to Canada's medical technology and research level to rank first in the world. Therefore, Canada's revision of the patent law is of great significance, and it also has a certain reference value for China (Wong 2020).

3.3 *Compensation standards for compulsory licensing in extraterritorial countries*

Although internationally, the compensation standards between different countries are not uniform, and even within the same country, there may be different compensation standards. However, the practical cases of compulsory licensing of medicines and several relevant suggestions from international organizations or national compensation standards can provide a reference for China to establish compensation standards for compulsory licensing. In 2005, the United Nations Development Program and the World Health Organization issued the Remuneration guidelines for non-voluntary use of a patent on medical technologies. The guidelines include the United Nations Development Program's 2001 guidelines, the 1998 Japan Patent Office guidelines, the 2005 Canadian export guidelines, as well as the Tiered Royalty Method (TRM) and the Medical Innovation Award Fund (MIPF), two recommended standards. Among them, the 2001 guidelines of the United Nations Development Program and the 1998 guidelines of the Japan Patent Office suggested that the range of compensation standards be set at 2–6% and 0–6% of the price of generic medicine. The 2005 Canadian Export Guidelines suggested that the compensation standard be calculated based on the country's ranking in the United Nations Development Program's Human Development Index (UNHDI), and the compensation standard ranges from 0.02–4% of the generic medicines price and fluctuates according to the country's worldwide HDI rank. The Tiered Royalty Method uses 4% of medicines prices in high-income countries as a base reimbursement rate, adjusted for countries' relative income per capita. The Medical Innovation Award Fund proposes that the government set up a fund to separate medicines innovation and sales and supply all medicines to consumers at generic prices. The guidelines provided by organizations affiliated with the United Nations contain a variety of suggestions for the compensation standards that should be adopted in China and can be evaluated by analyzing and comparing actual cases of compulsory medicines licensing (World Health Organization 2005).

Compensation standard cases for compulsory licenses worldwide are also in line with the standards suggested by the various guidelines mentioned above, and the compensation standards in most cases are between 0% and 6%. Taking India as an example, India has many cases of using the compulsory licensing system, and it is a developing country with a large population base like China, which is realistically comparable. In 2012, India issued a compulsory license for Bayer's cancer medicines Nexavar, allowing domestic firm Natco to manufacture a generic version. As compensation for the compulsory license, Natco was required to pay Bayer 6% of the net sales of generic medicines every quarter (United Nations Conference on Trade and Development Intellectual Property and Public Health Case Law Database 2013). Take Germany as another example. As a developed country, although Germany has fewer cases of compulsory licensing, it still has good guiding significance for China to evaluate and set up appropriate compensation plans. Raltegravir, the active ingredient in the HIV medicines Isentress sold by Merck, is patented by Japan's Shionogi. After several negotiations between the two parties failed, in 2016, Merck proposed a compulsory license for Raltegravir. According to the judgment, Shionogi initially demanded that Merck pay 10% of the product turnover as patent royalties, while Merck claimed a one-time payment of 10 million US dollars for global patent royalties. In the end, the German Federal Patent Court issued a compulsory license and required Merck to pay 4% of the product's net sales as compensation for the compulsory license (United Nations Conference on Trade and Development Intellectual Property and Public Health Case Law Database 2017).

3.4 *Compulsory license management departments of countries outside the region*

Different departments manage the compulsory licensing of medicines in various countries. However, in most countries, a single department is selected as the primary management agency for compulsory licensing of medicines because this can better solve the lack of medicines in emergencies. For example, in Thailand's Patent Law and Ministerial Regulations on Compulsory Licensing of Inventions, it is stipulated that DIP (Department of Intellectual Property) shall be the competent authority for compulsory licensing of medicines patents and, at the same time, perform the functions of acceptance, evaluation review, and granting of compulsory licenses (Thailand Patent Law 1999). The emergence of this kind of exclusive department undoubtedly speeds up the process of compulsory licensing application, and the management of compulsory licensing of medicine by more professional departments can make the application of compulsory licensing more reasonable. Because they know more about whether it is an emergency situation and use compulsory medicines licensing to achieve the purpose of protecting public health safety. Similarly, in India's patent law, it is proposed that The Controller General of Patents, Designs, and Trademarks shall govern the compulsory licensing of medicines patents, send relevant personnel to review the application to confirm whether compulsory licensing should be implemented, and the availability of medicines. Aspects are considered to decide on compulsory licensing. In a word, Thailand and India delegate the right to manage the compulsory licensing of pharmaceutical patents to a single department for management. The two countries have successful practice cases in the compulsory licensing of medicines patents (Indian Patents Act 1970). Therefore, it is clear that the competent authorities can indeed better help the implementation of the medicines patent compulsory licensing system.

4 SUGGESTIONS FOR IMPROVING COMPULSORY LICENSING OF MEDICINES IN CHINA

4.1 *Appropriately relax the restrictions on the subject of compulsory license application*

Currently, the mainstream practice throughout the globe is not to impose restrictions on applicants. As a developing country, China's compulsory licensing system for pharmaceutical patents compliant with international standards when it is in line with the actual national conditions of China as a developing country. The conditions for compulsory licensing should not be too higher than the TRIPS Agreement or related standards. Therefore, China can follow the international mainstream legislative model and cancel the restrictions on applicants to promote the broader application of the compulsory licensing system. At the legal level, China should reform the initiation mechanism of compulsory licensing procedures related to public interests, especially the current rigid and narrow rules for applicants. The revision of the Patent Law of China should make full use of the autonomy of compulsory licensing legislation stipulated in the TRIPS agreement, and the mechanism for starting the compulsory licensing procedure related to public interests should cancel the restriction on the subject of the application, avoid being entirely initiated by the competent government agency. It is best to introduce a third party. The right to request, for example, a unit that has the conditions for patent implementation or the general public with relevant major interests, and there is no need to restrict the applicant with the consideration of "being able to implement the conditions" at the application stage. After the medicines compulsory license is approved, if it is determined that the applicant does not meet the conditions for implementation, other units that have the conditions for implementation may be designated by the patent administration department of the State Council. Therefore, modest and non-repressive policy design and rigorous and non-fixed legal application should become the direction of further improvement of China's compulsory medicines licensing system.

4.2 *Improve the compensation standard for compulsory licensing of medicines patents at the legislative level*

Compensation standards for compulsory licenses in China can be set at 0–4% of the net sales of medicines. This is a suggestion based on China's population base and current development status after referring to the recommended standards of relevant United Nations guidelines and actual cases involving compensation for compulsory licenses. The upper limit of 4% is in line with the compensation standards proposed in most guidelines, laws, or examples, and it is also a reasonable value for China's current development status. The lower limit of 0% allows China to deal with some unique situations: government research support or a state of emergency. The standard floating range gives enough flexibility to meet the specific needs of different compulsory licenses, and the use of medicines net sales as the standard is also in line with the compensation model in each case. In the actual application of compulsory medicines licensing, the specific compensation rate can be negotiated between the applicant and the patent owner, or it can be directly determined by the competent authority in charge of compulsory licensing. The former is conducive to ensure the protection of the rights and interests of the patent owner. At the same time, the latter can be used as a response strategy in exceptional circumstances, such as a state of emergency or failure to reach a consensus with the patent owner.

4.3 *Clarifying the competent authority for the compulsory licensing of medicines patents*

This paper argues that China should establish a medicines compulsory licensing management system centered on the National Health Commission of China. China could delegate the right to compulsory licensing of medicines to the National Health Commission. First of all, due to its authority, the National Health Commission can more intuitively judge whether it is an emergency and other prerequisite to decide whether to apply for compulsory licensing of medicines patents. Secondly, the National Health Commission can use a more professional perspective to decide which medicines to use and which manufacturer to choose to deal with the problems it faces. Finally, compliance with the prescribed requirements can be audited by the National Health Commission. On the one hand, this setting can effectively prevent the problems caused by overlapping powers and speed up the progress of compulsory licensing. On the other hand, the legislation allows the National Health Commission to request assistance from other departments in the process of compulsory licensing of medicines patents and provide relevant information. Clarifying the practice of the compulsory licensing department of pharmaceutical patents can make the compulsory licensing system of medicines patents more reasonable. It can also be applied to the compulsory licensing of pharmaceutical patents faster and easier. Protect public health and safety.

5 CONCLUSION

Based on the international perspective, this paper studies the application of compulsory licensing of pharmaceutical patents. After sorting out China's regulations on compulsory licensing of medicines patents, it is not difficult to find that although China has made detailed regulations on compulsory licensing of pharmaceutical patents, the existing regulations still have certain defects and lack of judicial practice experience. Based on this, this paper analyzes and studies the regulations and applicable rules on the compulsory licensing of medicines patents abroad. On this basis, targeted suggestions are put forward for the compulsory licensing of pharmaceutical patents in China. First, the restrictions on the subjects of compulsory licensing applications should be appropriately relaxed. Secondly, improve the compensation standard for compulsory licensing of medicines patents from the

legislative level. Finally, clarify the competent authority for the compulsory licensing of medicines patents. Since this article only discusses about the issues related to China's medicines patent compulsory licensing and does not involve how to regulate the medicines management system better to ensure the quality of medicine after the implementation, the research focuses on China's medicines patent compulsory licensing legal issues, to better use the compulsory licensing of pharmaceutical patents, so as to people's right of life.

AUTHOR CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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Analysis of the uncopyrightability of artificial intelligence generators

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ABSTRACT: With the continuous development of artificial intelligence technology, artificial intelligence products involve more and more extensive fields and have more and more influence on people's life. The copyright of artificial intelligence products also needs to be discussed and solved. On the one hand, it collects and sorts out the theoretical disputes about the Copyrights of artificial intelligence products. On the other hand, it analyzes the relevant provisions of international conventions and judicial cases and legislation of some countries. It is not difficult to find that, on the one hand, artificial intelligence products do not meet the essential requirements of copyright protection and the legislative purpose of copyright law. Besides, from the provisions of our Copyright Law, artificial intelligence products also have defects in the object of copyright rights, including formal elements and material elements, and do not meet the requirement of originality. Therefore, at present, artificial intelligence products are not protected by copyright.

Keywords: Artificial Intelligence, Copyright, Originality

1 INTRODUCTION

In recent years, the wave of AI-generated works has swept through human society. Compared with works created by humans, AI-generated objects are undergoing a significant role change in the copyright field. This is reflected in the increasing importance and scope of AI applications in today's society. However, in this context, the issue of whether AI-generated works are copyrightable is challenging the concept of human-centered creators. In particular, the recent emergence of ChatGPT developed by OpenAI has brought the copyrightability of AI-generated objects to a new level of discussion.

Based on the existing research, this paper will analyze whether AI-generated objects comply with the requirements of the Copyright Law regarding the subject and object. Taking into account the legislative purpose of the Copyright Law, the aim is to solve the problem of whether AI-generated objects can obtain copyright protection. The paper proposes solutions that are beneficial not only to the development of the AI industry but also to the maintenance of ethical order surrounding intellectual property rights. Thus, it aims to solve the problem of "seizure of rights" of artificial intelligence and the issue of "authorship" of AI-generated works.

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2 STATUS OF RESEARCH ON THE COPYRIGHTABILITY OF AI ARTIFACTS

2.1 *Theoretical controversy of copyrightability of Artificial Intelligence*

There are two mainstream views on the copyrightability of artificial intelligence generation in the theoretical community. According to this view, it is difficult to distinguish between human-created works and AI-generated works in terms of the appearance of the generated works. For example, a drawing software called “Artificial Intelligence Painter” learns the painting styles of different writers by observing human works, and then generates more “creative” works than humans. The AI painter’s research team organized a questionnaire in which they mixed the AI painter’s “works” with human works in an art gallery and asked the respondents to rate the creativity of the paintings. The results showed that the “creativity” of the AI-generated content was rated better than the human paintings and was favored by a significant number of people. Based on this, some scholars argue that when it is impossible to make a distinction, copyright protection can be granted to AI-generated works if they can meet the requirements of the Copyright Law for original works and if they are generally considered to be more superior to human creations in form (Wu 2020). And the relevant legislation in foreign countries also affirms that AI-generated works should be given copyright protection, such as the Copyright, Designs and Patents Act of the United Kingdom has a special provision for AI-generated works, “The copyright in works generated by artificial intelligence shall expire 50 years after the last day of the year in which the creation of such works was completed.” The AI-generated work in the Act means that the work is created by an AI, and in this case the work does not have any human author. It is clear that AI-generated works are copyrightable in the UK and should be protected by copyright. Other scholars believe that the AI software design is a generator of the creator’s will, and its content can still be recognized by the originality standard, and the AI is considered as the copyright owner (Xiong 2017). Another view holds a “negative” attitude towards AI-generated materials. The scholars who hold this view believe that first of all, copyright protection should not be granted to AI-generated materials. According to the provisions of the Copyright Law, the author is a natural person first. Based on the requirement of “person”, AI-generated works do not comply with the provisions of the Copyright Law, and therefore are not copyrightable. Secondly, on the premise that the formal elements meet the requirements of the work, the production process of the AI-generated materials needs to be analyzed. At present, AI generated objects are only the results of algorithms, rules and template applications, which are highly repetitive and cannot reflect the creative independence of human beings. Therefore, they cannot meet the requirement of originality of works and are not copyrightable. Taking intelligent poetry as an example, intelligent poetry is one of the important research projects of the breakthrough of AI technology and the conclusion of algorithmic computing, rather than human personality and thought. Smart poetry is the result of artificial intelligence copying and arranging combinations based on certain algorithmic operations in existing databases, so it has no originality and therefore does not constitute a work (Wu 2018).

2.2 *The practical controversy of copyrightability of Artificial Intelligence*

At present, there is a great deal of disagreement and controversy in judicial practice in various countries on the issue of whether copyright protection should be granted to AI-generated works. Some judicial authorities argue that AI artifacts can be protected by copyright under certain conditions, because the technology itself condenses human intelligence factors, and AI artifacts can reflect the creative purposes of AI technology users and can be regarded as human creative achievements and enjoy copyright protection. For example, Dreamwriter is a data- and algorithm-based intelligent writing assistance system developed by Tencent, and in August 2018, a financial article created by Dreamwriter’s intelligent writing assistant was published on the Tencent Securities website with the statement “This article was written automatically by Dreamwriter, a Tencent robot. The article was published on the website of Tencent Securities. On

the day the article was published, a Shanghai-based technology company republished the article on its website. Tencent argued that this act violated the copyright enjoyed by the robot Dreamwriter and sued the Shenzhen Nanshan District People's Court. In its judgment, the Nanshan Court confirmed that the article met the conditions for protection of written works under the Copyright Law and belonged to the written works protected by China's Copyright Law. The court held that the article was a work completed by the overall intellectual creation formed by a multi-team and multi-player division of labor hosted by the plaintiff, and the overall embodiment of the plaintiff's needs and intentions for the release of the stock review overview article, which was a corporate work hosted by the plaintiff. The defendant company without permission, in its operation of the website to provide the public with the content of the infringing articles for the public at a selected time, the selected place to obtain the behavior of the plaintiff infringed the right of information network dissemination enjoyed by the plaintiff (Tencent & Yingxun 2017).

However, judicial authorities in the United States, for example, have argued that AI-generated works are not copyrightable, the core reason being that they do not satisfy the "person" requirement in terms of the subject of copyright law. For example, in the case of the registration of the painting "A Shortcut to Heaven", an American named Taylor requested the U.S. Copyright Office to register a painting called "A Shortcut to Heaven" as a work. Taylor claimed that the painting was autonomously generated by an artificial intelligence he developed without any human intervention. The U.S. Copyright Office's Copyright Review Board noted that "copyright law protects only the fruits of intellectual labor that are based on the creative capacity of the human mind. The U.S. Copyright Office will not register content generated by machines or purely mechanical processes without the creative input of a human author." As a result, copyright registration was ultimately denied for this painting. Notably, in 2018, in China, in the case of Beijing Filin Law Firm v. Beijing Baidu.com Technology Co. Ltd. for copyright infringement, the plaintiff Filin Law Firm asserted that the defendant Baidu.com Technology Co. had infringed its copyright by publishing articles on the Bajia platform. In this case, the Beijing Internet Court held that the object of copyright law protection should be works created by natural persons, and although such "works" generated by computer intelligence are similar to natural persons in appearance, it is not appropriate for copyright law to break through the basic norms of civil law subjects to protect. In this case, although the court on the one hand affirmed that the copyright law had already protected such software, it was inappropriate for the copyright law to break through the basic norms of the subject of civil law to protect the generated content. In this case, although the court affirmed the property value of the AI-generated content on the one hand, it did not recognize that the AI possessed the subject qualification on the other hand, thus denying the work attribute of the AI-generated content, and therefore denied that the AI-generated content enjoyed copyright protection. A similar view was adopted in the DABUS case (Beijing Filin Law Firm & Baidu 2018), which has similarities. In this case, Stephen L. Thaler filed a petition with the United States Patent Office (USPTO) (Stephen Thaler & Andrew Hirshfeld 2021). The European Patent Office (EPO 2020) and several other national patent authorities have filed separate applications for their own and their team's artificial intelligence system, DABUS (Device Autonomously Stephen L. Thaler claims that DABUS is a "creativity machine" that uses neural networks to generate new inventions and can create any product without human intervention. It can create any product without human intervention. The patent application sparked a heated debate in the academic community and a heated debate in national jurisdictions about whether copyright protection could be granted to AI-generated works. Subsequently, by May 2020, national patent authorities, including the U.S., EU, U.K., and Canada, conducted a series of in-depth discussions on whether AI can act as an inventor, and the results unanimously concluded that AI does not qualify as an inventor on its own under current laws, intellectual property theories, and practices. This conclusion was supported by a number of organizations, including the Intellectual Property Owners Association (IPO), the Institute of Electrical and Electronics Engineers (IEEE-USA), and the Transatlantic Trade Organization (TTIP). In

contrast, individual countries have argued that AI should be patentable, for example, South Africa has led the way in granting patents on AI by recognizing the AI robot DABUS as the inventor (Patent Journal 2021). Recently, the Australian Federal Court also ruled that inventors can be non-human (Thaler v. Commissioner of Patents 2021).

In summary, from the theoretical perspective of copyright law, the author of a work is a natural person in the first place, and AI-generated objects do not qualify as human beings. Analyzed from the perspective of the production process of AI, the AI-generated objects at the present stage are also only the results of algorithms, rules and template, the application of technology, rather than the results of independent creation. Therefore, they cannot reflect human personality and thinking, and should not be granted copyright. From a realistic point of view, in the U.S. “Approach to Paradise” painting registration case, the U.S. Copyright Office claimed that “it will not recognize and register content generated by machines or mechanized processes”. In the local case of Beijing Filin Law Firm v. Beijing Baidu.com Technology Co., Ltd. for copyright infringement, our court insisted that “the object of copyright protection should be natural persons, and the copyright law should not break through the basic norms of the subjects of civil law and protect artificial intelligence-generated objects”. Based on this, it is easy to see that no matter the conflict between the artificial intelligence generation and the “human-centered” jurisprudence, or the inability of its generation to meet the standard of originality, the artificial intelligence generation should not be given copyright protection.

3 ARTIFICIAL INTELLIGENCE GENERATION DOES NOT CONFORM TO THE LEGISLATIVE PURPOSE OF COPYRIGHT LAW

First of all, from the perspective of international conventions, the Berne Convention is the first international convention on copyright protection in the world. It involves the protection of works and the rights of authors. The Convention provides a reference for authors, musicians, poets, and creators such as painters to protect their works. The convention aims to encourage creation and dissemination, bring a market to creators, and make the market for their works more prosperous, and is a way to defend the rights of creators, who are at the core of their work. In addition, the content of the provisions of the Universal Copyright Convention shows that it also starts from a human-centered perspective. However, from the perspective of textual interpretation and the legislative purpose of the Convention, AI-generated works are not within the scope of the subjects of the above Convention and cannot achieve the legislative purpose of safeguarding the rights and interests of human-centered creators, and therefore, do not enjoy copyright protection.

Secondly, from the perspective of China’s Copyright Law and its relevant provisions, AI-generated works cannot be granted copyright protection either. The reasons are as follows. First, from the viewpoint of the form of legislative existence, law is first of all a kind of norm. By a norm, it means a standard or rule for people’s behavior. Law is not a general norm, but a social norm. Its characteristic is that it regulates the mutual relations among people, i.e., social relations. Law is different from natural law, which is a connection between natural phenomena, whose existence is not related to human thinking and action and does not have cultural implications. From this, it is easy to see that the essence of jurisprudence is to regulate human behavior with human beings at its core. However, to grant copyright protection to AI-generated objects is against the fundamentals of jurisprudence and the norms of law.

Thirdly, after signing the Berne Convention, China’s Copyright Law also inherits the legislative meaning and connotation therein, that is, people oriented. According to Article 1 of China’s Regulations for the Implementation of the Copyright Law (2020), “In order to protect the copyright of authors of literary, artistic and scientific works, as well as the rights and interests related to copyright, to encourage the creation and dissemination of works beneficial to the construction of socialist spiritual and material civilization, and to promote the development and prosperity of socialist cultural and scientific undertakings, this Law is enacted in

accordance with the Constitution”. In addition, the latest revision of China’s Copyright Law in 2020, Article 11, paragraph 2, clearly defines the concept of authorship, that is, the natural person who creates the work is the author. Obviously, the copyrightability of AI runs counter to the legislative purpose of our copyright law, namely the core concept of human-centeredness, and the important value of incentive role played in the copyright law. As advocated by Professor Cheng-Shih, from the essence of the copyright system, it is believed that the copyright law encourages the natural persons who create cerebral (Zheng 1997). Professor Li Chen points out that copyright law regulates the relationship between man and society not the relationship between man and machines or animals (Chen 2004). The reason why forms with beauty produced by animals or natural forces are not protected by copyright law is that the form of beauty is not created by natural persons, and then there is no copyright incentive to speak of. Therefore, for the purpose of legislation, artificially generated objects are not copyrightable.

4 ARTIFICIALLY GENERATED OBJECTS DO NOT MEET THE REQUIREMENTS OF “PERSON” IN THE COPYRIGHT LAW

From the perspective of legal subject, AI can neither enjoy rights (e.g., claiming copyright) nor assume responsibilities (e.g., bearing the liability for copyright infringement). Therefore, it is inappropriate to give it the status of a subject so that it has the qualification of a legal subject. In a private law rights system, the subject of a right cannot be the object of a right, and vice versa. The object of rights can only ever be dominated by the subject of rights. All rights should be centered on human beings. Even if animals and nature “create” contents with high aesthetic value and the appearance of “works”, they cannot be recognized by copyright law because they cannot enjoy rights and obligations, so it is meaningless to grant them copyright. Just as the philosopher Kant once put forward the view that “man is an end”, “reason” is the core of Kant’s philosophy, and the key to distinguishing man from animals is reason. Although artificial intelligence can generate music, paintings, and poetry, it can only be used as a tool for human beings and controlled by them. The relationship between artificial intelligence and human is like the relationship between kitchen knife and human, which is instrumental and dependent, and how it is used ultimately depends on human. Scholar Hans points out that in copyright law, neither the elements of determination of a work nor the attribution of related rights can be separated from human beings (Blochs 2012). What is “artificial intelligence”? First of all, there must be “artificial” before there can be “intelligence”, and there must be as much “artificial” as there can be “intelligence” (Luo 2021). The essence of artificial intelligence is the application of human intelligence by machines. No matter how rapidly artificial intelligence develops, the premise cannot be ignored: human is the master of artificial intelligence. Humans create and develop AI technology with the aim of making AI as a human tool to provide services for humans and help them live better. If AI has the same legal status as a natural person, humans may have to give way to AI step by step, and eventually play the tragedy of “the opposite is true”. Once the human becomes a tool to rule society, the consequences will be unimaginable. Therefore, AI at the present stage is neither qualified to become a subject of rights nor can it bear the responsibility of copyright infringement. At the same time, if it is given the qualification of subject matter, it is against the tool property of AI and contradicts the human-oriented position in law and the essence of legal humanities and social sciences. Therefore, it is inappropriate to artificially grant its subject qualification.

5 DEFECTS IN THE OBJECT OF COPYRIGHT RIGHTS OF ARTIFICIAL INTELLIGENCE GENERATED OBJECTS

If a work wants to become an object of copyright protection, it must satisfy the following formal elements: 1. the work must belong to the fields of literature, art and science. 2. it must

express certain thoughts and feelings. 3. it has a certain form of expression. From the viewpoint of the formal elements of the object of copyright right, the artificial intelligence generation meets the formal requirements of the object of copyright in a certain form from the perspective of the object, which the artificial intelligence is equivalent to the software of the computer, and the computer software is one of the works of copyright. In terms of formal elements, AI is expected to become the right object of intellectual property rights. According to Article 3 of the Copyright Law, the works referred to in this Law include literature, art and works of natural science, social science, engineering technology, etc. created by computer software, etc. Therefore, AI-generated works can be categorized as written works, art works, etc. in terms of form. For example, the poetry collection “Sunshine Lost the Glass Window” and “The Sound of Autumn Insects” created by AI Xiaobing belong to the creation of AI in the field of culture and art. It is worth affirming that with the emergence, application and popularity of AI, AI gradually transforms from a mere auxiliary tool to a subject involved in creative activities, and AI-generated objects have the value of perusing, benefiting and using. Many products are automatically generated in the fields of literature, art and science, and are formally similar to works created by humans. According to the aforementioned “affirmative” viewpoint, AI-generated works are not only original, but also produced by AI, and are certainly protected by copyright. At the same time, it is also reproducible, replicating the formal elements of the object of human works. This is neither contrary to the principle of dichotomy of thought and expression, nor can it further argue the property that intellectual property is a private right.

In fact, in practice, AI-generated objects have been widely used in all aspects of people’s lives. In the field of art creation, AI robots in the United States have been able to generate aesthetic and artistic artworks through learning and exhibit them in museums and galleries, etc. In the field of literary research, Microsoft has published a collection of poems created by the AI Ice. In the field of musical performance, Google offers the AI device DeepDream to create paintings that have been successfully auctioned. In the field of news writing, the Associated Press has partnered with AI companies to develop the AI Wordsmith, which has a considerable number of news products. These relevant examples show that AI-generated works have market demand and market value in terms of formal content, and at the practical level, while it has begun to become the object of market transactions, it has also enriched human literature, art and science to some extent. When AI-generated poems, paintings and other contents are combined with works created by humans, they objectively form part of human literature, art and science. But the forms of AI creations are in turn adapted from human works, so there is no doubt about the formal elements of AI-generated objects. The emergence of these creations has contributed to the legislative goal of “the development and prosperity of socialist culture and science” in the Copyright Law and its implementation effect.

With the continuous improvement and progress of the tools used by people, it is not impermissible to protect the “works” generated by artificial intelligence without the explicit exclusion of “works” generated by artificial intelligence in the Copyright Law. Therefore, recognizing that AI-generated works meet the objective formal elements of works is not only a manifestation of respecting objective facts, but also in line with the requirements of correct interpretation of legal provisions. However, it is undeniable that, at present, artificial intelligence is in its infancy, and artificial intelligence-generated works are more to satisfy the human “curiosity” psychology, which in fact cannot really play the role of promoting human scientific progress and cultural dissemination.

6 ARTIFICIAL INTELLIGENCE GENERATION DOES NOT SATISFY THE SUBSTANTIVE ELEMENTS OF THE OBJECT

The dichotomy of thought and expression is a basic principle in the theory of copyright law, that is, copyright law only protects the expression of the work, but not the thought and

feelings reflected in the work. The dichotomy of ideas and expressions has been widely applied and practiced in legislation and justice in the global field. China did not explicitly mention the content of the dichotomy of ideas and expressions in the Copyright Law promulgated on September 7, 1990, and the two previous amendments, so it can draw on the relevant theories of the common law system to improve the legal regulation. It is worth recognizing that the Third Amendment to the Copyright Law, which was adopted by the Standing Committee of the National People's Congress of the People's Republic of China at its 23rd meeting on November 11, 2020, amended the original law to "intellectual achievements of originality and certain forms in the fields of literature, art, science, etc.". For the first time, the dichotomy of ideas and expressions was clarified in the legislation, i.e., only the intellectual achievements in form are protected, and the feelings and ideas in content are not involved.

According to Professor Wu Handong, from the perspective of equitable interests, all works are created by extracting and utilizing existing works. By giving legal protection to creations that contain the public domain and making the authors copyrighted, the creations of others will be difficult and detrimental to the development of cultural industries (Wu 1997). If the substantive part of the idea as the object is protected, it is not conducive to cultural creation, and every time when other creators are required to pay usage fees for the creation of similar subjects and themes, the protection of the substantive part of the object will greatly restrict the expression of the creators, and in the long run, it will cause the cultural undertakings and cultural industries to In the long run, cultural undertakings and cultural industries will wither away. In addition, copyright law does not protect ideas as a guarantee of citizens' freedom of expression, and if copyright law protects the substantive part of the object, it will lead to monopoly of ideas and restrict freedom of expression. 'monopolized by the creator and not received by the wider public, and democratic dialogue will suffer (Siebrasse 2001).' Based on this, this paper argues that artificial intelligence does not have an independent thinking will and is fundamentally different from a natural person, and cannot be equated with an anthropomorphic person.

Artificial intelligence does not meet the substantive elements of the object, but also stems from the fact that it does not have originality, i.e., the subject of creation is not legally qualified, and the creation process of artificial intelligence generation is not a creative act. The subject of creation with legal capacity includes citizens, legal persons or other organizations, not including artificial intelligence, and the U.S. Copyright Office also requires that the prerequisite for registering a work is that it be "created by a human being". According to Dr. Liu Ying (Liu 2017). Professor Wang Qian and Professor Ye Zongzong that the nature of AI output content is computation rather than creation due to antecedent technology research, and human intelligence occupies the main position in the AI output process (Wang 2017 & Ye 2016). Under the fixed algorithmic technology, the results produced by different people operating AI are unique, and therefore, the process of AI-generated content is realized by humans through algorithmic technology, which is not a creative act in itself. To sum up, AI-generated objects do not substantially meet the requirements of the Copyright Law for the object of rights.

7 CONCLUSION

In summary, with the continuous development of technology, the role of artificial intelligence in various fields has been gradually highlighted, especially the artificial intelligence generation is increasingly attractive to people. At the same time, it has also led to many controversies, among which, people's discussion on the copyrightability of AI-generated objects has become more and more intense. At present, the discussion on this issue in China's theoretical circles mainly focuses on the legislative purpose of China's Copyright Law, the requirements of the object of copyright rights and the responsibility of infringement. This

article believes that, looking at the international conventions, the provisions of internal and external legislation as well as the discussions of the doctrine, it is not difficult to develop that the AI generated objects do not meet the role that the copyright legislation should play. Moreover, according to the provisions of China's Copyright Law, the subject of copyright protection is "person", and the object is required to meet the formal and substantive elements, especially the requirement of originality. Obviously, the source of the principle of generating things from artificial intelligence does not conform to the provisions of the Copyright Law at this stage. However, it is undeniable that with the further development of science and technology, it is not known whether the AI-generated objects can be protected by the Copyright Law in the future. Therefore, the legislation at the current stage cannot be taken as a general rule for the future development of society, and the revision and improvement of the legislation should be in line with the current needs for the future society.

AUTHOR CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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Obstacles to the codification of environmental law in China and their response

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ABSTRACT: Since the promulgation and implementation of China’s Civil Code, theoretical discussions about codifying China’s Environmental Law have been underway. However, the current system of environmental law in China is incomplete in terms of the legal origins of environmental law and the integrity of the system. Over the past decade, the discussion on the codification of environmental law in China has explored the main obstacles and ways to address them. At present, China’s environmental law faces several difficulties, including an indeterminate ecological and environmental legal system, a mix of joint party and government normative documents and environmental laws, structural changes in the ecological and environmental management system and blurred boundaries in the environmental code. To address these challenges, the existing separate environmental regulations should be maintained while a sound system is developed before writing a comprehensive code. In the future, there could be attempts with the modest co-existence between separate environmental laws and codes.

Keywords: Environmental Law, Canonization Barrier, Legal System

1 INTRODUCTION

As Chinese society continues to develop and progress, the legal system has changed and innovated with it. In 2020 China promulgated its first civil code, the Civil Code of the People’s Republic of China. However, there are still many inadequacies in China’s legal system. For example, there are still problems such as inconsistencies and even conflicts between local regulations. At the national level, in March 2021, General Secretary Xi Jinping published an article in the magazine “Seeking Truth” entitled “Firmly following the path of socialist rule of law with Chinese characteristics to provide a strong guarantee of the rule of law for the comprehensive construction of a modern socialist country”. The article points out that “the Civil Code provides a good example for the codification of legislation in other fields, and that the experience of codifying the Civil Code should be summarized and the codification of legislative fields with ripe conditions should be promoted in due course.” This shows the high priority the State attaches to the codification of our legislation. However, the codification of legislation is not an easy task, and there is still a lot of confusion, especially in the theoretical community, about how to codify it. As far as the codification of environmental law is concerned, scholars, represented by Lv Zhongmei, believe that China should compile a code of environmental law. They advocate that China should implement a moderate codification model, which should be based on conceptual change and methodological innovation, and build a basic logical system with target values as the core and instrumental values as the technical approach (Lv 2021). Scholar Peng Feng, on the

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other hand, believes that the substantive conditions for the codification of China’s environmental code have not changed fundamentally, and that the environmental law system is undergoing major adjustments and changes, so whether codification is possible remains to be considered (Peng 2021). For this reason, the question of whether China’s environmental law should be codified has become a hot topic of concern in the theoretical community, and is an issue that must be addressed in the future development of environmental law. This paper analyses the current state of environmental law research in China, identifies possible obstacles to the codification of environmental law, and attempts to find ways to overcome them, so as to contribute to the improvement of China’s environmental law system.

2 CURRENT STATUS OF RESEARCH ON THE CODIFICATION OF ENVIRONMENTAL LAW IN CHINA

It is clear from the past decade of theoretical research on environmental law that there has been a significant focus on the codification of environmental law in China from 2017 to 2022. This intensified after Professor Lu Zhongmei submitted a legislative proposal on the Environmental Law Code to the National People’s Congress in 2017, leading to an increase in literature on the topic. Since then, there has been an intense theoretical debate based on this. The literature on environmental legislation has grown exponentially during this period, peaking in 2022 (as shown in Figure 1). Currently, two broad schools of thought exist concerning legislative proposals for environmental law: “The old guard” and “the advocates”. The “old guard” maintains that the current state of environmental law should be retained, as there is yet not a developed legal structure, system and content required for the codification of environmental law in China. They argue that the current state of our legal system in China does not provide the necessary basis and conditions for the codification of environmental law. On the other hand, the “advocates” believe that the codification of environmental law in China would be beneficial in solving the problem of environmental degradation in the country, as well as resolving conflicts within the environmental law system. They argue that the structural framework of the current environmental law system is sufficient to meet the requirements of codification. Therefore, the advocates argue that the structural framework of our environmental law system is sufficient to meet the requirements for codification of environmental law (Peng 2021). The advocates argue that the current decentralized single

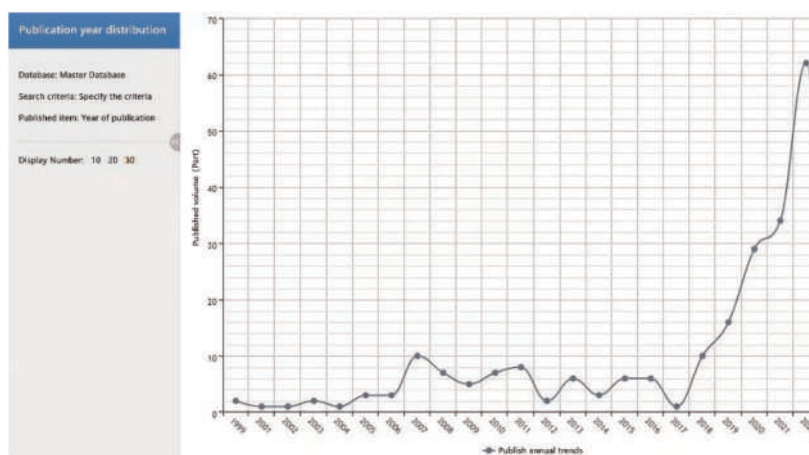


Figure 1. Research on environmental protection issues in China from 1999 to 2022 (Image based on CNKI1999-2023 published quantity self-made).

law model of legislative development in China has led to environmental law being ineffective in curbing environmental degradation. They believe that the codification of environmental law would be of great benefit to the construction of the country's legal system, as the environment is closely linked to human life and greatly affects the future development of the nation. The codification of environmental law would be of great benefit to the construction of our legal system. It is worth that the overall deterioration in environmental quality has not yet been fundamentally curbed, and environmental disputes are still on the rise. The advocates suggest that this is closely linked to the decentralized legislative model adopted in China's current environmental legislation. They maintain that an effective way to address this issue is to codify environmental law (Lv 2017 & Zhai 2017). They believe that the codification of environmental law would be of great benefit to the construction of the country's legal system, as the environment is closely linked to human life and greatly affects the future development of the nation.

3 OBSTACLES TO THE ADEQUATE CODIFICATION OF ENVIRONMENTAL LAW IN CHINA

3.1 *The complexity of environmental law regulations in China*

China's environmental laws and regulations are redundant, and there are many differences and even conflicts between local laws and regulations, local regulations, administrative rules and departmental regulations. For example, the conflicting regulations in environmental regulations in the Yangtze River Delta region have created institutional barriers to the unified governance of the regional environment. This is reflected in, firstly, the failure to harmonize the control of emissions of air pollutants. According to the National Air Pollution Prevention and Control Law, Shanghai, Zhejiang and Jiangsu have all enacted corresponding local regulations, but the control of total pollutant emissions and the types of pollutants regulated in the three places have not formed a unified and coordinated prevention and control system. Secondly, there is a lack of uniformity and understanding of key concepts in air pollution prevention and control legislation. For example, the same provisions on clean energy are not consistent in terms of the clean energy sources listed in the legislation of the three places and the prohibition or restriction of the use of highly polluting energy sources, and all three places lack precise definitions of clean and polluting energy sources. Third, there are differences in regulations related to preventing and controlling motor vehicle exhaust pollution, highlighting the need to strengthen cooperation and coordination. For example, the exhaust pollution detection in the repair of motor vehicles, the general requirements of motor vehicle maintenance units and maintenance personnel should be in accordance with national regulations to obtain the appropriate qualifications, qualifications, and in the repair of engines and exhaust systems should be motor vehicle exhaust pollution control indicators into the maintenance of quality assurance content, and in the quality assurance period to assume responsibility.

Repaired motor vehicles may be delivered for use only if they have been tested for compliance with emission standards. Standardizing and ensuring consistency in the qualifications of motor vehicle maintenance units, as well as their maintenance and testing records, and annual testing of motor vehicles is necessary for cross-regional management and tracking of testing records. However, differing regulations between two provinces and one city in Yangtze River Delta make it difficult to organize and compile this information uniformly (Yi & Lu 2011). It has also been argued from the basic principles of administrative codification that the norms of administrative substantive law, such as market supervision, public security, customs, taxation, health, food and drug, ecology and environment, natural resources, science and technology, education, network information and other substantive law norms are scattered and the system is huge, making it difficult to codify (Jiang 2021).

3.2 The legal and systemic instability brought about by our rapid socio-economic development

China is in a period of rapid economic and social development, and accordingly the stability of the law has been affected to a certain extent. A premature codification of environmental law may result in the code facing several amendments at a later date. While special local environmental law regulations that may be subject to revision can be singled out and classified through judicial interpretation general single-issue regulations can be placed in the larger environmental law code blueprint. In addition, the codification of environmental law requires the integration of a system of sources of environmental law. However, the sources of environmental law in China are very heterogeneous. Environmental law faces the challenge of an indeterminate legal system related to the ecological environment and the difficulty of distinguishing between joint party and government regulatory documents and environmental laws. It is generally agreed that the new round of national institutional reform, which began in 2018, has basically created a “dual structure” in which ecological and environmental management and natural resource management are alongside each other, effectively integrating the different competencies of environmental protection management. In particular, the separate management system for the protection of environmental elements (Ministry of Natural Resources) and the prevention and control of environmental pollution (Ministry of Ecology and Environment) established by the Programme for Deepening the Reform of Party and State Institutions also provides the organizational basis for the development of an environmental code and corresponds to the two main areas of environmental law, which is a realistic basis for the development of an environmental administrative system (Liu 2020). The “dualistic structure”, with two separate and distinct regulatory regimes, is conducive to the development of an environmental code and provides an organizational basis, was followed by the Yangtze River Protection Law and the Biosafety Law, both of which adopted the former dualistic structure with a combination of party and government coordination, forbidding one to think that the dualistic structure of our environmental law regulatory regime had changed and that come our environmental law would develop in this direction. The uncertainty of our environmental law administration system will therefore make it more difficult to codify environmental law.

It highlights the phenomenon of fragmentation of authority in China and its impact on environmental law. The text underscores the fact that while there has always been an increasing concentration of power in the administration of the ecological environment in China, the authority to manage it is becoming increasingly fragmented. It further notes that the diverse regulatory sectors in the field of environmental law and their different approaches to regulation make it difficult for the legislature to enact uniform laws. The text concludes by pointing out that the difficulty of codification is much higher than that of single-line environmental legislation due to the fragmentation of authority (Peng 2021).

3.3 Lack of stability in the value of environmental law is difficult to integrate

Since the 18th National Congress of the Communist Party of China (CPC), the Party Central Committee, with Comrade Xi Jinping at its core, has put forward a series of new concepts, strategies and initiatives for the construction of ecological civilization, based on the strategic height of adhering to and developing socialism with Chinese characteristics to achieve the great rejuvenation of the Chinese nation, and building a “community of life” in which man and nature live in harmony, forming Xi Jinping’s thought on ecological civilization (Zhang 2021). The importance and emphasis placed by the state on “ecological civilization” cannot be directly deduced from the theoretical and practical levels that codification is better than the single-act model, especially since General Secretary Xi Jinping has stressed that “legislation in key areas such as ecological civilization should be accelerated”. The concept of “community of life between human beings and nature” was

introduced in the thought of ecological civilization, marking the beginning of a new era of transformation in China's ecological and environmental legislation.

New individual legislation such as the Yangtze River Protection Act has gradually begun to embed this value, and it is foreseeable that subsequent individual laws will be progressively updated during the drafting and amendment process, far from reaching a stable level of codification. The coherence of the legal system is expressed in the formation of a unity of values between the legal principles of the same system. The same system of legal principles supports and justifies the legal rules, and achieves unity of expression and value, text and purpose; In a system of law, principles must be coherent with each other, i.e., they must not be in clear conflict at the abstract level. The function of the legislative purpose clause in a law is to determine its value objectives, which may vary in scope, regulate a wide range of legal relations and have a large number of articles, not only have their own purposes, but also each part, chapter, section or even article under them has its own specific value objectives, while the content expressed in the legislative purpose clause is different from these specific purposes, it is the general purpose that concerns the entire legal text and has a guiding or regulating effect on other legal provisions (Lei 2015 & Liu 2013). The respective specific value objectives presented by each part, chapter, section or even article need to be subordinated to the general legislative purpose. A review of the provisions on the purpose of ecological legislation reveals a wide range of values, including national security, environmental protection, health (human and public), maritime rights and interests, public health, sustainable development, the community of human destiny, ecological security, ecological civilization, biosecurity, the preservation of public ownership of land, and the protection and rational use of resources. Its value is not only safety value, but security values also include national security, ecological security, biosecurity and maritime rights and interests, and there is an order of priority within security values.

The value of nature or the environment refers to the concept of "community of life between man and nature" in the concept of ecological civilization, which in a sense establishes the value of nature as a living being in the purpose clause of the legislation. These values are not 'homogeneous', but also relate to personal and property interests, public environmental interests and the economic interests of society as a whole. Conflicts may arise within a value system, as well as between different value systems, and the design of specific provisions in the law requires the reconciliation of these values, which, from a technical legislative point of view, is difficult to accomplish in the case of environmental codification. With the difficulty of unifying and integrating multiple values, it is difficult to form a set of legal principles and the coherence of the internal system is difficult to achieve.

4 COPING STRATEGIES FOR THE MODERATE CODIFICATION OF CHINA'S ENVIRONMENTAL LAW

In addressing the various obstacles to environmental codification, Lv Zhongmei proposes a codification model based on the philosophy of "the community of life between man and nature", a "domain-based" codification model, a substantive and moderate codification model, and a sustainable development logic (Lv 2017).

The structure of an environmental code under the moderate codification model could be a "general-sub-title" structure. The General Part adopts a "common cause" approach, based on the national strategy defined by the Constitution, the Environmental Protection Law as amended in 2014, integrating relevant comprehensive legislation, summarizing the new achievements of the reform of the ecological civilization system, taking into account the needs of the times and the people, abstracting the common elements of the environmental law system, establishing the value system, scope of adjustment, basic principles, management system and governance system, and basic institutions of the environmental code, and forming a unified relationship of compliance between the General Part and the various parts

of the General Part (Sun 2020). Provides for legislative purposes, basic principles, regulatory frameworks and leading institutions that can be applied in a comprehensive and universal manner. The sub-paragraphs integrate some existing laws and regulations and provide further details on matters regulated by the Code. The codification approach requires the definition of the cornerstone concept of “ecology and environment” and the clarification of environmental legal relations; the naming of a “code of ecology and environment” and the adoption of a “dual legal source” model; the construction of a framework system of environmental codes with sustainable development as the value objective, “ecology and environment” as the cornerstone concept and legal relations as the systemic tool (Lv 2021).

In summary, the General Part should consolidate the core areas, establish a modern environmental governance system and basic institutions, and “codify” environmental rights. The Pollution Control section protects public health, defines the scope of adjustment and develops the logic of the system based on the concept of “pollution control”, and addresses the control of new pollutants. The Natural Ecology Protection Catalogue takes “natural ecology” as the cornerstone concept, establishes the concept of priority ecological values and integrated governance, and builds an institutional system that fits the overall ecological protection. The green low-carbon development codification clarifies the normative meaning of “green low-carbon development”, realizes the systematic arrangement of relevant norms, and integrates the two relationships between domestic and international, mitigation and adaptation. The ecological liability section lays the institutional foundation with theoretical innovation, builds a “two-tier” legal liability system, connects to the relevant provisions of the Civil Code, and establishes a special dispute resolution mechanism. In the light of the reality that both traditional sectoral laws and environmental laws provide for ecological and environmental legal liability in existing legislation, the following classification should be made according to different criteria: Firstly, the criterion of “damage theory” and “ecological restoration theory” should be used to classify ecological and environmental legal liability into environmental legal liability and related legal liability. Secondly, the “responsibility for people” and “responsibility for the environment” are used as criteria to subdivide “environmental legal responsibility” into “special responsibility” for those directly responsible for environmental damage or harm, and “general responsibility” for those indirectly responsible through their actions or omissions.

Thirdly, based on the criterion of “using responsibility to restrict power” and “using responsibility to guarantee rights”, the ecological environment liability relief mechanism is divided into “private benefit relief”, which is the protection mechanism corresponding to “special responsibility”, and “public benefit remedies” which is the protection mechanism corresponding to “general responsibility” (Sun 2020).

5 CONCLUSION

Chinese modernization is a modernization in which man and nature live together in harmony. In order to adhere to sustainable development and effectively follow the path of ecological civilization of productive development, affluent living and good ecology, the rule of law must play a better role in strengthening the fundamentals, stabilizing expectations and providing long-term protection. The codification of the environmental code is a major issue that cannot be achieved in one go. This paper examines the process of codifying China’s environmental law, and both scholars and legislators should remain calm enough not to be too eager to do so. The path to codification of environmental law should be in the form of both codified and separate laws. This model can truly and practically implement the concept of community of life in Xi Jinping’s thought on ecological civilization. In summary, as it is not easy to rush the construction of an ecological civilization, the “code + single law” model should be a viable option for the future.

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Problems and countermeasures of juvenile drug crime in contemporary China

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ABSTRACT: China is not an exception to the global problem of juvenile drug crime, which has an impact on youth development and society at large. Since there have been more teenage drug charges in recent years, the issue has progressively grown more complicated. According to survey data in recent years, the abuse of new drugs by Chinese juveniles has become increasingly serious, especially the abuse of new psychotropic drugs. In addition, a large proportion of China's drug abusers are in the youth group, with drug abusers under 35 years of age exceeding 50% of the total number of drug abusers. This article identifies some problems with the prevention and control of juvenile drug crime in China by analyzing data from the China Drug Report and some related research articles published in the previous five years. The article finds increased channels and ways for youth to be exposed to drugs, numerous shortcomings in drug prevention education for youth, and a lack of rehabilitation support for youth drug users. This study proposes effective countermeasures to address these problems: further strengthening the control of drug sources and supervision of places where drugs may be used, further improving drug safety education for youth, and strengthening rehabilitation support for adolescent drug users through community rehabilitation.

Keywords: juvenile drug crime, China, prevention and control, education, rehabilitation

1 INTRODUCTION

China's fast urbanization and economic growth have dramatically changed its social structure, posing both possibilities and difficulties. While economic development has increased many people's quality of life, it has also exposed society's most vulnerable segments to new dangers and temptations. Drug abuse has emerged as one of these dangers, particularly among juvenile individuals. Juveniles' physical and mental health is at risk due to the allure and accessibility of drugs, which also endangers the stability of society as a whole (Wu and Li 2021). Juvenile drug abuse is on the rise, which has spurred academics, decision-makers, and stakeholders to investigate its causes, effects, and potential remedies (Chen 2019). It is vitally important to do a study on juvenile drug crime in modern China. First, every society should be fundamentally concerned with the welfare of the younger generation. This study aims to address a pressing problem that has an impact on young people's health, education, and general social integration by examining the variables that lead to teenage drug use. The development of focused treatments and preventative measures is made possible by understanding the causes and effects of teenage drug use. Second, despite study attempts to comprehend drug-related issues in China, the subject of adolescent drug offences is still comparatively understudied. There is a gap in the body of knowledge about the specific difficulties experienced by young people since the previous study has concentrated on more general drug-related issues or particular demographics. Finally, the establishment of

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evidence-based policies can benefit from breakthroughs in research on teenage drug offences. Policymakers may create policies to fully address the issue and safeguard the safety and well-being of young people by developing appropriate remedies. The purpose of this study is to offer insightful information that can help with the planning and execution of focused interventions, preventative schemes, and rehabilitation programs.

To study the problem of juvenile drug crime in China, the first step is to define the age range of juvenile crime in China. Juvenile delinquency is defined as delinquent behavior committed by individuals at a specific age during the transition from childhood to adulthood. The term “juvenile delinquency” is more commonly used, but there is no unified standard or clear concept globally. The term “juvenile” exists in China’s constitution or other legal documents, but there is no clear statement or definition of the meaning of “juvenile” (Kang 2020). Juvenile delinquency should include both juvenile delinquency and juvenile adult delinquency. According to China’s Criminal Law, the age of criminal responsibility: (1) a person under the age of 14 is not criminally responsible for a crime; (2) a person who has reached the age of 14 but is under the age of 16 falls within the relative age of criminal responsibility; (3) a person who has reached the age of 16 falls within the full age of criminal responsibility; (4) offenders who are 14 years old but less than 18 years old fall within the range of the age of diminished criminal responsibility. It follows that the age range for defining juvenile delinquency from the perspective of Chinese law is at least 14 but less than 18 years old. Combined with the definition of juvenile delinquency from the criminological perspective, juvenile delinquency in China is usually defined as an act committed by a person who has reached the age of 14 but is under the age of 26 in violation of the criminal law and related legal provisions (Kang 2000).

The difficulties in preventing and controlling drug-related criminality among modern Chinese teenagers are the study’s central research question. As well as making pertinent suggestions to deal with the issues at hand and make improvements to the state of teenage drug crime in China at the moment. Analyzing the data and studies already in existence is the research approach used in this study. To learn more about drug-related crimes among young people, researchers studied and contrasted data from the 2018–2021 China Official Drug Survey Report. The analysis of the data was used to explain the problems in drug prevention and control among Chinese adolescents. Recommendations are then made on the current state of drug prevention and control among Chinese youth based on existing research and policies regarding youth drug crime.

2 DESCRIPTION OF THE CURRENT SITUATION OF JUVENILE DRUG CRIMES IN CHINA

2.1 *Juveniles at high risk for new drugs*

The current state of abuse of new drugs in China is becoming increasingly evident, gradually replacing traditional drugs. The abuse of new drugs, especially new psychoactive substances, among Chinese juveniles is becoming an increasingly serious problem (Wu and Li 2021). The common types of drugs are divided into traditional drugs and new drugs. Traditional drugs include opium, heroin, cocaine, marijuana, and other early popular drugs, which are extracted from plants and reprocessed, and are relatively more harmful and addictive, but new drugs include methamphetamine, 3,4-Methylenedioxyamphetamine (MDMA), ketamine, Magu and other chemically synthesized drugs with hallucinogenic and euphoric properties (Kepuchina 2020). They are mainly euphoric, depressant and hallucinogenic, and can damage the nerve center of the human body. In addition, new drugs also include narcotic drugs and euphoric drugs that are controlled by the state and can make people addicted. In recent years, some new drugs are highly disguised in the drug market, such as Lysergic acid diethylamide (commonly in the form of imitation stamps, which can be applied to the skin or placed under the tongue to produce hallucinogenic effects), khat, and nimetazepam (Kepuchina 2020).

Compared to traditional drugs, new drugs have not been around for long in China, but the increase in the number of types and the expansion of the scope of use is relatively rapid, and the forms of drug disguise are more deceptive, so the rising trend of new drug abuse in China in recent years is more obvious. By the end of 2020, among the 1.811 million existing drug users in China, 1.031 million abused synthetic new drugs, accounting for about 57% of the total number of existing drug users (Xiang and Zhai 2020). Juveniles are curious, stimulus-seeking, partially submissive, and socially inexperienced, which leads to a younger age group of drug abusers, and juveniles have become a high-risk group for drug abuse.

2.2 Juvenile is the main group of drugs offenders

With the development of the Internet and the gradual facilitation of transportation, the pace of social development in China has accelerated, and the main body of drug abuse has gradually become younger (Shen 2021). The data on existing drug users in recent years, as compiled by the China Drug Control Network, are shown in Figure 1. The number of drug abusers under age 35 accounted for about 59% of the total number of drug abusers in 2016, of which 0.9% were under age 18; the number of drug abusers under age 35 accounted for about 56% of the total number of drug abusers in 2017, of which 0.6% were under age 18; in 2018 The number of drug users under age 35 accounted for about 52.5% of the total number of drug users, of which 0.4% of the total number of drug users were under age 18; in 2019, the number of drug users under age 35 accounted for about 49% of the total number of drug users, of which 0.3% of the total number of drug users were under age 18. The above data and the official statistics of the total number of drug users in the last 3 years (2020–2022) show that the overall trend of the number of existing drug users in China in recent years is decreasing, the proportion of teenagers using drugs is decreasing year by year, and the proportion of minors using drugs is low in the total number of drug users, but the number of drug users in China is large, and the proportion of drug users under age 35 is over or close to 50%, of which this age group most of them belong to the youth group, so there is a high risk of drug crimes in the youth group.

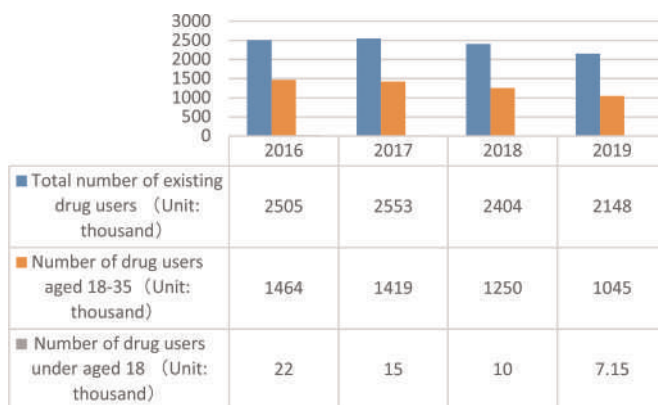


Figure 1. Existing drug users in China 2016–2019 (Shen 2021).

The problem of juvenile drug crime in China presents a relatively serious situation, which indicates that there are deficiencies in the prevention and control of juvenile drug crime in China. This article will analyze some problems in the prevention and control of juvenile drug crimes in China and make some suggestions about solving the problem of juvenile drug crimes in China.

3 PROBLEMS IN THE PREVENTION AND CONTROL OF JUVENILE DRUG CRIMES IN CHINA

3.1 *Juvenile accessibility to drugs*

Firstly, the sources of drugs in China are gradually diversifying. With the increase of drug types, the source of drugs has also changed from a single mode of importing drugs from abroad to a combination of importing drugs from abroad and self-production, and the form of drug transportation has also developed from sea transport to sea, land and air transport. In recent years, the problem of drug smuggling into China from four regions – the Golden Triangle, the Golden Crescent, South Africa and North America – has gradually increased. According to the 2018 China Drug Situation Report, Chinese police seized 43.6% and 23.9% of the total amount of methamphetamine and ketamine, respectively, from the Golden Triangle region (Shen 2021). With China's expanding drug consumption market and the influx of drugs into the country, the probability of youth exposure to drugs has increased.

Secondly, with the rapid development of the Internet and the rapid rise of online payment platforms, the Internet has become a new way to sell drugs, and drug transactions have become more intelligent. Because juveniles socialize mainly on the Internet, they are at a relatively greater risk of being exposed to drugs. Many drug dealers also use the Internet to disseminate information about drug production processes and drug trafficking to juveniles, which provides a convenient channel for juveniles to consume and sell drugs (Shen 2021).

Thirdly, the new psychoactive substances popular with youth groups have a wide variety of smoking methods. New drugs can be used in simpler ways such as sniffing, eating, and snorting, so the choice of places for using new drugs is wide. In addition to being used in private secluded places, public entertainment places such as some bars, Internet cafes and KTV can also be easily accessible. To avoid crackdowns by public security authorities, teenage drug users use video drugs through new chatting apps such as “telegram” and “sky” (Wu and Li 2021). There is a tendency for teenage drug use venues to shift to virtual spaces. In addition, the packaging of drugs has become more concealed, and new types of drugs are sometimes disguised as drinks, chewing gum, and e-cigarettes to avoid police crackdowns (Wu and Li 2021).

Therefore, the expansion of drug sources, the gradual development of online transactions, the greater choice of places for youth to take drugs and the increasingly concealed packaging of drugs have led to greater accessibility of juvenile drugs, and the prevention and control of juvenile drug crimes in China are more difficult.

3.2 *Education and awareness about drugs are not widespread enough*

Schools are generally served as the main venue for drug prevention education, but there are currently several problems with drug prevention education in China. First, drug prevention education is not in place, and drug prevention education in schools is limited to simple knowledge dissemination. The middle school stage should be the focus of drug education, but due to the Chinese education system and environment, schools tend to focus on exams and promotion rates, neglecting quality education and safety education for students. Students are under heavy academic pressure and do not have the time to learn about drug prevention in depth. Most of the drug prevention education in middle schools is conducted traditionally through slogans, pamphlets, and lectures, lacking innovation, interactivity, and relevance (Cao 2020).

Second, there are not enough drug education teachers, and there is a lack of professional teams to disseminate drug prevention-related knowledge. As of 2021, fewer than 10 colleges and universities in China offer anti-drug majors, and fewer than 200 teachers nationwide specialize in the field (Mo 2019). The drug prevention education training efforts conducted by professionals engaged in drug education at local general higher education institutions are often coping, short and quick training as it is commonly known, without longer-term systematic and in-depth training (Cao 2020). In addition, Chinese primary and secondary school teachers generally do not receive systematic and comprehensive training and

instruction in drug prevention education, resulting in the inability of the majority of teachers to take on the responsibility of teaching drug prevention education to their students.

Third, China’s drug prevention education resources are unequal. In regions and key schools with sufficient educational resources, school authorities have sufficient funds and resources to hire or train professional classroom teachers to conduct drug prevention education activities (Cao 2020). Schools that do not have the resources to do so are limited to simply teaching drug prevention through non-professional classroom teachers, and even schools in impoverished areas do not begin drug prevention education-related activities.

Therefore, due to the inadequacy of drug prevention education in most schools, the lack of anti-drug education teachers and professional teams to disseminate drug prevention knowledge, and the unequal resources for drug prevention education in different schools and regions, the prevention of juvenile drug crimes in China has been slow and not effective enough.

3.3 *Inadequate support for rehabilitation of drug-using juveniles*

The Chinese government pays more attention to the rehabilitation of juvenile drug users. There are three models of drug rehabilitation in China: voluntary, mandatory isolation, and community-based. The voluntary drug rehabilitation model involves drug and psychological interventions by medical institutions and is generally used for a small number of drug users who have first contact with small amounts of drugs and are not addicted (Li 2022). The mandatory detoxification model involves the police sending drug users to a mandatory isolation centre for 1–3 years to physically isolate them from drugs for an extended period (Yang and Giummarra 2021). This drug treatment model is the most commonly used in China. The community-based drug treatment model is a way for drug users to gradually detoxify in their communities or families, supervised by community-based drug treatment social workers, to ensure that drug users do not leave society during their detoxification period (Li 2023). The community-based drug treatment model is not mature enough in China because community-based corrections have existed for a relatively short time and are not well developed.

Juvenile drug users who undergo detoxification in compulsory drug treatment centres receive more physical withdrawal treatment from drugs, but psychological dependence on drugs is difficult to address. In addition, due to the prolonged absence of juvenile drug users from society, coupled with stigma and discrimination from family and society against drug users, they may lack financial and emotional support, leading them to be influenced by the outside environment to relapse into drugs (Li 2023). The data presented in Figure 2 are based on the analysis of the 2019–2021 China Drug Situation Report shows 617,000 drug

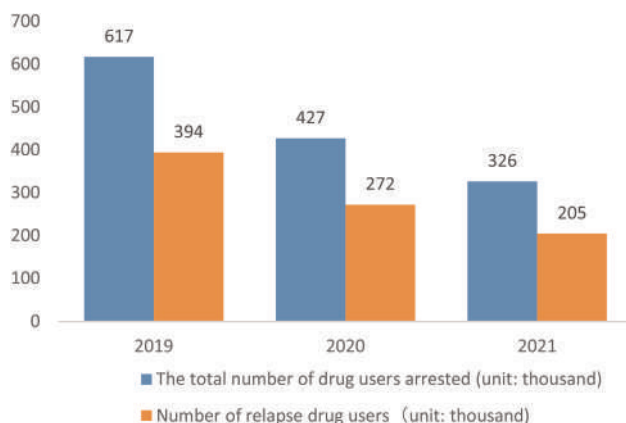


Figure 2. Statistics on drug arrests 2019–2021 (China National Anti-Drug Commission Office 2020; 2021; 2022).

users were arrested in 2019, of whom 394,000 were relapsed drug users and 427,000 drug users were arrested in 2020, of whom 272,000 were relapsed drug users. In 2021, there will be 326,000 drug addicts, of whom 205,000 will be relapsed drug users. The data shows that the relapse rates of drug users caught in the three years are 63.8%, 63.7%, and 62.8% respectively, indicating that the relapse rate of drug users in China is relatively high and the rehabilitation work in China is not sufficient (China National Anti-Drug Commission Office 2020; 2021; 2022).

4 SUGGESTIONS FOR ADDRESSING JUVENILE DRUG CRIME IN CHINA

4.1 *Continue to strengthen control of drugs*

China has done better in the world in terms of anti-drug efforts, but due to its large population and vast geography, the number of drug crimes is still relatively high. Given the challenges posed by juvenile drug abuse, including drug sources, the online drug trade, the explosion of drug venues, and the increasingly hidden packaging of drugs, more needs to be done to strengthen drug control efforts. The first step is to strengthen control of drug sources. Police should crack down on factories that produce drugs in China and control drug production at the source. In response to drug smuggling from abroad, Chinese border agents need to step up screening for hidden drugs, focusing on suspicious items and suspicious people. China also needs to further cooperate with international anti-drug organizations to jointly address the international drug problem.

Secondly, China needs to strictly combat the online drug trade. The government should strengthen the regulation of e-commerce platforms and social media sites and require network operators to implement real-name systems and identity verification to prevent unscrupulous individuals from using virtual network IPs to commit drug crimes. Online platforms should also screen content for youth groups to avoid exposing them to undesirable information. Anti-drug departments should strengthen cooperation with network security departments, apply emerging network algorithms to screen and track keywords involving drugs and improve network early warning capabilities (Wu and Li 2021).

Thirdly, in response to the increase in the number of places where young people take drugs, the government should strengthen the supervision of public entertainment venues, and those in charge should regulate the behavior of entertainment venues themselves. In the face of the trend toward the virtualization of drug venues, network regulators should strengthen the supervision of live-streaming platforms, crack down on illegal platforms where juveniles gather to take drugs and clean up the online environment.

Finally, in response to the increasingly covert nature of drug packaging, anti-drug authorities can use advanced scientific techniques and chemical analysis methods to identify and intercept drugs that are more camouflaged. Juveniles should identify drinks and food handed to them by strangers in entertainment venues, and try not to touch items of unknown origin to prevent unknowing exposure to drugs.

4.2 *Enhance education and awareness about drugs*

Compared to European and American countries, drug prevention education in China still has a lot of deficiencies, mainly in the form of single content of drug prevention education, lack of innovation, interactivity and enthusiasm; insufficient teachers for drug prevention education, lack of professionals to provide drug prevention education to primary and middle school students; and uneven resources for drug prevention education.

Firstly, schools should take responsibility for drug prevention education, enrich the form and content of anti-drug activities, and ensure that drug prevention courses are carried out effectively. Secondly, institutions of higher education should focus on training drug education professionals, offer drug education courses or majors in more universities, and set up

qualification exams for drug prevention educators so that those who obtain education qualifications can be employed by schools, governments, and public welfare organizations so that they can engage in drug education work. Thirdly, in response to the inequality of drug prevention education resources, the government and public interest organizations should provide public interest drug prevention education courses to areas and schools that lack drug education resources and encourage drug education professionals to volunteer for drug prevention education activities in poorer areas to reduce the divide between students in areas with resources and those in areas lacking resources.

In addition to schools, families, public interest organizations, communities, and the government should all be involved in drug prevention education for youth. The Chinese government can refer to the more comprehensive “Drug Abuse Resistance Education (D.A.R.E.)” curriculum in the United States, which integrates parents, communities, government, schools, and public interest organizations into the 12-year drug prevention education process for children from kindergarten through high school (Wang 2019).

4.3 *Improve the rehabilitation system for drug users*

In response to the problem of long-term disengagement of adolescent drug users from society and discrimination from family and society due to the compulsory drug rehabilitation model, which leaves them without financial and emotional support and leads to a high probability of re-abusing drugs, China should further develop the area of social work intervention in the community-based correction of drug-abusing juveniles. Community corrections for juvenile delinquency can help young people feel more accepted in society while also assisting them in confronting their addictions and releasing themselves from the shackles of drugs (Li 2023). In addition to the work that social workers can do to help juveniles recover from drug addiction, they can also promote elements related to reducing stigma and discrimination against juvenile drug users in the community and help rehabilitated drug users integrate successfully into society.

5 CONCLUSION

The study points out some existing issues with juvenile drug crime prevention and control in China. The article first examines the ease with which drugs are available to young people, stressing the expansion of online drug markets, the variety of drug supply, and the drugs’ growing invisibility, all of which contribute to their accessibility. Then it looks at the lack of knowledge and awareness regarding drugs, highlighting the inadequacies of drug prevention education in schools, the dearth of qualified instructors, and the unequal allocation of resources for drug education. The study also analyzes the lack of community-based rehabilitation programs and the difficulties in treating the physical and psychological elements of drug addiction. It concludes by discussing the inadequate support for the rehabilitation of drug-using youngsters. In response to these issues, this study suggests three solutions for dealing with adolescent drug crime in China. The study first highlights the need for the government to keep tightening control over drug sources, which includes battling drug production in China, enhancing border security to stop drug smuggling, outlawing the online drug trade, and tightening regulation of public entertainment venues. This research also recommends that drug education in schools is interactive and innovative, that the number of instructors with professional drug education training is raised, and that equitable distribution of educational resources be guaranteed to improve drug prevention instruction at the school level. Finally, to avoid young drug users from being re-intoxicated with drugs, this study suggests improving rehabilitation assistance for teenage drug users, particularly through community-based rehabilitation to address the psychological components of juvenile drug addiction.

This study provides support for policymakers and law enforcement agencies, as well as a foundation for other researchers working in the field to further study the problem of juvenile drug offending in China. However, this study also has some limitations, and more research is needed to evaluate the long-term effectiveness of different prevention and rehabilitation strategies. Future research could further explore the underlying social and economic factors that contribute to the prevalence of drug offending among Chinese youth, as well as delve into the challenges faced by marginalized groups and develop targeted interventions to address drug offending among Chinese youth.

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The inequality of healthcare between urban and rural areas in China in recent ten years

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ABSTRACT: Inequality of healthcare is one of the hottest social problems in China nowadays since it can affect national social welfare and country development on a huge level. Lots of researchers have discovered the possible problems that cause the inequality and pointed out specific suggestions that try to solve the inequality in the Chinese healthcare system, but a systematic review of the gap in healthcare service is still needed, especially between urban and rural areas. Through collecting and analyzing data from the central government and local governments about the situation of healthcare in both areas, this paper explores the inequality of healthcare between urban and rural areas in the last ten years in China. After researching, the paper finds that the inequality of healthcare exists between rural and urban areas significantly in all aspects of availability, affordability, and support from the government. The main reason might be the different levels of technology and economic development in cities and villages. By investing more funds in developing industries in rural areas, the central government can relieve the significant inequities.

Keywords: Inequality, Healthcare, Areas

1 INTRODUCTION

With Chinese society's rapid development and widespread all-round education, people pay more and more attention to healthcare problems. Among these problems, one of the hottest and most important is the inequality of healthcare between urban and rural parts of China, since solving this problem in China is essential for social welfare and country development. There are more than a hundred journals on China's national knowledge infrastructure that have discussed this topic in the last ten years. However, through all these journals, both of them lack a systematic review of the unbalanced relationship between urban healthcare and rural healthcare. As a result, this passage will reveal the current Chinese status of healthcare disparities in urban and rural areas from both the perspectives of urban cities and rural areas. This study reviews the differences in the availability of healthcare, affordability of healthcare, and support from the healthcare government in China.

2 ACCESSIBILITY HEALTHCARE RESOURCES IN CHINESE URBAN AND RURAL AREAS

2.1 *The distribution of healthcare institutes in urban and rural areas*

According to the statistics for 2019, there are 18179 regular hospitals in urban areas, which is 2000 more than in rural areas. Compared to urban areas, there are more community medical

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institutions in rural areas: there were a total of 768,792 community medical institutions in rural areas in 2019, but only 186,198 community medical institutions in urban areas (National Health Commission of the People's Republic of China 2021). However, more community medical institutions do not mean that rural areas will have better medical conditions than urban areas. According to the essay written by Jianning Han and Fuqing Liu in 2019, the construction of health institutions at the community level lags behind large public hospitals from many perspectives. For example, these health institutions have fewer effective drugs, limited diagnosis and treatment, insufficient basic medical functions, and low service capacity (Jianning & Fuqing 2019). Among the 25593 community-level health institutions in villages, a total of 894 of them have more than 100 beds. In contrast, there are 13621 hospitals with more than 100 beds among 34354 hospitals in urban areas (National Health Commission of the People's Republic of China 2021). The ratio of healthcare institutes with more than 100 beds between rural and urban areas is nearly one to ten. All the data collected show the inequality in the distribution of healthcare institutes between two areas: urban areas have higher accessibility than rural areas.

2.2 *The distribution of healthcare workforce resources in urban and rural areas*

In 2019, there were a total of 6,665,163 healthcare personnel in urban areas of China and 6,253,172 in rural areas. There are a total of 411,991 more healthcare personnel in urban areas than in rural areas. Among all the healthcare personnel, there are 5,538,282 medical technical personnel in urban areas, but only 4,605,728 in rural areas (National Health Commission of the People's Republic of China 2021). From 2014 to 2019, the number of rural doctors in China decreased from 1058182 to 842302, while the number of medical technical personnel increased from 7,589,790 to 12,928,335. According to national health statistics in 2019, in urban areas, the proportion of professors of medicine in the whole healthcare personnel population among hospitals is 2.4, and the proportion of assistant professors of medicine is 7.3. Rural areas have a much lower proportion compared to urban areas: there are only 0.1 professors of medicine and 2.3 assistant professors of medicine (National Health Commission of the People's Republic of China 2021). This dramatic difference in medical professionals creates huge inequality in healthcare workforce resources in cities and villages, which will lead to a decline in the availability of healthcare resources in China.

2.3 *The distribution of healthcare institutes in urban and rural areas*

Between the city and the countryside, there is a significant difference in the accessibility of healthcare knowledge. According to the essay written by Yujie Chou in 2021, a precious survey has been conducted, which shows that the awareness rate of nutrition and healthcare knowledge in urban areas in the eastern region of China is 26.3 percent, but only 15.4 percent in rural areas (Yujie *et al.* 2022). In the western region of China, the awareness rate of nutrition and healthcare knowledge in urban areas is 19.3 percent, but only 10.9 percent in rural areas (Yujie *et al.* 2022). There are other aspects of life in countries and urban places that differ from each other, like mental health. The rate of awareness of mental health knowledge for people living in rural areas of Henan, Guangdong, and Inner Mongolia is 79.8 percent, but 81.4 percent in urban areas (Xun *et al.* 2022). There is a gap of 1.6 percentage points between them. At the same time, according to the report "The 11th Sample Survey of Chinese Citizens" Literacy Level by the China Research Institute for Science Popularization, the civic science literacy level of urban residents and rural residents was 13.75 percent and 6.45 percent in 2020, respectively, which has a gap of 7.3 percentage points (Xun *et al.* 2022). In the civic science literacy survey, one of the tasks is "Advocating health and hygiene, opposing ignorance, superstition, and negative traditions" (Outline of the Action Plan for Scientific Literacy of the Whole People (2006-2010-2020), 2006). Hence, the

result of this survey is enough to reflect the different healthcare levels of citizens. Compared with the difference of 7.29 in 2015, the gap between urban and rural residents has not been narrowed (China Research Institute for Science Popularization 2021). Through these data, the difference in popularization of healthcare knowledge in urban and rural areas is still really obvious, which might cause inequality.

3 AFFORDABILITY OF HEALTHCARE RESOURCES IN URBAN AND RURAL AREAS IN CHINA

3.1 *The family income in urban and rural areas*

According to statistical data from the Chinese government, in 2008, disposable income per person in urban areas was 22,727 yuan, and in rural areas was 9,258 yuan (Central People's Government of the People's Republic of China 2020). Since 2008, with the progress of technology and the improvement of people's living quality, citizens' disposable income has been increasing gradually. In recent years, with the introduction of national policies such as rural revitalization and special poverty alleviation, the urban-rural income gap has narrowed somewhat, but the situation is still severe. The disparity between the disposable incomes of urban and rural populations is at least 2.5 (Yongze & Rui 2023). In 2016, the urban individual disposable revenue was 33,616 yuan, while the rural individual disposable revenue was 12,363 yuan (Central People's Government of the People's Republic of China 2017). Urban inhabitants' disposable income per person will be 49,283 yuan in 2022, while rural residents' disposable income per person will be 20,133 yuan (Central People's Government of the People's Republic of China 2023). In the first quarter of 2023, urban people will have an average disposable income of 14,388 yuan, while rural residents will have an average disposable income of 6,131 yuan (Central People's Government of the People's Republic of China 2023). According to the data from the National Bureau of Statistics, the per capita disposable income of both people living in these two areas is increasing, but the injustice between these two areas always exists, which means there must be an inequality between the affordability of healthcare resources in these two areas.

3.2 *The healthcare expenses in urban and rural areas*

In 2019, healthcare expenses were 6.64 percent of the national GDP in China. The Chinese total expenses on healthcare are 658.4139 billion yuan; among these, the government expenses are 180.1695 billion yuan, which represents 27.36 percent of total health expenditure; the society expenses are 291.5057 billion yuan, which represents 44.27 percent of total health expenditure; and the individual expenses are 186.7387 billion yuan, which represents 28.36 percent of total health expenditure (National Health Commission of the People's Republic of China 2021). From 2006 to 2016, both healthcare expenses in urban and rural areas increased. Urban healthcare expenses rose from 71.7473 billion yuan to 354.5801 billion yuan, while rural healthcare expenses rose from 26.6861 billion yuan to 108.8687 billion yuan. So, it is reasonable to predict that healthcare expenses in 2023 will still increase, but the huge difference between urban and rural areas will still exist. Similar to total healthcare expenses, per capita health expenditure is also on the rise. From 2006 to 2016, per capita health expenditure in urban areas increased from 1248.3 yuan to 4471.5 yuan, while it increased from 361.9 yuan to 1846.1 yuan in rural areas (National Health Commission of the People's Republic of China 2021). From the data, urban and rural areas have a significant difference in healthcare expenses. Based on the 2016 family income in urban and rural areas mentioned in the last paragraph, healthcare expenses total 13.3 percent in urban family income and a total of 14.9 percent in rural family income; this means that rural areas bear a heavier burden in medical expenses compared to urban areas.

3.3 *The social welfare of healthcare for citizens in urban and rural parts*

To address the expensive healthcare expenses that citizens are not able to afford, the government provides lots of social welfare programs to help citizens achieve better health conditions. Among these social welfare programs, the most effective and direct one must be healthcare insurance. Basic medical insurance for urban employees, free medical care, basic medical insurance for non-working urban residents, a new rural cooperative medical system, other social medical insurance, and no social health insurance were all included in the national healthcare insurance in both of its two components in 2008. In 2013, the national healthcare insurance system included free medical services, including cooperative healthcare for urban areas and the countryside. However, in 2018, health insurance was divided into three categories: no social health insurance, other social medical coverage, and basic healthcare coverage for urban employees and rural inhabitants (National Health Commission of the People's Republic of China 2021). What is important is that since most rural people do not have formal companies to offer them basic healthcare insurance for workers, most rural residents have basic healthcare coverage for residents in two areas, other social healthcare coverage, and no social health insurance. In the composition of the resident social medical security system for basic medical insurance for urban workers, urban areas are 38.8 percent, while rural areas are only 6.6 percent (National Health Commission of the People's Republic of China 2021). Urban regions make up 73.3 percent of the citizens' public medical security system's basic healthcare coverage for both areas' residents, while rural areas only make up 91.1 percent. With the composition of the resident public medical security system for other social medical insurance, urban areas are 0.7 percent, while rural areas are only 0.1 percent. In the composition of the resident social medical security system without social health insurance, urban areas are 3.5 percent, while rural areas are only 2.3 percent. Furthermore, considering the lack of economic development in some poor rural areas, the government also implemented some additional healthcare security measures. For example, most provinces have set the threshold for rural residents to pay for serious disease insurance, lowering it to 50 percent of their per capita disposable income last year (National Health Commission of the People's Republic of China 2021). Based on the data, unlike in other perspectives, the difference between the social welfare of healthcare for citizens in the two areas is not so big, so the inequality of affordability of healthcare resources in urban and rural areas in China is not so obvious in social welfare.

4 SUPPORTS FOR URBAN AND RURAL AREAS HEALTHCARE RESOURCES IN CHINA

4.1 *Support for the healthcare system from local governments*

To illustrate the unequal support of the healthcare system from the local government, Guangzhou province will be a good example. The main support for the healthcare system from the local government in Guangzhou is through insurance. At the end of 2013, 10,157,200 residents of the city—including 5,382,800 urban workers—had basic medical insurance coverage. There were 2,656,100 participants in basic medical insurance among urban and rural (town) populations. A total of 2,118,400 individuals, or 99.98% of rural dwellers, engaged in the new rural collaborative medical treatment system (National Health Commission of the People's Republic of China 2021). It can be seen that the increase in the participation rate of the new rural cooperative medical insurance is lower than that of the urban basic medical insurance. The increase rate and the specific quantity are greatly different, and there are many unbalanced problems between urban and rural government investment (Zhenming 2017). When comparing the support provided by the two locations, there are several instances of unfair healthcare resource allocation. When it comes to medical insurance, there is a clear disparity between the investments made in primary medical

insurance, new rural collective health services, and the growth of the covered group. On one side, there is a significant disparity in the level of security between urban and rural communities due to the expansion and much larger development of the basic healthcare security system for urban citizens than it is for rural inhabitants. On the other side, there is a severely lopsided investment ratio between the new rural collective healthcare system and basic healthcare coverage for city dwellers. Therefore, access to medical care has become an extravagant hope for many rural people, while basic healthcare protection for city inhabitants is far better than that in villages (Zhenming 2017). The distribution of healthcare resources by the Guangzhou government is representative throughout China. With the example of Guangzhou, there is huge inequality between rural and urban areas in support of the healthcare system.

4.2 Support for the healthcare system from the central government

To analyze the support for the healthcare system from the central government, there are three aspects to discuss. In terms of the number of beds in healthcare facilities and the number of health technicians, the number of beds per 1,000 people in cities' healthcare institutions increased by 5.19% from 2005 to 2019, but this number only increased by 3.38% from 2005 to 2019 in rural healthcare institutions (Wenhui 2021). Similar to the number of beds, the number of health technicians in rural areas lags behind urban areas by a huge number. As a whole, there is still a large gap between the number of beds in healthcare institutions in two areas and the distribution of health technicians, and compared to rural regions, the government invests substantially more in urban medical care. In the aspect of urban and rural health expenditure and per capita health expenditure, which can reflect the amount of government investment in health, inequality still exists (Wenhui 2021). In 2016, the rural-urban health expenditure ratio reached 3.26 and the per capita health expenditure ratio reached 2.42, indicating a significant imbalance between urban and rural health expenditure (Wenhui 2021). In the aspect of the number of healthcare devices above 10,000 yuan, which can reflect the gap in the quantity and quality of urban and rural medical resources to a certain extent, the difference between rural and urban areas is obvious. In 2019, primary medical institutions in rural areas had 20,850 and 8,367 units of medical equipment worth 500,000 to 990,000 yuan and more than 1 million yuan, respectively, while hospitals in urban areas had 859,583 and 20,850 units, nine times and 23 times more than primary medical institutions (Wenhui 2021). However, considering the situation in rural areas, the central government did propose some special anti-poverty projects, like providing special assistance to low-income families and spending-poor families (Baoying & Ting 2023). However, this kind of assistance is still a minority, so the inequality between rural and urban areas in support of the healthcare system from the central government still exists and cannot be eliminated temporarily.

4.3 Educational support for healthcare workforce development

In 2019, the number of medical major graduates from general institutes of higher education was 828,398. The number of medical major graduates from secondary vocational school, including secondary vocational students, ordinary technical secondary school students, adult technical secondary school students, and vocational high school students, is 401,072. The number of graduate students in medical science majors in 2019 was 74371 (National Health Commission of the People's Republic of China 2021). According to the National List of Higher Education Institutions published by the Ministry of Education of the People's Republic of China, all general institutes of higher education are located in urban areas, and nearly ninety percent of secondary vocational schools are also located in urban areas (Ministry of Education of the People's Republic of China 2021). This shows the huge inequality in educational support for healthcare workforce development between rural and

urban areas, as there are only a few formal schools in rural areas that can provide healthcare education. This further causes the difference between educational background and professionalism between healthcare technicians in rural and urban healthcare institutes. In 2019, the proportion of graduate students in urban hospitals was 8.1, but only 0.1 in rural healthcare centers (National Health Commission of the People's Republic of China 2021). There is significant inequality in the healthcare workforce between the two regions. To send people with the ability to rural areas, there should be some policies in the education aspect. For example, the education for the medical students might encourage them to go back to their hometowns in rural areas and contribute their power to building their hometowns. In this way, the inequality can be relieved a little bit.

5 CONCLUSION

According to the research, the paper finds that the inequality of healthcare between urban and rural areas has been significant in China in recent years, no matter the aspects of the availability of healthcare, affordability of healthcare, or support from the healthcare government. The main reason behind this inequality might be different levels of technological development. Unlike urban areas, which already achieve automation, the main industry in rural areas is still agriculture and handicraft; the rural areas have a much lower rate of economic development. That causes rural people to lag behind in both education and income from urban people, so the gap appeared. Healthcare technicians in rural areas are usually not professional and experienced; healthcare institutes in rural areas cannot provide complete and advanced therapy to patients; and the support from governments is not as strong as that in urban areas. The gap between the two areas will become more and more significant. However, the Chinese central government did realize this large gap, so it introduced a series of healthcare security measures to prevent the increase of the gap as much as possible. These measures are effective, but they do not cover all rural people suffering from inequality yet. Therefore, the next step for the government might be to expand the range of healthcare security measures in rural areas. This research makes up for the lack of systematic reviews of the difference in healthcare between the two regions in other journals and provides a serious problem that needs to be settled to improve social welfare. Nevertheless, the research still lacks some social practice, which means that it needs some field research and experimental data to support the result. Furthermore, since the effect of COVID-19 and other factors is discussed, some statistics in the passage come from 2019. More recent data are also needed to provide a better view of the result. In the future, experiments will be conducted, and updated data will be used.

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Long-term care insurance in Germany: Institutional structure, reform orientation and lessons for reference

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ABSTRACT: With the aggravation of China's aging population, the care of the disabled elderly has gradually attracted the attention of all walks of life. China's Long-Term Care Insurance (LTCI) has been piloted since 2016. The schemes vary widely among pilot cities but generally present problems such as weak system independence, narrow coverage, poor financial sustainability, and lack of guarantee for service quality. Germany entered the aging society earlier and implemented the LTCI system in 1995 and regards the system as a key measure to solve the problem of rapidly growing long-term care demand. After over 20 years of reform and practice, Germany has formed a complete LTCI system. Therefore, this article comprehensively reviews the basic content of the LTCI system structure in Germany, analyzes its beneficial reform orientation in the process of operation, and combines the practical situation of two batches of pilot cities in China to provide reference experience for the development of China's LTCI system: first, China should strengthen the independence of the LTCI system; second, China should standardize the nursing level evaluation; third, China should strengthen cost control to achieve financial sustainability; fourth, China should attach importance to the guarantee of service quality.

Keywords: China, Germany, Long-Term Care Insurance, Reform

1 INTRODUCTION

Since China officially entered the aging society in 1999, the degree of population aging has been continuously deepening. According to data released by the National Bureau of Statistics, in 2022, the population aged 65 and above in China reached 209 million, accounting for 14.9% of the total population (National Bureau of Statistics 2023). According to the prediction of the World Bank, the number of elderly populations will increase significantly from 2015 to 2040, and the population structure will age rapidly. Due to aging, physical, cognitive, or mental disorders increase the probability of reduced self-care ability, leading to a rapidly growing trend in disabled people. According to the results of the Fourth National Sample Survey on the Living Conditions of the Elderly in Urban and Rural Areas, the number of partially or completely disabled elderly people in urban and rural areas reached 40.63 million, accounting for 18.3 percent of the total elderly population (People.cn 2023), and it is expected to reach over 77 million by 2030 (Dai 2022). In the context of an aging population and a rapidly increasing number of disabled people, China has formulated a development plan for the LTCI system. In 2016, China began piloting pilot programs for the LTCI in 15 cities, including Shanghai, Qingdao and Guangzhou. So far, two batches of 29 cities have carried out pilot programs. Based on the pilot programs, LTCI will be extended nationwide.

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Germany has a strong tradition of nationalism, and the concept of “state responsibility” for social security has been written into the German constitution as a fundamental principle. The super-rational country must use its legal authority to safeguard the common well-being of the people (Fang 2018). Germany was also the first country in the world to incorporate long-term care into its statutory social insurance system explicitly. Germany is the country with the highest degree of aging in Europe. In 1960, the proportion of the elderly population aged 65 and above in Germany was 11.5%, which increased to 14.9% in 1990. Care risk increases with age, resulting in the number of people with nursing service needs expected to increase from about 1.6 million in the early 1990s to about 3 million in 2040 (Dai 2022). In order to cope with the rapid growth of long-term care demand, the German government in 1994 issued the *Pflege-Versicherungsgesetz* (PflegeVG), which had been written into *Sozialgesetzbuch XI* (SGB XI), implemented on January 1, 1995, after more than 20 years of reform, has formed a set perfect system of the LTCI system, and achieved good results. Compared with Germany’s relatively complete LTCI system, the pilot of China’s LTCI is not optimistic. Generally speaking, problems such as weak system independence, narrow coverage, poor financial sustainability, and lack of guarantee for service quality need to be solved urgently. Therefore, this paper will comprehensively sort out the successful experience of the LTCI system reform in Germany and connect with the practical situation of the two batches of pilot cities in China for comparative analysis.

Previous studies have explored LTCI reform in Germany from multiple perspectives. Germany’s LTCI system has excellent and precise institutional design in various aspects, such as fundraising, benefit clauses, cost control, and quality assurance, and has made significant achievements in social reform (Hao & Li 2014). First of all, the importance of nursing grading is beyond doubt. The evaluation content should be comprehensive and the evaluation indicators should be perfect, so as to accurately provide care services for disabled personnel (Gao 2020). Furthermore, in the operation process of the LTCI system, the system coverage should adhere to the principle of universality, the financing should be clear about the responsibilities of all parties, and the system payment should implement the principle of budget and cost control (Fang 2018), in order to realize the financial sustainability of the insurance fund, and it is necessary to strengthen the supervision of service quality to ensure the quality-of-care services (Ma & Yuan 2018). Foreign scholars have focused on analyzing that with the increase in the number of elderly people in Germany, the contribution rate of LTCI will continue to rise (Rothgang 2010). Although the existing research is helpful to improve the LTCI system in China, it is not comprehensive. Therefore, on the basis of comprehensively sorting out the basic contents of the LTCI system structure in Germany, this paper summarizes the beneficial reform orientation in order to gain enlightenment for the development of LTCI in China.

2 STRUCTURE OF THE GERMAN LTCI SYSTEM

There are several core issues in the structure of the LTCI system: the insured and the eligibility, the financing and payment of benefits, and the guarantee of the quality of long-term care services. The following will carry out a specific analysis of the German LTCI System from these aspects.

2.1 *The insured and the eligibility*

PflegeVG stipulates the principle that “nursing insurance follows medical insurance”. Similar to the medical insurance system, the LTCI system also implements the “dual-track system”. The people who participate in the statutory medical insurance participate in the Social LTCI in their statutory medical insurance institutions, and their spouses and children participate automatically. Those who participate in private medical insurance participate in

the Private LTCI, insurance companies must accept, not to refuse insurance on the grounds of high risk, but also individuals can voluntarily participate in the Social LTCI. The payment of benefits of the Private LTCI is consistent with the Social LTCI. In addition, groups such as state officials, civil servants, police officers, and firefighters who enjoy special allowances are covered separately by the State for the Private LTCI at the expense of the State. In 1995, when the system was established, the insured rate of Social LTCI reached 88.03%. By 1997, the number of people without LTCI only accounted for 0.3% of the total population (Yao 2011). It can be seen that the Germany's LTCI System has a very high coverage, and almost all citizens are included in the LTCI system because of the elaborate institutional arrangement.

In Germany, LTCI benefits all citizens, there is no age limit, everyone has equal access to care services, and eligibility is determined based on disability: all persons requiring long-term care services are eligible to apply for care services by law if they have a physical or mental illness that requires care for more than six months. Long-term care is mainly divided into home care and inpatient care. Depending on the intensity and length of care, the level of long-term care services can be divided into three levels, from level I to level III, the intensity gradually increases. There are two disability evaluation agencies in Germany, the third-party evaluation agency Medizinischer Dienst der Krankenversicherung (MDK), responsible for the Social LTCI, and the Private LTCI evaluation agency Medicproof. Although the evaluation agencies of different insurance are different, the evaluation standards are consistent. Moreover, the two are relatively independent of the nursing insurance fund, which can maintain objective and fair evaluation results. After evaluation, the insurance institution makes a judgment. The separation design of evaluation and judgment can also ensure the fairness of evaluation results. The initial evaluation included only four factors: physical care, diet, activity and household activities. These factors were mainly related to physical activities requiring assistance, and the government failed to consider people with cognitive and psychological fully.

2.2 The financing and payment of benefits

Establishing adequate and stable fund to ensure financial sustainability is crucial to developing the LTCI system. The contribution rate remained at 1.7% from 1996 to 2007. The Social LTCI fund in Germany adopts the pay-as-you-go system, in which employers and employees contribute in the same proportion and bear nearly two-thirds of the insurance cost, while the other third is financed by other income, such as national finance. The policyholder's income directly determines the premium and does not depend on the insured risk. This regulation has a clear function of income redistribution and embodies the principle of mutual aid of the social insurance system. In addition, there are also relief policies for those who are not able to pay. For example, spouses and children whose monthly average family income does not exceed the threshold of a small working income can be co-insured for free; on January 1, 2008, it was set at €355; for those who receive unemployment benefits and minimum living security, nursing insurance premiums will be paid by the Federal Employment Agency; before January 1, 2004, pension insurance institutions paid half of the nursing insurance premiums for retirees. Unlike the Social LTCI, the Private LTCI determines the contribution rate based on the age of the insured, Private LTCI premiums cannot exceed the maximum limit for Social LTCI. However, only those who meet the "nursing necessity" concept can enjoy long-term nursing insurance benefits (Yao 2011). The payment of benefits is not guided by the needs of the insured, and this is done to control rapid expenditure growth. The benefits can generally be divided into two categories: cash subsidies and care services. A typical feature is that the actual value of cash subsidies in-home care is less than half that of services value, and beneficiaries can also choose mixed payment, while inpatient care only has cash payment. The level of payment varies according to the care services and the level of care, but under the same conditions, the payment is consistent for everyone, which realizes the system fairness from fundraising to payment of benefits.

Germany's Social LTCI adopts the budget principle of "expenditure determined by revenue, with a slight surplus" (Yuan & Liu 2019). The cost control mechanism is the key measure to ensure the financial sustainability of the LTCI system. PflegeVG stipulates that the level of payment must be cost-effective and not exceed necessary standards, and the benefits should be basic care in cases where care is needed (Dai 2015). The "social state" principle in the traditional culture of Germany regards long-term care as a family risk rather than a social risk, which determines that the LTCI system adheres to the principle of partial responsibility (Zhao 2018). The beneficiaries usually have to bear at least 25% of the nursing cost, due to the large reimbursement amount of inpatient care, beneficiaries generally have to bear 50%, which controls the beneficiaries' motivation of excessive consumption of care services to a certain extent. Prioritizing home care over inpatient care is a major characteristic of LTCI benefits in Germany. PflegeVG guarantees the treatment of those who provide home care through social insurance. For those non-occupational caregivers who are unable to work because of care services, or who work less than 30 hours per week, they can receive a nursing benefit from the insurance fund and a statutory pension premium, which is determined by the care level and time. The reduction of inpatient care had achieved significant results, with 80% of people in need of inpatient care before PflegeVG was enacted, while after the reform, this number has been reduced to 25% (Yao 2011). In addition, the number of home care institutions continued to increase, from 10820 in 1999 to 11529 in 2007, better meeting the care needs of beneficiaries (Yao 2011). Since 2002, the number of people receiving home care has more than doubled that of inpatient care (Zhao 2018). Germany also adheres to the principle of prevention and rehabilitation over care. Disability outcomes are reassessed yearly for people in care, and reforms in 2008 set up incentives and penalties for "rehabilitation services" for care providers. The cost control mechanism had achieved good results. From 1997 to 2009, the fund maintained a break-even balance every year, and by the end of 2009, the Social LTCI fund had accumulated a balance of 4.8 billion euros (Hao & Li 2014). Although the scale of Private LTCI is relatively small, thanks to its adoption of a prepaid fund system, there has been a certain balance in its financial situation since 1995 (Yao 2011).

2.3 *The guarantee of the quality of long-term care services*

PflegeVG requires the inpatient care services and home care services to be of the same basic quality. The Sozialgesetzbuch (SGB) stipulates that local governments at all levels, together with the Long-term Care Associations, form the Federal Long-term Care Federation to prescribe uniform principles and standards for the quality-of-care services and quality assurance and quality review procedures. Then the State Nursing Insurance Association commissions the MDK to monitor and review the quality of services in nursing institutions every five years. When a major problem arises, the nursing institution and the nursing fund contract can be terminated.

In Germany, nursing service institutions must employ at least one registered nurse who has worked in practice for at least two of the past five years to qualify as a service provider (Dai 2015). According to SGB, in addition to the completion of training, passing the unified national examination, and obtaining the vocational qualification certificate, the professionals in home care and institutional care should have two years of practical professional experience within the past eight years and the skilled nursing staff should also receive no less than 460 hours of advanced continuing education (Dai 2022). In addition, the LTCI fund must provide funding for free training for informal caregivers.

3 CHALLENGES AND REFORM ORIENTATION

Since the 1990s, due to the influence of the fertility concept and economic considerations, people are generally not willing to have children, and the birth rate in Germany has

continued to decline, resulting in a negative natural population growth rate for years. By 2050, more than 40% of people are expected to be aged 60–100, and the number of people aged 20–60 will fall to 27 million (Dai 2015). Under the aging population trend, the number of disabled, elderly people with care needs will increase substantially, and the care needs will also rise sharply. Under the background of the rapid growth of diversified nursing demand and the rising price of care services, the pressure on the balance of income and expenditure of the Social LTCI fund is increasing. In addition, without strengthening and improving the supervision mechanism and standardizing the nursing personnel team, the quality-of-care services is difficult to be fully guaranteed. All these bring severe challenges to the future development of the long-term care system. Given this, the reform of the German government in recent years and the future will focus on ensuring operation, adjusting payment levels and strengthening quality supervision.

3.1 *Adjust contribution rate and set up reserve fund*

Since 2004, retirees must pay 100% of their insurance contributions. Since January 1, 2005, adults over the age of 23 without children will have to pay 0.25% more premiums. This is because under the pay-as-you-go system, the beneficiaries will actually benefit from the contributions of future children, and the employer's contribution rate will remain unchanged. On July 1, 2008, PFWG came into effect, then, treatment payment linked to the level of inflation and the standards of care payment will be evaluated and adjusted every three years, and the payment increase will not exceed the rise in GDP in the same period. The contribution rate increased from 1.7% to 1.95% and 2.20% for those without children. After 2008, the contribution rate of the Social LTCI in Germany entered a rhythm of continuous growth. The contribution rate in 2013, 2015, 2017, and 2019 was 2.05%, 2.35%, 2.55%, and 3.05%, respectively. According to the 2019 report of the German Federal Ministry of Health, from 2003 to 2008, the financial situation of the Social LTCI in Germany was in a net negative state, and from 2008 to 2016, it was in a long-term surplus state, this is inseparable from Germany's increasing contribution rate (Liu 2021).

In 2015, 0.1% of monthly premium income will be used to accumulate reserve fund, which will be raised from February 2015 to December 2033 (Qi 2022) and will play a role in stabilizing the Social LTCI fund from 2035 to cope with the vast demand and fund operation pressure brought by the baby boomers.

3.2 *Expand care levels and adjust payment levels*

In 2016, the *Zweites Pflegestärkungsgesetz (PSG II)* introduced a new concept of “neediness of care”, with the “independence” as the focus of evaluation (Su 2020). The new evaluation standards officially implemented in 2017 explicitly include people with dementia in LTCI and evaluate the degree of final care needs of the demanders through a weighted comprehensive evaluation of each evaluation module. The nursing levels had been expanded from the previous three to five, the original levels of care from I to III had gradually increased to II to IV, and the extremely intensive care in the original level III had been classified as level 5. The minimum level is level I, it does not include any cash subsidies or nursing services, which means “slight impairment of self-care ability”, mainly enjoying auxiliary services such as nursing planning and accessible housing renovation. The detailed explanations and examples for each level in the evaluation manual had improved the reliability and effectiveness of the evaluation.

The insurance payment limit had also been adjusted again. Prior to July 1, 2008, the payment of benefits was not adjusted. In the reform of 2008, 2010, and 2012, the payment standards of each level of home care were significantly improved, but the standards of inpatient care level III had improved relatively small, level I and level II had not been adjusted (see Table 1). This trend reflects the fact that Germany encourages those with mild

and moderate disabilities to choose home care to strengthen care cost control. Moreover, nursing evaluation is becoming more and more rigorous. From 1996 to 2016, the assessment of nursing levels showed a trend of increasingly lighter, the proportion of level I increased from 40.1% to 58.7%, level II decreased from 43.3% to 30.4%, level III decreased from 16.6% to 10.9% (Fang 2018). But the government's support for home caregivers was constantly strengthening. In 2008, the Pflegezeitgesetz (PflegeZG) was enacted, giving employees 10 days of unpaid leave to provide home care for their relatives. Later, Pflegezeit made improvements, allowing employees working in companies with more than 15 employees to enjoy six months of home care per year and the right to maintain their jobs. During the Pflegezeit, the employers pay only part of the salary, employees can take out interest-free loans to support themselves. In 2011, further convenience has been provided for home caregivers to care for their relatives. The Familienpflegezeitgesetz (FPfZG) stipulates that employees who work no less than 15 hours per week in a company with at least 25 employees are entitled to the Familienpflegezeit, up to 24 months.

Table 1. Nursing levels and payment adjustment of LTCI in Germany (Su 2019).

Mode of care	Nursing levels	Payment limit (Euro/month)					
		1996~2007	2008	2010	2012	2015	2017
Home care cash subsidies	Level I	384	420	440	450	468	II 689
	Level II	921	980	1040	1100	1144	III 1298
	Level III	1432	1470	1510	1550	1612	IV 1612 V 1995
Home care services	Level I	205	215	225	235	244	II 316
	Level II	410	420	430	440	485	III 345
	Level III	665	675	685	700	728	IV 728 V 901
Inpatient care	Level I	1023	1023	1023	1023	1064	II 770
	Level II	1279	1279	1279	1279	1330	III 1262
	Level III	1432	1470	1510	1550	1612	IV 1775
	Extremely intensive	1688	1750	1825	1918	1995	V 2005

3.3 Strengthen quality supervision and standardize the nursing personnel team

Pflege-Qualitätssicherungsgesetz (PQsG), promulgated in 2002, is the first law on the quality of the system to be enacted at the national level. PQsG stipulates that long-term care providers are responsible for the quality-of-care services and has been improved many times since its promulgation. The theoretical and practical circles in Germany generally believe that supervising service quality through agreement is better than supervising unilateral power behavior (Ma & Yuan 2018). In 2008, PFWG stipulated that government agencies, acting as supervisors, join the nursing service contract as a third party to supervise the provisions related to the quality of long-term care service. PFWG also increased the frequency of supervision by third-party evaluation institutions (MDK), from once every five years to once a year. Since 2011, random inspections have been conducted, which include the satisfaction of the patients being cared for, the effectiveness and timeliness of nursing facilities, and the allocation of nursing facilities, and also provided recommendations to nursing institutions. To enhance the transparency and objectivity of the evaluation, MDK will promptly publish the evaluation results on websites, nursing homes, nursing institutions, etc. In 2017, it was further clarified that home care provided by professional care institutions was also subject to MDK review, further expanding the scope of the audit. On January 1, 2019, Germany released a new nursing quality standard that focuses more on the subjective

feelings of long-term nursing needs and will be updated every two years to adapt to changes (Qi 2022). It can be seen that Germany attaches great importance to the supervision of care services and takes measures such as increasing the frequency of review, expanding the scope of review, publicizing the review information and updating nursing quality standards to improve the quality of service continuously, and also encourages various service providers to conduct healthy competition around service quality and service efficiency.

A professional nursing personnel team is the cornerstone to ensure the quality-of-care services. Compared with increasing the number of nursing personnel, Germany pays more attention to the professional improvement of nursing practitioners. In 2009, about 65% of the nursing service personnel in Germany had received professional nursing training (Yuan & Liu 2019). Germany also provides free nursing course training for informal caregivers in home care. In addition, the development of LTCI has extensively promoted the development of nursing service institutions. As a result, the number of employees working in nursing institutions has also increased yearly, with the number of formal nursing practitioners rising from 320,000 in 1995 to 890,000 in 2009 (He 2016). In 2017, the *Pflegeberufegesetz* (PflBG) further standardized vocational education, which is conducive to cultivating more qualified talents. Germany has also improved the quality of the supply of caregivers by adjusting salaries, providing respite leave, and improving working conditions.

To sum up, it can be found that Germany's LTCI System has achieved good results after more than 20 years of development, which is mainly reflected in its high system coverage; scientific and accurate classification of nursing levels; independent financing and division of responsibilities; emphasis on home care, cost control, good financial sustainability, and emphasis on the quality-of-care services. Although there are some controversies, for example, an increasing contribution rate is not a sustainable way to achieve financial sustainability; the strengthening of quality supervision has increased the pressure on caregivers to a certain extent (Qi 2022). The success of the system is evident to all, and it is still under constant reform and improvement.

4 ENLIGHTENMENT FOR CHINA

LTCI started relatively late in China. In 2016, China launched the first pilot LTCI programs in 15 cities, including Shanghai, Qingdao, and Guangzhou. In 2020, China issued the *Guidelines on Expanding the Pilot Program of the LTCI System* (Guidelines), adding 14 new pilot cities, including Tianjin and Hohhot. On October 16, 2022, the report of the 20th National Congress of the CPC proposed to establish an LTCI system. Although, at present, China's LTCI is still in the pilot stage, based on the implementation status of the above 29 pilot cities, some common problems can be found by induction.

Firstly, the system's coverage is narrow, and the financing mechanism is not independent. Through the review of pilot programs in 29 cities, all of them covered urban workers, while only 13 cities covered urban and rural residents. In 29 cities, severely disabled people are included in LTCI benefits. Only six cities, including Qingdao and Hohhot, also benefit people with moderate disabilities. Only one city, Shanghai, covers people with mild disabilities. At the same time, it is worth noting that only Qingdao and Guangzhou explicitly include the dementia group in the LTCI payment category. In the initial stage of China's LTCI pilot program, the main financing channel depended on the transfer of medical insurance pooling fund. In 26 cities, the proportion of unit contribution should come from the medical insurance pooling fund, which is as high as 89.66% (Sun 2023). In terms of individual contribution, except Shanghai and Suzhou, the part of the individual in other cities is mainly transferred from the personal account of medical insurance. Therefore, from the perspective of the financing mechanism, the independence and stability are not only poor but also squeeze the medical insurance fund to a certain extent. Some scholars have calculated the impact of LTCI on the operation of medical insurance funds by building a dynamic

actuarial model. It is estimated that by 2025, there will be at least 6 provinces and cities with a deficit in the accumulated balance of medical insurance fund, and the total deficit may be as high as 489.84 billion Chinese yuan (Jing *et al.* 2020). In cities with proportional financing, the contribution base of urban workers is generally the medical insurance contribution base, but the rate is not uniform, ranging from 0.2% to 0.4% (Du & Wang 2022). Compared with Germany, the level of financing is low.

Secondly, the evaluation standards of disability in pilot cities are inconsistent and the evaluation content is not comprehensive. Most pilot cities have developed evaluation criteria, and no fewer than 10 LTCI disability evaluation criteria are currently in use (Huang 2021). Taking Shanghai and Qingdao as an example, the care level of Shanghai is more detailed, including normal and care level 1–6, and the evaluation content is the self-care ability and disease severity. The care level in Qingdao is 0–5, but the evaluation content is relatively comprehensive, including daily living activities, mental State, perception and communication, social participation, disease, etc. Overall, the main contents of evaluation mainly include the ability of daily living activities, disease status and so on, but pay less attention to the spiritual and psychological aspects of the nursing object.

Thirdly, the fund payment level of some pilot cities is too high, and different cities have different standards. The Guidelines stipulates that payment level for service fees that meet regulations should be generally controlled at about 70%. German beneficiaries typically bear about 50% of the nursing cost (Yu, Zhao & Chu 2019). However, the payment level in some cities is too high. For example, in Shanghai, the payment levels of home-based care, community daycare, and old-age care are 90%, 85% and 85%, respectively. Guangzhou living care cost and medical care cost, the payment level of urban workers insured personnel is 75%, 90%, urban and rural residents insured personnel is 70%, 85%. It can be seen that there is also an inconsistency in payment between urban workers and urban and rural residents.

Finally, the quality of nursing services is not guaranteed. Although some pilot cities have explored the supervision of service quality, the effect of supervision remains to be seen due to the short time. Besides, according to the survey, the number of professional nursing staff in the national pension institutions only accounts for 12% (The People's Government of Zhejiang Province 2022), and the educational level of nursing staff is mainly junior middle school and secondary school, which is difficult to provide high-quality care services.

The reform of Germany's LTCI System should have some enlightenment for China:

First, China should strengthen the independence of the LTCI system. On the one hand, LTCI should be regarded as an independent system in the national social security system. Especially in fundraising, China should clarify the boundary between care insurance and medical insurance, carry out independent financing, formulate relatively unified charging standards, and strictly implement the financing responsibilities of all parties. On the other hand, as an independent system, China should further expand its coverage and realize equitable access to LTCI.

Second, China should standardize the nursing level evaluation. In Germany, the eligibility of LTCI beneficiaries has been uniform across the country. The ununified eligibility mechanism is not conducive to the equity and development of the LTCI system. In July 2021, the National Medical Insurance Administration and the Ministry of Civil Affairs issued the Evaluation Standards for Long-Term Nursing Disability Level (Trial) (Evaluation Standards), proposing the first nationally unified evaluation standards for the disability level. On the one hand, cities not unified in this evaluation standards should be included as soon as possible. On the other hand, the evaluation content should be further improved. Based on the evaluation of the applicant's disease state and self-care ability, it is also necessary to evaluate the cognitive, emotional, will, social support, and other psychological aspects to achieve an all-round and multi-level comprehensive nursing assessment of the insured objects.

Third, China should strengthen cost control to achieve financial sustainability. In the first place, China should adhere to the principle of determining expenditure based on income and

adjust the payment level in time to achieve a balance between income and expenditure and a slight surplus without over-relying on the medical insurance fund. Then, pilot cities should reasonably determine the reimbursement limits for each type of care service at each level to accurately reflect individual responsibility and reasonably control the number of people enjoying high nursing-level care. In the third place, China should attach great importance to the role of communities and families. In addition, it is necessary to increase the support for home care. In the end, China should actively rely on the market, promote the development of nursing institutions, reduce costs through competition, and provide adequate and high-quality care services for disabled people.

Fourth, China should attach importance to the guarantee of service quality. If the quality of long-term care services does not meet the needs of older persons, the objectives of the LTCI system cannot be achieved. One method is to organize professional quality supervision and evaluation agencies to review nursing institutions and services, issue evaluation reports, publish them to the public in time, and establish reward and punishment mechanisms. Another method is to formulate the admission qualification of nursing institutions and formulate a national unified admission qualification standard for nursing staff. Besides, China should vigorously develop nursing education, cultivate nursing talents, and strengthen the free training of informal nursing staff.

5 CONCLUSION

After more than 20 years of reform, Germany's LTCI System has formed a comprehensive LTCI system and achieved good results. This article comprehensively summarizes the basic content of the LTCI system structure in Germany, summarizes the beneficial reform orientations, and combines with the practice of two batches of pilot cities in China to compare and analyze, to provide reference experience for the development of China's LTCI system: first, China should strengthen the independence of the LTCI system; second, China should standardize the nursing level evaluation; third, China should strengthen cost control to achieve financial sustainability; fourth, China should attach importance to the guarantee of service quality. Furthermore, accelerated population aging is a common trend facing Germany and China, especially with a vast population base in China. Therefore, it is crucial to accurately calculate the demand and cost of care services at different time periods, and establishing a dynamic financing adjustment mechanism commensurate with the level of economic and social development and security is particularly important.

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A study on employment discrimination of Chinese female under the background of fertility comprehensive two-child policy

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ABSTRACT: A government would adjust the country's population policy in a timely manner according to the country's economic development realities. As China continues to age, the Chinese government is conducting a comprehensive two-child policy from 2016 to 2021, which would evolve into a comprehensive three-child policy by 2022. The two-child policy directly affects women as the main subject of childbirth, causing interruptions in women's careers, and employers may refuse to hire female applicants based on gender, making women's employment problematic. This paper centers on the topic of female employment discrimination, against the background of the comprehensive two-child policy. In the paper, the research on female employment discrimination in China and foreign countries is sorted out and the concepts of female employment discrimination and comprehensive two-child policy are defined. The theories of government governance, market failure and government intervention are introduced, and the shortcomings of existing research are analyzed. Moreover, to understand the current female employment situation, this paper using secondhand data and other materials, to analyse high employment threshold, difficulty in promotion, and compressed maternity protection. The causes of female employment discrimination in the context of the two-child policy are discussed, including the imperfection of existing laws and systems, the lack of supporting measures for the two-child policy, and the influence of traditional culture. At last, by drawing on the experiences of Japan, Norway and other countries, this paper proposes specific solutions in the context of China's national conditions.

Keywords: Comprehensive two-child policy, Female employment, Workplace discrimination

1 INTRODUCTION

As far as the connotation of female employment discrimination is concerned, Western economics defines female employment discrimination more as labor market discrimination. Labor economics defines employment discrimination as pay differentials between individuals who are equal in all financial respects. More concretely, female employment discrimination refers to unjustified differences in the treatment of women in the labor market due to their gender.

Regarding the specifics of female employment discrimination, Sonja Drobnič and Hans-Peter Blossfeld studied the dynamic relationship that exists among the family life span and female employment models (Drobnič *et al.* 1999). Using a survey of white American women and German women, they analyzed that American women with higher levels of education tend to return to full-time work after childbirth, while German women choose to work part-time only after childbirth.

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Notably, the gender gap in science, technology, engineering, and mathematics (STEM) occupations widens as more and more people gain knowledge about STEM careers. Using a national longitudinal panel of STEM professionals, Cech, E. A. and Blair-Loy, M. investigated the careers of new parents after the birth or adoption of their first child (Cech & Blair-Loy 2019). Based on the results of the study, new mothers quit their jobs with a high rate, 40% of highly educated women choosing to resign after the birth of their first child. Meanwhile, only about 23% of new fathers opted to leave STEM following the birth of their first child. This indicates that it is more likely for new mothers than new fathers to opt out of their careers and exit the workforce.

In terms of the specifics of female employment discrimination, Cha, Y. and Weeden, K. A., by examining CPS data from 1979 to 2009 (Cha & Weeden 2014), found that the convergence of the hourly wage gap between men and women has diminished over a 30-year period due to the prevalence of fifty-hour plus work schedules and the rise in hourly wages associated with overtime. As more men overwork, these changes have increased men's wages relative to women's, exacerbating the gender wage gap, estimated at 10% of the total wage gap.

Foreign scholars have conducted extensive research covering many disciplines, including economics, management, sociology and demography. Hot-button issues include fertility and female employment, female domestic and part-time employment, and gender bias. The research process emphasizes the application of quantitative analysis methodology.

According to the 2016 China Labor Market Development Report (Lai *et al.* 2017), Chinese women earned 85.9% of men's income in 1995, a slight decline to 84.5% in 2002, and a further widening of the gender wage gap in 2007, with women earning only 70% of men's income, which increased to 78.2% in 2013. Overall, women make less money than males do, and over the past 10 years, this discrepancy has tended to expand.

In the study on the causes of female employment discrimination, In He Yu's view, there are three reasons for discrimination against women (Heyu 2016). Firstly, career disruption due to women's childbirth and breastfeeding, where wages and benefits become an additional burden on businesses. Second, women are retiring sooner than men and have longer life expectancies than men. Third, the investment in personnel training is similar, but men have longer career expectations than women, so male workers have a comparative advantage, which can explain why the enterprises' training targets are mostly male employees from a side perspective.

In terms of the influence of the two-child policy on female employment, Zhang Xiyin studied the influences of the two-child policy on female employment in Hunan Province by means of a questionnaire survey. It was found that the two-child policy makes job hunting more difficult for females. This is because more frequent births fragment the careers of females and employers are unlikely to hire them for cost effectiveness reasons (Zhang 2017).

In a study of government promotion of women's employment equity, Liu Li and Li Huiying used a gender perspective to classify public policies into the five categories (Liu & Li 2003): gender discrimination policies, gender equality policies, positive discrimination policies, gender neutral policies, and gender sensitive policies. Liang Liping analysed the employment status of Shanxi women and concluded the policy causes of women's employment dilemma: one is the rough implementation of employment policies and the weakening of state intervention mechanisms; the other is that policy revision was behind the speed of social development.

In contrast to Western scholars who attribute female employment discrimination to an economic problem, Chinese scholars see it more as a political problem and try to solve it through politics. Country-specific circumstances influence the government's demographic decisions. At the end of 2022, China had 141.75 million people, a birth rate of 6.77‰, a death rate of 7.37‰, and a natural growth rate of -0.60‰ (Office for National Statistics 2021). Meanwhile, at the same time, there were 200.56 million people aged 65 years and older at the beginning of 2021, accounting for 14.2% of the population (Office for National Statistics 2021). The aging population led the Chinese government to revise its population

policy in 2015, changing from a “family planning” policy to a “comprehensive two-child” policy.

The revision of the policy has given Chinese people greater freedom of reproduction, but it has affected women as the main body of childbearing. Women work less during pregnancy and childbirth, and it is difficult to balance the weight between family and work after childbirth. In order to pursue profit maximization, enterprises are more inclined to recruit male labor to reduce labor costs. Therefore, alleviating the problem of female employment discrimination and realizing national population growth and women’s individual development are important issues facing the Chinese government at this stage. This study used the research methods of literature research and comparative research. By analyzing existing data with specific examples from other countries and drawing conclusions.

2 CONCEPT DEFINITION AND RATIONALE

2.1 *Concept definition*

2.1.1 *Female employment discrimination*

As a phenomenon that endangers social equity and hinders normal socio-economic development, employment discrimination is of great concern to the international community and other countries. The Convention on Employment Policy, adopted in 1964, defines discrimination in employment as any non-economic factor that prevents every worker, regardless of race, color, sex, religion, etc., from freely choosing an occupation, acquiring and using vocational skills, and exercising his or her talents. The CEDAW Convention, adopted in December 1979, describes “discrimination against women” as any differentiation, ostracism or restriction on the grounds of sex which has the purpose or effect to impair or nullify the equal and free enjoyment by women, whether married or unmarried, of their human rights on the basis of the concept of equality between men and women. The United States Civil Rights Act in 1964 outlaws employers who refuse to hire, discriminate in pay or working conditions, or adversely affect an employee’s status because of the individual’s race, sex, or religious beliefs. The UK discrimination law applies to all three stages of the employment relationship: the job search stage, the duration of the employment relationship, and the end of the employment relationship; the discrimination is divided into four categories: first, direct discrimination, i.e., treating women less favorably than men because of their sex; second, indirect discrimination, i.e., applying the same regulations to men and women for no justifiable reason, but significantly reducing women’s Third, harassment – acts that violate the dignity of others, create a hostile work environment, etc.; and fourth, victimization, where a person is treated unreasonably because she or he uses legal means to assert her rights under the Sex Discrimination Act, etc.

In this paper, employment discrimination is defined as an explicit or implicit negative differential treatment of a group of people with comparable labor productivity in the labor market due to non-productive factors such as gender, age, culture, etc., resulting in the exclusion, restriction, and denial of free and equal access to the labor market, equal pay, and legal rights and interests of that group.

2.1.2 *Comprehensive two-child policy*

In the face of an aging population and a low fertility rate, China has changed its one-child policy to a comprehensive two-child policy. The comprehensive two-child policy is “a policy that permits all couples to have two children, irrespective of urban or rural areas, regions or ethnicities,” specifically stating that couples whose first child was twins or multiples are not allowed to have a second child in principle.

China began to gradually liberalize its “two-child policy” in 2011. In November of the same year, China’s Henan Province took the lead in implementing the “two-child policy” by allowing couples who are one child on both sides to have two children, a practice that has

since been echoed throughout China. The Standing Committee of the National People's Congress on December 27, 2015 passed a vote to modify the Population and Family Planning Law, with the full two-child policy taking effect on January 1, 2016. The policy was officially launched on January 1, 2016.

2.2 *Theoretical foundation*

2.2.1 *Theory of competitive market discrimination*

The American economist G. Becker made an important contribution to the creation and development of the economics of discrimination with the publication of his book "The Economics of Discrimination" in 1957 (Becker 2014), which first explored the causes of discrimination and the measurement of its extent.

Becker analyzes the context of employer discrimination, employee discrimination, consumer discrimination, and the impact of discrimination in different situations from the economic person hypothesis. First, for employers, they seek to maximize their personal interests, where personal interests include monetary and monetarily measurable personal discrimination preferences, and discrimination occurs when personal discrimination preferences are stronger than monetary costs, i.e., they are willing to pay additional monetary costs to satisfy their personal discrimination preferences and refuse to hire groups they dislike. In competitive industries, employers with small discrimination coefficients can profit more. Second, employees choose not to work with their discriminators when the monetized, nonmonetized benefits of discrimination are less than the intensity of their discrimination. In order to eliminate the additional costs associated with this phenomenon, employers will tend to use only certain groups. In the case of consumers, they perceive that their preference for discrimination against a particular group reduces the wage rate of that group.

2.2.2 *Theories of market failure and government intervention*

The market economy is limited by its own problems and cannot achieve a rational allocation of resources, which can be regarded as a market failure. Samuelson (Samuelson 1999), the representative of this theory, believes that the main manifestation of market failure is "lack of efficiency, including monopoly, externality, and public goods". Once an enterprise reaches a certain size, it can take advantage of its scale, reduce costs, gain advantages in market competition, and use its competitive advantage to continuously merge with small and medium-sized enterprises to occupy a monopoly position, which seriously hinders the rational allocation of resources. The market cannot solve the problem of externalities, and market players do not consider the impact of their own behavior on the market due to cost-benefit considerations. In addition, the market can lead to problems of distributive justice. In a perfectly competitive market, regional and individual differences may lead to a situation where the strong use their comparative advantages to expand their advantages while the weak passively accept them, resulting in polarized income levels and undermining social justice.

Market failure is the premise of government intervention. Keynes was the first to put forward the theory of government intervention, and he proposed that through macro-control, intervention in the economy could correct the problems of unemployment caused by the market. Stiglitz extended Keynes' research by advocating a partnership between the government and the market, with the government providing the basic policies for the market and the market taking full advantage of its dynamism (Buchanan 1988). He added market information incompleteness as one of the causes of market failure. Due to the wide range of information incompleteness, the scope of market failure is relatively expanded, requiring government intervention in various economic fields. Stiglitz further proposed that the government regulates microeconomic agents through direct intervention, indirect intervention, and government rules and policies.

3 THE CURRENT SITUATION OF FEMALE EMPLOYMENT IN THE CONTEXT OF THE COMPREHENSIVE TWO-CHILD POLICY

3.1 *High employment barriers*

Direct costs include maternity insurance and the cost of reassignment; while indirect losses include the interruption of women's human capital accumulation (lagging far behind men) as well as the time it costs to re-enter the workforce. As a result, when hiring, companies will raise their hiring standards and reduce the number of women of the right age to be hired.

Based on a 2017 survey by the All-China Women's Federation, 49.1% of employing companies are focused on the gender and marital condition of job applicants during recruitment, while 54.7% of females are asked questions about marriage and childbirth during job interviews.

According to the results of the questionnaire survey in the study "Government Governance of Female Employment Discrimination in the Context of Comprehensive Two-Child Policy" (Sun 2021), 5.67% of women believe they have experienced employment discrimination, higher than 4.12% of men. In the question "In the job search process, how much do you think the gender issue affects your being hired?" question, 29.99% of men and 48.65% of women believe that gender has a significant impact on their ability to be hired.

From the above data, we can see that women face greater resistance than men in getting a job, in addition to having to invest more human capital.

3.2 *Large income gap*

Based on a report (BOSS Direct Employment Research Institute 2021) published by BOSS Direct Research Institute, the mean wage of women employed in urban China in 2020 is RMB 6,847, which is 75.9% of the mean wage of men (BOSS Direct Employment Research Institute 2021). And nearly 60% of the industry gender wage gap has widened.

As the earnings gap between industries is more pronounced, the sectoral distribution in which both males and females are engaged influences directly the whole salary structure. In job fields where women are more concentrated, like education, TV and media, training sector, and cultural and entertainment sector, with the exception of professional services, whose industries have significantly lower average wage levels than male-dominated technology industries, like internet, electronic communication, and energy.

The industries with the largest pay differences are mainly in the extractive and metallurgical, engineering and construction, decoration and other construction and fabrication industries. Within these industries, where men have a distinct advantage in workforce engagement and advancement due to their physical strength, the gender pay gap in engineering and construction rose further by 0.7 percentage points to 52.7 percent.

In healthcare, the gender pay gap in healthcare has been high in the top five, second only to heavy industry for the third year in a row, reaching 38.4% in 2019, due to the overwhelming dominance of women in lower-paying nursing positions and men in higher-paying surgical departments.

3.3 *High difficulty of the promotion*

According to the "2022 China Women's Workplace Status Survey Report" released by Smartlink Recruitment (Smartlink Recruitment 2023), 29.7% and 43.6% of women in the workplace think that it is "very unlikely" or "almost impossible" to be promoted in the coming year, accounting for a total of 73.3%. 73.3%, while the proportion of men and women who think so is 66.2%, which shows that women's confidence in promotion is lower than that of men.

In addition to promoting confidence, the longer promotion time for women is also an important sign that women have fewer promotion opportunities. According to the statistics of financial manager's resumes in the study "Governmental Governance of Female Employment Discrimination in the Context of Comprehensive Two-Child Policy" (Sun 2021), it takes 3.32 years for men and 4.27 years for women to be promoted to a leadership position for the first time.

The analysis of the above data shows that women have fewer opportunities for advancement and take longer to advance, resulting in a higher percentage of men in leadership and management positions.

4 REASONS FOR FEMALE EMPLOYMENT DISCRIMINATION UNDER THE COMPREHENSIVE TWO-CHILD POLICY

4.1 *Weakened role of administrative agencies*

In China, the government has established the Working Committee on Women and Children, whose main purpose is to advance the development of women. But the committee is a temporary administrative agency whose main function is to disseminate relevant policies and coordinate various departments in addressing the issue of discrimination against females. It has no responsibilities for organizational leadership, supervision and inspection. Consequently, the Chinese government failed to establish a dedicated organization to address issues related to discrimination against women in employment. Currently, the issues are mainly mediated by non-governmental organizations, like the All-China Women's Federation. But in China, due to their identity as social organizations, NGOs play more of a facilitating function and cannot self-direct the resolution of women's employment issues. Neither the ACWF nor labor unions, for instance, have labor inspection and enforcement powers, a majority of employment discrimination cases still need to be referred to other authorities.

4.2 *Inadequate legal system*

China does not currently have a specific anti-discrimination law. The current legal system is therefore instructive rather than operational. Although the Constitution, the Labor Law and the Law on the Protection of Women's Rights and Interests contain some anti-discrimination in employment laws that proscribe employment discrimination against them and other discriminatory acts, these laws fail to clearly define which positions are unsuitable for women. At the same time, Chinese laws do not address important issues, such as the responsibility of infringers, how to be held liable, and the protection of infringers' interests. That severely weakens the operability of the current legislative system and makes it difficult to enforce it in concrete judicial practice.

The current labor law in China stipulates that labor disputes can either be negotiated, mediated, arbitrated or litigated. But in China, the range of labor disputes does not include situations where no labor relationship has been formed. Which means that workers who are not employed due to gender discrimination do not fall within the remedy stipulated in the labor law.

4.3 *Traditional cultural influences*

"A man's job is mainly outside, and a woman's job is mainly at home." The gender division of labor between men and women is the most classic distribution of roles in ancient China. The role of women was to look after the family and run the household, and their upward mobility was only within the family. This concept still affects Chinese society today. Having

invested more energy in domestic work and childcare, especially in the overall context of the two-child policy, many women have given up their professional careers and settled back into their families in order to nurse their young children. Besides, nurses, kindergarten teachers, secretaries, etc., where women make up the majority of employees, can be seen as socialization of caregiving, which is a perpetuation of the domestic divisions of labor. As a result of this division of labor, women in traditional societies did not have economic autonomy, while men had a monopoly on all major roles in financial life, shaping the cultural concept of “strong male and weak female”.

5 FOREIGN GOVERNMENTS’ EXPERIENCES IN COMBATING FEMALE EMPLOYMENT DISCRIMINATION

5.1 *America*

One of the objectives of the Equal Employment Opportunity Commission (EEOC) relates to the advancement of social equality and the elimination of the adverse impacts of employment discrimination in the labor market. The Commission is composed of five members appointed by the President and approved by the Senate for a five-year term. The President appoints one of the five members to chair the Commission and, in addition to the five members, appoints experts to serve as general counsel for litigation and accounting. The first function is administrative legislation, specifying Title VII of the Civil Rights Act for public understanding and invocation, and providing guidance and interpretation of anti-discrimination policies. The second function is administrative oversight and enforcement. The process consists of four stages: complaint intake, investigation, conciliation, and litigation. During the complaint stage, the Commission receives cases of employment discrimination from local authorities that meet the procedures for more than 60 days. Once a case is received, it is investigated and a decision is made whether to proceed based on preliminary findings. A decision describing the status of the matter is forwarded to the parties upon completion of the investigation of cases that warrant a thorough investigation. Since the Bill of Rights encourages alternative means of resolving discrimination-related cases, like negotiation and conciliation, the Commission will schedule the parties to address the possibility of settlement before beginning a formal investigation. If the mediation is deemed successful, the EEOC will sign a conciliation contract with the respective parties. If mediation is unsuccessful, or if mediation is not possible, the Commission will proceed with litigation under the direction of the General Counsel. The Committee will issue a right-to-sue notification to the prosecution or on behalf of the prosecution. Third Function: Education and Training. The EEOC provides free and paid training designed on reducing discrimination. Free training informs people of equal employment. Paid training provides specialized training colleges that customize individualized education and technical assistance.

5.2 *Swedish*

The Swedish government has developed and introduced a number on policies to support equal employment opportunities of females.

In 1987 and 1988, the Government introduced the Gender Equality Policy Objectives and the Five-Year Action Plan for Gender Equality Acts. These two acts set the primary value objective for the cause of gender equality: women’s economic independence and equality, the Swedish government in 1994 launched a “gender mainstreaming” strategy in which women played an essential part in public policymaking and in social matters. In 2006, a National Action Plan for Gender Equality was developed to ensure gender mainstreaming through a three-part process: the government develops a concrete implementation plan, the promotion of gender budgeting and analysis, and evaluation of gender policies.

In addition to direct employment equality policies, the Swedish government has a family support policy, which was introduced in 1974 and is divided into two areas: leave adjustment and parental benefits. 2005 saw an extension of parental leave to 480 days, and in 1995 the Swedish government made it mandatory for fathers to apply for 30 days of parental leave, which mothers cannot use. 2002 saw the addition of 30 days of non-transferable parental leave in 2002, another 30 days of non-transferable parental leave was added, so that to complete 480 days of parental leave, both parents need at least 60 days. In terms of parental benefits, a parental leave policy was introduced in 1974, with leave paid at 90% of the leave taker's working salary as a parental benefit. In Sweden, the government supports the education of infants and toddlers and has established a public childcare system supplemented by family day care.

6 COUNTERMEASURES AND RECOMMENDATIONS

6.1 *Improve laws and regulations*

To combat employment discrimination and various types of discrimination, China has enacted a special anti-discrimination law. The concept of employment discrimination should be clarified, and the range of components and laws that discriminate against women in employment clearly defined to make the law more operable in practice. In addition, exceptions should be clearly defined.

Second, although China's current Labor Law mainly regulates behavior after the signing of employment agreements, most employment discrimination against women occurs before the signing of contracts. Therefore, the scope of the Labor Law covering employment discrimination should include all stages of the labor market, i.e., application of employment discrimination against females in the three phases of job seeking, being appointed and retirement ought to be explicitly prohibited under the law.

6.2 *Improve supporting policies*

The government should, first of all, provide financial support for the establishment of inclusive childcare facilities, and reference the recommendations of experts to introduce industry standards to regulate the operation of childcare facilities, build a quality childcare service delivery system to satisfy social demand and lessen the worries of women.

Furthermore, we can reference the European countries' successful experience and establish childcare vacations so that each parent can play a good nurturing function and take equal responsibility in the education of their children. This would change the existing one-sided sacrifice of women, allowing both sexes to shoulder the burden of raising their offspring, preserving women's right to engage in paid work and returning to work after childbirth better and earlier.

6.3 *Administrative governance*

The government establishes a permanent and specialized gender equality agency to promote the fundamental state policy of gender equality as a whole, collect and analyze data on gender equality, learn from domestic and foreign advanced theoretical and practical knowledge, issue and implement gender equality policies as a decision-making department, combat employment discrimination against women as an authoritative body, and thus unify the forces of all parties to form a top-down system to combat employment discrimination against women. The government should also harness the power of NGOs and universities. It is also important to use the power of NGOs and universities to promote women's employment by organizing labor skills training and job fairs.

7 CONCLUSION

Through research, this paper finds that the implementation of the two-child policy makes employers more inclined to hire male labor, and female employees have fewer opportunities for promotion in the workplace and greater pressure for promotion. Therefore, the two-child policy does exacerbate the phenomenon of discrimination against women in the workplace. This may be due to the imperfection of China's existing legal system, the low level of functions of the government departments that defend women's rights, and the influence of traditional Chinese culture. In view of the above problems, drawing on the experience of the United States and Sweden, China can solve them by improving supporting policies, improving laws and regulations, and reforming administrative institutions.

The main contribution of this paper is to integrate the existing literature and data to understand the current situation of discrimination in the workplace, analyze the causes of it, and make relevant suggestions based on foreign examples. The shortcomings of the current research are that there is no use of questionnaires to collect primary data, and all study data in this article are from the available literature and are secondhand, resulting in challenges to the authenticity and timeliness of data. In the future, the study can produce relevant questionnaires, collect first-hand data and conduct data analysis to improve the accuracy of the study.

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The application of punitive damages system in environmental infringement litigation

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ABSTRACT: After the promulgation of the Civil Code of the People’s Republic of China, the punitive damages system started to apply to the field of environmental infringement. This will achieve effective legal sanctions for environmental violations. Later the Supreme People’s Court issued a relevant judicial interpretation, which means the specific application rules of the punitive damages system have been further improved. However, in judicial practice, the order of the rights to claims punitive damages, the calculation method of the amount of punitive damages, and the management mode of punitive damages are still in a blank state. Based on this, the relation between environmental private interest litigation and environmental public interest litigation will be distinguished in this paper, in order to clarify the order of claims for punitive damages in the three types of litigation in environmental infringement cases. Furthermore, the calculation way of punitive damages in practice will be found out in this paper, so as to propose more reasonable and specific calculation methods. In addition, the distribution system of punitive damages in judicial practice both domestically and internationally will be analyzed in this paper, for the sake of propose a more appropriate management model for punitive damages in China.

Keywords: Punitive Damages, Environmental Infringement, Right of Claim

1 INTRODUCTION

In the case of *Zhonghua Environmental Protection Association v. Dezhou Jinghua Group Co., Ltd* about air pollution liability (Dezhou Civil No. 1 2015), the defendant repeatedly emitted atmospheric pollutants such as sulfur dioxide, nitrogen oxides, and dust without approval from the environmental protection department. Accordingly, the *Zhonghua Environment Protection Association* filed a public interest lawsuit to the court, its claims included a loss of 7.8 million yuan caused by refusing to correct the behavior of excessive emissions of pollutants. However, the court considered this claim as punitive damages which had not been applied in the field of environmental infringement, and did not support the claim in this case. It is clear that establishing a punitive damages system for environmental infringement is an urgent need to sanction environmental violations. Especially in cases where environmental violations have caused serious consequences, compensatory damages compensation is no longer sufficient to sanction the infringer. There is undoubtedly a groundswell of support for the idea of punitive damages system in the field of environmental infringement. The appearance of the new chapter on “Environmental Pollution and Ecological Damage Liability” in the Civil Code of the People’s Republic of China has led to the introduction of punitive damages system into the field of environmental infringement. This appearance has filled the gap in compensatory damages, effectively punished and regulated intentional environmental infringement, and also increased the cost of illegal

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activities to prevent the recurrence of it. At present, there are still many controversies about the blank of punitive damages system, especially the lack of concrete legal provisions that make its role in practice very limited. This article intends to study the order of claims for punitive damages, the calculation of the amount of punitive damages, and the management mode of punitive damages, to offer corresponding improvement proposals.

2 THE FUNCTION OF PUNITIVE DAMAGES SYSTEM

The punitive damages system breaks through the principle of Filling In Damages, which allows the infringer to bear compensation beyond the actual damage, in order to achieve a more complete relief for the infringe, and the system has multiple functions (Liu & Liu 2022). These functions are mainly reflected in the following aspects.

One is the compensation function. It is difficult to estimate losses such as personal injury, mental damage, and property damage in environmental infringement cases, so that the principle of Filling In Damages is unattainable. Besides, the infringe presumably bear any costs that may arise from providing evidence and filing a lawsuit. The above expenses are often not fully covered by compensatory damages alone. Whereas the punitive damages system can compensate for the losses that the infringe has not been compensated for.

The second is the punishment function. This function embodies in the perspectives of morality, public opinion, and profits. Firstly, from a moral perspective, being liable for punitive damages can help infringers recognize their mistakes and reflect on themselves. Secondly, from the perspective of public opinion, criticism from the media and condemnation from the public can put pressure on infringers, prompting them to reform, and also providing a counter example for other potential infringers. Finally, from the perspective of interests, infringers are required to bear punitive damages while compensating for actual damages, making them bear a heavier financial burden and forcing them to abandon the infringement act (Huang 2016).

The third is the containment function. This is a unique function of the punitive damages system. If compensatory damages aims to compensate for the damage afterwards, then punitive damages aims to prevent the occurrence of the damage beforehand.

The fourth is the incentive function. In environmental infringement cases, the infringe is often unwilling to file a lawsuit due to concerns about the costs required for litigation and proof. Punitive damages can stimulate the enthusiasm of the majority of infringe to file lawsuits, which is not included by an incentive function that compensatory damages, administrative liability fines, and criminal liability fines.

3 THE DEFICIENCY OF PUNITIVE DAMAGES SYSTEM IN THE FIELD OF ENVIRONMENT INFRINGEMENT

3.1 *The confusion in the order of punitive damages claim*

In China, there are three types of litigation regarding environmental infringement, namely environmental private interest litigation and environmental public interest litigation, and environmental damage compensation litigation. Article 1232 of the Civil Code of the People's Republic of China (Civil Code of the People's Republic of China. Article 1232) grants the "infringe" the right to claim a judgment that the defendant bear punitive damages. The issue of whether the scope of "infringe" includes the plaintiff in environmental public interest litigation and environment damage compensation litigation sparked controversy. Many scholars asserted that the subjects claiming punitive damages should not include the two plaintiffs mentioned above, namely the People's Procuratorate, environmental protection organizations, and national administrative organs (Wang 2021). Article 12 of the Interpretation on the Application of Punitive damages in the Trial of Ecological and Environmental Infringement Disputes (Interpretation on the Application of Punitive

damages in the Trial of Ecological and Environmental Infringement Disputes. Article 12) issued by the Supreme People's Court clearly states that the two plaintiffs have the rights to claim punitive damages. Since then, the plaintiff subjects of three types of litigation, include the infringer, the People's Procuratorate, environmental protection organizations, national administrative organs, all of which are endowed with the right to claim punitive damages.

The problem is how to coordinate when conflicts arise among these three types of subjects with claim rights, which can be divided into three problems. When both environmental private interest litigation and environmental public interest litigation claim punitive damages, can the court support both? How should the court handle claims for punitive damages when both environmental private interest litigation and environmental damage compensation litigation are filed simultaneously? When both environmental public interest litigation and environmental damage compensation litigation have claims for punitive damages, can the court support both? To solve the above problems, it is necessary to coordinate the order of punitive damages claims among different subjects. It is a pity that there is no relevant provision in the existing law.

3.2 *Various and complex considerations for determining the amount of punitive damages*

Since the Supreme People's Court issued the corresponding judicial interpretation, the calculation method of punitive damages has a preliminary legal standard. At present, there is a basic calculation method for punitive damages, which is based on the amount of personal injury and property damage caused by environmental pollution and ecological damage, and the maximum multiple of the punitive damages amount is two times. The factors that the people's court should consider when determining the amount of punitive damages, such as the degree of malice of the infringer, the severity of the consequences of the infringement, the benefits obtained by the infringer, and the remedial measures taken by the infringer. However, judges still have greater discretion in judicial practice, due to the complexity and diversity of factors that need to be considered when calculating amounts. For example, the plaintiff usually claims the court to award the highest multiple of punitive damages, but the judge can not blindly follow it (Lv 2022). This is worth further improving a scientific, reasonable, and systematic calculation method to standardize the amount of punitive damages, thus avoiding different courts having different calculation results for similar cases.

3.3 *Difficulties in managing punitive damages*

Currently, in judicial practice in the United States, a distribution model for punitive damages has been legislated in many states, namely the Split-recovery Systems (Doug 2009). That means plaintiffs must pay a portion of the punitive damages to the state government, while the rest belongs to themselves. For example, Arras, Missouri and Utah stipulated that half of the punitive damages should be paid to the state trust fund and the other half should be kept by plaintiffs. Georgia, Indiana, and Iowa require plaintiffs to pay 75% of the punitive damages to the state fund, while the remaining 25% belongs to themselves (Wang 2017). In China, the punitive damages belongs entirely to the infringer in private interest litigation. There are two opposing views in the theoretical community on the management model of punitive damages for environmental private interest litigation. One view is that under the framework of current regulations, it is most appropriate to apportion total punitive damages to the infringed party. The reason is that the bodily injury and the property damage of the infringer are caused by the infringer, so the punitive damages should totally make up for so many losses. Therefore, it is most reasonable to pay all the punitive damages awarded to the infringer (Wang & Gong 2021). Another view is that applying punitive damages in environmental infringement cases can draw inspiration from the Split-recovery Systems in the United States, which means that the infringer can not receive the full amount. The reason is that punitive damages are a quasi criminal liability, and using a portion of them for public welfare do not conflict with their nature of public-law (Chen 2020).

While in public interest litigation, there are approximately three management models for punitive damages: paying into the national treasury, entrusted by the procuratorate or the court, and managed by public welfare funds (Shi 2022). There are also diverse views in the academic circle on which management model is the most suitable for punitive damages. If punitive damages are handed over to a specialized environmental public welfare fund which is bound by little legal binding force, then there is no unified regulation and supervision of its distribution process. If punitive damages are handed over to national administrative organs for management, is there a possibility of confusing them with local fiscal expenditures? And how should its use be determined (Chen 2019)?

4 SUGGESTIONS FOR IMPROVING THE APPLICATION OF PUNITIVE DAMAGES SYSTEM IN THE FIELD OF ENVIRONMENTAL INFRINGEMENT

4.1 *Coordination approach for the order of punitive damages claims*

Among the three types of litigation mentioned above, the punitive damages proposed in environmental private interest litigation represent the private interest, while the punitive damages proposed in environmental public interest litigation and environmental damage compensation litigation represent public interests. The following text proposes coordination manners between these two types of claim rights by making a distinction between them.

The court can impose punitive damages simultaneously, when environmental private interest litigation and environmental public interest litigation coexist. Environmental private interest litigation, representing private interests, is a lawsuit filed by civil subjects for personal injury and property damage caused by environmental pollution and ecological destruction. Environmental public interest litigation is a national administrative organs or environmental protection organization that represents unspecified public interests. If only punitive damages are imposed in private interest litigation, then the public interest is not protected. If only punitive damages are imposed in public interest litigation, then private interests are not protected. So punitive damages from both types of litigation can be supported simultaneously.

The court can only supports either of them, when both environmental public interest litigation and environmental damage compensation litigation claim punitive damages. The basis of environmental public interest litigation is environmental rights, while the basis of environmental damage compensation litigation is national ownership of natural resources. Although there are differences between the two types of litigation, both types of litigation stand for the public interest. This means that if both are supported at the same time, there is a suspicion of repetitive penalties for the same infringement, which will increase the financial burden on the defendant. Furthermore, article 17 of the *Several Provisions of the Supreme People's Court on the Trial of Environmental Damage Compensation Cases* (Several Provisions of the Supreme People's Court on the Trial of Environmental Damage Compensation Cases. Article 17) stipulates that, when accepting environmental damage compensation litigation cases and environmental public interest litigation cases initiated by the same infringement act, the people's court shall first suspend the trial of public interest litigation. After the environmental damage compensation litigation is completed, the court shall make a judgment for another in accordance with the law on claims not covered by the environmental damage compensation litigation. This article clearly states that the trial order of environmental damage compensation litigation is higher than that of environmental public interest litigation, so the order of punitive damages claims for both should comply with this provision, that is, priority should be given to punitive damages claims for environmental damage compensation litigation.

There are two situations where these two types of claims conflict: firstly, when environmental damage compensation litigation and environmental public interest litigation are conducted in the meantime, the court should prioritize supporting claims for environmental damage compensation litigation. Secondly, if two lawsuits are not filed in the meantime,

regardless of which lawsuit, the lawsuit that first claims punitive damages can be supported. The subsequent litigation claims for punitive damages shall not be supported.

4.2 *Improvement of factors to consider punitive compensation*

There are many factors that affect the amount of punitive damages, and this article divides them into two categories to discuss. The first category is about the factors of the infringer, and the second category is about the factors of the infringement facts.

4.2.1 *Factors related to infringers*

The subjective attitude of the infringer, the initiative to cooperate with the department's investigation, and the initiative of the infringer to repair the ecology or environment after the infringement should all be included in the calculation of the amount. Wherein the intent of the infringer can be determined in three levels in individual cases: malice, intent, and recklessness. To mention first, malice is the highest degree of intent (Dong 2021). For instance, if the infringer refuses to correct after receiving administrative penalties, they still commit environmental infringement. In the case of *Zhonghua Environmental Protection Association v. Dezhou Jinghua Group Co., Ltd* about air pollution liability (Dezhou Civil No. 1 2015), after receiving multiple administrative penalties, the infringer still committed the act of polluting the environment. It is obvious that its attitude has exceeded the scope of intent, and has risen to the highest level of intent, that is, malice. Next, intent is that the infringer knowingly cause or potentially cause consequences of personal injury or property damage, or indulge the happening of consequences. Lastly, recklessness is a lack of care and respect for the rights of others, or a unadvised or conscious disregard for their rights (Wang 2003). In the case of *Chen Shanbo's Environmental Pollution civil public litigation collateral to criminal proceeding* (Gui 1322 Criminal No.329 2021), the court held that Chen Shanbo was not aware that the garbage he poured belonged to dangerous waste materials, and had no intentional attitude which has less intent. The consciousness of the infringer is limited to recklessness, and he is not aware of the environmental harmfulness of his actions. The court did not consider it a negligent act and applied the punitive damages system. Based on this, this paper categorizes less intent as a third class of intent, that is, recklessness.

The profits obtained by infringers in the infringement facts should also be included, provided that they can better compensate for ecological or environmental losses. In the public interest litigation of the Fifth Branch of the Chongqing People's Procuratorate v. Wu Chenggang about ecological damage (Chongqing 05 Civil No. 37 2022), the infringer illegally caught wild aquatic animals under national protection, resulting in ecological losses of up to 843750 yuan, but only 23690 yuan of profit. The court deemed that a penalty of 0.6 times the ecological loss can already repair the damaged ecology. From this perspective, it is not unreasonable for the court to consider the benefits obtained by the infringer, which avoids a significant gap between the benefits obtained by the infringer and the amount of punitive damages that sentenced by the court.

The court can appropriately reduce the amount of punitive damages based on the amount of administrative and criminal fines when calculating the amount. The specific circumstance can be divided into two types. One is that the infringer bears lighter other liabilities, and the court may not reduce the amount of the punitive damages. The second type is that the infringer undertakes heavier other liabilities, and the court can reduce the amount at its discretion. Article 11 of the *Interpretation on the Application of Punitive damages in the Trial of Ecological and Environmental Infringement Disputes* (Interpretation on the Application of Punitive damages in the Trial of Ecological and Environmental Infringement Disputes. Article 11) stipulates that the court shall not support the infringer's claim of exemption from punitive damages on the grounds of assuming administrative or criminal liability, but the court may take into account the amount when calculating it. Because punitive damages have a strong public-law nature, they share similarities with administrative and criminal liabilities. If the three liabilities are parallel, the occurrence of repetitive penalties for the same

infringement is inevitable. Article 20 of the *Administrative Penalty Law of the People's Republic of China* reflects the opposition to the issue of overlapping administrative fines and criminal fines, and states that the solution of that issue is offset. It should be emphasized that offset and reduction are separate. The former directly offsets the amount, while the latter only reduces the fine that the infringer should bear. Administrative fines and criminal fines are public-law, but civil liability is private-law. In the overlap between civil liability and administrative and criminal liability, China adopts an attitude of allowing simultaneous sentence, that is, each of the two kinds has its own function. Therefore, combining the above two solutions, it is reasonable to determine whether the amount of punitive damages can be reduced with the consideration of if the administrative and criminal fines are heavy or not.

4.2.2 *Factors of the infringement facts*

The severity of environmental pollution and ecological damage caused by the infringer, as well as the severity of causing health damage and property damage to others, should also be taken into account. In environmental private interest litigation, the severity of personal and property damage to the infringed party can be considered. In environmental public interest litigation, if there is no specific infringer, it means that the calculation can not be based on personal and property damage, and the severity of the consequences of environmental pollution and ecological damage can be considered.

4.3 *Clarify each management model of punitive damages*

4.3.1 *The management model of punitive damages in environmental private interest litigation*
All punitive damages should be attributed to the infringer. Firstly, it can motivate the infringed party to file a lawsuit and safeguard their own rights and interests, and serve as a deterrent for illegal behavior. Secondly, it can serve as a compensation for the potential uncompensated losses of the infringed party.

4.3.2 *The management model of punitive damages in environmental public interest litigation*
The best model is to establish a unified management model for ecological and environmental public welfare funds nationwide. The mode of fully turning over to the national treasury is easy to be confused with the budgets of other public utilities, and may not play a role in protecting and repairing the ecology and environment. Although the mode of management by the procuratorate or the court is intended to be used for the cost of environmental and ecological restoration, it can not be effectively supervised and managed, so it is difficult to achieve its original purpose.

Compared to other management models, establishing a fund can not only achieve the functions of punishment, but also be used to protect the infringed party, which is most in line with the public interest litigation system (Yang 2021). As the first local regulation of environmental public interest litigation in China, the *Regulations on Ecological and Environmental Public Interest Litigation in Shenzhen Special Economic Zone* fixes the environmental public interest fund in the form of legislation, and stipulates that the fund is used for environmental remediation, investigation and evidence collection costs, identification and evaluation costs, litigation costs, fees for awarding organizations and individuals who have made contributions to the protection of the ecology or environment, and fees for public welfare activities. This opens the way for the establishment of a unified ecological and environmental public welfare fund nationwide, which can achieve the goal of standardized management of punitive damages.

5 CONCLUSION

Through research, this article elucidates the relation among each of the subjects of punitive damages claims and the calculation rules for the amount of punitive damages, as well as the management mode of punitive damages, and analyzes the immaturity of these three applicable rules in judicial practice. On the one hand, this article figures out the order of punitive

damages claims – the infringer representing private interests and the national organs and social organizations representing public interests. On the other hand, this article proposes a more specific and comprehensive calculation method for the amount of punitive damages by analyzing the practice of the punitive damages system in the judiciary. And this article seeks the management model of punitive damages in judicial practice both domestically and internationally, and proposes a management model that suitable for punitive damages in China. The improvement suggestions proposed in this article are beneficial for further legislative research on punitive damages in the future. In order to preferably apply the punitive damages system in environmental infringement cases, it is necessary to further improve more reasonable, scientific, and universal application rules, which can further strengthen the foundation of the ecological and environmental governance legal system and enhance the awareness of the whole society towards ecological and environmental protection.

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Analysis of the promotion strategy of new energy vehicles based on HSM theory

Taking Tesla motors and BYD motors as examples

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ABSTRACT: China has recently been actively pursuing a “dual carbon” goal, and the development of new energy vehicles has become an effective measure to promote energy conservation and reduce pollution. The new energy vehicle industry is currently a strategic emerging industry. How to effectively promote and popularize new energy vehicles is the problem that the authors want to explore. BulidYourDearms (BYD) and Tesla, which have significant influence in the new-energy vehicle industry, have different publicity strategies. This article analyzes the common promotional strategies used by these two car companies in their operations through relevant research conducted by Chinese and other scholars on corporate marketing methods. Based on HSM theory, heuristic coding, systematic coding, and other methods are used to compare the content and presentation form of Tesla and BYD’s official Weibo data in the past year. Finally, after comparing the data analysis results of the two, the conclusion is drawn: BYD’s promotional strategy is based on constantly innovating brand features, innovative entertainment marketing models, and unique cost advantages, but there is still room for optimization in determining target users and marketing channels. Tesla’s promotional advantages lie in its powerful functional configuration, high-quality feedback from car owners, and diverse customer support. However, there are still issues that need to be further discussed and resolved in terms of pricing selection, production, and market size.

Keywords: HSM, Promotion Strategy, Tesla, BulidYourDearms

1 INTRODUCTION

According to the latest statistics from the China Association of Automobile Manufacturers, China’s production and sales of new energy vehicles will be 7.058 million and 6.887 million, respectively, in 2022, up 96.9% and 93.4% year-on-year, ranking first in the world for the eighth consecutive year. While Chinese car companies such as BulidYourDearms (BYD), Wuling, and Xiaopeng are vigorously developing new energy vehicles, foreign car companies such as Tesla are also riding on the fast track of China’s new energy policy. It is easy to see through the 2022 sales figures for new energy vehicles in China that Tesla, the only foreign car company on the list, sold 440,000 units a year in the Chinese market, ranking third after

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BYD and Wuling. However, it should be noted that the top two ranked BYD and Wuling's new energy vehicle sales mainly came from models under 150,000 yuan. The Tesla Model 3 and Model Y sold in China are both priced at over RMB 200,000. The fact that Tesla has not relied on low-priced vehicles to boost sales to achieve such sales shows that Tesla has excelled in terms of product strength, brand promotion, and user service.

Therefore, based on HSM theory, this paper will take the official microblogs of Tesla and BYD 2022 as research objects; adopt heuristic coding and systematic coding methods to analyze the content, communication strategies, and corresponding communication effects of the microblogs; and make suggestions for optimizing the communication strategies of the official microblogs of new energy vehicle brands.

2 LITERATURE REVIEW

2.1 *HSM theory*

The HSM model generally supports the difference between two perspectives: a systematic persuasive view that emphasizes the mediating role of detailed information processing and content-based cognition, and a heuristic persuasive view that focuses on the role of simple rules or cognitive heuristics in mediating opinion changes. As for the inputs themselves, it is argued that although high inputs can either promote or inhibit the direct impact of persuasive information, changes induced under high (as opposed to low) input conditions should exhibit greater persistence (Chaiken 1980).

Second, in situations where the importance of the task is low, the heuristic processing of credibility cues is the only determinant of people's attitudes, regardless of the ambiguity or strength of the argument. When the task is of high importance and the information content is clear and when the information content conflicts with the effectiveness of the credibility heuristic, the system processing alone determines the attitude. When the information content is not inconsistent with the heuristic, the system processing and the heuristic processing independently determine the attitude. Finally, when the task importance was high and the information content was fuzzy, heuristic and systematic processing again affected attitudes (Chaiken & Maheswaran 1994).

2.2 *HSM theory in business activities*

In commercial activities, especially in the promotion behavior of consumers, the dual path of HSM theory provides multiple channels for brand promotion. Some studies have found that the quality of online comment arguments characterized by perceived information and perceived persuasiveness (system factors) has a significant impact on consumers' purchase intention. In addition, scholars have found that source credibility and the perceived number of comments (heuristic factors) have a direct impact on purchase intention (Zhang *et al.* 2014).

Second, some scholars analyzed the differences in emotional value of commodities or brands in information processing and concluded that: The heuristic information processing of positive emotion is higher than that of negative emotion. However, because both positive emotion and negative emotion have higher systematic information processing, negative emotion may activate systematic information processing more than positive emotion, and the critical event experience of negative emotion may lead to the reduction of heuristic information processing (Mi 2017). Based on the above research, the authors propose the following research questions:

RQ1: What is the impact of the system and heuristic on user engagement during the social media promotion of Tesla and BYD?

2.3 *HSM theory in social media research*

With new media, especially social media, gradually becoming the main channel for people to receive information, scholars have used HSM theory to conduct an in-depth analysis of the

characteristics of social media. The scholars found that, in microblogs, source credibility, source expertise, source attractiveness and the amount of multimedia have significant effects on message retweeting. In addition, source expertise moderated the effects of user credibility and content objectivity on microblog message retweets (Liu *et al.* 2012). In addition to research on retweets, a number of scholars have also conducted in-depth studies on the dissemination of advertising on social media platforms. By using a heuristic system model, we examined the informativeness of advertising, showing that heuristic cues such as ad message size and ad persuasiveness contribute to consumers' brand awareness and purchase intentions and that heuristic and systematic information processing coexists in social media advertising contexts (Tan *et al.* 2021).

Although most scholars emphasize the influence of heuristics on users, some scholars' studies examined the influence of content and contextual factors on the popularity of microblog posts based on the framework of the heuristic systemic information processing model, concluding that: Systemic strategies dominate users' information processing compared to heuristic strategies. More importantly, scholars identified retweets and comments as different types of microblogging behavior. Retweets aim to disseminate information, in which the credibility of the source (e.g. authenticity of the user) and the informativeness of the post plays an important role, while comments emphasize social interaction and dialogue, in which the user's experience and the topic of the post are more important (Zhang *et al.* 2014). This leads to the following research questions:

RQ2: What is Tesla's and BYD's preferred method of message processing in their social media campaigns?

RQ3: How do Tesla and BYD differ in the way they process information in their social media campaigns?

Based on previous research, we propose the following research hypothesis:

H1: In commercial campaigns, both systematic and heuristic approaches to information processing have a positive impact on user interaction.

H2: Brands prefer to use heuristic information processing in their social media campaigns.

3 METHOD

This study conducted a text analysis of communication strategies and their effects on the official Weibo accounts of Tesla and BYD. This study used the method of content analysis to analyze the official account post information of Tesla and BYD on Sina Weibo.

This study selected HSM theory as the main theoretical basis and constructed a research framework by reviewing the literature. According to the classification of heuristic encoding and systemic encoding in HSM theory, it is set from top to bottom. Lovejoy and Saxton proposed three categories based on the ICA classification framework for Weibo content: information provision, relationship construction, and behavior guidance (Lovejoy & Saxton 2012). Yan Xing and others classified clothing enterprise information into six themes: knowledge provision, information release, image display, entertainment dissemination, reward activities, and interaction with fans (Yan & Ding 2012). Cheng divided the content of brand communication into two categories: instrumental and emotional (Cheng 2012). Based on the classification standards studied by existing scholars, this study divides the independent variables into three categories according to HSM theory through observation induction: heuristic encoding, systemic encoding, and presentation form. According to different prompts, Heuristic encoding is divided into nine independent variables: "Forwarding and Lottery", "Entertainment marketing", "Festival greetings", "Corporate Information", "Offline activities", "Topic interaction", "Customer Support", "Sharing insights", and "New car launch". Systemic encoding is divided into five independent variables based on the different attributes emphasized in car cognition: "Environmental protection", "Cost factor", "Supporting facility", "Functional configuration", "Exterior and Interior". And the presentation form of blog

content includes four independent variables: “Text”, “Words and picture”, “Words and link”, and “Words and video”. This study randomly selected December blog posts from Tesla and BYD for trial coding, and found that the concepts of “holiday greetings” and “analytical insights” were ambiguous and crossed with “Topic interaction”. Therefore, they were merged into “Topic interaction”, and the positioning of “new car launch” was vague and unclear. Therefore, they were merged into “Corporate Information”, while the rest remained unchanged. Finally, Heuristic encoding is divided into six independent variables: “Forwarding and lottery”, “Entertainment marketing”, “Corporate information”, “Offline activities”, “Topic interaction”, and “Customer support”. Systemic encoding is divided into five independent variables: “Environmental protection”, “Cost factor”, “Supporting facility”, “Functional configuration”, ‘Exterior and Interior’. The Presentation Form includes four independent variables: ‘Text’, ‘Words and picture’, ‘Words and link’, and ‘Words and video’.

This study analyzed all blog posts from the official accounts of Tesla and BYD on Sina Weibo throughout 2022. The survey was conducted on April 18, 2023. Content analysis coding is performed by three coders simultaneously, and consistency testing is conducted on the statistics of Tesla’s November and December blog posts by the three coders. The consistency is 87% (greater than 80%, meeting the coder consistency standard). According to statistics, the official accounts of Sina Weibo and BYD on Sina Weibo released a total of 2662 posts throughout 2022, of which 21 posts had expired and were not counted. The total number of valid samples was 2641.

4 RESULTS

The authors use one-way ANOVA to test the hypotheses and research questions. According to the order of heuristic encoding, systematic encoding, and presentation form, the independent variables from the three categories are inputted separately into the model. There is a crossover between heuristic encoding and systematic encoding, and the variables in the categories are mutually exclusive.

Table 1. Descriptive statistics for the Tesla (N = 1152).

	Number	Percentage (%)
Heuristic encoding		
Forwarding and lottery	184	16
Entertainment marketing	23	2
Corporate information	238	20.7
Offline activities	111	9.6
Topic interaction	423	36.7
Customer support	126	10.9
Total	1105	95.9
Systemic encoding		
Environmental protection	124	10.8
Cost factor	27	2.3
Supporting facility	163	14.1
Functional configuration	171	14.8
Exterior and interior	47	4.1
Total	532	46.2
Presentation form		
Text	28	2.4
Words and picture	981	85.2
Words and link	5	0.4
Words and video	138	12
Total	1152	100

Table 2. Descriptive statistics for the BYD (N = 1489).

	Number	Percentage (%)
Heuristic encoding		
Forwarding and lottery	93	6.2
Entertainment marketing	205	13.8
Corporate information	534	35.9
Offline activities	179	12
Topic interaction	287	19.3
Customer support	25	1.7
Total	1323	88.9
Systemic encoding		
Environmental protection	65	4.4
Cost factor	46	3.1
Supporting facility	18	1.2
Functional configuration	338	22.7
Exterior and interior	169	11.3
Total	636	42.7
Presentation form		
Text	2	1
Words and picture	1086	72.9
Words and link	7	0.5
Words and video	394	26.5
Total	1489	100

In the heuristic encoding, Tesla used topic interaction the most and entertainment marketing the least, while BYD used corporate information the most and customer support the least. In the systemic encoding, Tesla used functional configuration the most and cost factor the least, while Build Your Dreams used functional configuration the most and the supporting facility the least. In the presentation form, Tesla and Build Your Dreams both used words and pictures the most, the figures were 981 times and 1086 times, respectively. In all samples, Tesla and BYD focused heavily on the heuristic variables, at 1,105 times and 1,323 times, respectively. Tesla had 532 systemic encodings and BYD had 636 systemic encodings (as shown in Tables 1 and 2).

Table 3. Descriptive statistics for the BYD (N = 1489).

	L (F)	L (df)	L (Sig)	L (Co)	C (F)	C (df)	C (Sig)	C (Co)	Fo (F)	Fo (df)	Fo (Sig)	Fo (Co)
Heuristic encoding												
Forwarding and lottery	38.267	1104	0.000	P	222.407	1103	0.000	P	206.238	1104	0.000	P
Entertainment marketing	0.152	1104	0.697	N	0.160	1103	0.690	N	0.060	1104	0.806	N
Corporate information	0.445	1104	0.505	P	0.079	1103	0.779	N	0.017	1104	0.898	N
Offline activities	0.097	1104	0.756	N	2.037	1103	0.154	N	0.539	1104	0.463	N
Topic interaction	9.727	1104	0.002	N	58.633	1103	0.000	N	62.642	1104	0.000	N
Customer support	7.742	1104	0.005	N	7.067	1103	0.008	N	7.368	1104	0.007	N
Systemic encoding												
Environmental protection	0.170	531	0.681	N	1.074	530	0.300	N	1.647	531	0.200	P
Cost factor	0.045	531	0.831	P	4.685	530	0.031	P	0.000	531	0.987	N

(continued)

Table 3. Continued

	L (F)	L (df)	L (Sig)	L (Co)	C (F)	C (df)	C (Sig)	C (Co)	Fo (F)	Fo (df)	Fo (Sig)	Fo (Co)
Supporting facility	2.182	531	0.140	N	23.307	530	0.000	N	12.069	531	0.001	N
Functional configuration	1.580	531	0.209	P	15.425	530	0.000	P	12.613	531	0.000	P
Exterior and interior	0.605	531	0.437	P	1.418	530	0.234	P	4.414	531	0.036	N
Presentation form												
Text	47.503	1151	0.000	P	9.813	1150	0.002	P	0.364	1511	0.546	N
Words and picture	29.839	1511	0.000	N	14.630	1150	0.000	N	55.528	1511	0.000	N
Words and link	0.209	1511	0.648	N	0.881	1150	0.348	N	0.216	1511	0.643	N
Words and video	7.861	1511	0.005	P	8.308	1150	0.004	P	63.831	1511	0.000	P

Note: L, C, and Fo represent the number of likes, number of comments, and number of forwards, respectively. Co represents correlation. P and N represent positive and negative correlations, respectively.

Table 4. Analysis of variance for the BYD (N = 1489).

	L (F)	L (df)	L (Sig)	L (Co)	C (F)	C (df)	C (Sig)	C (Co)	Fo (F)	Fo (df)	Fo (Sig)	Fo (Co)
Heuristic encoding												
Forwarding and lottery	17.015	1322	0.000	P	391.183	1322	0.000	P	8.571	1322	0.003	P
Entertainment marketing	40.051	1322	0.000	P	0.258	1322	0.611	P	0.205	1322	0.651	P
Corporate information	2.325	1322	0.128	N	16.313	1322	0.000	P	0.001	1322	0.974	P
Offline activities	6.483	1322	0.011	N	8.264	1322	0.004	N	1.005	1322	0.316	N
Topic interaction	14.713	1322	0.000	N	14.168	1322	0.000	N	1.698	1322	0.193	N
Customer support	0.720	1322	0.396	N	0.946	1322	0.331	N	0.115	1322	0.734	N
Systemic encoding												
Environmental protection	0.363	635	0.547	P	0.626	635	0.429	P	8.950	635	0.003	P
Cost factor	0.273	635	0.601	P	4.583	635	0.033	P	0.126	635	0.723	N
Supporting facility	0.000	635	0.989	N	0.056	635	0.813	P	0.044	635	0.833	N
Functional configuration	6.493	635	0.011	N	9.902	635	0.002	N	1.590	635	0.208	N
Exterior and interior	4.656	635	0.031	P	2.719	635	0.100	P	0.107	635	0.743	N
Presentation Form												
Text	0.001	1488	0.979	N	0.004	1488	0.947	P	0.006	1488	0.938	N
Words, and picture	7.806	1488	0.005	N	5.941	1488	0.015	P	0.390	1488	0.532	P
Words and link	0.332	1488	0.565	N	0.349	1488	0.555	N	0.034	1488	0.854	N
Words and video	8.447	1488	0.004	P	5.610	1488	0.018	N	0.353	1488	0.552	N

Note: L, C, and Fo represent the number of likes, number of comments, and number of forwards, respectively. Co represents correlation. P and N represent positive and negative correlations, respectively.

4.1 *Heuristic encoding*

Forwarding and lottery in the brand analysis of BYD have a positive effect on the number of likes, comments, and forwards. In the brand analysis of Tesla, forwarding and lottery have a positive effect on the number of likes, comments, and forwards (Tables 3 and 4).

Entertainment marketing, in the brand analysis of BYD, has a positive effect on number of likes and has no effect on number of comments and forwards; in the brand analysis of Tesla, entertainment marketing has no effect on number of likes, comments, and forwards (Tables 3 and 4).

Corporate Information, in the brand analysis of BYD, has no effect on number of likes and forwards, and has a negative effect on number of comments; In the brand analysis of Tesla, Corporate Information has no effect on number of likes, comments, and forwards (Tables 3 and 4).

Offline activities, in the brand analysis of BYD, have a negative effect on number of likes, and comments, and have no effect on number of forwards; In the brand analysis of Tesla, Offline activities have no effect on number of likes, comments ($\text{sig} > 0.05$), and forwards (Tables 3 and 4).

For Topic interaction, in the brand analysis of BYD, Topic interaction has a negative effect on number of likes and comments, and has no effect on number of forwards. In the brand analysis of Tesla, Topic interaction has a negative effect on number of likes, comments, and forwards (Tables 3 and 4).

In the brand analysis of BYD, Customer Support has no effect on number of likes, comments, and forwards. In the brand analysis of Tesla, Customer Support has a negative effect on number of likes, comments, and forwards (Tables 3 and 4).

4.2 *Systemic encoding*

In the brand analysis of BYD, environmental protection has no effect on number of likes and comments, and has a positive effect on number of forwards. In the brand analysis of Tesla, environmental protection has no effect on number of likes, comments, and forwards (Tables 3 and 4).

In the brand analysis of BYD, cost factor has no effect on number of likes and forwards, and has a positive effect on number of comments. In the brand analysis of Tesla, cost factor has no effect on number of likes and forwards, and has a positive effect on number of comments (Tables 3 and 4).

In the brand analysis of BYD, supporting facility has no effect on number of likes, forwards, and comments. In the brand analysis of Tesla, supporting facility has no effect on number of likes and has a negative effect on number of comments and forwards (Tables 3 and 4).

In the brand analysis of BYD, functional configuration has no effect on number of likes and forward, and has a negative effect on number of comments. In the brand analysis of Tesla, Functional configuration has no effect on number of likes, and has a positive effect on number of comments and forwards (Tables 3 and 4).

In the brand analysis of BYD, exterior and interior has a positive effect on number of likes, and has no effect on number of comments and forwards; In the brand analysis of Tesla, exterior and interior has no effect on number of likes and comments, and has a negative effect on number of forwards (Tables 3 and 4).

4.3 *Presentation form*

In the brand analysis of BYD, pure text has no effect on number of likes, comments, and forwards. In the brand analysis of Tesla, Pure text has a positive effect on number of likes and comments, and has no effect on number of forwards (Tables 3 and 4).

In the brand analysis of BYD, Words and pictures have a negative effect on number of likes, have a positive effect on number of comments, and have no effect on number of

forwards. In the brand analysis of Tesla, words, and pictures have a negative effect on number of likes, comments, and forwards (Tables 3 and 4).

In the brand analysis of BYD, words and links have no effect on number of likes, comments, and forwards. Similarly, in the brand analysis of Tesla, words and links have no effect on number of likes, comments, and forwards (Tables 3 and 4).

In the brand analysis of BYD, words and videos have a positive effect on number of likes and comments, and have no effect on number of forwards. In the brand analysis of Tesla, words and videos have a positive effect on number of likes, comments, and forwards (Tables 3 and 4).

5 DISCUSSION

The purpose of this study is to explore the corporate promotional activities of new energy vehicle companies (BYD and Tesla) on Chinese social media platforms (Weibo) based on HSM theory. First, this study analyzes the content of tweets published by the two different companies based on heuristic thinking and systematic thinking proposed in the HSM theory (Chaiken 1980).

5.1 *Heuristic encoding*

The variance analysis of the heuristic encoding of “forwarding and lottery” for two car companies shows that forwarding and lottery have a significant positive correlation with the likes and comments of BYD Weibo tweets, and have a significant impact on the likes, comments, and reposts of Tesla Weibo tweets. In fact, Lee and Eun Mi found in their research that the impact and experience of consumers on key events in online shopping contexts may be the main factors in the process of searching and evaluating purchased product information. Enterprises incorporate lottery elements into social media promotion to enhance the audience’s experience in the understanding process, which may provide assistance for future audiences to choose the brand of cars (Mi 2017).

Meanwhile, during the research process, we found that both car companies use the lottery as a way to attract traffic, but when studying their comment areas, we found that a large amount of comment content is only about completing the lottery conditions set by the brand in the future without any substantive content, such as “hoping to win the lottery”. However, compared to BYD, Tesla frequently uses “forwarding and lottery” as a way to attract traffic and often incorporates systematic information processing to guide the audience in content processing, hoping to achieve better promotional effects.

The authors believe that “forwarding and lottery” are effective ways for brands to quickly attract traffic on social media platforms such as Weibo. However, it is still necessary to add more interactive content and coding forms that can trigger changes in social media user attitudes toward the content of tweets. Car brand sales growth can be effectively promoted only through “attracting and retaining” customers.

For entertainment marketing, in terms of heuristic encoding in entertainment marketing, only BYD’s entertainment marketing has a positive impact on audience interaction, while Tesla’s Weibo tweets hardly involve this encoding form. BYD has invited many Chinese celebrities to endorse its brand and has also sponsored various social organizations such as the Chinese Snowy Sports Team and the King of Glory (a popular multiplayer mobile game in China) Team. Usually, BYD’s Weibo tweets containing “entertainment marketing” can generate a large amount of user interaction. Although Elon Musk (founder of Tesla Group) believes that excellent products are the best promotion, it cannot be denied that in Chinese social media, entertainment marketing, as a heuristic information processing, has a significant impact on user engagement.

For enterprise information, the analysis of variance on “corporate information” shows that the heuristic encoding of “enterprise information” has no significant impact on the participation of Tesla and BYD in Weibo tweets. Two car companies usually use this

information processing method in their brand's tweets that win certain awards or competitions. However, research has found that this heuristic encoding does not elicit user participation. The authors believe that the two car companies should actively adjust their content and add more coding forms that are conducive to user participation, such as "forwarding and lottery" and "cost factors," in order to trigger heuristic or systematic thinking among users and gain greater user engagement. In future studies, questionnaire surveys and other analytical methods can be used to analyze whether the use of enterprise information can change the impression of social media users on the enterprise.

For offline activities, analyzing the "offline activities" of two car companies, it was found that the encoding form of "offline activities" occasionally appears in their Weibo tweets. However, through analysis of variance, it was found that the heuristic encoding of "offline activities" has a negative correlation with the participation of both car companies Weibo tweets about. The offline activities released by these two car companies are mostly about offline car shows and activities, which are closer to notifications and do not contain a large amount of information. Smith, SW, and other authors suggest that predictive factors influencing heuristic thinking include individual differences and cognitive, emotional, and behavioral factors (Smith *et al.* 2008). The authors believe that publishing such content by car companies can encourage social media users to gain an in-depth understanding offline, but it is almost unattractive to Weibo users who are not at car shows or event venues.

For topic interaction, the variance analysis of the heuristic coding of "topic interaction" between the two auto companies shows that the topic interaction has a significant negative correlation with the number of likes and comments of BYD's Weibo tweets. There is a significant negative correlation between the number of comments and the number of retweets on Tesla's microblog. "Topic interaction" composed of car owners' feelings and other topics can improve brand credibility. It is also found that source credibility and perceived number of comments (heuristic factors) have a direct impact on purchase intention when combing past studies (Zhang *et al.* 2014). There are some differences between the authors' research results and the previous research results, the authors think that although the "fan topic" enhances credibility, it is highly subjective because the content mainly comes from the users' feelings about the use of the car owners and other users' attitudes toward the products, and most of the content is positive feedback on the products of the automobile enterprises. Because negative emotions may activate the system's information processing more than positive emotions, critical event experiences of negative emotions may lead to reduced heuristic information processing (Mi 2017). Therefore, it is difficult for such a topic to attract the attention and interaction of other Weibo users. The authors suggest that the two auto companies should make more efficient use of the feelings of consumers. On the one hand, they should guide users to publish content that is more valuable and can trigger discussion. On the other hand, they should not limit the feedback situation of product users.

For customer support, the variance analysis of the heuristic code of "customer support" of the two automakers shows that "customer support" has a negative correlation with the number of likes, comments, and retweets of BYD's Weibo tweets while has a significant negative correlation with the interaction of Tesla's Weibo tweets. In fact, the "customer support" heuristic code accounted for only 1.7 percent of BYD's tweets and 10.9 percent of Tesla's tweets. When studying the microblog and tweets of the two companies, it is not difficult to find that Tesla pays particular attention to the information about car owners' driving skills and explains the information about charging and remote network control that are unfamiliar to new energy car owners. On the one hand, it brings practical skills to car owners, and on the other hand, it makes the hesitant audience realize Tesla's meticulous service for car owners. Geng and other scholars found in their research that heuristic clues such as advertisement information content and persuasion can help improve consumers' brand recognition and purchase intention (Tan *et al.* 2021). Although there are some differences between the conclusions obtained and the results of previous studies, however, most of the "customer support" content released by Tesla is forwarded to other accounts of

Tesla's Weibo communication matrix, such as the microblog tweets of "Tesla Charging Life" and "Tesla User Support", so there is a negative correlation in the amount of interaction. The authors believe that the microblogs and tweets of auto companies should not only focus on their own products but also release customer support content. In this way, some details of the product can be publicized to social media users, and a user-focused corporate image can be built by focusing on the users of the product.

5.2 Systemic encoding

For environmental protection, through the analysis of the coding form of "environmental protection" in Tesla's and BYD's Weibo tweets, the authors find that Tesla uses this coding form more in its tweets. However, the encoding used in Tesla Weibo tweets has a negative correlation with the interaction volume of their tweets, while BYD's use of this encoding has a positive correlation with their tweets and a significant positive correlation with the number of reposts. The authors believe that the purchase of new energy vehicles by users largely depends on their low operating costs and high-tech configurations, rather than their own environmental protection concepts. Car companies' tweets involving "environmental factors" are largely aimed at promoting the brand's emphasis on environmental protection and gaining user favor, rather than promoting their products to the audience through "environmental factors". The authors suggest that when car companies publish such content on social media, they can add more coding forms that can guide social media users to participate, such as "forwarding and lottery" in heuristic coding or "functional configuration" in systematic coding; the encoding form of environmental factors can also be integrated into the brand's Weibo tweets.

For cost factor, when analyzing the 'cost factor' in the systematic coding of BYD and Tesla tweets, the coding format had no significant effect on the number of likes, comments, and retweets on BYD tweets; however, there was a significant positive relationship between the number of likes and comments on Tesla tweets. Systematic processing alone determines attitudes when task importance is high and message content is clear (Chaiken & Maheswaran 1994). The authors argue that affordability is one of the important reasons for the public to purchase new energy vehicles, and that only by constantly emphasizing the affordability of using charging stations or home charging pads leading the audience to think systematically, to carefully analyze their own costs of purchasing and using a car, and to change their attitudes toward new energy vehicles in this way. In future studies, if the detailed sales data of automobile enterprises can be obtained, the impact of the systematic coding form of cost factor on the sales volume of automobile enterprises can be analyzed in detail.

For supporting facilities, when analyzing the "supporting facilities" in the systematic code of BYD's and Tesla's Weibo tweets, the authors found that 14.1% of Tesla's Weibo tweets involved this code, while only 1.2% of BYD's tweets involved this code. The systematic coding of "amenities" had a significant negative correlation with the likes, comments, and retweets of both companies' official Weibo tweets. Zhang Lun and other scholars concluded that the content factor was significant in explaining differences in post popularity outperformed contextual factors, suggesting that systematic strategies dominated users' information processing compared to heuristic strategies (Zhang *et al.* 2014).

For new energy vehicles, the only pain points are the long charging time and insufficient coverage of the charging pile network, but as new energy vehicle companies continue to improve the construction of charging pile outlets, this pain point will no longer exist. Similarly, as new energy vehicle brands continue to release the layout of their branded charging pile networks on their social media; this will allay the concerns of those on the fence about the inconvenience of using new energy vehicles. However, as Weibo is a social media with a wide distribution of user groups, it is difficult for people outside of Tesla's target audience to interact with what it has laid out. In addition, I observed the content of Tesla's Weibo tweets that contained the code "ancillary facilities", and found that the content posted by Tesla was more akin to a "notice", which naturally made it difficult for Weibo users to interact with it.

For example, on 19 November 2022, a tweet titled “Tesla’s new stations and piles are online, #Tesla will accompany you to enjoy the beautiful scenery in October” received only 3 retweets, 12 comments, and 16 likes. Therefore, Tesla had to use proper content coding to turn the “notification” into a tweet that would get Weibo users to engage with it.

For functional configuration, after analyzing the “cost factor” in the systematic coding of BYD and Tesla’s tweets, the authors came up with the following data: 14.8% of Tesla’s total tweets in 2022 involved this coding form, and there was a significant positive correlation between the likes, comments, and retweets of the tweets. For BYD, 22.7% of their total tweets in 2022 involved this coding form, but showed a negative correlation to its Weibo engagement. In the authors’ view, as a major selling point for new energy vehicles, the indicators of “charging speed, car system, sound effect, and power performance” are also widely promoted by the two car companies. But Tesla’s systemic coding of ‘features’, along with heuristic coding such as ‘retweet, lottery’, and ‘customer support’, has resulted in better audience engagement than BYD’s. BYD could also include another coding that enhances social media user engagement in its social media campaigns to improve communication. BYD can also incorporate other forms of coding to enhance social media user engagement in its social media campaigns to improve the effectiveness of communication.

For exterior and interior, when analyzing the “exterior & interior” coding of BYD’s and Tesla’s Weibo tweets, Tesla’s Weibo tweets were less likely to involve this coding than BYD’s, but the coding showed a positive correlation for likes and comments on both companies’ Weibo tweets and a negative correlation for retweets. One of the highlights of new energy cars is their high-tech features and stylish design, and their promotion can lead audiences to think systematically and deeply about whether they meet their personal needs in order to finalize their purchase. The authors believe that as each person’s evaluation of a car’s exterior and interior is highly subjective, car companies can lead social media users to discuss their opinions of the brand’s exterior and interior when posting tweets in order to increase the amount of interaction.

5.3 *Form of presentation*

For pure text, when analyzing the “pure text” presentation in BYD and Tesla Weibo tweets, the authors found that this presentation only accounts for a very small proportion in both BYD and Tesla Weibo, at 1% and 2.4%, respectively. The presentation form of ‘pure text’ has a positive correlation with the approval of Tesla Weibo tweets, while a negative correlation with the approval of BYD Weibo tweets. However, its comments on the Weibo tweets of two car companies are both positively correlated and negatively correlated with reposting. After further exploration, the authors found that the two car companies only use a pure text presentation form while releasing emergency information or refuting rumors on the internet. It can be seen that the pure text format may cause some user discussions, but it does not have a significant effect on overall user acceptance.

For words and pictures, in the analysis of the “words and picture” format of BYD and Tesla’s Weibo tweets, I found that both BYD and Tesla use this format a lot, 72.9% and 85.2%, respectively. The “words and picture” format has a significant negative correlation with the likes, comments, and retweets of Tesla’s Weibo tweets, while it has a negative correlation with the likes of BYD’s Weibo tweets and a positive correlation with its comments and retweets. It is clear that both companies use “words and picture” as the most mainstream presentation form, in this regard, I believe that more heuristic coding and systematic coding forms should be combined with them so that the companies can achieve more positive publicity effects.

For text and link, when analyzing the “text and link” format of BYD’s and Tesla’s Weibo tweets, I found that this format only accounted for a minimal percentage of both BYD’s and Tesla’s Weibo tweets, at 0.5% and 0.4%, respectively. The “text and link” format has a significant negative correlation with the likes, comments, and retweets of both companies’ official Weibo tweets. In fact, it is not that the two companies do not use this presentation in

their Weibo tweets, but that it often appears alongside some explanatory images, which conflicts with the “text and picture” presentation, and the Weibo users of the two companies are more inclined to click on the pictures to learn more about them. The authors believe that this presentation format could be used separately for details of the two car companies’ Weibo prize draws, online and offline events, etc., which would also have a significant impact on user engagement and acceptance.

For text and video, in the analysis of the “text and picture” format of BYD and Tesla’s Weibo tweets, this format was more prevalent in BYD than in Tesla, with 26.5% and 12%, respectively. The “text and video” format has a significant positive correlation with likes, comments, and retweets on Tesla’s official Weibo tweets, while it has a positive correlation only with likes and a negative correlation with comments and retweets on BYD’s Weibo tweets. I found that Tesla used it to promote the design and features of its new car, while BYD used it to promote enthusiast gatherings, offline events, and celebrity endorsements. In this regard, I believe that the two car companies should give equal weight to the introduction of new cars and offline experiences for fans by incorporating “text and video” as a popular form of presentation and guiding Weibo users to participate in discussions on related topics, which would further improve user acceptance.

5.4 Overall analysis

In general, both BYD and Tesla used heuristic coding and systematic coding, but it is easy to see from the usage ratio that the ratio of heuristic coding used by Tesla and BYD (95.9% and 88.9%) is significantly higher than systematic coding (46.2% and 42.7%).

In terms of heuristic coding, Tesla focused more on “forwarding and lottery”, “offline activities”, “Topic interaction”, and “customer support.” The Tesla focus is more on “entertainment marketing” and “corporate consulting” than the BYD content.

In terms of systematic coding, Tesla focused more on “economic factors”, “supporting facilities”, and publicity, focusing more on the cost-saving and convenient charging of new energy vehicles. On the other hand, BYD focused more on the product itself, promoting its environmental features and appearance. In terms of presentation, we also found that Tesla and BYD used more “pure text” content (2.4% and 1%, respectively) compared to the most common “words and picture” presentation. However, they used less “text and video” presentation (12% and 26.5%, respectively).

5.5 Future research directions

The core purpose of a car company’s social media content is to get social media users to buy their company’s products. Therefore, if we can obtain data on car sales for each car company and determine whether car owners have made their purchase decisions through the tweets they have posted on social media, we will be able to better understand which aspects of social media should be emphasized by car companies in their campaigns.

This paper hopes that studying the promotional strategies of two representative car companies will serve as a reference for the promotion and development of new energy vehicle enterprises today and in the future. It also provides suggestions on how to deal with the details of product promotion of car companies, how to further enhance the attention of users, how to shape a corporate image that focuses on the feelings of users, and how to provide some guidance on product development, performance manufacturing, and strategic marketing of new energy vehicles. It also provides some guidance on product development, performance manufacturing, and strategic marketing of new energy vehicles. Future research could take a deeper empirical analysis, taking the preferences of different age groups of consumers for different attributes of new energy vehicles as an entry point and conducting in-depth research on the more significant factors influencing their consumer behavior and choices, to draw more objective conclusions.

6 CONCLUSION

Based on the HSM theory, this paper takes the official microblogs of Tesla and BYD 2022 as research objects and uses heuristic information coding and systematic information coding to analyze the content, communication strategies, and their corresponding communication effects; to analyze the communication characteristics of domestic and foreign new energy brands that occupy the leading position in the Chinese market; and to analyze the promotion strategies of new energy vehicles.

The preliminary analysis shows that both the heuristic and systematic message coding of HSM theory have been used extensively in the tweets of new energy brands, and both have had a significant impact on user engagement. The study concludes that BYD's communication strategy is based on the brand's innovative features, new entertainment marketing model, and unique cost advantages, but there is still room for optimization in terms of target audience identification and marketing channels. Tesla's promotional strengths lie in its powerful features, comprehensive facilities, quality feedback from owners, and diverse customer support, but its pricing choices and problems in production and market scale still need to be further discussed and resolved.

The conclusions drawn from this paper are time-bound, as the analysis only covers the year 2022, and as companies' promotional strategies will be adjusted over time as the market develops. In addition, as different consumers' perceptions and preferences change, the conclusions drawn from the study will need to be further revised and updated in the future.

AUTHORS CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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The influence of academic emotions on academic achievement

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ABSTRACT: In recent years, academic emotions have attracted a great deal of scholarly attention. Academic emotions are linked to many factors that influence academic achievement, but there is no review that addresses the effects of academic emotions on academic performance. This article aims to review the direct impact of academic mood on academic achievement, mediating mechanisms, and moderating mechanisms. The result shows that academic emotions have a direct impact on academic achievement and are important to study. It should be noted that different types of academic emotions have different impacts on academic achievement. Factors such as intelligence, academic buoyancy, and word-reading fluency have moderating effects between academic emotions and academic performance. On the other hand, academic emotions have an indirect impact on academic achievement by influencing factors such as attributional style, academic engagement, goals, and strategies. Future studies could focus on the impact of shifts in academic emotions on academic achievement, with more attention to the humanities and language subject areas.

Keywords: Academic Emotions, Academic Achievement, Influence Mechanism, moderating mechanism

1 INTRODUCTION

In recent years, academic emotions have become a hot issue in education and psychology both domestically and internationally, and the number of publications on this issue has been on the rise. Some evidence suggests that academic emotions are associated with many factors that influence academic achievement. However, there is no review of the impact of academic emotions on academic success. Academic emotions can be classified as proactive high arousal emotions, proactive low arousal emotions, inactive high arousal emotions, and inactive low arousal emotions (Pekrun *et al.* 2002). Proactive high arousal academic emotions include happy, pleasant, proud, envious, and hopeful; proactive low arousal academic emotions include relaxed, satisfied, and calm; inactive high arousal academic emotions include angry, anxious, and ashamed; and inactive low arousal academic emotions include bored, helpless, frustrated, and sad (Dong & Yu 2007). In general, optimistic moods are positively related to scholastic achievement, and passive moods are negatively related to academic achievement (Dong & Yu 2010). However, there are some studies with conflicting

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results, and it is difficult to confirm the influencing mechanism of scholastic moods on academic accomplishment (Ma *et al.* 2016). This review summarizes the mechanisms that influence academic moods on academic accomplishment and suggests on future research directions.

2 THE DIRECT EFFECTS OF ACADEMIC EMOTIONS ON ACADEMIC PERFORMANCE

2.1 *Direct effects of different academic emotions on academic performance*

Positive excessive arousal tutorial feelings usually manifest in conditions the place folks are greater satisfied, for example, getting exceptional grades or receiving excessive consciousness from instructors or friends will purpose college students to ride such pleasant emotions. Dong, Yan and Yu, Guoliang determined that the general impact of high-quality excessive arousal tutorial thoughts on students' educational overall performance was once positive (Dong & Yu 2010). Wu's learn about additionally observed that college students with high-quality tutorial feelings have a effective impact on tutorial performance, i.e. they have a tendency to have super educational overall performance (Wu 2022). Pan Junxiao investigated the correlation between three particular tremendous excessive arousal feelings and English grades, and all confirmed tremendous results (Pan 2022).

In a learn about by using Dong Yan and Yu Guoliang, the universal impact of low arousal wonderful tutorial thoughts on tutorial overall performance used to be additionally positive (Dong & Yu 2010). In a find out about with the aid of Zhang, Shijing and Lai, Jiahui (2016), wonderful low-arousal feelings such as relaxation, contentment, and calmness felt by using college students in the procedure of getting to know English can limit the interference of sturdy feelings on learning, so that they can find out about in an extra comfy kingdom barring dashing and therefore obtain their success dreams and preferred grades (Zhang *et al.* 2016). In addition, Pan (2022) determined that there is a small nice correlation between each calmness and contentment and English performance (Pan 2022).

Adolescents who are no longer nicely adjusted to frustration can without difficulty enter into bad emotional states, and most research in the literature exhibit that if they stay in such an emotional country for a lengthy time, it is unsafe to their educational achievement, however some of the research have unique results. The find out about with the aid of Dong, Yan and Yu, Guoliang confirmed that the usual impact of bad low arousal educational thoughts on educational overall performance was once substantially negative (Dong & Yu 2010). However, Xu Shuyan and Yang Xianhua confirmed a low correlation between 'anxiety' and 'shame' and 'English tutorial achievement', which used to be later determined to be consistent. All of the literature stated above point out that negative, high-arousal educational thoughts have a bad effect on tutorial performance (Yang & Xu 2013). However, in the find out about by way of Ma, Huixia, Xue, Yang, and Liu, Jing (2016), the terrible excessive arousal tutorial emotion "shame" has a considerable superb have an impact on on students' learning. Furthermore, the relationship between disgrace and tutorial success is complex. Some college students who are distinctly excessive achievers (e.g., in the sixtieth and ninetieth percentiles) experience extra 'shame' for the duration of the gaining knowledge of process. Therefore, extra lookup is wished on the impact of poor excessive arousal on educational performance (Ma *et al.* 2016).

In phrases of poor low arousal tutorial emotions, Dong Yan and Yu Guoliang (2010) concluded that the complete impact of bad low arousal educational feelings on educational success used to be extensively negative (Dong & Yu 2010). All 4 thoughts in the find out about have been negatively associated to tutorial fulfillment in English, as viewed in the find out about by using Pan, Junxiao (Pan 2022).

2.2 *Moderating variables under the impact of academic emotions on academic achievement*

Much research has been devoted to exploring the role of academic emotion in various curricular domains, such as mathematics courses, language courses, and physical education domains. There is evidence that the direct influence on academic achievement by academic emotions can be modified by variables moderated across curricular domains.

Academic buoyancy and intelligence are important moderating variables between academic emotions and academic achievement in mathematics. In mathematics courses, Chinese high school students' intelligence plays a moderating role between emotions in learning activities and performance in math, the higher the level of intelligence, the more significantly mathematics achievement is influenced by academic emotions (Zhu & Zhang 2017). In addition, academic buoyancy can moderate the influence of anxiety on mathematics achievement in elementary school students with an average age of 9.3 years old. Academic buoyancy may protect performance from negative academic emotions, with highest performance in mathematics when anxiety is low and academic buoyancy is high (Putwain *et al.* 2022).

In contrast to mathematics learning, there is little research that has focused on moderating variables between academic emotions and academic performance in reading comprehension. Raccanello, D. *et al.* found that word fluency moderated the relationship between boredom and online multisentence comprehension scores in a test of 334 fourth- and fifth-graders: only in students with high word fluency was boredom negatively correlated with online comprehension scores (Raccanello *et al.* 2021).

3 STUDIES ON THE MECHANISMS MEDIATING THE IMPACT OF ACADEMIC EMOTIONS ON ACADEMIC ACHIEVEMENT

3.1 *History of studies development*

Early researchers found stronger correlations between many specific academic emotions and different goals. For example, in 2002 Linnenbrink proposed a two-way asymmetric model theory of academic emotions and achievement goals. Linnenbrink believes that emotions are more likely to predict mastery goals than achievement goals. In particular, negative emotions can negatively predict mastery of approaching targets (Linnenbrink & Pintrich 2002). Research on self-efficacy and academic emotions has not produced consistent findings. When it comes to the relationship between academic emotions and learning techniques, researchers are more prone to think that positive emotions are more favorable to the use of flexible learning strategies. Rigid learning procedures are more likely to be used when negative emotions are present. Numerous studies have indicated that academic feelings have an impact on students' academic progress up to this stage (Turner *et al.* 2002). Pekrun made the claim that "the influence of emotions on learning and achievement is mediated by many cognitive and motivational mechanisms" in his study on the cognitive-motivational model. The motivation of students, their learning tactics, their cognitive resources, and their ability to regulate their learning are seen to be the most significant parts of this theory (Pekrun *et al.* 2002). In 2012, Valiente Carlos suggested that researchers could further their understanding by considering the potential moderating role of volitional control. In order to understand the connection between emotions and academic accomplishment, it is also advised to take into account the mediating roles played by cognitive processes, motivational strategies, and classroom dynamics. These could provide more information on the connection between feelings and academic success (Valiente *et al.* 2012). These serve as a foundation for investigating the mechanics of how academic emotions have an indirect impact on academic achievement.

3.2 Mediating variables

Scholars across countries have focused on attributional styles as an important mediating variable. Studies have focused on the mechanisms mediating attribution styles across different emotions. There are also differences in different groups of students and attributions when faced with technical problems. Berpard Weiner argues that students with positive affect show a clear tendency to expect and attribute effort to learning content, and that learning behaviour is reinforced as a result (Bernard 2001). On this basis, over 1,000 fourth through ninth grade students in Xi'an, China, were given a questionnaire by Bai Rong (2014) in an effort to investigate the impact of academic emotions on attributional tendencies and subsequently on their academic performance. The results for the secondary student group and the primary student group showed large differences. For secondary school students, the association between joyful academic feelings and academic success was somewhat mediated by ability attributions. Luck attributions partially mediated the relationship between negative academic emotions and academic achievement. For primary school students, however, it was ability attributions that partially mediated the relationship between negative academic emotions and academic achievement (Bai 2014). In 2018, Rebecca Maymon performed two research in North America and Germany to examine how causal attributions of academic numeracy challenges impact mood and success. This is because educational experiences are becoming more technologically mediated. In the first research, it was discovered that although strategy attributions were emotionally biased in favor of the positive, ability attributions for computer issues were emotionally biased in the other direction. The second study further demonstrated that computer problem aptitude attributions predicted lower academic success. The impact outweighed the impact of blame for weak academic achievement (Rebecca *et al.* 2018). The subjective experience of personal influence, or feeling dominated, is a common definition of perceived control (Skinner 1996). A person's perception of their own power and conviction that they can impact academic success is known as perceived academic control (PAC). It describes the internal attribution of achievement to individuals. According to Stupnisky *et al.*, some people's perceptions of their academic control were unstable (Robert *et al.* 2012). Respondek Lisa did a study on undergraduate students that defined academic achievement as low intention to drop out and high GPA (Respondek *et al.* 2017). According to the findings, students' perceptions of their academic control both positively and negatively predicted boredom and anxiety as well as enjoyment. Additionally, anxiety was a completely mediated predictor of intention to drop out of school based on perceived academic control.

Academic accomplishment and academic engagement are also mediated by academic engagement, methods, self-efficacy, and aspirations. Based on a short-term longitudinal sample, one researcher looked at the reciprocal association between negative affect, emotion control, and achievement in 2018. The findings supported that the link between negative emotions and emotion regulation and achievement was mediated through academic engagement. According to a 2019 research, parental involvement, happy and negative academic feelings connected to instrumental and emotional learning, and the usage of learning techniques were all strongly correlated. The time and environment management dimension of learning strategies and the effortful learning dimension were associated with academic achievement (Amalia & Latifah 2019). However, the researchers did not validate the mediating effect of learning strategies. The researcher Chaozhou Ma (2019) came to the conclusion that mathematics self-efficacy and learning techniques might serve as indirect mediators between good academic emotions and academic accomplishment in mathematics. Part of this effect is produced through mathematics self-efficacy, but the masking effect is produced through mathematics learning strategies. Negative mathematical academic emotions may have a direct impact on academic progress in mathematics or may have a somewhat mediated impact via mathematical learning practices. Mathematics self-efficacy did not play a mediating role in this process (Ma 2019). In 2020, Korean academics looked

studied the connections between academic success, feelings, and accomplishment objectives among nursing students in Korea (Kyung 2020). Mastery Approach goals were significantly and positively associated with happiness and negatively associated with boredom and anger. As opposed to accomplishment avoidance objectives, which were considerably and favorably linked to anxiety, despair, and humiliation, success approaching goals were significantly and favorably linked to pride and hope. Both mastery approach goals and achievement approach goals were significantly and positively associated with academic performance. Academic success was favorably correlated with happiness, optimism, and pride, whereas it was adversely correlated with boredom, wrath, anxiety, despair, and shame. These results suggest that achievement goals and emotions are intrinsically interrelated and thus influence academic achievement.

Goetz, Frenzel & Hall analysed the range of academic emotions experienced by secondary school students in mathematics, physics, German and English classes. They found that academic emotions were weakly and inconsistently linked across subjects. This suggests that academic emotions are discipline-specific. As a result, many scholars' studies have delved deeper into issues related to academic emotions across different disciplines and professions, examining more specific mechanisms (Goetz *et al.* 2007). The mediating effects of self-efficacy and learning techniques for the topic of mathematics were examined by Ma Chao-chou in 2019. In addition, Korean scholars (Kyung 2020) have generated new insights into the achievement goals and emotions of nursing students for research in the field of nursing (Kyung 2020). This contributes to the scientific understanding of nursing research and the improvement of practice in nursing education. Their integration of perspectives from psychological motivation and emotion research into the field of nursing contributes to interdisciplinary research in the field of nursing.

3.3 *Disagreements in the current studies*

In research, academics often consider motivation and self-regulation together. There are differing academic views on the mediating role of motivation. Mega's study from 2014 demonstrated how students' motivation and self-regulated learning are impacted by their emotions. These in turn have an effect on academic accomplishment, with self-regulated learning and motivation acting as a buffer between emotions and learning (Mega *et al.* 2014). Furthermore, positive emotions can only contribute to academic achievement if they are mediated by self-regulated learning and motivation. The insignificance of academic motivation factors non mediating between good and negative academic emotions and academic accomplishment was, however, proven by Saeedeh Valinasab's research in 2017. According to Saeedeh Valinasab's research on self-regulation, both happy and negative academic emotions may have a major and indirect influence, with the former having a good effect and the latter a negative one (Valinasab & Zeinali 2017).

4 DISCUSSION

4.1 *Contribution of existing studies*

The effect of academic emotions on academic accomplishment has attracted the attention of an increasing number of scholars during the last two decades. Research on this topic has reached a consensus that (1) academic emotions have a direct impact on academic achievement and are important to study. (2) Academic accomplishment is impacted differently by various academic emotions. (3) The association between academic mood and achievement is moderated by elements including intellect, academic buoyancy, and word reading speed. (4) Academic emotions have an indirect effect on academic achievement by influencing factors such as attributional styles, academic engagement, goals and strategies.

Research on how academic emotions impact academic success has made considerable strides, adding to the theoretical study of the subject and broadening our understanding of it. These studies still have certain flaws, however, and those flaws point to possible future study possibilities.

4.2 *Limitation and future study*

4.2.1 *Concept definition*

The concepts of 'emotion' and 'academic achievement' are still not well defined in previous research. There has been inconsistent research delineating the structure of academic emotions. Some researchers view academic emotions as a continuum of negative to positive emotions. Some scholars have studied it as several discrete emotions such as happy and angry (Schutz & Pekrun (2007)). Most scholars view academic achievement as the average of a student's performance on several examinations, with data derived from average academic performance. A minority of scholars use the Academic Achievement Questionnaire, which asks subjects to rate their academic performance in a subject on a five-point scale.

These inconsistencies in definition and classification make it difficult to integrate research in this area. In future research, the results of these studies can be integrated at a theoretical and meta-theoretical level in order to provide more consistent information for our educational practice.

4.2.2 *Subjects of study*

Little research has been conducted to address the issue of the developmental characteristics of students' academic emotions, and a comparative perspective is lacking. Due to the effects of physiological and psychological development, academic tasks, and learning systems, there may be variances in the effect of academic emotions on academic accomplishment among elementary, secondary, and university students. The research that has been done tends to focus on a small group of students in a particular age group, such as secondary school students or university students. This lacks a comprehensive viewpoint that considers how academic emotions affect academic progress for the whole student body. Future ones could conduct more longitudinal tracking studies. In addition, gender is not taken into account and less attention is paid to rural, school-transition students.

4.2.3 *Study content*

First off, the majority of past study has been on how academic accomplishment is impacted by a more stable emotional state, and future research may concentrate on how academic achievement is impacted by changes in academic emotions. Secondly, current research has focused more on science subjects such as mathematics, science and chemistry, while future research could focus more on humanities and language subjects. Thirdly, future research needs to focus more on the moderating variables and their moderating effects under the direct influence of academic emotions on academic achievement, such as curriculum area contexts and gender. In addition to this, more intervention studies are needed in the future to explore how factors such as teachers, parents and school organisations influence students' academic achievement through academic emotions. What kind of learning environment should researchers create for students and what interventions can be used to enhance students' academic achievement. With the exception of test anxiety, none of the existing intervention studies have been effective, so a great deal of empirical research is needed in this area.

4.2.4 *Re-examination of the disputed findings*

In addition to the controversial findings mentioned earlier, there is some controversy among scholars from different countries on the same issue. For instance, Pekrun (2002) *et al.* found that although relaxation did not directly predict academic success, positive high arousal

emotions like joyous optimism and pride linked high accomplishment (Pekrun *et al.* 2002). Chinese researchers Dong Yan and Yu Guoliang (2010) came to the opposite conclusion, noting that academic success was not directly impacted by pleasant, highly arousing emotions (Dong & Yu 2010). Academic emotions positively predicted academic achievement indirectly through mastery of approaching goals, mastery of avoiding goals, achievement of approaching goals, academic efficacy and learning strategies. The remaining types of academic emotions all had significant direct effects on academic achievement. Dong Yan speculated that the reason for the different findings may be due to the different methods of measuring emotions and the different geographical locations of the subjects. More in-depth research on such issues could be conducted in the future.

5 CONCLUSION

In this study, there is a conventional consensus that tutorial feelings have a direct effect on tutorial success and that special sorts of educational feelings have exceptional effects on educational achievement; that elements such as intelligence, tutorial buoyancy and phrase studying fluency average the relationship between educational feelings and tutorial achievement; and that tutorial feelings have an oblique influence on educational success through influencing attributional styles, tutorial engagement, goals, techniques and different factors. The primary contribution of this paper is to generalise and provide an explanation for the relationship between tutorial feelings and tutorial achievement. The primary contribution of this paper is to summarise the present lookup on the outcomes of educational feelings on tutorial fulfillment and to facilitate future lookup on the consequences of tutorial feelings on tutorial achievement. Although the present lookup is properly developed, there are some shortcomings, such as the definition of the ideas 'emotion' and 'academic achievement' in the preceding lookup is nonetheless now not clear, the lookup subjects are vast and want to be greater exactly defined, and the lookup content material is inadequate and desires to be broadened. Future lookup can begin from these elements and enhance the lookup on the have an impact on of educational feelings on tutorial achievement.

AUTHOR CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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Cultural context and historical development: A comparative study of preschool education in China and the United States

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ABSTRACT: This paper examines the distinct characteristics of preschool education in China and the United States, shaped by their diverse cultural backgrounds and historical development. The differences in educational concepts and perceptions of childhood are fundamental factors driving the varying approaches in these two countries. Through a comparative analysis, this study explores the disparities in preschool education concepts and methodologies between China and the United States. It also delves into Chinese preschool education's challenges, such as conceptual issues, limited accessibility, inadequate availability of high-quality kindergarten resources, and disparities between public and private kindergartens. Furthermore, the paper discusses the potential insights the United States' preschool education system can offer China. As one of the world's leading countries in preschool education, the United States serves as a valuable reference point for China's preschool education development. Areas of inspiration include increasing investment in the sector, raising awareness among citizens about the importance of early childhood education, and promoting equitable development of preschool education in urban and rural areas. Overall, this research highlights the significance of cultural context and historical background in shaping preschool education approaches in China and the United States. By identifying the challenges Chinese preschool education face and drawing insights from the United States, this paper aims to enhance China's preschool education system.

Keywords: Preschool education, China, United States, Comparative analysis

1 INTRODUCTION

In recent years, preschool education in China has garnered significant attention from various segments of society and the media. With the strong support and implementation of policies, China's preschool education has witnessed unparalleled growth and prosperity. As future educators, it is crucial for us to have a clear vision of the international preschool education landscape.

This paper compares preschool education institutions and practices between China and the United States. Through an objective analysis of the current state of preschool education in China, the paper aims to provide insights and perspectives for the thriving preschool education sector.

The overall objective of preschool education in China is to foster children's knowledge, skills, abilities, and all-round development, preparing them for entry into primary school and future citizenship. Conversely, preschool education in the United States emphasizes individual differences, with kindergarten teachers tailoring activities according to children's distinct personalities and abilities. In China, the focus is on collectivism and collective

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conceptual education, aiming to nurture children into effective group members. In contrast, the United States aims to foster individual expression and creativity, encouraging children to fully explore their distinctive personalities.

These differing approaches to educating and socializing children in both countries stem from contrasting perspectives on the child's role. In early childhood, American adults aim to help children discover their individuality and capabilities, while Chinese adults strive to help children understand societal existence and expectations. American kindergartens create environments where children can truly be themselves, whereas Chinese kindergartens provide environments for children to learn how to adapt to adulthood.

With this comparison as a foundation, the thesis delves into the present state of preschool education in China, offering valuable viewpoints to contribute to the further advancement of our thriving preschool education system.

2 AN OVERVIEW OF EXISTING PRESCHOOL INSTITUTIONS AND FORMS IN THE UNITED STATES

2.1 *Preschool institutions and forms in the US*

A comprehensive examination of preschool education in the United States highlights the diverse range of institutions and their distinctive qualities. These preschool establishments exhibit robustness, flexibility, and complementary strengths in their approaches. In the United States, various types of preschool institutions exist, each with its distinct forms of expression. Broadly categorized, these institutions include child care centers, preschool education centers, kindergartens, early childhood schools, and daily hosting services.

Child Care Centers constitute one type of preschool institution that primarily caters to children from birth to 6 years old, aiming to provide peace of mind for parents (Fang 2022). Such centers offer different forms of care based on specific needs. Firstly, there is childcare for unmarried teenage parents, where children aged 6 weeks to 5 years are looked after, allowing the parents to complete their high school education while acquiring parenting skills. Secondly, temporary childcare provides short-term care for children under 6, enabling parents to attend appointments, go shopping, or visit the gym. Thirdly, after-school childcare offers care for children from kindergarten to grade 6 after regular school hours. Fourthly, employee childcare caters to the needs of children whose parents work for a specific company or organization. Lastly, for-profit childcare centers provide care and education for children up to the first grade of primary school with a profit motive.

Preschool Education Centers are another institution encompassing both public and private schools. These centers mainly serve children aged 2.5 to 5 years old, preparing them for kindergarten and the first grade. Some preschools follow a parent-cooperative model, founded and managed by parents themselves. Kindergarten, a part of the public school system, is designed for children aged 4 to 6, serving as a preparation stage for the first year of primary school. Early Childhood Schools also exist as public and private schools, primarily targeting children aged 2 to 4. These schools are typically half-day programs catering to children whose mothers do not work outside the home. Many early childhood schools emphasize active learning through playful situations, while others offer kindergarten classes to provide educational training to children.

Additionally, there is the concept of Daily Hosting, wherein services are provided in a home environment for a small number of children, usually around 4 to 5 per family (Song 2015). Children in this setting are supervised and cared for within their natural surroundings. Furthermore, additional preschool options, such as early compensatory education centers and children's toy libraries, contribute to the overall landscape of preschool education in the United States.

Through these diverse preschool institutions and their varied forms, the United States demonstrates a multifaceted approach to early childhood education, accommodating children's and parents' diverse needs and preferences.

2.2 *Preschool institutions and forms in China*

China's preschool education system primarily consists of public and private kindergartens catering to children aged three to six. These institutions offer comprehensive care and education to prepare children to transition to primary school. While most kindergartens operate on a full-day basis, some also provide weekly classes to accommodate parents' preferences.

In recent years, the growing emphasis on preschool education has led to the emergence of various early education institutions in addition to kindergartens. These institutions, often called early education centers or parent-child education centers, focus on infants and children aged 0–6 years. For children aged 0–3, teachers guide them while parents actively participate in activities, aiming to foster healthy parent-child relationships and promote proper parenting concepts and methods. For children aged 3–6, teachers lead play activities without parental supervision, facilitating the development of their knowledge, skills, and emotions.

However, it is worth noting that most Chinese children aged 3–6 still attend kindergartens, with early education institutions serving as optional supplemental support. This can be attributed to the high fees charged by early education institutions and the lack of fully standardized curricula. Furthermore, once prevalent in China, nurseries and preschools have become increasingly rare in recent years.

In summary, kindergartens serve as the primary preschool education option in China, providing systematic care and education to children aged three to six. In addition, various early education institutions have emerged to supplement this system, focusing on parent-child relationships and promoting the development of children's knowledge and skills. While kindergartens remain the primary choice for most Chinese children aged 3–6, early education institutions are an alternative for those seeking additional support due to cost and curriculum standardization.

3 COMPARISON OF PRESCHOOL EDUCATION INSTITUTIONS AND FORMS BETWEEN THE UNITED STATES AND CHINA

It can be seen that preschools in the United States are more diverse and flexible than in China, meeting the diverse needs of parents and allowing them to express their social values, allowing them to work, shop, work out, go to appointments and do whatever they want without worrying about leaving their children unattended. Chinese preschools, on the other hand, are concentrated in early education centers and Chinese pay more attention to systematic knowledge and are willing to let their children gain more power, so an increasing number of preschools have made professional classes an essential part of their curriculum and less likely to teach diverse courses. Although there is a single form, the curriculum is more systematic and complete, standardized and scientific, which is more uniform. At the same time, because of this single format, it does not meet the diverse needs of all parents. For example, with most parents working outside the home, there are many problems with caring for children aged 0–3 years. Many children prefer to be cared for by grandparents, but there are also inconveniences, such as the elderly of poor health. This results in parents having to work and look after their children after they are four months old (before April when they have maternity leave), which can be physically and mentally exhausting.

In recent years, a new type of job has emerged in the more developed cities of China, called postpartum caregiver, who is responsible for caring for breastfeeding mothers and

newborns, it is only suitable for a very small number of senior white-collar workers due to higher salary, and the average working class cannot even have that luxury.

4 DIFFERENCES BETWEEN AMERICAN AND CHINESE APPROACHES TO PRESCHOOL EDUCATION

The American parenting approach can be summarised as providing children with problem-solving situations, allowing them to solve problems at their level and in their way, and allowing them to develop naturally through first-hand experience and exposure. The adult hides in the background and does not interfere with the child's developmental process, let alone rush to teach advanced or correct methods directly to the child. Implicit in this approach to education is that children are naturally motivated to explore and solve problems and have the potential for active development. Education should create an environment in which this potential can be realized (Yang 2019). Since children learn through their personal experiences, they can develop independently, given the right environmental stimuli. In the relationship between teaching and learning, the tendency is to focus on the child's learning rather than the adult's teaching.

The Chinese approach to education is characterized by adults setting a problem for children and often setting a 'correct' answer. When the child cannot solve the problem correctly, or the child's answer does not fit the adult's pre-determined correct answer, the adult offers help. Help can take the form of telling the answer directly, pointing out and correcting mistakes, demonstrating and inspiring, hinting, or reminding. Implicit in this approach to education is the notion that adults have more advanced knowledge and ways of thinking than children and, therefore, often have the answers to questions and that adults have a responsibility to help children with their learning. Children can think and solve problems, but adults emphasize the child's receptive skills (i.e., memory and comprehension) as a prerequisite for transferring and applying knowledge in learning situations.

5 DIFFERENCES IN PERCEPTIONS OF PRESCHOOL EDUCATION

5.1 *Comparison of methods and concepts of preschool education*

Preschool education is the foundation of education, and its effect has the characteristics of potential and lagging, so it is more necessary for people to have the right understanding. The United States and China are very important to preschool education (Liang 2018a). Compared to the United States, in the past, Chinese understanding of preschool education has been more conceptual and verbal, and specific systems and practices have not been sufficient. However, the United States' awareness of the importance of preschool education is reflected in the concept and some specific systems. In the USA, preschool education is integrated into a single track with primary and secondary schools, called P-12 education, i.e., a basic education from preschool (preschool) to grade 12 (equivalent to senior high school in China). In teacher education, the preschool and lower primary levels are at the same level, known as P-4, i.e., preschool to grade 4 of primary school (Liang 2018b). Teachers with this level of certification can teach at either the primary or kindergarten level. Kindergarten teachers have the same overall qualifications (undergraduate or higher) as primary and secondary teachers and share the same economic and social status. In the United States, it was commonplace for a master's degree or a doctorate to become a kindergarten teacher. However, preschool education was not a high priority in the school system, teacher training relied heavily on secondary teachers, and the quality and qualifications of teachers were not high. However, the situation is now changing, and the quality of teachers, in particular, has improved considerably (Zhang 2018). The question of whether children are primarily

playing or learning in the preschool years has always been a matter of reflection for early childhood educators in various countries.

In the USA, preschool educators place significant emphasis on children's instincts and play, giving play a more prominent role. Kindergartens also incorporate language, general knowledge, and art activities, but no universal syllabus leads to more discretionary practices. Influenced by Dewey's "student-centered theory" and Montessori's "children's playground", American kindergartens adopt a combination of play and craft activities. They often align their educational activities with specific theories, such as "Dewey kindergartens", "Montessori kindergartens", or "Skinner kindergartens", each following its respective theoretical vision. Regardless of the theory, the main focus is on developing children's social skills and creating an enjoyable school experience, as often reflected in the way parents inquire about their child's day. On the other hand, Chinese kindergartens present significant differences compared to their American counterparts. They emphasize learning more explicitly, with a uniform educational curriculum implemented nationwide and detailed teaching programs for each kindergarten.

5.2 *Cultural reasons for the differences*

The differences in educational methods and concepts between China and the United States lie fundamentally in cultural traditions. In addition, it is expressed differently in different cultural contexts (Jiang 2018).

American parents are neither more patient nor less responsible than Chinese parents. Their behaviors are based on the view of children that children have their way of thinking and doing things, and adults need to accept, understand, and respect their children as a prerequisite for education. This discovery of children's world and respect for their personality is essentially rooted in the American cultural tradition of individualism, which means respect for the individual and others (including children). Even between parents and children, the relationship of equality takes precedence over that of authority.

In the Chinese cultural context, 'authority' holds significant importance. The concept of hierarchy and authority is deeply ingrained from the broader socio-political system to the smallest family structure. In education, this concept of authority can manifest through the guidance educators provide to students, encompassing both knowledge and behavior. For instance, adults often impart their knowledge to children without always ensuring complete understanding on the part of the child. Furthermore, children are encouraged to emulate the actions of adults rather than solely expressing their thoughts. The belief that "children need to be taught" is deeply rooted in Chinese culture. Teaching, in the Chinese context, often involves direct instruction and guidance. On the one hand, Chinese parents may sometimes overlook the importance of considering children's acceptance and comprehension. On the other hand, they view it as their responsibility to impart knowledge to their children. This discrepancy in approach is one of the significant differences between Chinese and American educational philosophies (Wu 2018). Presently, Chinese education has made considerable strides. Students are no longer passive recipients of knowledge as they were in the past, and schools and teachers are increasingly attentive to fostering individuality and personal growth.

6 ISSUES IN THE DEVELOPMENT OF PRESCHOOL EDUCATION IN CHINA

6.1 *Conceptual issues in preschool education*

However, there is still a tendency for preschool education in China to be market-oriented and utilitarian (Zhang 2017). Many kindergartens have implanted many first- and second-grade primary school curriculums to cater to parents, and kindergartens have become

preschools, which is not conducive to young children's healthy physical and mental development. In addition, some preschools over-emphasize literacy, teaching word operations, and even English, to cater to parents' mindset and market demand and increase profits. Preschoolers aged 3–6 need to develop children's minds, imagination, and interest in learning rather than being exposed to too many language, mathematics, and English classes too early.

6.2 *Low preschool education coverage*

China's policy is to achieve a higher level of universal education, with an increase of 14 million kindergarten students in the next few years and a preschool education coverage rate of 84.74% by 2023, meaning that every one percentage point increase in preschool education coverage means 500,000 new kindergarten students. According to the outline of the plan, China's preschool enrolment rate should reach 85% by 2023, and the one-year and three-year rates should reach 95% and 75%, respectively. The current situation in China is still a long way from that goal, although the number of kindergartens and their enrolment rates have increased in the last three years. However, accessing public and inclusive kindergartens in their neighborhoods is very difficult.

6.3 *Large gap between public and private preschool education*

Currently, except for very few high-end private kindergartens in cities, most private kindergartens are relatively backward regarding hardware facilities and software conditions. State financial funding is mainly considered for public kindergartens, and government support for private kindergartens is relatively small. Meanwhile, many private kindergartens' hardware and software facilities are relatively backward. In general, the survival conditions of private kindergartens are relatively poor, and sometimes they even have to resort to vicious competition by lowering their fees.

7 SUGGESTIONS FOR CHINA

7.1 *Focus on and support vulnerable groups of children*

Increasing the importance and recognition of preschool education among Chinese nationals improves conceptual issues to help more Chinese children attending pre-education. The U.S. government has repeatedly highlighted less-well-backgrounded children as a priority for attention and support, specifically including their needs in key public resource allocation documents—currently, the reality of China's urban-rural dichotomy results in many disadvantaged children. Among them, rural preschool education is a top priority for development, and authorities should make great efforts to popularize rural preschool education, ensure that left-behind children attend school, and support the development of preschool education in poor areas. Therefore, we should seriously refer to and learn from the experience of the U.S. and endeavor to favor preschool education in rural areas, poor areas, and ethnic minority areas in terms of the policy to guarantee the right to education of children in the areas above and advocate the fairness of education.

7.2 *Focus on regulations and policies*

The enactment of laws and regulations increases the preschool education coverage rate in China. Implementing preschool education-related laws, regulations, and policies is the strongest institutional guarantee for the development of preschool education. As mentioned earlier, the development of preschool education relies on the guidance and restraint of perfect laws and regulations. Therefore, it is imperative to continuously improve the preschool

education system according to the current actual situation in China and in response to the various problems that arise in the development of preschool education so that it can play a role in escorting the healthy development of preschool education. In contrast, China's preschool education legislation is still lagging, not to mention the lack of relevant laws stipulating the issue of early childhood and elementary school articulation. It is necessary to increase the guidance, supervision, and management of early childhood education by education departments at all levels, strengthen the research and practice of articulation between preschool and primary education, and eliminate the primary schooling of early childhood education. Therefore, concerning the American experience, it can consider including early childhood education in the scope of basic education and enacting laws and regulations to protect the development of early childhood education.

7.3 Promoting balanced development of regional education

To promote equity in educational resources, we also need to increase the construction of kindergartens in rural and remote areas—the central and experimental kindergartens at the county level need to play a radiating role actively. Model ones should actively work one-on-one with village-run kindergartens to help the development of village-run kindergartens. The education management department should support and encourage kindergartens with the conditions to carry out more educational teaching observation and “send teaching to the countryside” activities to improve the overall quality of kindergarten operation in the region (Jiang 2015).

People's living environments and families are gradually becoming more private and smaller. Children also face a very different living environment, so it is more important to interact with peers, live in a group, etc. They are widening the range of preschool services in favor of diversified education. For instance, preschools can take on some of the work of guiding and coordinating family education in due course and provide educational venues and opportunities for children in the area to interact with each other. Therefore, the state's help for preschool education can be further broadened to include parental training within the service so that parents can understand what real education is and establish the correct educational concept. With the cooperation of parents, family education will certainly become a powerful supplement to school education and help preschool education to further develop (Song 2015).

8 CONCLUSION

Preschool education in the United States focuses on the broad and extensive, while preschool education in China focuses on the narrow and deep. By comparing preschool education methods and concepts between China and the United States, we will find that American preschool education methods and concepts may give young children more space for self-development. In contrast, Chinese methods and concepts may give young children a better foundation of knowledge but lack the space for self-exploration and development, so we have to take the best of the best in the future. However, it is encouraging to see that Chinese preschool educators nowadays are already aware of this and are paying more and more attention to providing young children with good physical environments and materials and more space to explore. This is precisely the result of cultural dialogue and the pursuit of cultural dialogue.

The formation of these problems cannot be separated from the two important topics of financial investment and knowledge dissemination. Therefore, it is necessary to urge China to pay more attention to preschool education. The scope of this attention should not only be limited to preschool educators but also to parents of young children and people from all walks of life and all fields. Only then will there be people willing to invest in preschool

education, people who can afford to invest, institutions that are increasingly diverse, applicable, and standardized, parents who are truly liberated to realize their social values and children who can develop more easily, freely, and healthily. It is hoped that subsequent studies can focus on measures to help the long-term development of preschool education in China.

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An analysis of the inequality between urban and rural preschool education in China

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ABSTRACT: The first phase of the entire educational process, and a crucial one at that, is preschool education. Preschool education has progressively come to the attention of society in China in recent years. The disparity in preschool education between rural and urban areas has, however, grown increasingly pronounced over the course of the last half-century as urbanization has advanced. Many scholars have discovered that the disparities in economic development levels are what have caused these inequalities. However, there are still certain research gaps about this discrepancy. Therefore, this paper will examine this issue from different angles. This paper analyzes and investigates the phenomena of urban-rural inequality from the perspectives of preschool education theory and content, education resource allocation, government education investment, and family background through the review of pertinent literature and data. It is discovered through an in-depth study that the development of preschool education in rural areas has been hampered by the large productivity levels difference between urban and rural areas, the difference in quantity and quality of teachers' groups, and the influence of family economic status and parents' education level. In the end, this essay offers suggestions for the government's use of science-based investment, as well as approaches for addressing the rural teacher shortage and raising the caliber of rural educators. It is hoped that this paper will help to address the issue of disparity between urban and rural preschools.

Keywords: Inequality, Urban, Rural, Preschool Education, China

1 INTRODUCTION

China's educational landscape has seen a significant transition since the reform and opening up, particularly in the new century. With China's social development accelerating, there is an unbalanced development across regions, a widening social class gap, and increased attention to the issue of educational equity, particularly the disparity in access to preschool education between urban and rural areas, which has emerged as a major area of study. In recent years, a concerted effort has been made throughout the country to actively promote the balanced growth of preschool education, improve the running quality of schools, and continue to fulfill the educational goal-setting for both urban and rural youth. Nonetheless, rural education's base is still shaky, and the effectiveness and quality of instruction are not exceptional. There is a clear lack of resources and inadequate funding for rural preschool education, and the "difficult to enroll" issue is still a problem. It is now more important than ever to conduct comprehensive and systematic educational research and investigate preschool education in urban and rural areas in China.

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Larger studies on the disparity between preschool education in urban and rural areas have previously been conducted, and the researchers' viewpoints have typically centered on the availability of educational resources, infrastructure construction, and the impact of online teaching. For instance, the trend of education informatization has been put to a serious test in large-scale online teaching, which has utterly and thoroughly exposed numerous issues of online teaching. Online instruction may not always result in highly effective learning, may not always narrow the educational gap between urban and rural primary and secondary school students, and may even increase the "digital divide" between urban and rural preschool education in the age of information technology (Zhang *et al.* 2021). The research on these aspects is of great significance to realizing the equality and equity of preschool education in urban and rural areas in China.

Although there have been numerous studies in this area, in the current post-epidemic era, preschool education in urban and rural areas in China should be more thoroughly and holistically explored. The basic education disparity between urban and rural China will be examined in this paper using a comparative research methodology from several angles, including the teaching theory and content, the distribution of educational resources between urban and rural areas, the relevant government investment, and family background. This paper aims to propose more concrete and implementable measures by examining the impact of different aspects of preschool education inequalities between urban and rural areas in China.

2 THE BACKGROUND INFORMATION ON CURRENT PRESCHOOL EDUCATION IN CHINA

In 2021, the national preschool gross enrollment rate reached 88.1%. There are 295,000 kindergartens nationwide, 114,000 more than in 2012, an increase of 62.67% in ten years, and the number of kindergartens in rural areas (including townships and villages) accounted for 2/3 (China Institute of Rural Education Development, Northeast Normal University 2022). The number of rural kindergartens is the bulk of preschool education. According to data, the overall development of preschool education in China over the past ten years has been positive. Preschool enrollment rates are continuing to rise, and more than half of all kindergartens are located in rural areas, ensuring that children in these areas will have access to school. Despite some development indices showing a narrowing of the urban-rural difference, the gap is still substantial. Using preschool education as an illustration, kindergarten teacher-to-student ratios in most cities range from 1:5 to 1:10. In Beijing, Guangdong, and Xinjiang, for instance, it is 1:5.5-1:6, 1:7-1:10, and 1:5-1:7 respectively (Ministry of Education of the People's Republic of China 2017). In rural areas, most full-day kindergartens have a teacher-to-student ratio of about 1:20, or two teachers per class. In some cases, only one teacher is assigned to a class. In 2021, there are 3,076,600 full-time kindergarten teachers nationwide, but the growth of full-time kindergarten teachers in rural areas is relatively slow (China Institute of Rural Education Development, Northeast Normal University 2022). These issues have resulted in their overall teaching quality and management being poor.

3 ANALYSIS OF INEQUALITIES IN URBAN AND RURAL AREAS

3.1 *Teaching theory and content*

The current goals of preschool education in rural areas diverge significantly from those promoted by the government, with exam-oriented education emerging as the major concern and the benchmark by which society and parents evaluate schools. In rural schools, test-

taking takes precedence over anything else, and there are few policies in place to address this. In other words, little consideration is given to the needs of the students themselves. However, as more and more skilled instructors and teaching resources flood into the city, which is precisely what the rural lacks, urban preschool education theories have developed with the times, progressively moving from exam-centered to comprehensive student development. Urban schools place emphasis on each student's uniqueness and abilities, offering tailored educational services and curricula that let kids reach their potential in a setting that values their individuality (Wilson & Conyers 2020).

When it comes to teaching content, there is a dearth of teaching materials that are appropriate for rural preschool education in terms of content. The teaching materials for rural children's learning are mainly based on urban schools, and much of the content originates from those urban curricula with a modern atmosphere, while the familiar, visible, and rich rural natural and cultural resources around rural children are rarely reflected in the teaching materials (Li & Li 2013). Teachers can only repeat what textbooks say, and changing the situation of rural children's passive learning is difficult. Besides, there are few activities like painting, singing, or creating tiny productions in rural areas, which are pretty common activities in urban schools (Li & Li 2013). These factors are detrimental to the development of rural children's interests as a whole.

Because of the disparity in the economic foundation, residents of urban and rural areas hold increasingly divergent ideologies. While individuals in rural areas are primarily concerned with livelihood difficulties and naturally do not pay much attention to education (Wang & Kong 2016), people in urban areas are no longer bothered by the basic problems of food and clothes and can concentrate more on education, culture, and other spiritual demands. For instance, while rural kindergartens typically have a primary school-oriented curriculum and focus mainly on the cultivation of children's learning ability, urban preschools typically offer a wide variety of courses, organize excursions, and focus on the overall development of children, which results in the difference in the level of preschool education between urban and rural areas (Wang & Kong 2016).

3.2 *The distribution of teaching resources*

Among the factors that are associated with differences in educational quality, resource disparity is the main reason (Wang *et al.* 2019). Compared to kindergartens in rural areas, which are typically formed spontaneously and where teachers are regular villagers or elementary school teachers who lack specialized knowledge of preschool education (Hu 2021), urban kindergartens can amass more generous teaching resources and will undoubtedly draw more high-quality professional preschool teachers. The educational level of kindergartens is affected to some extent by the quantity and quality of the teacher, which worsens the gap between urban and rural preschools.

Currently, there is a significant salary discrepancy between urban and rural kindergarten educators in China, and rural kindergarten teachers typically earn lower incomes. Their living circumstances are also drastically distinct from those of urban kindergarten teachers (Li *et al.* 2020). That is why nowadays, most preschool school teacher candidates in colleges and universities are unwilling to work in rural schools, and they favor metropolitan kindergartens over rural kindergartens. Thus, most trainee teachers stay in urban kindergartens, and very few would enter their rural counterparts. Besides, when given a chance to work in urban kindergartens, a lot of experienced rural school instructors tend to leave their workplace in pursuit of better teaching environments and salaries. Rural kindergartens cannot truly develop in a balanced way with urban counterparts in terms of quality due to the long-standing issues of most rural preschool teachers' low educational level, low salary, and few opportunities to participate in further education.

The fact that the difference between urban and rural areas is expanding is a sobering reality. While urban kindergartens are primarily run by the public, and the government

invests a significant amount of money each year in these kindergartens for the construction of hardware facilities, rural kindergartens typically are primarily village or privately run, which is underfunded by the government (Yan & Li 2019). There is a lack of financing for rural preschool education, and many rural schools fall short of the country's basic requirements (Dan & Sun 2015). Many students in rural schools cannot afford the required textbooks, and teachers lack access to fundamental teaching materials. In contrast, some cities have spent a sizable sum of money building so-called "standard schools" or "model schools" that even have standard gymnasiums, swimming pools, and other opulent facilities.

Due to the lower level of economic development compared to kindergartens in urban areas, kindergartens in rural areas are smaller in size, have outdated teaching equipment, and lack teaching resources, which have a significant impact on the learning and development of rural children and will have a negative impact on economic development, preventing economic development and creating a vicious circle that will further widen the gap between urban and rural areas.

3.3 *Government funding for preschool education*

Preschool education is primarily funded by families and supplemented by the government because it is beyond the purview of compulsory education. The government invests in preschool education primarily at the district and county levels. In Chongqing, for instance, most kindergartens are centered in the main city. Public kindergartens are funded by the government for hardware construction, while families are charged a certain amount of sponsorship fees, and the funding for running the kindergartens is effectively guaranteed. With an average monthly cost of around 1,000 yuan per student, most private kindergartens in urban regions have reached a high level of operation, making the orderly growth of kindergartens all but certain (Zhou 2016). Nonetheless, the government's investment in education varies greatly as a result of the uneven economic development of Chongqing's districts and counties. For instance, the district administration in Jiangbei District, which has stronger financial resources, has raised kindergarten subsidies since September 2012, including subsidies for drinking milk projects at a rate of 1.5 Yuan per day for two individuals (Zhou 2016). However, due to the limited financial resources, certain underprivileged counties and township governments devote less money to rural preschool education. Since there is currently insufficient funding for rural basic education, there is no long-term investment mechanism in place and a lack of funds to build rural basic education facilities. As a result, many rural kindergartens must rely solely on fees to stay in business. For instance, in 2021, rural kindergartens only received a total investment of around RMB 800 per student, compared to urban kindergartens, which received a total investment of around RMB 1,500 per student. Privately owned kindergartens in rural areas typically charge lower fees, which can only sustain the basic functioning of kindergartens. Therefore, in the absence of funding, the growth of kindergartens in rural areas is typically gradual, and some kindergartens merely perform a "caretaker" role.

In general, China's government investment has indeed been skewed toward rural areas in recent years. However, a lack of exploration of the complexity of issues in rural areas has sometimes resulted in funding not being put into practice. Government investment should be balanced to ensure that rural children's basic school life is guaranteed but also that rural schools are operated well and upgraded to provide better and more comprehensive preschool education for rural children.

3.4 *Family background*

Family socioeconomic status (SES) plays a large role in a child's access to preschool education (Liu *et al.* 2020), starting with whether the family's income can pay for the child's preschooling. If the economy is doing well, parents will be better able to fund their children's

education and give them more opportunities to pursue higher education in the future; if the economy is doing worse, those opportunities will be limited (Zhang & Chen 2014). In 2021, the per capita disposable income of rural residents is 18,931 yuan (National Bureau of Statistics 2021). If calculated by month, each month is 1577.583 RMB. If a typical rural family has a home size of four persons and two workers, their monthly income would be only 3,155 yuan. However, a normal urban family can have an average monthly income of more than 15,000 yuan. Coupled with the fact that there is an excess of kids in one rural family (Wang 2019), this difference directly leads some families in rural areas to forgo their own children's access to preschool education in order to save money. The parents' degree of education is the second determining factor. A well-educated parent will be more eager to provide their kids with solid schooling (Yi 2020). In many rural families, the three generations before them are mainly engaged in farming and have not received formal and systematic education, so it is difficult for them to realize the importance of having their children obtain preschool education (Xu 2021). However, this is especially uncommon in urban families, where people place great value on education and know that preschool education is the start of a child's education and requires great attention from parents. Because parents of urban children are generally well-educated, and information flows freely in urban areas as opposed to rural counterparts. In general, the divide between families from rural and urban origins continues to be wide, both in terms of the family's economic situation and their views on their children's education. Families are the primary power behind enhancing the preschool education of their children, and if certain rural families fail to do so, it will negatively affect their children's subsequent academic success.

4 SUGGESTIONS

There are multiple levels at which the aforementioned disparity between urban and rural preschools should be addressed. To start, maintain increasing government funding for rural kindergarten coverage. In order to gradually address the issue of the lack of resources for rural preschool education, governments at all levels ought to increase investment in this sector, actively expand public kindergartens, and provide legislative support for the growth of private kindergartens. Besides, the investment in preschool education should be tilted toward poor and ethnic areas, with emphasis on supporting the central and western regions, focusing on the development of kindergartens at the village and town levels (Wang *et al.* 2019). This would help to provide the disadvantaged children in these areas with the same educational opportunities as their more affluent peers. Investing in early childhood education in these areas will help close the educational gap between urban and rural children and ensure that all children are given the same chance to succeed. What is more, it is feasible to utilize elementary schools to build or renovate kindergartens, increase preschool capacity, plan scientifically, implement a reasonable layout, and protect children's "access to schools nearby" right. Further, emphasis should be put on improving the infrastructure of rural kindergartens, providing basic protection for kindergarten life, and acquiring the necessary teaching tools. Take steps to maintain a clean and tidy indoor environment and focus on the safety of children's drinking water and meals. Improve kindergarten network coverage and ensure access to high-quality digital education resources by strengthening kindergarten information technology infrastructure.

The second level entails closing the faculty's quantitative gap and raising the caliber of teachers' competence. First and foremost, it requires reforming how teachers are treated and expanding the pool of qualified educators. To effectively improve kindergarten teacher salaries, the government must ensure the regular payment of job salaries and performance wages, include kindergarten teachers in the scope of allowances for rural teachers, and guarantee the fundamental rights of rural teachers. Also, policies should be made to assist instructors with everyday issues like housing and marriage. Second, graduates from

renowned institutions of higher education with an interest in early childhood education should be offered pertinent training. Moreover, the government can actively encourage surplus elementary school teachers to turn to preschool education to fill the teacher shortage in rural kindergartens through various means. Finally, training should be enhanced both before and after induction to significantly raise the professional caliber of rural kindergarten teachers—many of whom have not received formal instruction in teaching young children. Accordingly, it is necessary to find ways to provide rural teachers more chances to take part in training, arrange for them to exchange ideas and learn from other educators in high-quality urban kindergartens, and employ qualified experts to deliver the necessary direction and instruction. After that, teachers should receive training on how to plan lessons and use technology for learning and teaching to give young children a high-quality preschool education eventually.

5 CONCLUSION

Through comparative research, this paper discovers that despite China's recent rapid economic development and impressive increase in comprehensive national power, there is still a significant gap between urban and rural areas in education, particularly in the preschool education sector, which was caused by the pattern of urban-rural development imbalance in the past years. The difference between urban and rural preschools is primarily influenced by several factors. Firstly, the content and teaching philosophy has a direct impact on what and how teachers instruct students. Additionally, because rural areas lack urban areas' levels of economic development and information flow, their preschools tend to have a single dull topic and a less modern teaching philosophy. Secondly, compared to urban kindergartens, the environment in rural kindergartens is typically poor, and some of the teaching facilities are outdated as well as old. Educational resources, which typically include both teaching facilities and teachers, are distributed in a relatively low amount of rural kindergartens. Besides, due to today's accelerated urbanization, where the population and labor force are migrating to the cities, preschool teachers are no exception. This, combined with the subpar conditions in rural kindergartens and the fact that teachers' salaries are much lower than those in cities, makes it difficult to find teachers in rural kindergartens, especially excellent ones. Government funding for education and family background, respectively, are the third and fourth aspects. Both have significant influences on how preschool education is developing today. Although policies have recently been skewed toward rural areas, financial investment still needs to be strengthened. Regarding the family background, urban parents have a higher socioeconomic status and a higher degree of education than rural parents. Therefore, urban parents are more likely to prioritize and pursue high-quality preschool education for their children. The paper examines the disparities between urban and rural preschools in light of the aforementioned factors. This fills in the gaps left by earlier studies regarding, for instance, the teaching theory and content of both and offers a new starting point for future research. However, the debate over preschool education in rural and urban areas is still evolving with the times and is impacted by a variety of objective and subjective elements. More data or models may be used in this area of study in the future to evaluate and investigate the problem in greater detail.

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Responding to morality by empathy: The interplay of empathy and morality in the collectivist culture

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ABSTRACT: The study of empathy and morality is one of the key topics of research. Researchers found that empathy has an impact on human moral behavior and the effect varies across cultures. However, there is a gap in the interpretation and perception of the influence of empathy on moral behavior in collectivist cultures. Therefore, this paper aims to explore the complex relationship between empathy and moral behavior and reveal how empathy influences individuals' choices and behaviors. Furthermore, this paper explores how collectivism mediates the effects of empathy on moral behavior. To achieve the research objectives, the research methodology of this paper is as follows: Firstly, a multidisciplinary approach is adopted in this study, drawing insights from psychological, sociological, and cultural studies. The study discovered that empathy is a fundamental aspect of human nature that has a significant impact on moral behavior. In collectivist cultures, empathy is influenced by that cultural environment causing it to be more pronounced and to have an impact on moral behavior. However, the idea that empathy is identified as a fundamental attribute of collectivism remains open to discussion. The practical implications of this study lie in interventions that promote empathy and moral behavior and ultimately contribute to a more compassionate and morally conscious society.

Keywords: Morality, Empathy, Collectivist Culture

1 INTRODUCTION

The study of morality and empathy is a hot topic of research in academia, and the topic is now appearing with increasing frequency in popular media, such as the bestselling books *Empathic Civilization* or *The Age of Empathy* (Rifkin 2009 & Waal 2010).

As a basic emotion of human beings, empathy has an important impact on moral behavior. This is the ability to appreciate and connect with the feelings of others, especially their pain or distress. The empathy could motivate individuals to engage in ethical behavior, as in helping those the needy or following moral principles. Knowledge of the association with empathy and moral behavior is essential to understanding human altruism and pro-social tendencies. This study seeks to investigate the intricate relationship between empathy and moral behavior, elucidating the influence of empathy on individuals' moral decision-making and conduct. Furthermore, it aims to examine the role of collectivism in mediating the effects of empathy on moral behavior.

To achieve the objectives of this study, this paper will adopt a multidisciplinary approach and a literature collection method. Drawing on findings from psychological, sociological, and cultural studies. In addition, this study will explore the moderating effects of collectivism culture between empathy and moral behavior.

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By analyzing the influence of these situational factors on the relationship between empathy and moral behavior, this paper aims to comprehensively understand the mechanism of empathy in different social situations and how to use empathy to promote prosocial behavior and moral development. The outcomes of this study are not only informative for academic research in the field, but also have practical implications for the growth of empathy and moral behavior in individuals and human societies.

2 INSTRUCTION TO THE RESEARCH OBJECTS

2.1 *Introduction to the concept of empathy and its effects*

The term “empathy” emerged in the 19th century with the introduction of the German term “Einfühlung,” which aimed to capture the internal emotional understanding of an object and the establishment of deep emotional bonds with others through personal sentiments. Theodore Lipps, in the late 19th century, further theorized the subjective nature of empathy, highlighting the role of behavioral imitation in triggering empathetic responses. This illustrates the integral connection between empathy and human socialization.

In the realm of psychology, extensive research and empirical investigations have led to a comprehensive definition of empathy. It is regarded as a cognitive and affective capacity encompassing the understanding and sharing of others’ emotions and experiences. This involves forging emotional connections with others, perceiving their emotional states, and cultivating the ability to mentally place oneself in their shoes to comprehend their feelings (Hirn *et al.* 2018). These findings reflect the logical and rigorous exploration of empathy within the field, shedding light on its multifaceted nature and essential role in human interactions.

Furthermore, in the study by Hirn *et al.*, the researchers classified Empathy into several different types: 1. Emotion recognition accuracy: Refers to the adept capacity to differentiate one’s own emotional states from those of others. 2. Emotional Perspective Grasp: This signifies the cognitive capacity to comprehend the emotional states of others, irrespective of one’s subjective accessibility while considering the diverse perspectives and individual differences that may influence emotional experiences. 3. Emotional Responsiveness: Demonstrates the ability to truly share the emotional states of others (Hirn *et al.* 2018). Characterized by a voluntary and intentional simulation of the observed emotions, different from one’s own emotional response, which allows for a more empathetic and compassionate response.

According to Realo & Luik, empathy is important for personal and social well-being and a significant positive correlation exists between it and pro-social behavior (Realo & Luik 2002). Empathy appears to play a role in the extent to which individuals engage in pro- and antisocial behaviors directed by others. Besides, the level of empathy plays a role in the extent to which individuals react negatively to outgroup members and humiliate or discriminate against those perceived to be different from themselves. High levels of empathy can lead to personal distress, and because personal distress is aversive, personal empathy, compassion, and personal distress may all inhibit aggression (Eisenberg *et al.* 2010).

Moreover, according to Riess, empathy is not a fixed personality trait, but a neurobiologically based ability that can be nurtured and developed (Riess 2017). Through awareness and practice, people can increase their level of empathy and become more sensitive and caring in their interactions with others.

2.2 *Introduction to the concept of moral behavior, classification, and impact*

Ethical principles point to the “good,” “virtuous,” “just,” “right,” or “moral” ways of behaving (Ellemers *et al.* 2019). Moral principles, such as the principle of “nonmaleficence,”

can motivate individuals to engage in behaviors that lack apparent instrumental utility or direct personal value. Examples include displaying empathy, fairness, or altruism towards others. These moral rules serve as guidelines for individuals living in social communities, preventing them from engaging in self-centered behaviors. As outlined by Ellemers et al., research conducted by biologists and evolutionary scientists has yielded empirical evidence showcasing instances of empathetic behavior within animal communities, providing valuable insights into the potential origins of human morality (Ellemers *et al.* 2019). These findings suggest that the “first tier” of moral behavior entails individuals’ capacity to perceive and evaluate the treatment they receive from others. By observing and rewarding cooperative and empathetic actions, individuals are incentivized to engage in behaviors that contribute to the preservation of both individual and group survival. This evolutionary framework elucidates a logical and coherent progression, indicating that moral behavior may have roots in the adaptive strategies observed in animals living, ultimately shaping the moral landscape of human societies.

Scholars in the disciplines of philosophy, legal studies, and related fields have advanced a higher-level and abstract comprehension of moral behavior. Within scholarly discourse, a comprehensive understanding of moral behavior highlights its crucial function as a means of social signaling. This understanding underscores the intricate interplay between individual moral codes and the prevailing social norms, constituting what is referred to as the “second tier” of moral behavior. At this level, moral conduct is shaped by the dynamic interaction between personal moral frameworks and the broader sociocultural context. This logical framework elucidates the intricate dynamics and reciprocal influence between individual and societal factors, shedding light on the profound significance of moral behavior in fostering social cohesion and normative compliance. According to Ellemers et al., this aspect of defining moral behavior is divided into three principles: 1. the social influence of right and wrong judgments, 2. the influence of moral self-concept on moral behavior, and 3. the interaction between thought and experience. This study places particular emphasis on Principle three, which encompasses contemplation of ethical concepts, discernment of moral rightness and wrongness, and the examination of the actual behavioral manifestations and emotional experiences of individuals (Ellemers *et al.* 2019). For instance, the presence of empathy signifies a fundamental emotional state characterized by nonverbal expressions that exert a direct influence on subsequent actions. This logical framework provides a rigorous and scholarly approach to exploring the complexities of moral behavior, delving into the interplay between ethical ideals, behavioral reality, and emotional dynamics (Riess 2017).

3 IMPACT OF EMPATHY ON MORAL BEHAVIOR

3.1 *Evidence from empirical studies*

Empathy has gained considerable attention in the field of moral psychology as a key factor in shaping moral behavior. Empirical research has extensively examined the relationship between empathy and various dimensions of moral behavior, providing valuable insights into the effects of empathy on moral decision-making and pro-social action. This section provides a comprehensive review of rigorous empirical research that provides compelling evidence for the effects of empathy on moral behavior.

An important line of inquiry focuses on the link between empathy and pro-social behavior. Evidence from a variety of methods, including surveys, experimental paradigms, and behavioral observations, consistently suggests a positive relationship between feelings of empathy and compassionate behaviors, such as charitable giving, volunteering, and assisting individuals in need (Bloom 2017). These studies used valid empathy measures to assess individuals’ empathic tendencies and subsequently examined their engagement in pro-social

behaviors. The findings strongly suggest that empathy plays a motivational role, compelling individuals to demonstrate empathic concerns and engage in morally praiseworthy actions.

Furthermore, empirical research has delved into the impact of empathy on moral decision-making processes. By considering the emotional and cognitive perspectives of others, empathy enables individuals to adopt a broader, more inclusive moral stance that emphasizes the well-being and interests of others in moral deliberations (Bloom 2017). Investigations utilizing a range of experimental designs, including hypothetical moral dilemmas and neuroimaging techniques, have provided compelling evidence for the role of empathy in shaping moral decision-making. These studies highlight the cognitive and affective processes through which empathy influences individuals' moral judgments and choices.

However, some academic research demonstrates the subtlety of the relationship between empathy and ethical behavior. According to Decety and Cowell, transpersonal thinking about the emotions contained in human empathy is a powerful way to trigger empathy for others (Decety & Cowell 2014). For example, reading fiction could improve the ability to identify and understand the subjective emotions and mental states of others, including empathic care. This is performed by internal simulation and flexible cognitive resources in the prefrontal cortex, which stimulates the ability to concern and caring for others.

Additionally, according to available academic findings, it is suggested that the empathy alone might not lead to morally superior outcomes. The ventral medial prefrontal cortex (vmPFC) is the neural nexus connecting the brainstem, amygdala, and hypothalamus ancient emotional systems, and its involvement is crucial for both empathic care and moral reasoning (Decety & Cowell 2014). The vmPFC integrates conceptual and emotional processes and has been implicated in caregiving behaviors. Therefore, empathy sometimes exhibits a preference for self or kin-related interests that potentially leads to morally problematic behaviors.

Empirical research exists that indicates a positive association between empathy and pro-social behavior, and an influence between empathy and morality. However, the intricate interplay between empathy and morality requires further investigation to elucidate the contextual factors and boundary conditions that shape the relationship between empathy and moral behavior, how empathy affects the external environment and constraints on moral choices and behavior. For example, 1. situational constraints: The specific context (i.e., time, social norms) in which empathy arises affects the extent to which an individual translates empathic feelings into moral behavior. 2. cultural and social values: There are differences in the moral values emphasized in different cultures, and this might influence the expression and action of empathy. 3. emotion regulation and compassion fatigue: The ability to regulate emotions and cope with empathy-related stress can influence moral behavior. Compassion fatigue (CF) refers to the reduced ability to empathize due to prolonged exposure to distressing situations, which could to a degree limit the relationship between empathy and ethical behavior (Cocker & Joss 2016).

3.2 Analysis of the above empirical studies

A critical analysis of empirical studies investigating the effects of empathy on moral behavior reveals important insights, while also highlighting several limitations that should be considered. The consistent positive correlation between empathy and pro-social behavior in the studies reviewed suggests that empathy plays a motivational role in promoting compassionate and altruistic behavior (Bloom 2017). These findings are consistent with the theoretical framework that emphasizes the role of empathy in promoting pro-social tendencies. However, it is important to note that the reliance on self-report measures of empathy introduces the possibility of social expectancy bias that may influence participants to overestimate their empathic tendencies. The inclusion of objective measures, such as behavioral

observations or neurological indicators, should be considered in further studies to improve the validity of the findings.

Additionally, by using hypothetical moral dilemmas in some studies may not fully reflect the complexity of real-life moral judgment. Therefore, caution should be exercised when generalizing research findings to everyday ethical choices.

Furthermore, this analysis highlights the role of empathic emotions in moral reasoning (Decety & Cowell 2014). Emotional involvement facilitated by empathy enhances an individual's consideration of the rights and interests of others in moral judgment. However, emotional bias can also influence moral decision-making. Empathic emotions can sometimes lead to morally problematic actions, especially when they benefit self or kin related interests. Thus, a comprehensive understanding of the relationship between empathy and moral behavior should include other moral cognitive processes, such as moral reasoning, to account for potential biases.

It is noteworthy that the empirical studies reviewed focused primarily on Western populations, limiting the generalizability of the findings. Cross-cultural research is necessary to examine how cultural factors influence the link between empathy and moral behavior. Cultural differences in the effects of empathy on moral behavior should be explored to gain a fuller understanding of its generalizability and cultural specificity.

Despite these limitations, the empirical studies reviewed above help in understanding the relationship between empathy and moral behavior. These studies provide evidence for the motivational role of empathy in promoting prosocial behavior and provide insight into the cognitive and affective processes of moral decision making. To address the identified limitations, future research could employ different methods that incorporate objective measures of empathy. For example, focus on the affective versus cognitive components of empathy through self-report questionnaires, behavioral measures, and neuroscientific measures, or use a multidimensional perspective for measuring empathy (Neumann *et al.* 2015). By addressing these limitations, researchers could promote variability and reliability of findings, thereby advancing the academic understanding of the complex dynamics between empathy and moral behavior.

4 IMPACT OF EMPATHY ON MORAL BEHAVIOR IN COLLECTIVISM

4.1 *Concept of collectivism*

Collectivism denotes a cultural inclination that accentuates the interconnectedness and interdependence of individuals within a group or community, giving prominence to collective goals, harmonious relationships, and the overall welfare of the collective. In collectivist cultures, individuals undergo socialization processes that prioritize the interests and needs of the group above personal aspirations and ambitions. This cultural perspective fosters cooperation, conformity, and a deep-rooted sense of obligation towards fulfilling societal roles and upholding group cohesion.

A defining characteristic of collectivist culture is the emphasis on fulfilling social obligations and responsibilities. Compliance with social expectations, such as respect for authority figures and adherence to group norms, is valued in collectivist cultures (Triandis 1995). This collective orientation fosters a sense of interconnectedness in which individuals view their identity as inseparable from the group identity and place the well-being of the collective above individual interests.

Another characteristic of collectivist culture is the importance placed on compromise and consensus building. To maintain harmonious relationships within the group, individuals are encouraged to seek mutual understanding and conflict resolution through cooperation and negotiation (Hofstede 2001). This emphasis on cooperation and consensus reflects a belief that group cohesion and solidarity are essential to the overall welfare of the collective.

4.2 *Empirical study of empathy on moral behavior in collectivism*

This empirical investigation examined the interplay of empathy, collectivism, and moral decision-making among 150 Chinese university students from two distinct Hong Kong universities (Mann & Cheng 2013). The study aimed to delve into the impact of empathy on moral behavior within an Asian cultural context. The findings indicated that collectivism, deeply ingrained in Asian societies through Confucian teachings, exerts a significant influence on the association between empathy and moral decision-making in Asia. The cultural value of collectivism shapes the cognitive evaluation of Asians, resulting in distinct cognitive moral schemas that reflect the holistic and analytic reasoning patterns unique to this cultural milieu. These cognitive moral schemas from collectivist cultures contribute to emotional responses, thereby influencing individuals' moral decisions. However, the precise mechanisms underlying this relationship remained partially elucidated in this study, necessitating further research to fully comprehend the intricate interplay among collectivism, empathy, and moral behavior.

Realo and Luik conducted a study that empirically examined the association between collectivism and empathy (Realo & Luik 2002). Their research specifically focused on exploring the relationship between collectivist attitudes and empathy, employing a hierarchical model of collectivism. The study's findings revealed a positive correlation between collectivist attitudes and the affective aspects of empathy, with a particular emphasis on empathy within family and social relationships. Notably, the study also indicated that the observed empirical relationship between empathy and collectivist attitudes was somewhat weaker than what would be expected based on relevant theoretical propositions. This suggests that while there is a moderate and selective relationship between specific forms of attitudes prevalent in collectivist cultures and particular manifestations of empathy, the notion of empathy being an inherent and fundamental attribute of collectivism warrants further examination and discussion.

These findings suggest that the correlation between general collectivism and general empathy indices is insignificant that empathy cannot be considered an inherent property of overall collectivism. Rather, the relationship appears to be context-specific, with certain forms of collectivism moderately correlated with specific aspects of empathy. The robustness and universality of the relationship between collectivist attitudes and empathy at the individual and cultural levels need to be further investigated.

In summary, while empirical studies have yielded valuable insights regarding the complex interrelationships among collectivism, empathy, and moral behavior, additional research is warranted to comprehensively elucidate the underlying mechanisms and delineate potential cultural variations. By examining the individual and cultural factors that influence the relationship between collectivism and empathy, researchers can further understand the complex dynamics of the relationship between collectivism and empathy and its impact on moral decision-making.

4.3 *Implications of the conclusions for practice*

The empirical studies discussed in Section 4.2 provide several contributions to existing theory and research in this area. These findings offer valuable insights into the intricate interplay between collectivism, empathy, and moral behavior, thereby enhancing the existing model of moral judgment processes proposed by Greene (Greene 2007). This model posits the existence of two distinct cognitive systems: the emotional-intuitive system and the cognitive-control system, both contributing to the formation of moral judgments. The emotional-intuitive system operates automatically and swiftly, relying on emotional responses and heuristics to guide moral evaluations. In contrast, the cognitive-control system engages in deliberate and reflective reasoning, incorporating rational and analytical considerations into moral decision-making. The interaction between these two systems

significantly influences individuals' moral judgments and subsequent behaviors, underscoring the intricate dynamics between affective and cognitive processes in moral cognition. This refined understanding provides a more comprehensive and nuanced perspective on the multifaceted nature of moral decision-making.

Concretely, the observed correlation of frontal lobe collectivism and empathy highlights the complicated nature of moral decisions and indicates that cultural factors play an important role in shaping empathic responses and moral behavior. These findings contribute to researchers' understanding of how social and cultural factors influence the affective processes of empathy, particularly in Asian social contexts.

Empathy is a multifaceted phenomenon that extends beyond mere emotional processes, encompassing intricate social and cultural dimensions. Cultural differences between Asian and Western societies may influence the manifestation and interpretation of empathy in moral decision-making. Therefore, practitioners and researchers should recognize the contextual nuances and cultural variations that impact the role of empathy in moral behavior, particularly in Asia.

The implications of these conclusions for practice emphasize the need for culturally sensitive interventions and approaches to promoting empathy and moral behavior. Practitioners should consider the interplay between collectivist cultural values, empathy, and moral decision-making when designing interventions. Tailoring interventions to the specific cultural context and considering the social and cultural factors that influence empathy can enhance their effectiveness.

Moreover, these empirical findings warrant additional scholarly investigation aimed at elucidating the underlying mechanisms that govern the intricate interplay between frontal collectivism, empathy, and moral behavior. Future studies should adopt rigorous methodologies, employ diverse samples, and consider cross-cultural comparisons to deepen our understanding of the cultural and contextual factors that shape empathetic responses and moral decision-making.

5 CONCLUSION

The pivotal role of empathy as a fundamental human emotion in shaping moral behavior necessitates a thorough investigation of their interrelation. Understanding the intricate mechanisms underlying human altruism and prosocial tendencies relies heavily on exploring the correlation between empathy and moral behavior. Therefore, the primary objective of this study is to delve into the complex interplay between empathy and moral behavior, unraveling the profound influence of empathy on an individual's moral decision-making and conduct. By illuminating these connections, this research endeavors to provide valuable insights into the underlying dynamics of human morality.

This study enriches the current knowledge by conducting a comprehensive investigation into the intricate association between empathy and moral behavior. Through a meticulous examination of empathy's influence within various social contexts and an exploration of the mediating variables, this research contributes to a deeper comprehension of how empathy facilitates prosocial conduct and moral maturation. The practical implications of this study extend to the development of interventions aimed at cultivating empathy and moral behavior at both individual and community levels. Ultimately, these interventions hold the potential to foster a more compassionate and ethically attuned society, yielding tangible benefits for societal well-being.

The further research efforts could delve into comparative investigations to explore the complex associations of empathy and morality in different cultural contexts. For instance, comparative studies could examine the influence of empathy on moral behavior in collectivist versus individualist societies. With this approach, researchers would enrich the

theoretical foundation of such research and promote a more comprehensive understanding of the interplay between empathy and morality within different sociocultural frameworks.

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Analysis of women’s literature from the perspective of Juliet Mitchell’s “Four Structures”: Using *A Doll’s House* and *The Signature of All Things* as case studies

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ABSTRACT: Based on Juliet Mitchell’s theory of “Four Structures”, this essay analyzes the development of two female characters in *The Signature of All Things* and *A Doll’s House* in terms of production and fertility. In the two different works, the two female protagonists with very different personalities are able to reflect on themselves and awaken their feminine consciousness in two conditions of different life experiences and different statuses. This paper also focuses on how the interplay and mutual reinforcement of Juliet Mitchell’s “Four Structures” is reflected in modern women’s literature and how the Four Structures converge to bring about the prerequisites for women’s emancipation. Moreover, the transformation of both female characters from being oppressed by the patriarchal society to embarking on paths of liberation shows that this awakening is inevitable for women across time and in different social environments. Ultimately, it is only when the four structures are achieved simultaneously that feminism can truly be liberated in the natural sense of the word.

Keywords: *The Signature of All Things*, *A Doll’s House*, “Four Structures” theory, female awakening

1 INTRODUCTION

The Signature of Everything was written by American author Elizabeth Gilbert for seven years and published in 2013. A 16th-century German mystic proposed the notion of “the signature of all things” a long time ago, claiming that all plants have a distinct purpose as represented by their shape (Gilbert 2015). Gilbert borrows this concept for her book title, which aptly captures the female protagonist’s journey from a unique discovery of moss to becoming a botanist. As she grows up, the protagonist tears away the “signatures” that others have affixed onto her in order to find her own way of life. The tearing away of “signatures” signifies the rebellion of independent women against oppression by men.

A Doll’s House is a play written by 19th-century Norwegian playwright Henrik Ibsen. It was written in 1879, at the height of the Norwegian female liberation movement. The powerful movement gave Ibsen great encouragement and prompted him to support the movement through his works (Kang 1989). The brings to life for readers a vivid character- Nora, recounting the story of Nora and her husband Torvald from being in love to their marriage falling apart. The play ends with Nora escaping and breaking free from her status as a “doll”.

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This essay seeks to utilize the development of these two female characters as entry points, supplemented by Juliet Mitchell's feminist theory, in order to analyze the protagonists' breaking routine, self-exploration, their paths toward ideological liberation, as well as the reasons behind such transformation.

2 JULIET MITCHELL'S "FOUR STRUCTURES" THEORY

With the gradual liberation of ideology, the balance of gender relations became an unavoidable topic in women's studies. In 1966, she published *Women: The Longest Revolution* in the *New Left Review*, a British Marxist magazine. Mitchell criticized classical Marxist theory for its overemphasis on economic factors and failure to provide a multi-layered understanding of the status of women. She proposed a different perspective, which led to the development of the "Four Structures" theory of production, fertility, sexuality, and the socialization of children. The theory has since evolved over time and has been applied to new cases of heterogeneous culture. As a result, these two works by Mitchell have come to be classics and the foundation of modern feminist theory.

2.1 "*Production*" and the role of women's labour

In the article "Women: the longest revolution", Juliet Mitchell argues that physical disadvantage is not the main reason for women's subordination (Mitchell 2007). She argues that the role of women in production is essentially fixed and has been so for a long time. René Limon pointed out that men were often idle, while women had to work all day because this work was "traditionally" theirs and was integrated into the social fabric (Dumont 1962). According to Marx, it is not the physical weakness of women that precludes them from participation in productive activities, but rather their societal inferiority, which renders them enslaved to society. Commenting on the results of the questionnaire for working women, Viola Klein argues that perhaps by not being recognized for their work in production or perhaps by rejecting this role themselves, women surprisingly did not create the preconditions for their emancipation. Mitchell argues that women's physical inferiority did not prevent them from performing certain jobs in particular societies and that in many agricultural societies, women performed agricultural work as well as men and even took on more work than men (Mitchell 2007). Thus, Mitchell argues for a linked view of the development of technology and the general structure of society, and the key element that determines women's labour relations is the general structure of society.

2.2 "*Fertility*" and disapproval of women's fertility advantages

In *Women: The Longest Revolution*, Mitchell intends to overturn the inherent definition of fertility and society's stereotypes of fertility and family as women's responsibilities, which were prevalent during and before the 1960s. She does not deny that fertility itself is a serious, irreversible matter biologically speaking, but rather argues that it is misleading to characterize fertility as only a biological and not a historical matter (Mitchell 2007). She points out that women's inability to participate in production following childbirth is not the root cause of their insubordination. Rather, the root cause lies in the function women play in fertility. Mitchell argues that: "as long as childbirth remains a natural phenomenon, women are destined to become objects of social exploitation." (Mitchell 2007).

2.3 "*Sexuality*": An alternative relationship of production

Sexuality has long been a controversial and often taboo subject, even before it was mentioned in *Women: The Longest Revolution*. Juliet Mitchell, on the other hand, proposes to view sexual relations in the context of the family as a kind of productive relationship. She argues that sexual relations should not be seen merely as a "relationship of possession" between partners but rather defined as an "alternative relationship of production" in order to capture

its full role in production (Mitchell 2007). Conflict and contradiction have always existed between the structural oppression of women by men and women’s desire for sexual liberation. This conflict has made equality and freedom all the more important in today’s world. The unification of the two breaks through the binary concept and is a prerequisite for true sexual liberation (Mitchell 2007). Juliet Mitchell explores the structural conflict between men and women and the development of this type of conflict within the structure of sexuality.

2.4 *The socialization of children*

Juliet Mitchell argues that women are biologically destined to be mothers and to fulfil the mission of raising children to adapt to society, and points out that this adaptation is given by society (Mitchell 2007). Also, based on Parsons’ theory, she points out that children need two parents, one for the “emotional” mission and one for the “instrumental” role (Mitchell 2007). Men as fathers are more courageous, proactive, and aggressive and play the role of “tools”. As women as mothers are more tender and delicate female roles, child rearing and care are considered “emotional” roles.

Socialization is the process by which a child is transformed from a biological person to a social person. In her article, Juliet Mitchell points out that as families become smaller and each child becomes more important, the actual birth takes up less and less time, and accordingly, women become more important in the process of raising and educating them. The ultimate responsibility falls on the mother’s shoulders, making the purely maternal role decrease and the educational role increase (Mitchell 2007).

3 “FOUR STRUCTURES” THEORY AND THE SIGNATURE OF ALL THINGS, A DOLL’S HOUSE

The Signature of All Things and A Doll’s House tells stories of the enlightenment and ideological liberation of female characters such as Alma in a male-dominated world, as well as the steadfast assertion of their own beliefs and their fight against the identity of the “other” in Western critical theory. This transformation does not arise solely from the initiative of these female characters- the social context (see Table 1) and their background also play important roles. Some socialist feminists believe that socialist feminism will integrate other branches of feminism (such as eco-feminism, as shown in The Signature of All Things) to achieve the integrated and coordinated development of feminism. In Juliet Mitchell’s “Four Structures” theory, it is possible to interpret the metamorphosis of the female characters from a socialist feminist perspective within the logic of sociology. This essay intends to analyze the sociocultural roots of women’s liberation as exemplified by the continuous development of female characters in The Signature of All Things and A Doll’s House from four structural levels.

Table 1. Comparative analysis of the main female characters.

	The Signature of All Things	A Doll’s House
Time period	Reflective of the 18th, 19th centuries	19th century
Personality traits of the female protagonist	Ambitious, adventurous	Traditional but with an independent spirit
Identity of the female protagonist	Assistant to a botanist	Housewife
Economic background of the female protagonist	Affluent estate in Europe	Petite bourgeoisie
Social structure	System of slavery against a colonial background	Mix between the petite bourgeoisie and small-scale peasant economy

3.1 *Production*

The limitations of women's productive capacity make them dependent on men. In the book, *A Doll's House*, the heroine Nara and her husband Helmut have three children and a seemingly happy family, but looking at the nature of the marriage through the surface reveals that it is all an illusion. Nara is controlled by Helmut, from her habits to her thoughts and feelings. At the same time, a woman's birth is bound by her biological constitution. The male is not burdened with the processes of pregnancy, childbirth and breastfeeding, so that he can devote himself to pioneering production. As the text states, "A wife cannot borrow money without her husband's consent" (Ibsen 2004). Every time Nara wants to spend more money, she always asks Helmut, like begging, and faces her husband's accusations of "ignorant", "lying", and "reckless spending". But she also has to smile and welcome him. This also reflects the unequal status of husband and wife in life. Thus what women achieve through production is not only a purely economic basis but more primarily the ability to be independent of male dependence, just as Simone de Beauvoir once said, "A woman is a woman not so much by birth as by formation" (Beauvoir 1998).

3.2 *Fertility*

From the moment she is born, Alma, the main character in *The Signature of All Things*, is primarily known as the daughter of a botanical explorer rather than an independent female botanist or adventurous explorer. That being said, women do not have to renounce their familial ties but should break free from the sociological structure of gender oppression. Alma's role as the female heir of the family solidifies her female reproductive role, which makes up the foundation of patriarchal society and is passed down through generations. The shackles of inheritance subconsciously increase the misconception of reproductive advantage that women endure. In terms of society's view of the role that women play in fertility, marriage and becoming a mother are the required way of life for women in traditional society (Chu 2005). This clearly contradicts women's liberation and the scientific pursuit of gender equality. For Alma, who has been adventurous and ambitious since childhood, this was a "rather unfortunate situation, even though it took her years to realize it" (Gilbert 2015). This contradiction also drives Alma to make critical decisions as she experiences growth. It reflects not only Alma's fight against the entrenched patterns of society but also the root question of whether fertility should be defined as a natural phenomenon or a result of conscious decision-making.

In questioning and breaking free from the stereotypes of fertility, women are often subjected to oppression by men and wider society. The root purpose of interference with women is to solidify the patriarchy. Even genetically inherited traits such as appearance are regarded as proof that men are more powerful in a gendered society, serving to reinforce the notion that women should be responsible for functions such as fertility and taking care of the household. The recognition of female excellence is seen as a developmental step in a patriarchal society, which will keep women from breaking free for a long time to come. At the same time, breaking the concept of women's reproductive advantage becomes all the more difficult.

3.3 *Sexual relations in the context of history*

Juliet Mitchell considers sexuality to be an alternative relationship of production because of its unique role in history. It is able to drive the development of history like other productive relations, although it has always been interpreted differently by many at different points in time for various purposes. *The Signature of All Things* is a depiction of 18th and 19th-century society by Elizabeth in the 21st century using contemporary feminist ideas. Alma is a symbol for women in the 18th and 19th centuries. The feminist ideas in this book have an

enormous sense of history, preserving the historical and developmental aspects of sexuality. The book follows Alma's life, and the dimension of time brings Alma true "sexuality", thus giving Alma her own unique sense of sexuality. She experiences inner turmoil as a teenager and desires passion as she grows up. Alma's pride and inferiority complex goes up in flames in the face of desire (Chu 2005). As she matures from a girl to a woman, her view of sexuality also changes radically. When she falls ill with a higher fever, her sexual encounter with Ambrose haunts her thoughts like a nightmare, causing her great fear and pain (Gilbert 2015). In contrast to the other three structures, which have not evolved ideologically, sexuality has evolved into various forms throughout the development of history. The call for liberation of gender relations is growing in volume, constantly putting into question traditional concepts of marriage and sexuality (Mitchell 2007). This wave of sexual liberation will bring women freedom in the future. Alma's final abandonment of marriage and her choice to embark on a path of exploration signifies the hope that a modern feminist author places on the further development of feminism. In the course of modern feminist development, especially in the latter decade of the twentieth century, the social sciences underwent a "cultural" movement that moved them considerably closer to the humanities. New fields, such as cultural studies, also became the sites of significant studies on gender (Evans 2011). Changes in the concept of sexuality are a milestone in the development of feminism, and discussion of the topic will continue to develop in the future in the context of multidisciplinary integration.

3.4 *The socialization of children*

In the process of child socialization, according to research by Lay, Waters, and Park, children who have been given good emotions are more likely to follow their mothers' instructions (Gentzler *et al.* 2018). In the article, Helmut argues that almost all cases of crime among young people can be traced back to lying mothers (Ibsen 2004). In the text, because Nara secretly borrowed a sum of money to save her husband, when the truth comes out, her husband Helmut argues with Nara and calls Nara a "cheap woman" and narrates, "But the child cannot be in your hands anymore" (Ibsen 2004). Helmut thinks that Nara's borrowing money from outside is a shame and is not conducive to the child's education and will lead the child to commit crimes, thus disqualifying Nara as a mother to educate her child. This shows that to cultivate a sound personality and form a correct worldview, outlook on life and values, higher requirements and standards must be put forward for the socialization process of children, which means that women are excluded from the ranks of productive workers in society, and it is this oppression that continues to weaken women's social status (Deng 2022). Studies have shown that children's socialization is more directly influenced by mothers' IPA (ideal positive affect) towards their children. Children's socialization would be more directly influenced by mothers' IPA (ideal positive affect) towards their children (Maccoby 1992).

4 CONCLUSION

From a socialist feminist perspective, the low social status of women in modern society can be attributed to their inability to participate in society and subsequent dependency on men for economic security. A prerequisite to raising the social status of women is participation in production. The inability to participate in production reinforces the social stereotype of women's natural responsibility in fertility and in the socialization of children. Women's liberation is hindered by their emotional role as mothers, which women often assume at the behest of men, and thus their confinement to the familial household. As history advances, there is a constant trend towards the diversification of women's fertility and sexuality, challenging traditional concepts and becoming a prerequisite for their liberation. The female characters in *The Signature of All Things* and *A Doll's House* both eventually break free from the shackles of patriarchal society and embark on a quest for ideological awakening.

When the “Four Structures” of production, fertility, sexuality, and the socialization of children are interconnected and mutually reinforcing, female liberation will finally be realized in the future. Moreover, the contemporary value of Mitchell’s “Four Structures” theory lies in the fact that it not only enriches and develops the Marxist theory of women’s liberation but also contributes to the awakening of women’s subjective consciousness and the protection of women’s legitimate rights and interests, and a certain extent promotes the progress and development of society, which has high theoretical value and practical significance. At the same time, Mitchell’s “Four Structures” theory has certain historical limitations, which are mainly manifested in the following aspects: firstly, feminism needs to be more closely integrated with Marxism. Secondly, the strategies of social change for women’s emancipation were not specific enough. Thirdly, the causes of women’s inferior social status were multifaceted, and Mitchell’s analysis was based on middle-class women; her analysis could not cover all women. Finally, Mitchell’s ‘four structures’ theory only systematically discusses the oppression of women under the four structures and suggests that the emancipation of women requires the overthrow of the capitalist system and patriarchy on a macro level but does not provide specific solutions. Future research and study will combine the Four Structures theory with Chinese women to achieve a cultural fusion between the West and the East.

AUTHOR CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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The influence of learning motivation on English vocabulary learning

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ABSTRACT: In recent years, the influence of non-intellectual factors such as learning motivation and interest on students' learning has aroused widespread concern in the field of education. In the course of teaching, some educators have found that different students have a certain impact on the effect of English vocabulary learning, among which learning motivation factors have an important impact on English vocabulary learning, because learning motivation is an important variable affecting the students' learning behavior and also an important factor restricting their learning enthusiasm. With the frequent exchange of Chinese and Western cultures and the in-depth development of foreign language teaching research, vocabulary teaching is increasingly given high priority. If the teachers do not have a thorough understanding of learning motivation, it will be difficult to organize teaching effectively and motivate the students to learn English vocabulary effectively. Therefore, the theme of this paper is the influence of learning motivation on English vocabulary learning. This paper first introduces the concept and classification of learning motivation and then analyzes the role of learning motivation and how teachers can stimulate students' learning motivation. At the end of this paper, some methods are proposed to help the students learn vocabulary more effectively.

Keywords: Learning motivation, English vocabulary learning, Heuristic teaching

1 INTRODUCTION

Nowadays, English is being valued by more and more people, especially as it has become an important tool for China's opening-up and international communication. Therefore, English learning has become an urgent need of the times. English as an international language is a fundamental skill for students to move toward the world. Learning English can not only enrich one's knowledge and broaden one's horizons but also enhance one's personal strengths. In fact, vocabulary is the most fundamental unit of language. Language proficiency in English should be gained through vocabulary. In English learning, one cannot express well without grammar, while one cannot express anything without vocabulary. Vocabulary is a basic component of language and a unit of meaning that makes up larger structures such as sentences, paragraphs, and even the whole text. Vocabulary is also a vital component of language ability, which is the foundation for the development of four important skills: listening, speaking, reading, and writing. All English skills are inseparable from the accumulation and application of vocabulary. Therefore, it is no exaggeration to say that vocabulary is the core of language. English vocabulary is crucial to English teaching since it not only determines whether it is successful or unsuccessful but is also crucial for

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enhancing students' overall English proficiency. Vocabulary learning is always throughout the whole process of English learning and teachers should explore effective vocabulary learning methods to improve teaching (Chang *et al.* 2021). Learning motivation and learning are interrelated, and learning can generate motivation, which in turn can drive learning. Motivation has a reinforcing effect on learning, and students with high levels of motivation also have high levels of achievement. Because students with low levels of motivation lack the stability and tenacity in their learning behavior, students with high levels of motivation are able to keep a serious attitude and persevere in finishing the learning tasks over extended periods of time. Learning motivation plays an important role in promoting students' learning activities; moreover, the exploration and study of learning motivation is not only of great theoretical significance but also of great practical importance. The significance of this paper is to better stimulate students' learning motivation, enhance their interest in learning English, and learn English more effectively by understanding the classification and role of learning motivation.

2 DEFINITION AND CLASSIFICATION OF LEARNING MOTIVATION

Learning motivation refers to an internal psychological state that motivates individuals to engage in learning activities, maintain the learning activities that have been triggered, and lead learning activities toward a certain learning goal (Rafiola *et al.* 2020). Learning motivation can stimulate students to generate certain learning activities, make them express an eager desire for knowledge and explore related activities, and enable them to show a serious learning attitude in their learning in order to achieve their learning goals.

2.1 *Internal motivation and external motivation*

In educational psychology, learning motivation can be divided into internal motivation and external motivation according to the different sources of incentives. Internal motivation is the motivation generated by students' interest in learning itself, which does not require external incentives to achieve goals (Wardani 2020). For example, if a student is interested in or enjoys English, then he will listen attentively in class and study hard after class. On the contrary, external motivation is students' motivation caused by external incentives, and the satisfaction of motivation is not within the activity, but outside the activity (Wardani 2020). For example, a student studies in order to receive rewards or avoid punishment. However, the division between internal motivation and external motivation is not absolute, and any external force must be transformed into an individual's internal needs in order to become a driving force for learning.

2.2 *High-level learning motivation and low-level learning motivation*

According to the social significance of learning motivation content, it can be divided into high-level learning motivation and low-level learning motivation. The core of the high-level learning motivation is altruism, in which a student associates his current learning with the interests of the country and society. For example, a student is studying hard now because he realizes that he is the pillar of the country and has a responsibility. Just as a famous saying goes, reading for the rise of China. The core of low-level learning motivation is egoism and learning motivation only comes from immediate interests. For example, a student study hard only to pass exams or for personal reputation. A high-level learning motivation is something that every student should possess. However, in cases where a student has not yet developed an inherent interest in learning and lacks strong motivation, low-level learning motivation can have a positive impact on completing learning tasks and improving learning enthusiasm.

2.3 *Near-range motivation and long-range motivation*

According to the relationship between motivational behavior and goal, it can be divided into near-range motivation and long-range motivation. Near-range motivation is the motivation caused by the direct result of the activity or the content of the activity. For instance, a student studies hard to pass an upcoming exam or win a reward from the teacher. Long-range motivation is linked to the significance of learning and the future of the individual, which has strong stability and permanence and can work for a considerable period of time. For instance, a student studies hard for a happy life in the future or to live up to the expectations of his parents. However, near-range motivation and long-range motivation are not static, and they can be mutually transformed under certain conditions. The student can refine the goals set by long-range motivation into many immediate goals, and the immediate goals he set should be subordinate to the visionary goals.

2.4 *Direct motivation and indirect motivation*

The relationship between motivation and learning activities can be divided into direct motivation and indirect motivation. Direct motivation is directly related to the learning activity itself, which is manifested as a direct interest and preference in the subject content, or the learning activity being studied. For instance, a student studies because of a love for English or in order to achieve a good learning outcome. Indirect motivation is linked to social significance, which is the result of the student internalizing social perceptions, parental wishes and teacher expectations. For instance, a student studies to win the honor in the class or to receive praise from his parents. Only by developing an interest in a certain subject can the students deepen their understanding of its social significance and thus consolidate and develop that interest.

3 STRONG LEARNING MOTIVATION SHOWS HIGH LEARNING ENTHUSIASM

Students with strong learning motivation will inevitably show high learning enthusiasm in their learning activities. They can concentrate and be consistent in their learning and have strong self-control and perseverance when encountering difficulties. On the contrary, students who lack learning motivation will inevitably show low learning enthusiasm in their learning activities, and the level of learning enthusiasm will directly affect the learning effect (Wu & Fan 2021). Therefore, learning motivation can affect learning outcomes. Taking the author's high school classmate as an example, her English grades were very poor, her vocabulary was very limited, and she has almost never passed any English exams. One day, the teacher arranged for the author to be her desk mate, hoping that as a representative of the English class, the author could stimulate her enthusiasm for learning English, expand her vocabulary, and improve her English grades. Later, the author realized she was not good at English because she did not know how to learn English, did not know where to start, and did not know how to memorize words, so she had no confidence in herself. Therefore, the author took some measures. In the beginning, the author would arrange how many words she had to memorize every day, help her with dictation every day, and set her target score at 60. After a period of effort, she succeeded and the teacher praised her in class. Since then, her motivation for learning English has become stronger and stronger, her enthusiasm for learning English vocabulary has improved significantly, and she has changed from passive learning English vocabulary to active learning. As a result, her English performance has become better and better.

4 SUSTAINING EFFECT THAT LEARNING MOTIVATION HAS

Learning motivation can not only affect learning outcomes, but learning outcomes can also react to learning motivation. That is, learning motivation has a sustaining effect. If learning outcomes are good, and the efforts students put into learning are proportional to the gains they achieve, then students' learning motivation will be reinforced, thus consolidating the new need to learn and making learning more effective (Chuhan & Rong 2021). For instance, if a student memorizes English words that are reflected in an exam and gets a good grade, then the student has a sense of achievement in learning English vocabulary. His motivation to learn new English vocabulary will be strengthened, and the effect of learning English vocabulary will be better. In this way, learning needs and learning outcomes reinforce each other, thus forming a virtuous cycle in learning. On the contrary, poor learning outcomes do not reward learning efforts, thus weakening the need to learn, reducing learning motivation, and leading to worse learning outcomes, ultimately forming a vicious circle in learning. The key to transforming the vicious cycle into a virtuous one is to change students' experiences of success and failure so that they can gain a sense of achievement in their learning. What's more, it is necessary to improve students' mastery of knowledge and skills to make up for their shortcomings.

5 HEURISTIC TEACHING METHODS

The main objective of heuristic teaching is to cultivate the students' independent thinking abilities and innovative abilities. It is necessary to recognize the students' subjectivity, start from their actual situation, and achieve teaching through two-way communication and feedback between teachers and students. According to modern cognitive psychology, students' curiosity and interest in learning can be aroused by causing students' cognitive dissatisfaction. Therefore, the first step in the teaching process is to arouse students' interest and motivation in learning (Tianjuan 2019). Therefore, teachers can create problem situations in classroom teaching, or often make use of students' desire to win, to compete, to seek approval, and other motives to arouse their interest in learning (Liu 2022). For instance, when a teacher talks about the different uses of the verb "help", he can use the scenario of a shop assistant "Can I help you?" when a customer is buying something and the scenario of a person falling into the water and shouting "help". Then the teacher can ask the students whether the meanings of these two words are the same. If they are different, what do they mean? The teacher asks the students to discuss and experience the different meanings of the word in different situations and explain them, so that they can understand the usage of the word easily. What's more, a teacher should also be able to set up suspense to inspire students' thinking when teaching in the classroom. Setting up suspense is different from ordinary classroom questioning. It is not about getting students to answer immediately, but about setting up suspense in their thinking so that they are temporarily confused and thus interested in solving the problem. For example, when a teacher talks about the preposition and writes a sentence on the blackboard: The girl did nothing yesterday but (watch/watching) TV. Then the teacher can ask the students whether to use a watch or watching after, and most of the students believe in using the latter one. At this moment, the teacher says the truth is not always in the hands of the majority. This forms a suspense and arouses the students' interest and need to solve the problem (Tianjuan 2019). However, the teacher should not tell them the answer directly, but let them look up the information themselves. This way can not only inspire students to think through setting up suspense but also cultivate their initiative in learning. In addition, the teacher should pay attention to the novelty of the teaching content in the teaching process to attract students' attention. For instance, when teaching a text about Christmas, the teacher can ask the students questions such as what cultural backgrounds are related to Christmas and how it is celebrated in the West. To stimulate students'

interest in learning, a small Christmas party can be held in the class. The teacher can also let the students exchange their Christmas gifts, sing Christmas songs together, and so on. By creating a Christmas scene, students can learn English in an immersive way (Kang 2022). Heuristic teaching focuses on the instruction of learning methods and the cultivation of learning abilities. Heuristic teaching not only gives full play to the leading role of the teacher but also strengthens communication between teachers and students, creating a harmonious and pleasant classroom atmosphere. This method can stimulate students' interest and also stimulate their initiative in learning.

6 HOW TO LEARN ENGLISH VOCABULARY MORE EFFECTIVELY

6.1 *Word formation*

There are three typical forms of word formation in English: derivation, compounding, and conversion. The derivation method is to add a certain affix before or after the root of a word to generate a new word (Zhu & Rong 2022). The affixes added before are called prefixes, and the affixes added after are called suffixes. Most words with prefixes do not change the part of speech, but only cause a change in meaning. Examples of prefixes that indicate the opposite meaning are: un-, dis-, in-, ir-, il-, de-, etc. Prefixes indicating other meanings are pre-, post-, re-, mis-, anti-, etc. Suffixes used to form words denoting persons or objects include: -er, -or, -ist, -ee, -ant, etc. And suffixes used to form abstract nouns denoting behavior, nature, and state are -ance, -ence, -tion, -sion, -ity, -ment, -ness, etc. The common suffixes used to form adjectives are -able, -al, -ful, -less, -ish, -ive, -ous, etc. The common suffixes used to form adverbs are -ly, -ward, -wise, etc. The common suffixes used to form verbs are -ize, -en, -ify, etc. The process of combining two or more words into a new word is called compounding. Some compound words need to be connected by hyphens, while others are directly connected. Examples of compound nouns are network, output, typewriter, by-product, etc. Examples of compound verbs are undergo, overthrow, uphold, counteroffer, etc. Examples of compound adjectives are large-scale, far-reaching, air-tight, duty-free, etc. The method by which a word is transformed from one part of speech to another or several parts of speech without changing its form is called conversion (Zhu & Rong 2022). The meanings of the words after conversion are usually closely related to those before conversion, but sometimes there are significant differences. According to research, words formed by derivation account for 30% to 40% of the total number of new words in English, words formed by compounding account for 28% to 30% and by conversion account for 26%. Therefore, word formation can not only encourage students to pay attention to the connection between new and old knowledge but also guide them to use these rules to learn and remember the words.

6.2 *The association method*

The first one is spelling association, which means memorizing words with similar spellings, for example, award—reward, adapt—adopt, affect—effect, and so on. The second one is meaning association, which involves associating the word related to it in terms of its meaning, for example, when one thinks of the synonyms such as important—crucial, common—universal, neglect—ignore, etc, or antonym such as easy—difficult, cheap—expensive, forget—remember, etc. One can also think of similar words, such as from car to all kinds of transport—bus, bike, plane, train, ship, etc., or from dog to all kinds of animals—cat, rabbit, panda, tiger, lion, etc. The third one is sensory or action association, which means that when learning a word, a corresponding sensation will be produced, or a corresponding action will be performed. For example, when learning the word cold, it will create the sensation of cold. When learning the word hot, it will create the sensation of hot. When learning the word football, it will make the action of kicking the ball. When learning the

word basketball, it will make the action of playing the ball. The fourth one is visual image association, in which pictures can be labeled or visual imagery can be created when words and phrases are seen in vocabulary learning (Kamil 2022). Research has shown that most students have a tendency to adopt visual images for learning, and the effect of using images for learning is more significant. The association method not only adds interest to the learning of dull words but also deepens memory and achieves a long-term memory effect.

7 CONCLUSION

Learning motivation starts from learning needs and motivates students to study hard to achieve their goals. Research on learning motivation has always been a focus of attention in the field of psychology because learning motivation is an important factor influencing learning behavior and learning outcomes. Understanding the classification and role of learning motivation can help students achieve high-quality learning outcomes. Understanding the value of teaching English vocabulary and vocabulary teaching techniques will help students acquire and apply vocabulary actively and will also enhance their command of the English language. The quantity and proficiency of vocabulary mastered by students may directly affect their language communication abilities. Thus, the teachers should explore some effective vocabulary learning methods to improve teaching. In English teaching, teachers can use heuristic methods to teach English vocabulary such as the scenario creation method and set up suspense method. Students can use the word formation method and the association method to learn English vocabulary effectively. Students should acquire a certain number of affixes, roots, and knowledge of word formation so that they can improve the efficiency of memorizing vocabulary and enlarge their vocabulary easily. There is still much room for the development of English vocabulary teaching and learning in terms of both breadth and depth. The research in this field should be widely combined with that in other fields so as to promote its development better.

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Gamification in English teaching classes in higher education

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ABSTRACT: When the technology of artificial intelligence (AI) and virtual reality (VR) is experiencing a rapid development, some educators are trying to integrate them in teaching and learning through games and gamification. However, this process can sometimes be quite demanding of the classroom facilities and teachers' technology ability. As gamification in class is not equal to digitalize the courses and teaching methods, it has possibility to implement gamification in non-digital classes. In this paper, the author will try to discuss this possibility in English teaching in higher education. Basic theoretical support behind the design of games will be explained at first, including the definition of gamification, design thinking and science of learning, followed by a detailed description of an easy word-expanding game in a real teaching context. Some design principles and theories will be linked simultaneously. The author finds two potential perspectives for further investigation. One is the application of gamification in language teaching in higher education as there are limited studies on this. Meanwhile, teachers' attitudes toward gamification in higher education can also supply a direction as teachers may take the imperative role for gamification practitioners. A close listening and a better understanding of teachers' attitudes and their difficulties may make it possible to improve some ways to help them integrate gamification much more easily in their daily courses.

Keywords: Gamification, English Teaching, Higher Education

1 INTRODUCTION

When discussing gamification, attention may be first paid to primary schools or high schools as students are considered to be young enough to enjoy games. However, does this mean there is no place for gamification in colleges and universities? Can game mechanisms be integrated into vernacular English teaching classes in higher education?

Before discussing the benefits of gamification, a basic understanding of its definition may help. Although there are several definitions, some of them still share some similar basic ideas. Generally speaking, gamification is a methodological strategy that uses game design elements in non-game contexts and its purpose is to engage people, motivate action, promote learning, and solve problems (Pujolà 2021). As it can be applied in ALL educational contexts and any pedagogical approach, this guarantees the possibility of absorbing gamification both in English teaching classes and in higher education (Pujolà 2021).

Meanwhile, some studies also prove its benefits (Pujolà 2021; Manzano-León 2021). When game design dynamics are incorporated into the classroom, students can be more engaged and have more direct interactions, which help them greatly improve their academic, cognitive, and social skills. Gamification in education involves the application of strategies that spark interest in individuals, spur them to action, and foster learning autonomy and problem-solving. Students are also provided with a sense of agency in how they approach

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tasks, making them more appealing and encouraging teamwork, effort, and other good values that are characteristic of games (Manzano *et al.* 2021). What is noticeable is that the involvement of digital technology is not a must in applying gamification in education (Laine & Lindberg 2020). This means even an inadequacy of technology or technologically-friendly context may not act as an impediment to gamification and this ensures the possibility of the following simple in-class activity.

Just like Palmquist points out in his research, teachers are identified with an imperative role for gamification practitioners as they may facilitate its implementation in the learning environment. Analysis of teachers' views of the use of gamification to develop students' competencies will shed light on the potential use of gamification since teachers play an important role in the introduction of new teaching methods in their classes (Palmquist 2021). In that study, teachers believe in the potential of using gamification to develop students' competencies and they agree on the playful dimension of gamification which mostly contains beliefs about self-motivation and critical thinking. However, the teachers involved also agree that there is a potential source of conflict if the competitive dynamics are not well controlled. This should be taken into consideration when designing the in-class casual activities. When both teachers and game designers/developers are interviewed, it can be summarized that teacher's assumption of ownership when implementing gamification in the learning environment seems crucial and when gamification turns out to be somewhat different than they have expected, teachers change their opinion toward it. Palmquist's research shows positive attitudes from teachers, and there is also an indication that a fitting gamification integration with actual course content raises teacher motivation to use it. In addition, teachers' prior experience may also influence their attitudes toward gamification (Palmquist 2021). After grasping a clear understanding of teachers' attitudes, it may be possible to improve some ways to help teachers integrate gamification much more easily in their courses.

This paper studies the possibility of coordinating simple game elements and game mechanisms, such as principles of boosting creativity and challenge, into English teaching classes in higher education. It aims to take the application of word-expanding activity in real English classes as an example to build a further discussion of gamification in language teaching classes in higher education. The author is trying to take this paper as a start for a chain of future research, which will cover the relationship between gamification and its role in stimulating students' learning and teachers' teaching, and then teachers' attitude and their actual use of gamification will be studied. The final aim of this series of studies is to try to find some practical methods to help teachers easily apply gamification in their teaching.

2 PRINCIPLES OF GAME DESIGN

2.1 *Learning through wonder*

As interest can be the best teacher, it may be important to attract students to want to learn at first. Piaget and Engel defined the urge to explain the unexpected as well as the breath of transcending curiosity as the motivation to learn (Engel 2011; Piaget 2003). Additionally, when teachers implement learning design based on the pedagogy of wonder, they employ a strategy that enables students to take charge of their own learning by posing questions (Plutino 2021). To experiment with the effectiveness of the pedagogy of wonder, McFall even designed a five-step process that include anticipation, encounter, investigation discovery, and propagation in his book (McFall 2013).

2.2 *Basic process of cognitive development*

When following cognitive development, both learning and teaching can be conducted smoothly and effectively. The ability to apply what students have learned in one environment to solve issues or learn in another is known as transfer [8]. Based on Mayer's study,

students can collect knowledge both from words and images. Knowledge from these dual methods can stimulate their ears and eyes, which can help them enhance sensory memory. In this process, students are able to select words and images based on their needs. Sounds and images can interact with each other in order to offer assistance in their forming of verbal and pictorial model where prior knowledge can be integrated and applied (Mayer 2019).

2.3 *Knowledge of creativity*

Except for a basic understanding of learning theories, in the process of blending game elements in teaching and learning, knowledge of creativity will shed light on the game design. Based on the World Mental Healthcare Association, creativity refers to the ability to generate, create, or discover new ideas, imaginations, methods, solutions, and possibilities (World Mental Healthcare Association). The idea is strongly related to a type of intelligence that enables people to go beyond conventional thinking and learn something new. There are three key traits of creativity, which include intelligence, energy, and discipline as learning a creative talent doesn't only involve waiting around for inspiration to hit. This is why those creative students are often disciplined in pursuing their interests and passions (Mayer 2019). That's why the following in-class activity should be organized as a routine.

Meanwhile, one approach to achieving fantastic success and exceptional growth in one's professional, personal, and social life is to keep one's mind creative, and the cornerstone of creative thinking is knowledge, learning discipline, and mastering a new style of thinking (Khalil *et al.* 2019). Another research demonstrates how education greatly aids in boosting creativity, not only in elites but in all students (Ritter *et al.* 2020). This means that creative thinking can be learned and trained in classes with some special design, regardless of the learning ability already developed by learners or their ages.

Bloom's Revised Taxonomy also provides some extra specific steps to develop creativity in daily teaching and learning. At the bottom of this pyramid lies basic memorizing, followed by understanding ideas and concepts. After basic preparation and digestion of ideas, the application of the information in a new situation is a test for the former procedures. After the application, learners analyze the connections among ideas and evaluate their application in order to find out the benefits and limitations which will finally facilitate their creation of new thoughts and ideas (Sosniak *et al.* 1994).

3 GAME DESIGN

3.1 *Background*

In language learning, vocabulary works as the brick in building a house. Rich accumulation will not only help students have a better understanding of listening and reading comprehension which may give them a chance to get better grades, but will also enhance their ability of self-expression and increase their confidence when communicating in English.

For Grade 2 college students, two major exams are waiting for them—the CET4 and TEM4—and passing these exams becomes one of the priorities. However, sticking to textbooks all the time may make the learning process boring. That's why in daily English courses, some new words can be added both for academic purposes and for fun.

3.2 *The in-class vocabulary expanding game*

Some buzz and popular words will be chosen for every daily class and the English words will show on the screen but without Chinese meaning. Wonder is left for students to explore by themselves. Students, with their curiosity, has been stimulated, are encouraged to guess the meaning of its formation, and those who get the idea are free to shout their answer out without raising their hands and asking for permission. They can also pose questions to

control their own thinking process. Here, students can evoke their prior knowledge of the root of the words, some familiar words, or other derived words.

For some words that are difficult to guess, example sentences will be given verbally without being typed on the screen. This makes the process a little harder as students need to listen carefully as there is no written reference. Students are challenged a little, but this challenge is not too hard to handle. Finally, most of the time, they can successfully get the correct meaning of the words. In this first step, the first design principles of challenges are applied to provide challenges at various adjustable difficulty levels where the players are challenged to the extent of their abilities while avoiding challenges that are too easy or too difficult (Laine & Lindberg 2020).

Several words will be supplied depending on the circumstances, such as the limited time of class or students' reaction as well as their behaviors. Therefore, the amount is not fixed. After guessing all the words, students are invited to create their own sentences with today's words. Sometimes, the first three or four students are allowed to build simple sentences. But if this process goes smoothly, another challenge is offered step by step, such as some extra requirements to the structure or the length of the sentences. However, this new change will not be announced in advance in order to raise learners' curiosity by interesting and unpredictable challenges (Laine & Lindberg 2020). In spite of a rocket in difficulty, students may favor simple challenges over complex challenges while over-complex challenges may cause a decrease in their engagement (Laine & Lindberg 2020).

Here is one example from the real class. When a frequent appearance of using "I" to start a sentence was noticed, students were forbidden from using "I" to start their sentences, and later even the appearance of "I" was not allowed. Because of this little challenge, students were forced to find and create a new way to replace "I" as well as a new method to start a sentence. Chances are provided and learners can figure out some innovative solutions for challenges during the process of brainstorming. In this procedure, challenges are designed to stimulate learners' motivation and they may appear in different forms (Laine & Lindberg 2020). They can recall their prior knowledge and integrate it with the new words just as mentioned in Design Principles 14—"Provide creative ways to solve challenges where a motivating challenge can be met in a number of different ways"—and the development of creativity when prior knowledge is tested in a new context in order to obtain the feedback by themselves in this learning process and finally to create new thought and ideas (Laine & Lindberg 2020; Sosniak 1994).

Meanwhile, if there is still time left for more activity and the words are suitable, students will later be invited to generate their own story which should include all today's words. During this harder-and-harder sentence-building procedure, players (or under this condition, the learners) are allowed to create game content whose purpose is to support the player's self-expression and empowerment (Laine & Lindberg 2020). Their application of new words and the combination of prior vocabulary help them to create their own games and they can modify the level of difficulty by trying to integrate some more sophisticated words or easier ones. The challenge is getting greater but the repetition of these words can strengthen students' memory and during this procedure, preexisting vocabulary can be employed and tested. In this part, students can first share their stories in pairs where they have the chance to enjoy teamwork, to evaluate and analyze each other's story. More diversified vocabulary and sentence-building skills are encountered by students. Then some students are invited to stand up and share their stories with their fellow classmates.

This is the end of this whole activity, and it can act like an organic loop. Sufficient time is needed as it can be helpful for students to form reflection in a learning environment (Laine & Lindberg 2020). As mentioned before, this in-class activity is strongly encouraged to stay as a routine small game, not only for the exams but challenges also need to be given the opportunities to be repeated especially when a specific skill or changed behavior is aimed to be improved (Laine & Lindberg 2020). For this in-class activity, the accumulation and application of words is the specific skill to be acquired and ideally, the goal for improvement

in self-expression and teamwork is also expected to be realized. Within this activity, teachers can modify it based on students' responses as well as time limits and this guarantees teachers' great control of the whole procedure which may in return motivate teachers to try more in future classes (Palmquist 2021).

4 CONCLUSION

This in-class activity is easy to implement as it needs very limited assistance of technology, and quite easy devices such as a computer, a screen, or even just mobile phones. However, in contrast with the convenience of the application, it may put a heavier requirement on teachers' knowledge of words, their ability to react quickly to some unexpected answers, and their control of the whole procedure. As some teachers responded in the previous study, control of class can change their attitudes toward applying gamification in their daily courses. If the process is smooth, they may remain positive and even want to make some improvements or even innovative designs to create a better combination of gamification and the content of the lessons they teach. Otherwise, they may lose the motivation to try gamification. However, this activity still needs some modification when being introduced to wider classes, such as a more systematic design of procedure and more comprehensive research on the outcomes of students before and after the introduction of gamification.

Meanwhile, this activity is not like an extra-rewarding-related traditional game. As for second-year college students, these extra rewards may not work as expected. However, students can still get involved in this easy word-expanding game, and maybe here intrinsic motivation serves more than extrinsic. Therefore, it may also be important to conduct further research on college students' intrinsic and extrinsic motivation and consider the ways to enhance their intrinsic motivation.

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From English learning in classroom to living in the English-speaking country: The impact of virtual reality technology on learners in college English class

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ABSTRACT: This article discusses the application and rationale of applying virtual reality technology based on gamification thinking in English teaching in higher education contexts. Studying in English-speaking countries is popular among Chinese students. On the one hand, these students have access to good education re-sources; on the other hand, they also face some challenges. The main purpose of this paper is to improve spoken English of college students who will study abroad for further education in informal contexts. Furthermore, the paper tries to integrate modern educational technology, virtual reality technology, into the college English classroom in a gamified way and to illustrate specific game teaching methods and mechanisms. The works of literature about second language acquisition and gamification teaching are to support gamification teaching methods and mechanisms. It also discussed the limitation for applying VR in English learning teaching and learning. This paper informs future game-based teaching practices. The advancement of virtual reality in education requires transdisciplinary collaborations in large-scaled and longitudinal research.

Keywords: Language learning, virtual reality, gamification, game-based learning

1 INTRODUCTION

From 2019–2021, the United States and the United Kingdom are the top two destination countries for Chinese students to study abroad, with approximately 1.07 million and 550,000 students going to the United States and the United Kingdom, respectively (Wang 2022). With the opening of borders and gradual relaxation of entry policies in each destination country, as well as the full opening of face-to-face courses in universities, the number of Chinese students studying abroad will rise significantly after 2022. Improving one's practical English in English-language living scenes is one of the purposes of studying abroad for students (Wuxi Friends Service 2019). More and more Chinese students want to continue their further study and experience a different lifestyle in an English-speaking country after obtaining their bachelor's or master's degrees. At the same time, it is reported that Chinese

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students have a low overall assessment in interpersonal communication, especially a lack of understanding and integration into the local culture, which can be one of the factors affecting their continued living and working in the destination country (Wuxi Friends Service 2019).

At present, the teaching content of most college English (non-English majors) is still mainly exam-oriented towards passing College English Test Band 4 (CET4) and College English Test Band 6 (CET6). They are national teaching examinations administered by the Department of Higher Education of the Chinese Ministry of National Education. Passing the exam is the first purpose of college English teaching. English teaching in the classroom lacks interactions (between teachers and students, and between students and students) (Xi 2018). Although 85% of universities have abolished the policy of linking the score of CET 4 to graduation and degree certificates, there exists some universities which still focus on CET4 and CET6 in their English classes to improve students' passing rates (Qiao *et al.* 2010). Even if students succeed in the language exams, they are still not able to solve practical problems in daily life scenes (English). Three factors may contribute to this problem.

- 1) the single mode of teaching instruction (Xi 2018);
- 2) most university teachers lack the ability to integrate IT with course content;
- 3) the size of English classes makes it impossible to tailor teaching to their needs (Qiao *et al.* 2010).

The learning environment has a great influence on learners. Education should be characterized by experimental and experiential features (Dewey 1916 & Huang *et al.* 2010). These two characteristics can be facilitated through the application of virtual reality technology in education. Gamification can apply game mechanics and other game-like elements to various types of educational contexts, which can produce a positive effect on increasing learners' motivation, engagement and learning experience. It can help learners to engage in exploratory learning and deep learning and to a certain extent, facilitate the internalization of learners' knowledge. At the same time, the fact that the application of virtual reality technology can facilitate personalized learning, i.e., provide relatively tailored courses based on learners' claims and abilities cannot be overlooked. Virtual reality technology allows students to learn at their own pace, which is a tremendous help to the dilemma in the current teaching situation of college English (Angeloni *et al.* 2012; Chang *et al.* 2014; Gieser *et al.* 2013).

For students who have completed their undergraduate studies in China and intend to go abroad, traditional exam-oriented English language teaching has gradually become incompatible with their learning needs. To improve students' learning experience and language competency, it is worth exploring the use of modern technology to improve students' language learning experience. This paper will focus on the possible impact of introducing VR technology in the form of gamification into the college English class to improve students' communication skills and problem-solving abilities in real-life English contexts.

2 LITERATURE REVIEW

2.1 *Game-based learning*

Game-based learning is a description of a learning environment. In such an environment, participants can deepen their knowledge or acquire skills through the game content and game mechanics, thus giving themselves a sense of achievement (Kirriemujr & McFarlane 2004; Prensky 2003). Traditional teaching methods tend to allow learners to acquire knowledge by getting a correct answer or a standardized set of results, which not only hinders learners' creativity, but also their communication, collaboration, critical thinking and problem-solving skills (Plucker & Makel 2010). The advantage of game-based learning over

traditional classrooms is that it can provide learners with the possibility to explore new knowledge and skills (Boyle *et al.* 2014). For example, some schools in Hong Kong encourage teachers to develop or adopt new teaching methods in their classes to foster students' creativity (Chan & Yuen 2014). Game-based learning models require designers to be familiar with new media and technologies and require developers and implementers to think creatively and critically to produce superior results for learners than traditional classrooms. However, there is a lack of significant and consistent empirical research evidence on the effectiveness of game-based learning.

2.2 *Virtual reality and language teaching*

With the development of technology, virtual reality technology has shown unique advantages in the field of foreign language education. Virtual reality technology can provide a high degree of immersion and allows users to interact in virtual scenarios, providing a learning environment that combines multimedia and immersive learning experiences, thereby stimulating the interest of experiencers in its application (Blyth 2018; Hsu 2017; Wagner & Ip 2009). Currently, virtual reality-supported language learning is divided into three categories: 1) virtual reality environments developed by language educators themselves, 2) commercial social or gaming platforms and 3) augmented reality-supported language learning resources (Wang *et al.* 2020). Among them, commercial platforms are the most widely used, but their original intention is to entertain. Thus, some scholars suggest that language teaching and learning research experts need to collaborate deeply with technical staff to develop suitable virtual reality platforms for language education and promote students' foreign language acquisition (Colpaert 2018).

The current advantages of virtual reality technology applied to language teaching fall into three main categories. First, the anonymity of the learning participants. This point can reduce learners' foreign language learning anxiety, enhance learners' interests in learning, and then learners' enthusiasm to participate and reach a certain amount of input and output. Second, the authenticity of the scenario. It is believed that it can improve the learning experience of the learners and make the learners enjoy learning. Third, the real-time nature of learning (Yang *et al.* 2010). In an authentic interactive environment where feedback is received in a timely manner, language problems can be targeted, and language barriers can be broken (Lan 2015).

2.3 *Input hypothesis*

Language acquisition can be completed when language learners are exposed to comprehensible language input contents, i.e., learners' new input language material needs to be slightly higher than their own current level (Krashen 1982). At the same time, effective input language learning content needs to be relevant to the learner's real life or needs, with lively and interesting contents and the overall amount of non-grammar programming and input needs to be adequate (mainly consisting of listening and reading) (Krashen 1982).

In the process of conversation, if interlocutors can be successfully understood by others, the corpus indicates that the correct level of input has been reached (Krashen 1985). In this case, the process may be a successful language acquisition if the interlocutors, i.e., the learners, selectively receive a part of the input and are able to express themselves in the correct linguistic form (Zhang 2009). Therefore, effective communication is crucial for second language learners and the interaction means using the target language to convey their purposes. The introduction of emerging technologies can help learners to enrich the way and content of interactions and through various interaction methods and input of effective corpus, it is highly likely to stimulate effective input and output from learners and demonstrate their language skills and abilities.

3 GAME ASSUMPTIONS

3.1 *Research subjects*

To respond to the questions of this study, the authors describe the profile of the learners as follows:

- Students who have the intention to study in English-speaking countries after graduating from colleges.
- College students in their junior or senior year, as English is no longer a required course for non-English majors at the end of their sophomore year due to the English curriculum in most colleges and universities.
- Students who need to improve their practical skills in the target language.

3.2 *Theories*

3.2.1 *Constructivist learning theory*

According to the constructivist theory, learning is a social activity (Hein 1991). Language learning is not a single connection that arises only with oneself or other books but with people and the human activities around them. According to Dewey, education is a social activity and includes the interaction of dialogue with others and the application of knowledge as an integral part of learning.

3.2.2 *Magic circle (Plass et al. 2015)*

Magic Circle is a relatively generalized game model. It mainly consists of challenges, responses, feedback and game design elements. The game provides the player with a corresponding challenge in the initial state and the player generates a corresponding response to this challenge. Then the system gives the player the next challenge after the corresponding feedback according to the player's choice. Finally, the cycle of challenge, responses and feedback is created (see Figure 1).



Figure 1. Magic circle (Plass et al. 2015).

3.3 *Game scenarios*

Several research has shown that different social contexts produce different linguistic behaviors; for example, there are considerable differences between Australian English and American English. Although people use the same language, socio-cultural differences

produce very different expressions (Wierzbicka 1985). Therefore, the experience of cultural differences cannot be experienced by imagination and textual narration alone without actual participation in a life situation, i.e., effective language training is not possible. Virtual reality technology can place students in real-life situations and simulate real-life scenarios and conversations (Parmaxi & Demetriou 2020).

In a systematic study of VR devices, immersive devices are classified into three levels: 1) augmented reality (AR); 2) virtual reality VR; 3) and mixed reality (MR). Based on the need for picture, sound, and scene simulation for language learning, virtual reality (VR) achieves a perceptible sense of co-presence and full immersion (Liberatore & Wagner 2021).

For example, students can see a supermarket in the city of the target country, or even cross the streets with exotic features into the supermarket, see rows of shelves displaying exotic goods, and can have a conversation and consultation with the salesperson, and then complete a complete shopping behavior through VR. In the process of language learning, cultural information is naturally and richly conveyed, which may be not possible in the traditional classroom (Yang *et al.* 2010).

4 GAMEPLAY

4.1 *Gaming devices*

Studies on the application of virtual reality technology mention that more and more universities and laboratories are researching and developing more sophisticated VR systems. Virtual reality technology has also matured and is effectively used in education (Bricken 1993). Based on the comparison of various stages of VR device research, immersive VR is a 3D environment presented through a 2D display, while low immersive VR is based on traditional devices such as a mouse and keyboard. To show more realistic scenes, people studied with highly immersive VR bit game devices. Since the era of LiVR, technological advances have brought great convenience to the utilization of VR and today it is possible to experience highly immersive VR (HiVR) through VR headsets, greatly enhancing the sense of presence (Guido & Gustav 2019). Studies have shown that VR is a relatively easy mode of instruction, which can provide realistic conversational scenarios for oral practices (Dhimolea & Lin 2022; Gruber & Kaplan 2012). Therefore, immersive VR has the potential to be successfully applied to language learning by providing realistic communicative opportunities to facilitate students' second or foreign language learning, improve language learning out-comes, and enhance cultural adaptation skills.

4.2 *Game mechanics*

Studies have shown that in games, participants can practice their language skills by solving problems (Chorney 0212). If a game is to be used to solve the problem of foreign students' early adaptation to a foreign language environment before going abroad, then the language problems that they may encounter should be presented in the game. Therefore, the game targeting pre-departure international students will be designed as an RPG in which the player is thus able to play the role of a first-time international student and with real life abroad as the back-ground, the player will continuously solve the problems encountered in his or her life and thus problem-solving skills will be improved. According to game mechanics-related research, the main rules of gameplay for pre-departure international students who need to adapt to the foreign language environment are as the Table 1 shown (Wood & Reiners 2013).

The game includes most of the life scenes that international students will encounter and uses real NPCs to create real connections between players and people, such as hospitals, police stations, banks, barber stores, supermarkets, etc. If teachers put a single phrase into a

Table 1. VR game mechanism in english class.

Item	Explanation
Progression	The game is developed according to the four years of admission-graduation and the game tasks are issued on a weekly basis.
Challenge	In each stage: tasks from simple to difficult can include and are not limited to taking public transportation, ordering food, applying for scholarships, joining clubs, working part-time, and job interviews. Players will continue to solve problems in different scenarios through conversations with NPCs. During the dialogue, the system will give three options, from which the player will choose an appropriate sentence to communicate with the NPC.
Feedback	After the player makes a choice, the system will promptly feedback the correct answer.
Achievement	Obtained based on the content of the challenge and the corresponding percentage of correctness.
Ownership	Depending on the completion of part-time tasks or scholarship application tasks, players will earn corresponding income.
Transactions	The income can be spent in any spending place present in the game.
Cooperation	The game is divided into single-player mode and online mode. The online mode allows multiple players to complete cooperative tasks together.
Stochastic	Design change events (such as finding money on the ground) outside of daily tasks to add interest.

textbook, students will not have a strong sense of interaction and may treat it as traditional learning material. When they face a challenge in daily life, they will be at a loss. The positive effect of learning in a way that connects with real people is undoubtedly greater than just reading books. The application of virtual reality technology puts the user in these scenes, and each scene triggers the corresponding characters and episodes, and through interactive activities such as dialogue and communication, the user is firstly immersed in a foreign language environment. Secondly, the content of the dialogue is set to be a non-textbook type of practical foreign language, and the communication problems that may be encountered in the life of studying abroad are solved through human-to-human information interaction and communication.

5 IMPLICATION

With the innovation of technology, there are more and more practical and theoretical studies on the integration of technology and education. The problems and dilemmas of language teaching and learning that are limited by scientific and geographical factors can be alleviated with the help of advanced technology. Firstly, it will enhance students' motivation in language learning. Secondly, instructions for game-based learning will encourage language teachers to upgrade their information technology teaching skills. Finally, it can also promote technicians to develop new technological skills for specific problems in educational contexts. Technology-enhanced language teaching and learning may be an appropriate way for innovating language teaching in English language learning class.

6 CONCLUSION

With tens of thousands of college students going abroad each year to further their studies, the use of virtual reality in foreign language learning can be beneficial for all participants. For learners, it helps them solve their language difficulties as much as possible in an academic environment and may ease the stress on students' minds in a foreign country in

advance. For educators, the use of VR can improve their teaching skills and scope of knowledge. Meanwhile, it can facilitate communication amongst stakeholders with different areas of expertise. For VR technology creators, they can have opportunities to shape more collaborations in VR language education. However, from a practical point of view, VR applications in college English classes will face limitations for both objective and their own subjective reasons, including the funding for equipment, the discomfort of using VR devices, the curriculum for college English and different willingness for studying abroad. The development of VR technologies in the university English teaching environment will call for critical awareness of technology ethics and require more empirical and longitudinal research. The integration of VR technologies in education is conducive to teaching reform and provides new possibilities for a university English curriculum in the long term.

AUTHOR CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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Using computer game to motivate the accumulation of life knowledge for preschool children

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ABSTRACT: The rapid advancement of science and technology in this new era of the Internet has had a significant impact on people's education, and the use of games in the classroom may significantly aid students' learning. Especially for preschool children, because there is no excessive learning pressure, it is most important to cultivate children's learning interest in game education, and to understand and master life knowledge in a pleasant classroom atmosphere. Therefore, computer games can be used as a tool to assist teachers in explaining life knowledge to children. This study focuses on how to promote the accumulation of life knowledge of preschool children, so as to achieve the comprehensive development of physical and mental health, from the perspectives of child psychology, Game-based learning, and constructivism through game design and literature review. This study found that if computer games can be applied to children's education, the current boring learning atmosphere can be changed, and it will be easier for teachers to teach, and the learning and accumulation of daily life knowledge will be more vivid and vivid. Therefore, the introduction of computer game education into children's education can improve the efficiency of classroom learning by influencing children's learning initiative and achieve comprehensive physical and mental development.

Keywords: children, learning, computer games, life knowledge

1 INTRODUCTION

With the continuous development of science and technology, game education using modern educational technology has become an important part that cannot be ignored in the field of modern education. This kind of game education is a relatively new way of education. It combines games and education closely. Through the form of computer games, children can learn knowledge and accumulate experience while entertaining. The development of game education can not only improve children's learning interest, but also help children better understand and master knowledge, and promote children's all-round development. Therefore, using game education to promote children's knowledge accumulation has become an important research direction in the field of modern education.

The "Guidelines for Early Childhood Education (Trial)" recommends "to effectively use modern educational methods in the daily life of young children", which reflects the country's emphasis on early childhood education and strongly supports the role of modern technology in early childhood education (Ministry of Education of the People's Republic of China 2001).

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But at present, the application of games in the education of college students and teenagers has received widespread attention from educators, and a lot of theoretical research and practice have been carried out. At the same time, research on the application of educational games to children's teaching has not received enough attention. In children's education and kindergarten classroom teaching, children's teaching is mainly based on teacher lectures and traditional games, and computer educational games are rarely used as teaching tools. This kind of teaching method mainly focuses on children cooperating with teachers, which will lead to a boring classroom atmosphere and gradually lose interest in learning. In recent years, the gamification of kindergarten curriculum has been listed as the teaching focus by various education experts and teachers, so as to achieve Piaget's theory of learning by playing and learning by playing, but it ignores the role of modern educational technology in kindergarten game education. Games still only emphasize sports games, role games, etc. However, if modern educational technology is integrated into children's teaching and computer games are used to teach children to learn in a lively and interesting environment, it can better help children understand and master knowledge and promote children's all-round development.

The use of modern educational technology in early childhood teaching will have a significant impact on the physical and mental development of young children. Compared with traditional education methods, computer games can better attract children's attention and improve their interest in learning. Game designers can attract children's interest and make them more willing to learn through rich game scenes, interactivity and reward mechanisms. In addition, computer game education can allow young children to master learning initiative, rather than being forced to absorb knowledge dictated by teachers. Children can practice in the image game to consolidate teaching knowledge.

At the same time, the application of modern educational technology will bring great changes to teachers. Teachers can use computer games as an aid to prepare and teach lessons, and use digital media to teach more vividly and help children understand the teaching content. Moreover, teachers can reduce a lot of unnecessary time consumption and devote a lot of energy to teaching instead of making teaching aids.

Many educational experts have conducted many experiments to prove that computer games are of great significance to the development of young children. A study on the positive effects of computer game activities on young children's development was carried out by Clement et al. Four-year-old children were the subjects of a nine-month study, and the findings revealed that children who lived in computer-equipped classrooms improved their self-esteem more than those who did not (Clements & Swaminathan 1993). Haugland contends that young children's perception of computers as "adult machines" is the reason why computer games can benefit them. Young children feel very important and capable when they are given the chance to investigate and use these "adult machines". Exact research hasn't demonstrated how computers affect children's self-concept development. However, over the years, teachers' life experience has demonstrated that when teachers provide kids developmentally appropriate computer experiences, computers can actually help kids understand themselves. In other words, computer games and other activities allow kids to fully express and discover who they are. They are capable of taking charge of their own activities without interference from others, finishing jobs on their own, and enjoying success (Haugland 1996).

Based on the analysis of the psychological theory of computer game education and the theory of computer game design, this article shows that modern educational technology is applied to children's teaching to promote children's accumulation of life knowledge, so as to achieve the effect of children's overall physical and mental development. This study designs a small game of garbage sorting as an example, conducts theoretical analysis, and shows that computer games can have a significant impact on the accumulation of children's life knowledge.

2 THEORY REVIEW

2.1 *Psychological theory in game design theory*

2.1.1 *Goal-setting theory*

According to goal-setting theory, goals directly motivate action by shifting focus and effort from goal-irrelevant to goal-relevant activities, energizing effort, and boosting perseverance. Goals also have an indirect impact on action through the employment of task strategies. In other words, self-regulatory mechanisms link objectives to performance. The best sort of goals for motivating behavior are challenging, precise ones. Additionally, the fundamental premise is that people behave differently because they have different goals (Locke & Latham 2012).

2.1.2 *Theory of learning via condition*

Operant and classical conditioning are two of the most well-known and ancient theories of learning. Opportunistic conditioning, one of these two theories, is a type of learning based on behavioral consequences. The three-phase process, sometimes abbreviated ABC, best describes the process: an antecedent event or stimulus, a behavioral reaction to that stimulus, and a consequence based on that response. In operant conditioning, learning is centered on consequences. Reinforcement or punishment can result in behavioral repercussions that either boost or diminish a certain response. Operant conditioning frequently takes the form of conditioned reinforcers in gamification (Reiners & Wood 2015).

2.2 *Child development theory*

Jean Piaget's theory of cognitive developmental stages was introduced into the classroom through Bruner's research. The Process of Education, one of his books, had a significant influence on the curriculum-reform movement at the time. When taught properly, he said, children can learn about any subject at any stage of development. Bruner thought that all kids had an innate curiosity and a desire to master a variety of academic skills. When given a challenging assignment, children get disinterested. Children should be given tough assignments that don't overwhelm them at their current developmental level. The job must also be introduced in a context of planned interaction between the adult and youngster. The challenge should advance the kid's abilities. This structure was referred to by Bruner as "scaffolding." It makes learning easier by restricting the child's options, or "degrees of freedom," to manageable levels. Additionally, Bruner promoted the "spiral curriculum," in which students are exposed to a variety of subjects each year that increase in difficulty (Saracho 2023).

2.3 *Game-based learning theory*

Game-based learning is a method that uses game elements in education to improve student engagement and learning outcomes. Game-based learning can enhance the fun and challenge of learning, stimulate students' interest and motivation, and promote learning outcomes 5.

"A system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome," according to Salen and Zimmerman, is a game. Games for learning may be described as games with particular learning objectives to broaden the term. There is no universally accepted definition of games among theorists, but most concur on the traits that define games: they are rule-based, adhering to clearly defined rules of play; responsive, allowing player actions and providing system feedback and responses; difficult, frequently involving an element of chance; progress within a game is typically cumulative, reflecting previous actions; and finally, games are inviting, encouraging the player to engage (Plass *et al.* 1999).

2.4 *Flow*

Flow is a state of complete absorption or engagement in an activity. The flow experience—is what the people who want to enjoy in some activity feel when they're doing things that are so enjoyable that they want to pursue them for their own sake (Csikszentmihalyi 2014).

2.5 *Constructivism theory*

Constructivism theory suggests that learning is an active, personalized process, and students should build their own knowledge structures through interaction and exploration. Games can provide an interactive environment that allows children to build their own knowledge structures through practice and exploration (Fatimah & Hidayat 2022).

3 THEORY-BASED GAME

3.1 *Game mechanics*

This game is mainly aimed at the group of children aged 3–6, involving life knowledge games in the five major fields of health, language, society, science, and art. The game is to allow children to learn different common sense in life through different games. It can be realized in classroom teaching that young children play small games in a short period of time (to ensure the length of the game, so as not to damage the children's eyesight). The game mainly assists teachers in teaching, and the design of each game is based on the "Guidelines for Early Childhood Education (Trial)". There is a corresponding close connection between each game, and it can be played in a certain order, which can better help children learn knowledge in a certain field of life step by step. In addition, AI technology can also be used to actually play some virtual games to restore scenes in life, simulate some behaviors, and then receive education.

Young children produce different game results by choosing the behavior and dialogue of the characters in the game. Haugland, an American early childhood education software developer, believes: Children are not little grownups. Physical, psychological, emotional, cognitive, and social demands are different for them. Early childhood software should be created with the individuality of young children in mind. Early childhood software has to be healthy and developmentally focused, much like other educational tools offered to young children. Haugland pointed out that early childhood educational software should not be "training-Instead of "practice" software, "developmentally appropriate" software should be designed based on theories of child development (Haugland 1992). Such "developmentally appropriate" software should have the following ten criteria: age appropriateness; child control; clear instruction; extended complexity; independence; nonviolence; process orientation; simulation of real life situations; Features; Transformability, these ten criteria provide a reference basis for adults to choose early childhood education software. It is these "developmentally appropriate" software that realize the value of computer play activities for young children. This game can satisfy the simulation of real life situations as the basis of the game and extend the knowledge.

3.2 *Game example*

3.2.1 *Game scene*

This game restores the scenes in life, and children can effectively apply the knowledge learned in the classroom to life. In this garbage sorting game, as the difficulty of the game increases, from family life scene garbage to community garbage to park garbage to entire city garbage. The first act of the game for young children begins with classifying kitchen waste, domestic waste, and white waste in family life. Create real characters (such as toddlers, parents, grandparents) in family scenes, and create real situations, such as

grandparents throwing discarded batteries into kitchen waste because they are too old to know how to classify, and let young children pick out mistakes. and classify correctly.'s development is reflected in the fact that children learn the knowledge of garbage classification from easy to difficult in the process of relaxing and pleasant games, and deepen their understanding of garbage classification in practice, so as to develop the correct habit of garbage classification, which is in line with the law of children's physical and mental development. The flow theory is mainly reflected in the game scene. Users can fully immerse themselves in the real garbage sorting scene simulated by the game, concentrate their attention, and have an immersive learning experience of gamification. At the same time, the game creates a real situation (discarded batteries are thrown into kitchen waste) to exercise children's ability to practice and apply the knowledge of garbage classification they have learned.

3.2.2 *Game settings*

Step 1: Wear equipment. For some corrosive garbage, it is necessary to wear relevant labor protection equipment or anti-corrosion equipment during the process of handling and controlling it, and the corresponding equipment must be worn before the game starts.

Step 2: Drag and drop classification.

There will be different types of garbage in the game, and children need to drag and drop the garbage into the correct bins.

Step 3: Identify and classify.

Toddlers need to put the garbage into the correct sorting bin by clicking the garbage icon or saying the name of the garbage, and the game will give correct and incorrect feedback.

Step 4: Game levels.

There are multiple levels in the game, and each level has different garbage sorting questions and difficulties. Toddlers need to gradually improve their garbage sorting ability by completing each level.

Step 5: Reward mechanism.

A reward mechanism can be set in the game. For example, when children complete a certain number of garbage sorting tasks, they can get in-game rewards or unlock garbage sorting knowledge in new levels or the next topic.

Step 6: Challenge mechanism.

Complete the task within the time limit or avoid putting the wrong garbage into the trash can. If people succeed in the challenge, they will be rewarded twice, and if they fail, they will lose points.

3.3 *Game strategies*

- 1) While teaching, teachers use this garbage sorting game to help children understand the garbage knowledge taught in the classroom, so that children can master autonomy and try to apply garbage sorting knowledge in the game. Game-based learning theory is reflected in this strategy. Computer games for sorting garbage can increase the participation of each child in learning, enhance the fun and challenge of learning, stimulate students' interest and enthusiasm, and promote learning outcomes.
- 2) In addition, before the game starts, the teacher can make it clear that every time a small knowledge of garbage classification is learned in the game interface or a classification practice in a small scene is completed, a gold coin can be obtained. This is a positive reward mechanism based on Theory of learning via condition, which is formed by obtaining conditional reinforcers.
- 3) What's more, teachers design instructional objectives for each lesson and select corresponding part of the game to achieve this goal. The second lesson consolidates the previous garbage knowledge, and then the teacher will explain the simple classification

knowledge to cooperate with the use of the second part of the mini-game in the game. Here, due to the stage goal theory in the goal-setting theory, in order to conform to the laws of children's physical and mental development, teachers should not rush for success and instill too much knowledge at one time. Completing each small goal in this way is conducive to the realization of the subsequent overall goal.

Chinese educators Wang Yan, Jiao Yan and others also pointed out that by optimizing the environment for children's computer activities, the adverse effects of computers on children's development can be reduced. For example, by creating a good light environment, children's eyes are about 50 cm away from the screen. And keep the angle of overlooking the computer at about 20 degrees, take a break after operating for 10 to 30 minutes, and other measures can avoid computer damage to children's eyesight (Wang & Yan 2003).

4 LIMITATIONS

Based on the analysis of the theory of game education, this paper designs a small garbage sorting game to show that game education can promote the accumulation of children's life knowledge. This kind of computer games could help teacher to attract children's attention in vivid and challenging games, actively learn knowledge in life, and promote the development of children's thinking ability and imagination. A good classroom learning atmosphere can improve children's enthusiasm for learning, stimulate their enthusiasm for learning, and promote their physical and mental health.

But there are certain limitations in the design and implementation of such games.

1) Computer equipment:

It is relatively difficult to achieve one computer per class per person in each region to participate in the classroom. Considering the impact of price factors and parental support factors, it is a problem whether such games can be implemented and the impact of computers on children's vision.

2) Teaching method:

What kind of teaching strategies and teaching methods should teachers use to effectively focus students' attention on the classroom, improve game participation, and better use computer games for teaching, especially to avoid the situation that children are only addicted to computer games and ignore classroom knowledge.

3) The individual lacks the ability to conceive the overall game, so the analysis just starts with the garbage sorting game in the theme of environmental protection.

In the future, for children's computer game education, the author thinks the following changes can be made. To address the problem of computer equipment, first of all, the government and enterprises can increase financial support and design children-specific computers. Secondly, when the economic conditions are not met, 2-3 people can use a computer, so that group discussions can be held for some children who are difficult to operate. In addition, the public is very concerned about the impact of computers on children's eyesight. The author thinks that while designing children-specific computers, it may be possible to consider replacing the computer screen material or increasing the distance between children and the computer with a fixer. If these measures can be implemented in the future, perhaps preschool children's game education can better promote the accumulation of children's life knowledge and achieve comprehensive physical and mental development.

5 CONCLUSION

Through research, this paper finds that using Goal-setting Theory, Theory of Learning Via Condition, Child Development Theory and other concepts can design computer games that conform to the laws of children's development to help preschool children understand and

master life knowledge. In addition, on the basis of understanding these concepts, this article simulates and designs a small computer game for garbage sorting as an example to prove that computer games can bring more new and good influences to young children. Moreover, the use of small computer games for classroom teaching can not only help children accumulate common knowledge of life, create a relaxed and pleasant classroom atmosphere, and even provide the possibility for the use of modern educational technology tools to realize the educational concept of entertaining and entertaining. However, there are still deficiencies in the current research, and future research needs to be further practiced in the classroom. According to the feedback of classroom responses and learning effects of preschool children, teachers should make timely changes to teaching strategies and modify computer games. It is more in line with the law of children's development, helps teachers improve classroom efficiency, and promotes the overall physical and mental development of children.

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Designing a game that helps students learn practical English and build English communication skills

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ABSTRACT: Based on the overall economic situation of Chinese cities and the special situation of Chinese college entrance examination, this paper takes the popularization of gamification education as a jumping point to consider an innovative idea to solve relative problems. The theme of this paper is to design a video game that can help high school students acquire multiple abilities and practical English skills and try to solve problems in a multi-element approach. The most common research method used in this paper is content analysis, which is mainly based on the theoretical output content of scholars such as Laine and Killi. From a realistic meaning point of view, this paper provides practical examples and inspiration for technical experts studying GBL and educators leading AI innovation in education. The gamification of education is still a brand new field, and the interdisciplinary exchange and the collision of ideas of scholars will make the subject content more and more substantial.

Keywords: Gamification Education, English learning, Simulation reality

1 INTRODUCTION

1.1 Background

First, the economic strength in most regions of China is not powerful. High-tech equipment for gamification teaching can only be seen randomly in economically developed cities such as Beijing and Shanghai (Han 2020; Yan *et al.* 2018). The reason for this phenomenon is not entirely because people have little understanding of gamification teaching, but it is often too expensive to purchase educational technology devices (such as VR glasses). For cities of development in pluralism, students' vision and ability can be more comprehensively developed, so the requirement for outperformance in a single academic field is reduced. On the other hand, students who live in small towns may never have taken the subway or interacted with a foreign teacher before. More than 800 thousand people took the college entrance examination in Shandong province, and Henan province has reached 1.25 million. If they want to stand out in the competition, they can only do a lot of test papers to improve their academic performances. Based on the current situation of these provinces, the examination paper questions in these provinces are becoming more difficult. This has led to an imbalance among college students: those good at high scores but lack comprehensive literacy, or those who find it too difficult to be among the best. Second, gamified learning progress was proven to have a beneficial result on students' diverse abilities such as creativity, social skills, and critical thinking (Huizenga *et al.* 2009; Naeini & Masood 2012). So, it is necessary to create a

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game that allows students who have never had any contact with gamification education to gain verified skills.

1.2 *Theme*

The main content of this article is to design a game using theories of game-based learning to help students in more traditional teaching areas such as Shandong province to build English communication skills through English learning progress, and broaden the use of gamification education in secondary education while urban-rural integration zone covers a significant proportion of China's land (Sun 2023). The game was designed based on a set of theoretical assumptions about pedagogy theory, psychological theory, and some specialized theories of game design.

1.3 *Significance*

Students who learn from this model can gain abilities they never met in exam-oriented education. This game gives the English subject practical significance, and help high school students build English communication skills and act naturally in various situations. The game has changed the traditional education mode, allowing students to improve their autonomy in learning, reduce their dependence on teachers, and improve their ability to actively acquire knowledge.

2 LITERATURE REVIEW

2.1 *Constructivist learning theory*

This model is based on a constructivist learning theory. Constructivism believes that individuals do not absorb new knowledge through learning behavior, but construct new cognitive schemas through the interaction with the external environment based on the original life experience.

The earliest proposer of constructivism can be traced back to Piaget (J. Piaget). He is one of the most influential psychologists in the field of cognitive development. Constructivism is a learning philosophy that suggests that learning is an active process of constructing knowledge and meaning from one's experiences. It is based on the idea that individuals create their own understanding and knowledge of the world through their experiences and interactions with the environment.

In constructivism, learners are shown as active participants in the learning process, rather than passive recipients of information. They are encouraged to engage in problem-solving, critical thinking, and reflection to construct their own understanding of the world. Constructivism emphasizes the importance of social and cultural context in learning and recognizes that individuals bring their own beliefs, experiences, and values to the learning process.

Constructivism is often applied in educational settings, where it is used to guide teaching practices and curriculum development. It is also used in other fields, such as psychology and sociology, to understand how individuals construct knowledge and meaning in various contexts.

Individual constructivism believes that learning is a process of meaning construction, in which learners form, enrich, and adjust their own cognitive structure through the interaction of new and previous knowledge and experience. Learning is a bidirectional process. On the one hand, new knowledge is incorporated into the existing cognitive structure and has gained new significance; on the other hand, the original knowledge and experience have been adjusted or reorganized to some extent because of the inclusion of new knowledge.

Social constructivism believes that learning is a process of cultural participation, and learners construct relevant knowledge by participating in the practical activities of a certain community. Learning is not only the active processing of individual learning content but also requires cooperation and mutual assistance among learners.

2.2 *Humanistic curriculum theory*

Humanism theory is the core theory of constructivism. Humanism emphasizes learner-centered teaching, which refers to education prioritizing the needs and interests of the learner, and in this environment, the focus is on the individual needs of each student, rather than the teacher or curriculum. It stresses educational relevancy and pays attention to the developmental laws of students' emotions, interests, and motivation. It believes that the goal of education is to develop a sound personality.

2.3 *Pragmatism theory*

The fundamental program of pragmatism is determining faith as the starting point, taking action as the main means, and obtaining practical results as the highest goal. Education is life, especially for language learning. It should come from practice to utility.

3 GAME DESIGN

3.1 *Aim*

English is more about using and talking, so this game aims to build students a natural way of communicating with foreign people. It uses proper interaction methods and pronunciation, helping them act naturally and speak appropriately in various situations.

3.2 *Model*

This game refers to Kiili's experimental gaming model (Garris & Driskell 2002). This model's main purpose is to link games to experiential learning to facilitate students' flow experience. It describes the learning process as a circular of direct experience in the game world. The model consists of an idea loop, an experience loop, and a challenge room. The core of gameplay is injecting appropriate challenges to maintain motivation and engagement. Solution generation is divided into pilot idea generation and idea generation, namely, an unstructured and chaotic thinking process and developing solutions according to the constraints and available resources of the game world. The implementation of this model is based on the immersion theory.

When students play games with the goal of improving their communication skills, they will face problems with responding or interacting with other roles in the game. First, they will act based on their existing experience and try new approaches, and then they get feedback (result). Therefore, they need to step back from that situation and reflect on what happened, considering what need to do in order to improve their outcomes. Finally, they can shape a scheme of what they learned from the situation and so their communication skills develop. This process is a loop, and it is not linear, which means students will repeat this circle in this game and in real life several times, and their communication skills become more and more sophisticated. It's also not a single loop, the user's stimulus feedback is a closed loop, and the generation of response measures is another closed loop (divided into pre-inventive idea and idea). Thus, this model not only reflects the way that students acquire knowledge through games but also reflects the feedback mechanism generated after brain mapping. It reveals the physiological mechanisms by which people get information through

things and get solutions, and this model can not only explain the impact of educational games on players but also reflects the mechanisms by which people learn to acquire learned behavior. This model has universal and broad implications.

3.2.1 *Scene*

In this modernized city, cartoon animals and personas with different appearances and personalities are doing their work and living. The settings of what's happening are based on this age people lived in at a high-level development. The characters are from different countries, which allows them to form a collision between different cultures. The language used in the game is English. Dynamic video and interaction can make students more focused, so as to achieve better learning results (Qian & Clark 2016).

Despite plants and non-living substances, all are capable of speaking and interacting with each other. The game's protagonist acts as the main character in the scene and can interact with other NPC characters. Different game scenes will use different music, as a design principle of aesthetic elements based on the MDA model.

3.2.2 *Mechanisms*

This game uses measurable and individualized controls, based on Laine's customization motivator theory (Laine, DP11, Challenge). The manipulator is the first person in the game. The manipulator of the protagonist is allowed to design his or her own outfit/appearance, such as the color of their hair and body posture of interaction, and choose the external form of articles according to preferences. Players can move the characters through keyboard or slides. The parameters of the chosen mechanism should be able to be regulated by the user, so he can customize their game experience (Laine & Lindberg 2020).

This game aims to create a more engaging learning experience, based on which a realistic scenario should be set (Laine & Lindberg 2020). In Laine's article, she mentioned should create a story that makes the player feel connected and related. This story strengthens the real-world relevance, which motivates the user to feel more realistic and better integrated. And the narrative can also add some sensitive elements such as providing positive role models and opportunities through significant characters, they may present on an "ethnic minority group, sexual orientation, or gender". That means building a more authentic world. When in a real-world context, it makes the explorer feel easier to adapt to, more likely to gain a sense of security and so feel free to explore (Laine Dp16, Exploration).

The game adopts the monetary reward and punishment mechanism. When students do something wrong, the money in their wallet will be deducted, but most of the time there is no punishment. This design rule is based on "Freedom of experimentation", which means the game should not scare or put too much pressure on the player and conflicts with the purpose of gamification teaching (Laine & Lindberg 2020).

When the player goes to the field scene multiple solutions are able to solve the problem and the order and choices of solving are up to the player's decision, and also the map gets enough detail. The game should provide diverse paths or options and a flexible ordering of events for users to achieve the goal or fulfill the task (Laine & Lindberg 2020). The map of the scene is semi-hidden, only after the player passes through one scene can they unlock another scene. The unlocking of another scenario is chosen by the player himself to create a clear, meaningful, and achievable goal (DP25 of Laine, Goal). While unlocking the scene, some challenge games are also unlocked. In the challenge scene, words and expressions that are already learned will pop up on the screen. Wrong answer more than three times fail, answer ten times successfully, getting money reward.

Offline exams will be conducted simultaneously with the game process. Educational games should be able to convince the player that beyond entertainment, there is a deeper meaning in playing this game (Laine & Lindberg 2020).

Laine's design principles are consistent with John Keller's four-element motivation theoretical model of gamification learning, which includes *Attention, Relevance, Confidence,*

Satisfaction (Keller 1987). The ideas that overlap among Keller and Laine are relevance and confidence. These two design principles ensure the practicability and operability of the game for teaching and take the game experience as an important part of gamification in education and teaching. With rich, simple, and interesting games make up for the shortcomings of education, which can often be boring, theoretical, and difficult to engage people. The ARCS model excavates students' learning motivation from the above four elements, and gamified learning based on this model can also produce good results. It is worth mentioning that this four-element model is not only applicable to gamification learning but also trial for many learning methods, such as project-based learning, camp education, immersion learning, etc., which are worth applying and discussing.

3.3 *Design philosophy*

3.3.1 *Design thinking*

While designing this game, design thinking method is put into apply. Design thinking is a problem-solving approach that puts people's needs and experiences at the center of the design process. It involves empathizing with users to deeply understand their needs, defining the problem to be addressed, ideating potential solutions, prototyping and testing those solutions, and iterating until the best solution is found. It is a human-centered approach that encourages creativity, collaboration, and iteration to come up with innovative and effective solutions to complex problems.

The format of China's College Entrance Examination reflects that many students struggle for a high score and lack skills other than taking exams; students born in Rome are achieving this much easier. Thus, this game's original intention was to design a gamified model to help high school students acquire more diverse abilities. Considering high school students' status quo, the author wants to help them gain more diverse abilities to make up for the inequality in their experience absence.

As to ideating this idea, English, as a language, is not only a theoretical subject but also a discipline of a social and humanistic nature. Therefore, practitioners in education should not only let the students learn to recite words and learn to do tests but also should help the students to establish the ability to communicate with people.

3.3.2 *Bloom's taxonomy*

The six levels of Bloom's cognitive domain, also known as Bloom's revised Cognitive goal classification, are a framework for classifying cognitive goals and abilities, first proposed by educational psychologist Benjamin Bloom. These six levels include: 1. Memory (Remembering): Be able to recall the knowledge and skills learned in the past; 2. Understanding (Understanding): Be able to explain and understand the meaning of the learned content. 3. Application (Applying): Be able to apply the knowledge and skills to a practical situation. 4. Analysis (Analyzing): Be able to decompose and analyze the various parts and relationships of the learned content. 5. Comprehensive (Evaluating): Be able to evaluate the value and quality of the content learned. 6. Creation (Creating): Be able to use the knowledge and skills learned to create new things. These levels evolve from simple memory and understanding to higher cognitive abilities of application, analysis, evaluation, and creation. They can help teachers and students to better understand and evaluate the goals and outcomes of the learning process. According to Bloom's Revised Taxonomy, this game model mainly helps students at the "apply" level.

3.4 *Tips*

The game should use multiple competitive elements (points, medals, rankings, narrative) as mentioned in *Between Level up and Game Over*. It mentioned when too less competitive elements are used in a game, it may produce a negative result on their incentive. A single

competitive mechanism will make students feel stressed, thus losing motivation to play the game (Manzano *et al.* 2021).

3D animation can create powerful immersive conditions to help students learn and acquire knowledge and develop higher thinking abilities; however, 3D technology is too complex, and special courses need to be set up to help students learn the use of this technology (Xiao 2013).

4 CONCLUSION

Gamification teaching is provoked based on the development of science and technology and the change in educational environment. This article focuses on the methodology of designing an educational game based on empirical theories and hopes the game can be designed and widely used in teaching practice. The game mainly rooted in the individuality and sociality of constructivism, uses scene simulation to build the virtual world, and helps students to understand, observe, and transform the world through the learning of language art. There are two drawbacks to this study. First, as flow theory might have mentioned, 3D devices can be used in such game models although the original purpose of the game is to help students in the urban-rural areas acquire multiple knowledge, and the cost of spreading 3D equipment to every classroom exceeds the disposable income of these areas. Therefore, it still remains challenging to apply this technology to everyday teaching. Second, it is mentioned in Kiili's model that it is most effective when played on the team that the process of conception is receiving. Because the author hoped for a convenient, easy-to-use game software, there was no multiplayer mode design. As an improvement measure, if the game model or game concept enters the application stage, a multiplayer mode can be added to game to allow several players to cooperate with each other in the same game scene so as to give them a better sense of immersion.

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The influence of Mandarin tone on English intonation acquisition

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ABSTRACT: Chinese is a tonal language. Its tone is phonemic and is associated with a syllable to convey meaning. In English, however, tone is mainly prosodic. In order to gain a better understanding of the similarities and differences in the characteristics of English and Chinese intonation, how the prosodic transfer happens and affects L2 learners production and perception of English intonation patterns, as well as how tone properties in Chinese Mandarin are being transferred to English and interfere with English intonation patterns, a questionnaire is designed and statement and questions in English read by native Chinese speakers are recorded. These recordings were then analyzed in terms of stress and pitch accent under the guidance of Autosegmental Metrical (AM) theory. The results show that as a result of negative transfer, Chinese speakers are most likely to pronounce English questions in a rising tone. That is, Chinese speakers rely heavily on their in-depth analysis of the tones of the Chinese language to produce prosody in English, in particular in interrogation sentences.

Keywords: Intonation Acquisition, Second Language Acquisition, Language Transfer

1 INTRODUCTION

Since English is a lingua franca in the world, it has become the most popular second language as well as a compulsory course in China (Liu 2019). Recent years have witnessed a spurt of progress in the comparative study of English and Chinese. Previous cross-language research has mostly focused on vocabulary and syntax and usually evaluates the same feature in both first language (henceforth L1) and second language (henceforth L2). However, the possible influence of tones of a tonal language on the production and perception of intonation in another language and the prosodic transfer have scarcely been investigated (Maocan & Ajun 2017). Intonation and stress play a significant role in conveying feelings and ideas in oral communication. That is, without intonation and stress, chances are that the desired communicative effect can't be achieved (Hongliu 2009). In EFL teaching in China, the teaching of intonation and stress is often inefficient or even neglected (Hongliu 2009).

Amongst the current research and proposed arguments, McGory examined the changing stress location of word pairs in statements and questions and other conditions produced by native speakers of Korean and Mandarin Chinese (McGory & Tevis 1997). She found that both groups of non-native English speakers produced stressed syllables with higher f₀ values in both prominent and less prominent words. Moreover, the non-native speakers did not distinguish between statements and questions in their f₀ patterns (McGory & Tevis 1997).

Similarly, Nguyen et al's studied how prosodic transfer exerts an influence on Vietnamese learners of English when it comes to their production and perception of English stress patterns, and

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suggested that non-native English speakers deploy different acoustic patterns and strategies from native speakers to produce English stress, which are most suitable for their respective first language phonetics (Nguyen *et al.* 2007). Chen speculates that Chinese speakers are more likely to perceive Spanish stress patterns as a hybrid tone of rising and falling tone. With that being said, there arises the question of whether a speaker of a tonal language also produces the same kind of tone patterns in another non-tonal language, in this case English (Chen 2007). In learning English as L2, then, how do Chinese tone properties interfere with the production of tone patterns in English?

This paper aims to better explore the process of native Chinese speakers' acquisition of English intonation, thereby proposing relevant pedagogical approach to EFL teaching in China. The experiment conducted in this paper recorded a group of Chinese learners of English as to how they produce and perceive English intonation and stress patterns in questions and statements. Then, these recordings are analyzed, adopting the dual element model of intonation under the guidance of AM theory (Maocan 2004). The results show that the tone of Chinese for Chinese speakers affects their production of intonation in English and that speakers of Chinese rely on their inventory of tones in Chinese to produce English prosody, especially in the case of interrogative sentences. The similarities and differences between Chinese Mandarin and English respectively cause positive and negative transfer for Chinese learners to acquire English intonation (Chenxian 2003).

2 METHODS

2.1 *Participants*

The experimental group consisted of 60 Chinese native speakers, 40 females and 20 males, with ages ranging from 16 to 45 years. The average age was 20 years old. They took both experiments of questionnaires and sound recording. Some participants were undergraduate or graduate students, while some participants were high school students. To get accurate data, the chosen participants weren't majoring in English and didn't have extensive and professional training in English pronunciation. Besides, they had an intermediate level in English, who rated their English proficiency in pronunciation, vocabulary, and grammar as either intermediate or intermediate-high, thereby the fluency of speaking basic sentences could be largely guaranteed.

2.2 *Questionnaires*

Questionnaire surveys can save time and facilitate large-scale surveys. The survey results are easy to quantify, facilitating our statistical processing and analysis of data (Leizhen & Rong 2023).

Questionnaires would consist of two parts to collect data from a group of English learners. The first part is mainly about the learner's biographical information and English level. The second part involves questions like "difficulties do you find in learning and pronouncing English intonations" and "you have trouble understanding different meanings caused by changing intonations". Participants are asked to show their understanding of intonation and ability to correctly use English intonation by selecting the options in the questions.

3 RESULT

3.1 *Data*

By April 13, 2023, the authors had collected a total of 60 valid questionnaire information. It has to be mentioned that this questionnaire has not been completed yet. From the data the authors have collected so far, the average age of participants is 22 years old, and their highest academic level is mainly undergraduate and high school. Most of them rate their English fluency as fluent or intermediate.

Tables 1–4 show a presentation of the questionnaire data.

Table 1. Difficulties concerning english intonations.

Difficulties	Percentages
Highlight the core of the sentence by reading (understand the basic pronunciation rules of stress)	34.48%
Have rhythm when reading English sentences (can distinguish stress positions)	62.07%
Express the tone by intonation (statement and questions)	34.48%
Clarify the differences in intonation rules in Both Chinese and English	58.62%

Table 2. Ability to perceive meanings by different stress patterns.

Answers	Percentages
yes	75.86%
no	24.14%
Select the correct stress position in the example sentence. 44.83% of them correctly answered.	

Table 3. Ability to perceive meanings by different intonations.

Answers	Percentages
yes	31.03%
no	13.79%
not sure	55.17%

Table 4. Ability to produce correct intonation.

Tones	Percentages
Falling tone	24.14%
Rising tone	17.24%
Rising falling tone	37.93%
Falling rising tone	20.69%

Figures 1–4 show a presentation of recorded data. The authors selected one of the most representative subjects and compared his recordings with standard audio.

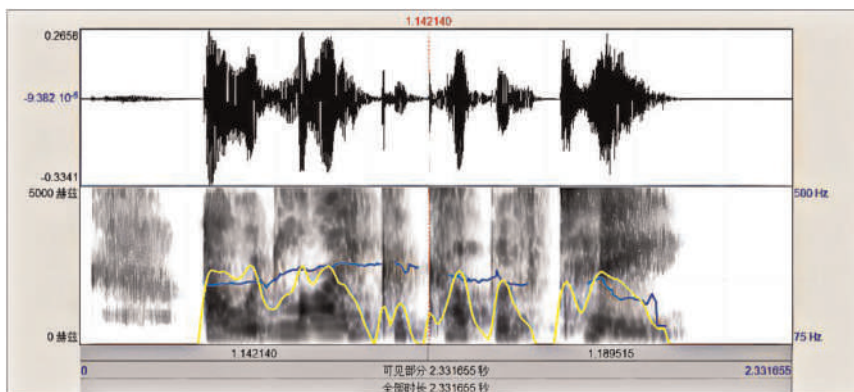


Figure 1. The standard audio of the statement: *I would like a cup of tea.*

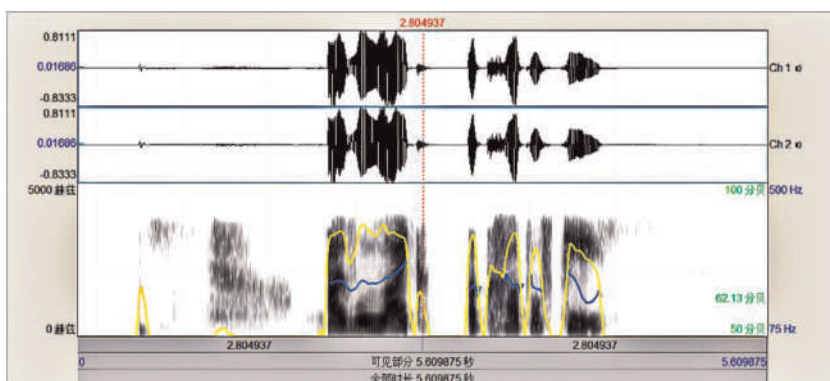


Figure 2. The audio of the participant: *I would like a cup of tea.*

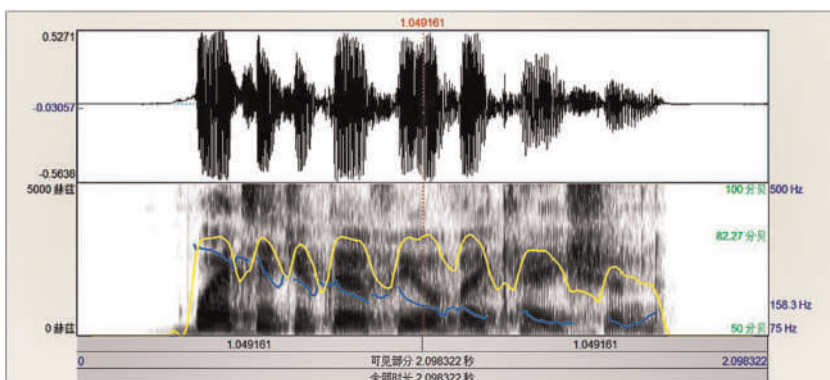


Figure 3. The standard audio of the statement: *Where did you go for your vacation?.*

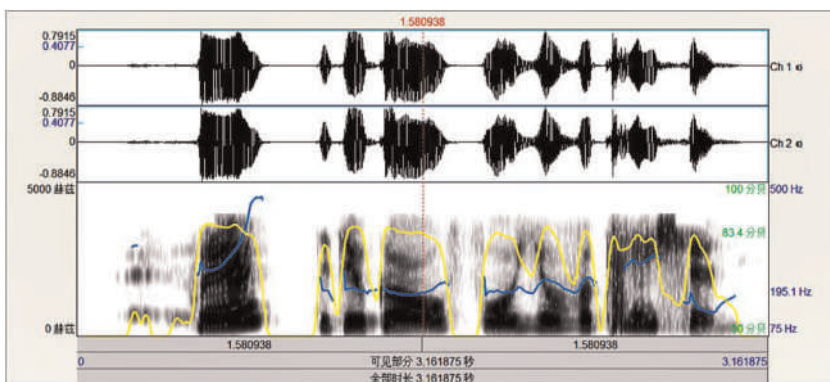


Figure 4. The audio of the participant: *Where did you go for your vacation?.*

3.2 Analysis

According to the data collected from the questionnaires, it can be noticed that most participants think it's less difficult to highlight the core of the sentence by reading, which means

understanding the basic pronunciation rules of stress, and expressing the tone by intonation, especially in statements and questions (Maocan & Ajun 2017). It is more difficult to have rhythm when reading English sentences, which means they can distinguish stress positions, and clarify the differences in intonation rules in Both Chinese and English (Maocan & Ajun 2017).

According to the data collected from the sound recordings and the analyzed audio tracks of the participants, it can be noticed that participants performed better in expressing the tone in intonation, and the sentences they speak have obvious changes in the pitches. However, they have deviations in accent position, and the tone of Chinese can affect their intonation of English.

Therefore, based on the previous analysis of English-Chinese differences in intonation based on AM theory, the similarities may help Chinese learners acquire English intonation correctly, namely producing positive transfer (Hu 2008; Maocan & Ajun 2017). These differences may make it difficult for Chinese learners to acquire English intonation, which may cause negative transfer (Chenxian 2003).

4 DISCUSSION

After analyzing the data, the authors found the correct answer rate is higher and the performances of the intonation are better than what was expected in the original assumptions. The reasons may be as follows. There were too few questions and recording requests, which might be unable to demonstrate the true level of the respondent. The number of participants is not large enough. Besides the majority of participants are college students with good English-education experience, which may lead to higher correct answer rates and better performances.

Chinese intonation of questions, to a large extent, is essential to explain the reason why English learners tend to produce all English questions with a rising tone. Speakers of Chinese reply to their inventory of tone patterns in Chinese to produce English prosody (Maocan & Ajun 2017). In Chinese, interrogative sentences end up with a rising tone, which causes a negative transfer to English learners.

In this case, both EFL learners and teachers should pay more attention to how to acquire and teach English effectively. Teachers, on the one hand, should be trained and have a thorough command of the theoretical knowledge of English phonology. Emphasis should also be attached to provide students with more time and opportunities to actually be able to practice in class.

It should be noted that the size of the sample is small in this study, which is composed of only 60 English learners' performance on English intonation and stress. The participants are mostly undergraduates at the university. That is, the results revealed in this student sampling exclude older adults' production and perception of English prosody. Hence, considering the factor of age, it is possible that the findings here cannot be applied to all similar studies due to the biased sampling profile. Further study should be undertaken to collect a larger sample of data including learners of all ages. This could be conducive to better exploring whether the performance of EFL learners in China will be less affected by the tone patterns in Chinese Mandarin as they grow older.

5 CONCLUSION

After theoretical comparison and practical inquiry, it can be concluded that for Chinese learners their first language can cause transfer in English intonation acquisition. Based on the research, the authors can better explore the process of native Chinese speakers' acquisition of English intonation, thereby proposing relevant countermeasures to make use of

positive transfer and avoid the negative in EFL teaching and learning thereby promoting the improvement of Chinese English pronunciation acquisition. This research can enable learners and teachers to attach importance to intonation acquisition and will help them better understand the underlying logic of intonation acquisition and apply theory to teaching practice. For policymakers, this study will remind them of the importance of intonation in English acquisition and ask them to incorporate intonation acquisition into the English teaching system.

This study can also be used as a comparison between the two important languages Chinese and English, which may have more general linguistic value and referential significance for the theory and practice of intonation research.

AUTHOR CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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A study on suprasegmental acquisition of Chinese EFL learners from the perspective of L1 transfer

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ABSTRACT: It is a common occurrence in China's exam-focused education system to witness highly educated college students perform well in English tests, but still struggle with spoken English, especially at a supra-segmental level. Based on previous research on L1 transfer and on phonetic characteristics of Chinese and English, the present study examined suprasegmental stress and intonation of Chinese English major college students using mixed methods of quantitative and qualitative analysis. In the phonetic experiments, six participants were required to record materials consisting of four sections, followed by a semi-structured interview during which participants were encouraged to refer to their own learning experiences. The study found that learners tend to stress on backward syllables in certain words with higher pitch and intensity in the second and third syllable. As for intonation patterns, L2 learners prefer falling tones in most sentence types and text types while native speakers apply diversified tones. The results justify previous findings by providing more evidence of the impact of L1 Chinese on L2 English suprasegmental acquisition in stress and into-nation patterns. Furthermore, the study suggests that future EFL teaching should manage to apply effective strategies to help EFL learners to overcome negative L1 transfer on supra-segmental features.

Keywords: Stress, Intonation, EFL, L1 transfer

1 INTRODUCTION

Phonetics, as a major branch of linguistics, provides a crucial foundation for language acquisition. However, in English as a Foreign Language (EFL) teaching in China, it is often relegated to a secondary position, with existing courses primarily emphasizing the acquisition of segment features such as vowels and consonants. Conversely, the suprasegmental level, which significantly influences pronunciation accuracy and communication fluency, is frequently overlooked. Unlike segmental patterns that can be improved through correction and practice, suprasegmental patterns require microscopic adjustments and refinement, irrespective of the learner's English proficiency level. Consequently, in China's exam-oriented education system, it is not uncommon to find that Chinese learners, particularly well-educated college students, score highly in English proficiency tests such as the International English Language Testing System (IELTS) and The Test of English as a Foreign Language (TOEFL), yet still speak English with a strong Chinese accent. In addition, the rapid pace of globalization leads to increasing demand for cross-cultural communication that requires EFL teaching to focus on practices and improve students' communicative competence. Therefore, Pennington and Richards suggest that priority should be given to suprasegmental features, arguing that merely teaching phonemes and word pronunciation is inadequate for students to cope with stress and intonation variations in practical communication (Pennington & Richards 1986).

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Previous research on second language phonetics acquisition has mainly focused on the segmental level. In recent years, with the shift of the focus of phonetics research, the comparison between English and Chinese phonetics has extended to suprasegmental features including syllables, rhythm, stress and intonation, and so on. Wei compared the differences in markedness between Chinese and English in terms of stress, rhythm, and intonation and pointed out that a correct understanding of these differences would benefit EFL learning (Wei 2021). However, few studies have touched upon L1 transfer on a suprasegmental level though a number of learning models such as the Perceptual Assimilation Model (PAM), the Speech Learning Model (SLM), and the Automatic Selective Perception (ASP) have been proposed by researchers in terms of their advantages and shortcomings (Chu *et al.* 2019). Gao and Qin discovered that the PAM can be applied to suprasegmental features despite the differences between word stress and intonation in Chinese and English (Gao & Qin 2012). In line with the final syllable stress theory, the study found that learners' Chinese experience somehow acts upon the perception of English words stress, causing the stress of initial-stress-syllable English words to shift backward. Additionally, learners also differ from native speakers in the use of a rising tone.

In recent years, research on second language acquisition has expanded beyond learning models and language comparison to delve into deeper linguistic features. For instance, Yu investigated how syllable position, duration, tone, and intensity impact stress perception in Mandarin and English speakers (Yu 2021). Building on this work, other scholars further extended to study how listeners adjust their perception of suprasegmental features, such as fundamental frequency (F0) and duration, based on acoustic cues (Jasmin *et al.* 2023). However, in contrast to these findings, Sun, Saito, and Tierney conducted a longitudinal study over five months and found that explicit auditory processing plays a more significant role in second language acquisition than implicit preconscious perception (Sun *et al.* 2021).

The impact of L1 transfer on suprasegmental features has been a subject of interest in several studies. Specifically, researchers have focused on negative transfer results arising from prescriptive suprasegmental features of Chinese and English. Liu examined similar dimensions of stress and intonation using recorded experiments on English major students and found that Chinese EFL learners tend to over-stress and lack linking while also demonstrating less variation in intonation. Similarly, Wang identified negative transfer in intonation, stress, and rhythm in second language acquisition due to the prescriptive difference between Chinese and English, which cannot be improved simply through mistake correction practices (Wang 2019). Shang conducted phonetic experiments using Praat on non-English major college students at the supra-segmental level, and the error analysis resulting from L1 was based on spectrum observation instead of concrete figures (Shang 2020). In contrast, research by Zembrzuski reveals that Polish–English bilingual children raised in the UK performed better in word stress than in segmental features (Zembrzuski *et al.* 2020).

Based on previous findings, the present study aims to carry out empirical experiments on the L1 transfer of suprasegmental features of stress and intonation by recording and reporting relative data on words, sentences, and passage levels, respectively. The research takes Chinese English major college students as an example and manages to draw the pattern of Chinese students' suprasegmental acquisition in order to find implications and give suggestions for future phonetic teaching of the English majors and EFL learners.

2 METHODOLOGY

2.1 *Participants*

Six participants (three male and three female) were chosen randomly from English-major college students who were born and grew up in the northern part of China and speak Mandarin Chinese, scoring Level II (able to read and talk in benevolent accuracy) or higher in

Putonghua Shuiping Ceshi (PSC, the national test of Mandarin proficiency). Participants are of similar age ranging from 19 to 21 (20.33 on average) and have similar educational backgrounds. All of the participants started learning English in junior high school and went on to further study in English major in college for another two or three years. They have achieved a score of over 550 in College English Test Band 6 (CET-6), or have got an equivalent in the Test for English Majors Band (TEM-4) test at a good level (over 70) or higher and IELTS (over 7.0). Besides, some of them have taken phonetic courses at school, which is also taken into consideration and discussion. The information of participants is shown in Table 1.

Table 1. Information of participants.

Participants	Gender	Age	English Score	Years of learning English	Experience with phonetic courses
A	Female	20	CET-6 (597), TEM-4 (Excellent), IELTS (7.5)	9	Yes
B	Female	21	TEM-4(Good), IELTS (7.0)	9	No
C	Female	21	CET-6 (567)	9	No
D	Male	19	CET-6 (578)	8	Yes
E	Male	21	CET-6 (555)	9	No
F	Male	20	CET-6 (635)	9	Yes

2.2 Research design

The research is comprised of two phases: recording experiments and interviews. The recording materials consist of four sections. In the first section, 16 disyllabic Chinese words are divided into 4 groups, in which the second Chinese character ranges from tone 1 to tone 4, and the first character within each group ranges from tone 1 to tone 4. While the corresponding English words are chosen deliberately to stress on the first syllable. The second session is composed of a total of 10 polysemy that stress different syllables according to meanings, followed by 20 sentences chosen or adapted from the Oxford Dictionary in corresponding meaning items. In the third section, eight sentences of different sentence types are provided in both Chinese and English, ranging from declarative sentences, question sentences, and imperative sentences to exclamation sentences. The final part consists of an extract from the story *The Open Boat* by Stephen Crane and a daily dialogue (see Appendix).

The follow-up semi-structured interview takes approximately 30 minutes. Designed questions focus on their learning experiences such as difficulties with phonetics acquisition and learning strategies, during which participants were encouraged to talk freely and make reference to the experiments or their personal experiences.

2.3 Data collection

Participants were given 15 minutes to go through the testing material before the recording experiments, during which process they got instructions from the researcher on the structure of the materials but had no access to the dictionary. Also, they were reminded to read at normal speed with a two-second interval between each word or sentence. The recording was conducted in a quiet classroom by a laptop with an in-built microphone through Praat with a mono track at a sampling frequency of 44100 Hz.

After the recording, participants were invited to a semi-structured interview immediately. There was no time limitation during this process, and while researcher could stop at any point and ask free questions.

All participants were informed that their information would only be used for research purposes.

2.4 Research design

The recordings are cut and cleared with Cool Edit Pro, and transmitted into Praat for further analysis, while the transcripts of the interview are coded and analyzed with NVivo. Based on the data collected from both the recording experiment and interview, analysis, and discussion were carried out in the following session.

3 RESULTS AND ANALYSIS

3.1 Stress

In the first section, each word was read once in Chinese and in English respectively, and there were 96(16*6) Chinese stimuli and 96(16*6) English stimuli in total. Additionally, Received Pronunciation (RP) of English words was recorded for comparative purposes. Considering that duration is relatively flexible to measure, only pitch and intensity are taken as the primary features of word stress.

The minimum pitch and maximum pitch of each stimulus were extracted by Praat, followed by a third column that describes on which syllable the maximum pitch falls. Similarly, minimum intensity, maximum intensity, and the syllable of the maximum intensity were extracted in the same way. Also, corresponding figures of Received Pronunciation were presented.

While the maximum pitch and maximum intensity of RP all fall on the first syllable, participants' highest pitch and intensity witness a shift to the second or third syllable in a number of words. Errors were counted and grouped in terms of the tone number of the second syllable in Chinese (see Tables 2 and 3). Obviously, words ending with tone 1 account for the most errors in both pitch and intensity, followed by tone 2, while tone 3 and tone 4 are less likely to incur negative transfer in corresponding English words. In addition, most errors happen to transfer to the second syllable and only a few transfer to the third syllable.

Table 2. Error rate of pitch.

Tone	Errors	Error rate	Shift to the second syllable	Shift to the third syllable
Tone 1	12	42.9%	9	3
Tone 2	7	25.0%	7	0
Tone 3	5	17.9%	3	2
Tone 4	4	14.3%	4	0
Total	28	100.0%		

Table 3. Error rate of intensity.

Tone	Errors	Error rate	Shift to the second syllable	Shift to the third syllable
Tone 1	11	55%	8	3
Tone 2	4	20%	3	1
Tone 3	2	10%	2	0
Tone 4	3	15%	3	0
Total	20	100%		

In Section 2, each polysemy was pronounced twice hinted with different Chinese meanings, and then put into English context, generating 120 stimuli (10*2*6) in each situation. The errors and error rate were counted for each individual in either circumstance respectively (see Tables 4 and 5).

Table 4. Errors of polysemy with Chinese meaning.

	A	B	C	D	E	F
Errors	1	2	8	3	2	0
Error rate	5%	10%	40%	15%	10%	0%

Table 5. Errors of polysemy in english context.

	A	B	C	D	E	F
Errors	1	1	3	1	2	0
Error rate	5%	5%	15%	5%	10%	0%

Among all the errors made by the speakers, two major error types are discovered. First, a number of speakers fail to distinguish word stress by stressing on the same syllable under different meaning items. For instance, speakers stress the second syllable of the word ‘produce’ in both of the sentences ‘This is a factory that produces microchips’ and ‘The shop sells only fresh local produce’. Second, some speakers put stress patterns in the wrong place in either sentence. One case in point is that the word ‘extract’ is stressed on the second syllable in ‘The following extract is taken from her new novel’, while it is stressed on the first syllable in ‘This process is to extract essential oils from plants’, which should be pronounced reversely. In general, participants demonstrate a better performance in word stress in English context. However, where speakers make a mistake in the stress patterns hinted at by Chinese meaning items, they do not necessarily fail in the same place when the word is put into English context.

3.2 Intonation

In Section 3, intonation patterns were marked with F (Falling tone), R (Rising tone), L (Level tone), and any combination of the three (see Table 6). Similar to RP, all participants used falling tone in imperative sentences, declarative sentences, and Wh- questions. While RP uses a wide variety of intonation patterns for other sentence types, some participants keep using falling tone. For example, two speakers use a falling tone and one speaker end up with a level tone in yes-no question “Do you mind if I sit here?”, which is pronounced in a rising tone in RP to show an inquiry. In addition, all participants pronounced the compound sentence “My major is English, and I like it” in a falling tone, while native speaker used the rising-falling into-nation pattern for the coherence of meaning. The trend is more clearly demonstrated in the spectrum of RP and participants with blue pitch contour (see Figures 1 and 2).

Table 6. Intonation patterns of sentences.

Sentence type	RP	A	B	C	D	E	F
Imperative sentence	F	F	F	F	F	F	F
Declarative sentence	F	F	F	F	F	F	F
Yes-no question	R	R	R	F	F	R	L
Wh- question	F	F	F	F	F	F	F
Exclamation sentence	L-F	R-F	F	F	F	F	F
Compound sentence	R-F	F	F	F	F	F	F
Juxtaposition	R-F	R-F	R-F	L	R-F	F	F
Direct speech	L	R-F	R-F	F	R-F	R-F	R-F

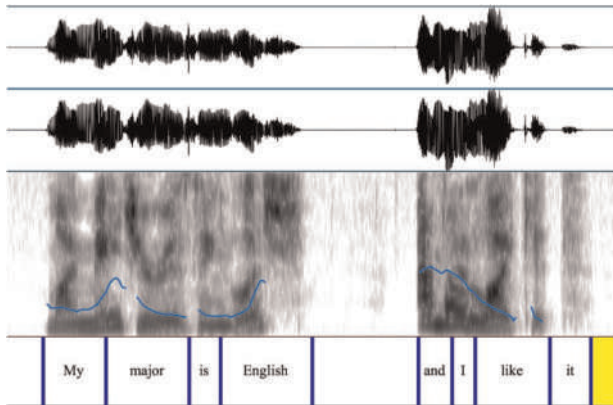


Figure 1. Spectrum of RP (Annotated).

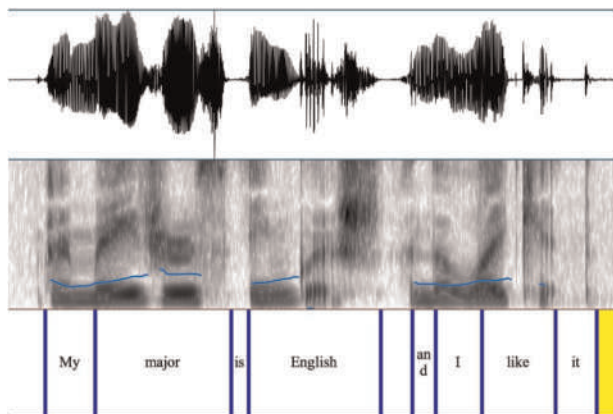


Figure 2. Spectrum of participant C (Annotated).

In the final passage-reading section, materials were cut into 30 tone groups, with 15 tone groups in the short story and the dialogue respectively (see Tables 7 & 8). The intonation pattern of each tone group is marked and then calculated in terms of rising, falling, rising-falling, falling-rising, and level tone. Notably, participants have a preference for falling tone in both text types, accounting for more than 50% of total tone units, while rising tone is used more frequently by native speakers. Another point that needs to be mentioned is that native speaker uses a wider range of intonation variations, especially in informal text like a dialogue, while participants seldom generate rising-falling or falling-rising tones in either text type.

Table 7. Intonation patterns of the short story.

Intonation patterns	RP	A	B	C	D	E	F
Rising	53.33%	20.00%	46.67%	6.67%	13.33%	6.67%	13.33%
Falling	33.33%	73.33%	40.00%	86.67%	73.33%	80.00%	80.00%
Rising-Falling	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Falling-Rising	0.00%	6.67%	13.33%	0.00%	0.00%	0.00%	0.00%
Level tone	13.33%	0.00%	0.00%	6.67%	13.33%	13.33%	6.67%

Table 8. Intonation patterns of the dialogue.

Intonation patterns	RP	A	B	C	D	E	F
Rising	40.00%	6.67%	33.33%	0.00%	0.00%	13.33%	13.33%
Falling	33.33%	80.00%	46.67%	86.67%	86.67%	80.00%	66.67%
Rising-Falling	6.67%	0.00%	6.67%	0.00%	6.67%	0.00%	0.00%
Falling-Rising	13.33%	6.67%	13.33%	0.00%	6.67%	0.00%	6.67%
Level tone	6.67%	6.67%	0.00%	13.33%	0.00%	6.67%	13.33%

4 FINDINGS AND DISCUSSION

4.1 *Stress and semantics*

Stress is one of the most important features of suprasegmental phonetic features together with intonation and rhythm, which could be measured with higher pitch, larger intensity, and longer duration, and can be further divided into word stress and sentence stress. Chinese is a tone language in which characters are monosyllabic and word stress does not hinder the lexical meaning of words and phrases. As a result, word stress in Chinese is relatively flexible, which can be discovered in the variations of maximum pitch syllable and maximum intensity syllable of the 6 speakers who stress different syllables for the same word. However, the linguistic experience of their L1 Chinese may incur negative transfer if stress habit assimilates into L2 perception since word stress in English is fixed and prescriptive in relation to meaning and part of speech.

Previous research proposes that the Chinese tend to stress the final syllable, and the findings of perceptual experiments conducted by Yu (2020) show that Chinese listeners prefer to label final syllables as stressed, whereas native English listeners prefer to label initial syllables as stressed given two-syllable stimuli (Chao 1979; Yu 2021). The present study justifies previous studies in the way that EFL learners show their preference for stressing backward syllables in a number of English words due to the influence of their mother tongue, and further extends the findings with respect to tones. Tone 1 and Tone 2 marked by tone numbers 55 and 35, respectively (1 represents the lowest pitch, 5 represents the highest pitch) are found more likely to cause negative transfer of stress, while Tone 3(214) and Tone 4(51) generate less errors in corresponding English words. The phenomena can be explained with reference to the high-level pitch at the end of Tone 1 and Tone 2, which may transfer to the acquisition of English word stress unconsciously. As a result, Chinese EFL learners may shift the highest pitch syllable backward.

Moreover, participants perform slightly better in distinguishing stress of polysemy under the situation where English context is provided, indicating that learners fail to resort to their previous experience in L1 when building the relationship of semantic meanings and suprasegmental features in English due to the language distance between Chinese and English. On the one hand, the finding inspires future EFL teaching to provide an immersive environment of target language which would assist phonetic acquisition to some degree. On the other hand, however, it also raises concerns about misunderstanding in cross-cultural communications in the case of mistakes that mix up semantic meaning and stress patterns.

4.2 *Intonation and tone*

There are basically five tone types in English according to Halliday, namely the falling tone (Tone 1), the rising tone (Tone 2), the level tone (Tone 3), the falling-rising tone (Tone 4), and the rising-falling tone (Tone 5), from which form other variations of tones and convey different semantic meanings (Halliday 1967). While falling tone is related to a certain ‘polarity’ or ‘possibility’, rising tone connotes ‘uncertainty’, and a level tone often indicates ‘undecided’ or

‘unknown’. Moreover, intonation may carry more information on a pragmatic level, such as the speaker’s attitude and emotion, or connotated message in a given context.

However, Chinese is a tone language in which intonation is not only related to pitch but also inseparable from tone. Therefore, the intonation of Chinese is less flexible since tone is prescriptive for Chinese characters, and a change in tone leads to a meaning change. The present study finds the overuse of falling tone and the lack of variations in intonation of Chinese EFL learners. For example, the sentence ‘Get rid of that damn book!’ extracted from the dialogue material aims to express the speaker’s sense of humor at the end of the conversation. While native speaker demonstrates significant changes in pitch at both word level and sentence level, Chinese learner’s pitch contour descends gradually without obvious fluctuations, making the sentence sound dull and monotonous (Figures 3 and 4) Even in cases that are less emotional such as declarative sentences, Chinese L2 learners also show fewer intonation changes compared to RP, resulting from the negative transfer of their L1. As is shown in Figure 5, which shows the pitch contour of the Chinese counterpart of the same sentence in Figures 1 and 2 in 3.2.

Intonation is a critical suprasegmental feature that contributes to the expression of meaning in speech. However, the tonal nature of Chinese presents a challenge for learners since changes in tone can significantly alter the meaning of words. As a result, the intonation of Chinese is less flexible and prescriptive. This study focuses on the intonation of Chinese EFL learners and reveals the overuse of falling tone and the lack of variations in intonation. For instance, when uttering the sentence ‘Get rid of that damn book!’ in a conversation, native speakers exhibit

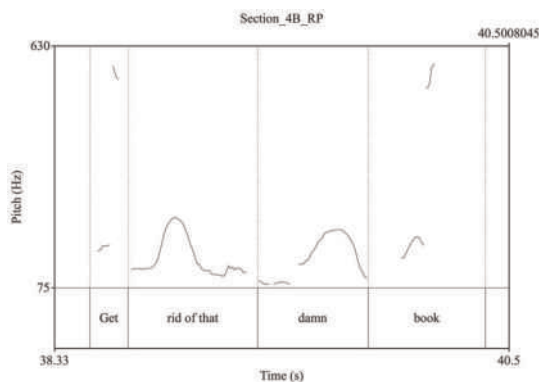


Figure 3. Pitch contour of RP (Annotated).

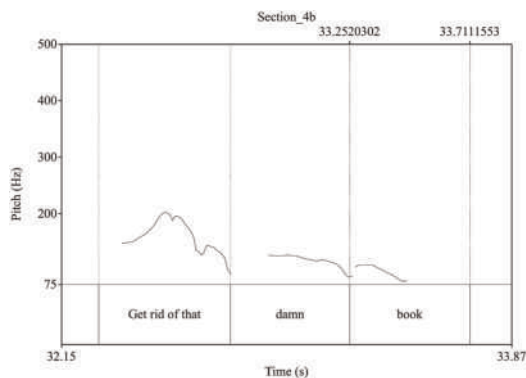


Figure 4. Pitch contour of participant F (Annotated).

significant pitch changes at both word and sentence levels, expressing a sense of humor. In contrast, Chinese learners demonstrate a gradual pitch contour without distinct fluctuations, resulting in a monotonous and uninteresting tone (see Figures 3 and 4). Even in cases that are less emotional, such as in declarative sentences, Chinese L2 learners exhibit fewer intonation changes compared to native speakers due to negative transfer from their L1. Figure 5 shows the pitch contour of the Chinese counterpart of the same sentence as in Figures 1 and 2 in Section 3.2. The fluctuation is more obvious at a word level but remains stable at the sentence level, which is similar to the pitch contour of English in Figure 2 and is in sharp contrast with the intonation of RP in Figure 1. The figures provide strong evidence for L1 intonation transfer with the similarity between the pitch contour of L2 learner’s English and Chinese equivalence.

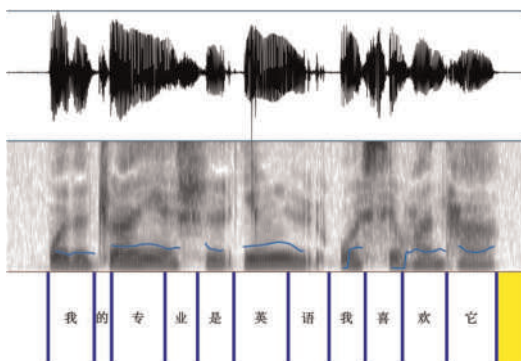


Figure 5. Pitch contour of “My major is English, and I like it” in Chinese pronounced by Participant C.

4.3 Implications on pedagogy

The difference between English and Chinese phonetic systems makes it difficult for Chinese EFL learners to acquire suprasegmental features like stress and intonation. Although phonetics may not necessarily hinder learner’s acquisition of L2 in reading or writing, it may cause problems in some situations which is termed as pragmatic failure by Jenny Thomas, referring to the inability to understand what is meant by what is said (Thomas 1983). Suprasegmental features including intonation and stress play an important role in pragmatics for their information transformation function. However, among all the English-major students invited to this experiment, only half of them have taken a phonetic course before, despite the fact that a number of participants perceive that suprasegmental features are more difficult to acquire than segmental features.

I find stress difficult to memorize because it is random and there is no rule. I cannot pronounce the word stress correctly even in familiar words (Participant B).

I practice intonation a lot, which is the most difficult part for me especially in long sentences. Every time I prepare for a speech contest, I try to sound like a native speaker, but it’s hard. I mean, I pronounce every word correctly, but it just sounds strange (Participant F).

Apart from the explicit difficulties, suprasegmental knowledge is often overlooked in EFL teaching providing that current English major courses primarily focus on segmental features. One possible strategy suggested by the findings of learners’ performance of stress patterns shows that EFL teachers should provide more materials in English context rather than simply point out different stress patterns and their relations to semantic meanings, which is also mentioned by several interviewees.

I think it is better to distinguish the word stress in sentences because we don’t relate stress and meaning in Chinese, and I sometimes mix it up without context (Participant B).

I memorize some examples to help me memorize word stress. It is easier than doing meaning-matching. (Participant A)

Furthermore, results of intonation experiments indicate that although learners are aware of rising intonation in some sentence types, they apply falling tones following their mother tongue in most tone groups in longer passages. According to PAM, this might be improved by repeating and imitating of native speaker, during which process learners are able to either assimilate or dissimilate L1 experience into L2 phonetic system.

Above all, it is necessary for English major students as well as EFL learners to take systematic phonetic courses in order to acquire professional knowledge about phonetics, which would be conducive to suprasegmental features acquisition and help learners to overcome negative transfers from L1.

5 CONCLUSION

The present study focuses on the Chinese EFL learner's suprasegmental acquisition in terms of stress and intonation through phonetic experiments with the help of Praat. While native speakers demonstrated maximum pitch and intensity on the first syllable in all words tested, learners shifted stress to the second or the third syllable in certain words. In intonation experiments, participants overused falling tones at either sentence level or passage level unconsciously.

One possible reason contributing to negative transfer is the distance between the two languages. Chinese is a tone language in which tone and intonation are inseparable, and tone change is related to meaning change, while English is an intonational language that allows variations in tones and intonation. Thus, it is difficult for post-pubertal college students to fully acquire suprasegmental features far from their mother tongue. In the field of second language acquisition, Perceptual assimilation model provides another interpretation, pointing out that in the process of perceiving non-native phonemes, second language learners may incorporate phonemes with high similarity to native phonemes into the category of native phonemes. Corresponding with previous findings, participants demonstrate the impact of their first language experience in both stress and intonation by assimilating some of their L1 Chinese patterns into L2 English.

The current study is an extension of previous research on suprasegmental acquisition and language transfer, as well as providing empirical evidence for future studies on Chinese EFL learners' acquisition of stress and intonation. Another contribution of the study is to give applicable suggestions on EFL teaching with respect to suprasegmental features based on the results of the experiments and interviews with the participants.

However, several limitations can be identified from this present study. First, only pitch and intensity are referred to in the experiments, while duration and other relevant figures are not included. Another limitation of the study lies in the analysis of pitch figures generated from Praat, which is simply based on annotation and observation. However, more conclusions may be drawn from the curve if more features are calculated. In the future, in addition to improvements in the current limitations, one intriguing direction is to extend the study to include more suprasegmental features in directions of both positive transfer and negative transfer. Also, more effective pedagogies with respect to phonetic teaching for English major students in college are worth exploring by bringing EFL teachers into consideration.

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APPENDIX

Section 1 Read the following words (16 points)

Group 1 (Tone 1)	
深思	Contemplate
无知	Ignorance
小说	Fiction
电梯	Elevator
Group 2 (Tone 2)	
说明	Illustrate
维持	Maintenance
语言	Language
困难	Difficult
Group 3 (Tone 3)	
黑板	Blackboard
和解	Reconcile
水手	Seaman
物理	Physics
Group 4 (Tone 4)	
温室	Greenhouse
评论	Comment
礼物	Present
政治	Politics

Section 2 Read the following words and sentences (40 points):

- Abstract (adj. 抽象的), Abstract (v. 提取)
- Conduct (n. 行为), Conduct (v. 实施, 执行)
- Produce (v. 生产), produce (n. 产品)
- Conflict (n. 冲突), conflict (v. 冲突)
- Extract (n. 节选), extract (v. 提取)
- Record (n. 记录), record (v. 记录)

Permit (v. 允许), permit (n. 许可证)
Subject (n. 主题), subject (v. 使服从)
Protest (n. 抗议), protest (v. 抗议)
Present (n. 礼物, a. 当前的), present (v. 展现)

1. The research shows that preschool children are capable of thinking in abstract terms.
She abstracted the main points from the argument.
2. The sport has a strict code of conduct.
The negotiations have been conducted in a positive manner.
3. This is a factory that produces microchips.
The shop sells only fresh local produce.
4. She found herself in conflict with her parents over her future career.
These results conflict with earlier findings.
5. The following extract is taken from her new novel.
This process it to extract essential oils from plants.
6. You should keep a record of your expenses.
You should record all your expenses during your trip.
7. Radios are not permitted in the library.
I apply for a permit.
8. I have nothing more to say on the subject.
The Roman Empire subjected most of Europe to its rule.
9. The announcement raised a storm of protest.
Students took to the streets to protest against the decision.
10. What can I get him for a birthday present?
The company has decided it must present a more modern image.

Section 3 Read the following sentences:

回到你的座位上去!	Go back to your seat.
那本书我已经读过了。	I have already read that book.
我坐这儿你介意吗?	Do you mind if I sit here?
他出什么事了?	What happened to him?
世界真小啊!	What a small world!
我的专业是英语, 我喜欢它。	My major is English, and I like it.
我们学习中文, 历史, 地理和英语。	We study Chinese, history, geography, and English
“你感觉怎么样, 孩子?” 我问他。	“How do you feel, boy?” I asked him.

Section 4 Read the following passage:

An extract from *The Open Boat* by Stephen Crane

A sailor named Billy, one of the four men in the boat, used one of these oars to keep the boat going in the right way. A third man, a newspaper writer, used the other oar to make the boat move. The fourth man in the boat was the captain of the ship and the captain of the ship that had sunk. But he looked carefully ahead and he told Billy when to turn the boat. “Keep her a little more south, Billy!” he said.

A dialogue

A: Did you know the average American smoker consumes over 590,000 cigarettes, while the average nonsmoker inhales the equivalent of 136,000 cigarettes?

B: I had no idea I smoked that many cigarettes. No wonder smokers get cancer. I swear I'm gonna quit this year. Well, I'd better run. I'll see you tonight.

A: Drive carefully. The book says the average American is involved in six motor vehicle accidents in their lifetime.

B: Would you do me a favor?

A: What's that?

B: Get rid of that damn book!

Differences translation of “ne” in Chinese to Japanese

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ABSTRACT: With the continuous cultural exchanges between China and Japan, there is a certain degree of research in the translation of Chinese and Japanese, especially in the field of the sentence-ending modal particles, where more worthy to be further researched with in-depth. This paper, drawing on the results of previous research, argues that the modern Chinese of the sentence-ending modal particles “呢” can express four intonation significances: “the interrogative tone, the persistence of the state, the exclamatory tone, the hyperbolic tone,” and there intonation significances are often translate to the terminal auxiliary words “ka(か)”, “kana(かな)”, “ne(ね)”, “yo(よ)” and “no(の)” in Japanese oral expression. As there are differences between male and female speakers in the Japanese language, different terminal auxiliary words are used in Japanese for the same tone of the sentence-ending modal particles “呢” in Chinese.

Keywords: sentence-ending modal particles, comparison between Chinese language and Japanese language, terminal auxiliary words

1 INTRODUCTION

In modern Chinese, the functional word “呢” can express a variety of meanings, such as “你还没吃饭呢” can indicates the interrogative tone and “你可真行呢” can indicates the hyperbolic tone. In academic community there are also different views on this issue.

In Modal Words and Tone System, Mr. Qi Huyang divided the modal meaning forms of “呢” into six categories, which are respectively “interrogative tone, rhetorical tone, exclamatory tone, affirmative declarative tone, doubtful tone and pause (Qi 2002).”

Mr. Zhu Dexi, in his Lecture on Grammar, divided the modal meaning forms of “呢” into three categories: “The persistence of the state, the interrogative tone, and the exaggerated tone (Zhu 1982).”

In the Research and Teaching of Chinese Functional Characters – Taking “呢” as an example, Mr. Cao Fengfu divided the modal meaning forms of “呢” into five categories: “to express the unchanged state (the state continues and has not changed), the theme mark (does not involve the use of the modal word at the end of the sentence), to express the undetermined or interrogative (deepening the interrogative tone), canceling the question word in the interrogation (the theme mark add deepening the interrogative tone) and contradicting the speaker’s conclusion (Cao 2016).”

Eight Hundred Words in Modern Chinese by Mr. Lv Shuxiang also divided the modal meaning forms of “呢” into four categories: “indicating the interrogative tone, indicating the exaggerated fact, indicating the persistence of the state, and used in the sentence where pause (not involving the use of modal words at the end of the sentence) (Lv 1982).”

In view of the above, it is not difficult to find that the classification of the intonational meaning of the modern Chinese the sentence-ending modal particles “呢” is still controversial, but there is a partial consensus that the sentence-ending modal particles “呢” can be roughly

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divided into four categories, namely: “indicating the interrogative tone, indicating the persistence of the state, indicating exclamatory tone, indicating the hyperbolic tone.”

Based on the four categories of intonation significance expressed by “呢”, the relationship between the sentence-ending modal particles of modern Chinese “呢” and the different terminal auxiliary words in Japanese is further explored by comparing example sentences in Chinese and Japanese.

2 ANALYZING THE FOUR CATEGORIES OF TONE

2.1 *Indicating the interrogative tone*

From the 740,000-word authentic text of Liu Xinwu’s Complete Works, Mr. Qi Huyang and his team identified a total of 472 sentences with the interrogative tone in the sentence-ending modal particles “呢”, accounting for 75.8% of the remaining sentences containing the interrogative tone “呢”. The interrogative tone has become the most basic use of the modern Chinese modal particles “呢” (Qi 2002). In Japanese, the most common terminal auxiliary words for expressing interrogative tone are the terminal auxiliary word “か” and the compound terminal auxiliary words based on it, such as “kaa(かあ), kana(かな), kai(かい), kane(かね), kashira(かしら)”, which make up the majority of interrogative tone of terminal auxiliary words (Zhang 1982). Therefore, in modern Chinese, the terminal auxiliary words “ka(か)” is used to correspond to the sentence-ending modal particles “呢” at the end of a sentence in the Chinese-Japanese translation. For example: (1-1)

(1-1) 我的字典呢? / 我的字典在哪里?

(1-2) 私の辞書はどこですか?

(1-3) 私の辞書はどこですかな?

In (1-2) and (1-3), both are in the same enquired tone of voice, with an ascending voice at the end of the sentence.

(1-2) is a message from the speaker to a listener, with the implication that it is an enquiry, namely, the sentence occurred because the listener took away the speaker’s dictionary, so that the speaker is now unable to perform the next action, and asks the listener about it. In Japanese, the terminal auxiliary word “ka(か)” is used for this purpose (Zhang 2020).

(1-3) is the speaker’s self-response, which is expressed in Japanese by the word “kana(かな)”, which indicates a slight self-response tone.

In previous studies, some scholars have considered the rhetorical tone to be independent of the interrogative tone, but the author does not agree with this, because although the rhetorical tone expresses certainty and strengthens the tone, it is still the interrogative tone that is used to express certainty, which is the same as the tone expressed in (1-1) above. The author therefore considers the rhetorical tone to be a branch of the interrogative tone. The following are examples of sentences expressing the rhetorical tone (Qi 2002). For example: (1-4)

(1-4) 你还不知道这件事呢?

(1-5) まだ知らないのですか?

In (1-5), using an ascending voice at the end of the sentence and a slight long tone is allowed, but the meaning of the sentence is affirmative, indicating that the fact is an established fact, and the speaker actually believes that the listener should know about it. The terminal auxiliary word “ka(か)” is used for this purpose.

2.2 *Indicating the persistence of the state*

The author found that the modern Chinese word of the sentence-ending modal particles “呢” does not necessarily indicate the significance of tone, but can also indicate the persistence of the state. In this case, the functional word “呢” no longer expresses any significance of the tone, but is used as a tense to express the state of the verb in the sentence, and if “呢” is

deleted, it will change the original significance of the sentence. The proof is as follows and see example (2-1).

(2-1) 我吃饭呢。

(2-2) 私は食べている。

In (2-1) and (2-2), “I” as the initiator of the action is performing the action of “eating”, which, under the guidance of the functional word “呢”, neither indicates that the action has been completed nor that it has not yet begun, but only that the state of the action of “eating” is continuing and not yet finished. In Japanese, there is no terminal auxiliary words, only change suffix of the verb to indicate that the state of the action is continuing.

(2-3) 我吃饭。

(2-4) 私は食べる。

In (2-3), the functional word “呢” is deleted to anticipation a different result, and the result is obvious: the significance of the sentence is changed. as compared to (2-1), (2-3) becomes a narrative of objective facts, and no longer has the significance of a continuing state of action as expressed in (2-1). In the Japanese translation, the suffix of the verbs does not change either, and the prototype “taberu(食べる)” is used to end the sentence. In this case The functional word “呢” no longer has an intonation significance, but rather indicates the continuation of a state.

Eight Hundred Words in Modern Chinese, Mr. Lu Shuxiang proposes that the sentence-ending modal particle “呢” is used under the usage of “verb + 着 + 呢”, which is “indicate the persistence of the state” (Lv 1982). The author does not agree with this view, but believes that only in the use of the sentence pattern “verb + noun + 呢”, as described in (2-1) above, does the functional word “呢” have the use of indicating the persistence of the state. The proof as follows, for example in (2-5).

(2-5) 雨下着呢。

(2-6) 雨が降っている。

In the example sentences (2-5), Lu Shuxiang and his group considered that the functional word “着” indicates the persistence of the state and can be used after verbs and adjectives. The functional word “呢” also indicates the persistence of the state, and is sometimes used intermittently with the adverb words “正、正在” and so on, and can also be used immediately after the functional word “着”. However, if the functional word “着” is deleted, the original sentence becomes:

(2-7) 雨下着。

(2-8) *雨下呢。

In (2-7), the functional word “呢” does not exist in the sentence, and the sentence also shows the usage of the persistence of the state due to the meaning of the significance “着”, while in (2-8), the functional word “呢” not only does not appear the same usage of in (2-7), but also does not conform to modern Chinese expression habits. This is why author believe that the functional word “呢” does not have the significance of persistence of the state under the usage of “verb + 着 + 呢” (Feng 2016).

Then author verified the persistence of the state of the intonational word “呢” by adding and deleting adverbs such as “正、正在”, as in (2-9):

(2-9) 雨正在下呢。

(2-10) 雨正在下。

(2-11) 雨が降っている。

From (2-9) and (2-10), it is easy to see that the deletion of the intonational word “呢” does not affect the tense of the sentence, as both still indicate the progressive tense, and the Japanese translation has not been changed accordingly. From this the author can analyse that in the usage of “verb + 着 + 呢” there is no intonation significance of “indicating the persistence of the state”. Instead, the usage of “verb + 着 + 呢”, as in the example sentences (2-5), is closer to the use of the conjunction of intonational word “着呢”, to indicate an emphatic tone.

2.3 Indicating exclamatory tone

The exclamatory tone can indicate the speaker’s individual view of the matter, and through change tone to express the different states of mind of the speaker. For example (4-1):

- (3-1) 这么多钱呢。
 (3-2) そんな大金ですね。
 (3-3) そんな大金ですよ。

In (3-2), the sentence ends in an ascending tone with a long modifier and the emphasis is on the word ‘钱’, indicating the speaker’s persuasion to the listener, namely, the money involved in the listener’s action seems unacceptable to the speaker, who with an exclamatory tone and because of the good relationship between the two parties, persuades the listener as a way that he or she should stop the action. In the Japanese translation, the terminal auxiliary word “ne(ね)” is used for this purpose (Huang 2019).

In (3-3), the sentence ends in a descending tone, with the emphasis on the word “这”. This indicating that the speaker considers the money to be so much that it is beyond the speaker’s original imagination, and contains the sense that the action taken by the listener is unacceptable to the speaker. Because the listener will use the money without reservation in speaker’s mind, and that mind is an action that the speaker would never have done. The terminal auxiliary word “yo(よ)” is used for this purpose (Huang 2019).

2.4 Indicating the hyperbolic tone

When expressing hyperbolic tone, the sentence is often used in either a maximum exaggerated or a minimum exaggerated way, and can also be used intermittently with adverbs such as “才” and “可”. For example (4-1):

- (4-1) 他一~气能吃十个包子呢。
 (4-2) 一度に10個のパンズを食べることができるよ。

In (4-1), the intonational word “呢” is used to express the hyperbolic tone of voice, which also implies that the speaker is conveying information about the event to the listener in the sentence.

3 DIFFERENCES IN THE CHOICE OF SENTENCE-ENDING MODAL PARTICLE BETWEEN MEN AND WOMEN IN JAPANESE

In Japanese, the difference in gender leads to the use of different sentence-ending modal particles to express the same Chinese examples. The common terminal auxiliary words used by men are “zo(ぞ), ze(ぜ), sa(さ), na(な),” etc. The women are “wa(わ), yo(よ), ne(ね), wayo(わよ), wane(わね), no(の), noyo(のよ), none(のね), kashira(かしら),” etc.

The following form is cited from Wang Fang’s The linguistic differences between men and women in Japanese - an examination of terminal auxiliary words as evidence of the differences in the choice of terminal auxiliary words between men and women in Japanese (Wang 2009).

The extent that male and female use terminal auxiliary words:

Male :

- (1) yo(よ) 157 (2) no(の) 87 (3) ne(ね) 59 (4) na(な) 58 (5) yone(よね) 37
 (6) ka(か) 35 (7) sa(さ) 33 (8) yone(よな) 30 (9) kana(かな) 24 (10) zo(ぞ) 2
 (11) ze(ぜ) 17 (12) noka(のか) 14 (13) nayo(なよ) 11 (14) kayo(かよ) 9 (15) noyo(のよ)

5

- (16) nokana(のかな), wa(わ) (descending tone), nokayo(のかよ) 4 (17) kai(かい) 3
 (18) kane(かね) 2

Female :

- (1) よ 145 (2) の 114 (3) ね 99 (4) よね 64 (5) かな 31
 (6) か 29 (7) のよ 28 (8) さ 21 (9) のね, な 15 (10) わよ 13
 (11) のかな 12 (12) わ (ascending tone) 7 (13) のよね, なよ 4
 (14) かね, よな 3 (15) わ (descending tone), かしら, のか 2
 (15) わね, ぜ 1

Figure 1. The result of differences between male and female use terminal auxiliary words in Japanese (Wang 2009).

In the following, the author will analyse the differences between the four categories of the modern Chinese sentence-ending modal particle “呢” and the male and female terminal auxiliary words in Japanese.

3.1 *Indicating the interrogative tone*

In the male user groups, “sa(さ)” is often used for interrogative tone (Japanese-Chinese Dictionary), for example (6-1):

(6-1) 会怎么样呢？

(6-2) どんなるさ。

In the female user groups, the word “kashira(かしら)” is often used for interrogative tone.

(6-1) 会怎么样呢？

(6-3) どんなるかしら。

The use of the terminal auxiliary words also differs between men and women when expressing a self-response interrogative tone, and the author chosen to compare the example sentences of the interrogative tone in Part II, for example (1-1):

(1-1) 我的字典呢？/我的字典在哪里？

(6-4) 私の辞書はどこですぞ？

(6-5) 私の辞書はどこですか？

In (6-4), the masculine word “zo(ぞ)” has the sense of a self-response interrogative tone, and is used in place of “かな” in the original translation. In (6-5), “nokana(のかな)” is a compound final auxiliary of the final auxiliary “no(の)” plus the final auxiliary “kana(かな)”, and “no(の)”. The terminal auxiliary word “nokana(のかな)” is a euphemism for the feminine word “no(の)”, which expresses an interrogative tone and an euphemistic tone, and the terminal auxiliary word “kana(かな)” still expresses a self-response, thus replacing “kana(かな)” in the original translation.

3.2 *Indicating the persistence of the state*

In Chinese, the sentence-ending modal particle “呢” no longer has an intonation significance when it indicates the persistence of the state, so it is not possible to find the terminal auxiliary words for it in Japanese.

3.3 *Indicating exclamatory tone*

In masculine terms, “sa(さ)” is often used to express exclamatory tone, for example (6-6):

(6-6) 很差劲呢。

(6-7) とてもだめさ。

In feminine terms, “wa(わ)” is often used to express exclamatory tone, for example (6-8):

(6-8) 不好办呢。

(6-9) 困ったわ。

3.4 *Indicating the hyperbolic tone*

The terminal auxiliary word “yo(よ)” is often used to express hyperbolic tone, and no longer distinguishes between genders (Wang 2018). As an example, the author chosen the text in Part II, which expresses hyperbolic tone (4-1):

(4-1) 他一~气能吃十个包子呢。

(4-2) 一度に10個のパンズを食べることができるよ。

To sum up, when men and women use the terminal auxiliary words to express the modern Chinese sentence-ending modal particle “呢”, most often they use different terminal auxiliary words to distinguish their own gender, with men’s phrases mostly having a rough, commanding tone and women’s phrases mostly having a soft, euphemistic tone.

4 CONCLUSION

Based on the four categories of the modern Chinese sentence-ending modal particle “呢”, this article compares and analyses the relationship between the functional word “呢” and various terminal auxiliary words in Japanese, and concludes that the terminal auxiliary words “ka(か)”, “kana(かな)”, “sa(さ)”, “kashira(かしら)”, “zo(ぞ)” and “nokana(のかな)” are mostly used in Japanese to express the significance tone of the functional word “呢” in interrogative tone. The terminal auxiliary words “ne(ね)”, “yo(よ)”, “sa(さ)” and “wa(わ)” are mostly used in Japanese to express the significance tone of the functional word “呢” in exclamatory tone. The terminal auxiliary words “yo(よ)” are mostly used in Japanese to express the significance tone of the functional word “呢” in hyperbolic tone. And the functional word “呢”, when used to indicate the persistence of the state, no longer has an inflection significance, and no equivalent terminal auxiliary words can be found in Japanese. The difference in gender between men and women in Japanese also affects the translation of Chinese-Japanese example sentences containing the word “呢”.

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Analysis of English Mofun Show based on the theory of second language acquisition

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ABSTRACT: Recent advancements in technology have led to an increased flexibility and convenience in the process of Second Language Acquisition (SLA), with the ability to learn a language irrespective of specific time and space constraints. The proliferation of second language learning apps in recent years is a testament to their ability to meet the needs and motivate users in their language learning journey. Previous studies have demonstrated that effective language learning apps can provide an excellent learning environment for learners while also enabling educators to monitor their students' progress. However, the application of SLA in virtual environments necessitates a more thorough analysis of the theories that underlie it. In this study, the English Mofun Show app, which is equipped with features that align with SLA, was employed as a research focus to examine how it adheres to SLA theory in the language learning process. The findings indicate that the Input Hypothesis, Interaction Hypothesis, and motivation theory are the primary methods employed in the app to encourage learners in improving their second language. The study concludes that the English Mofun Show app has a positive impact on SLA and provides insightful implications for future research in this field.

Keywords: English Mofun Show, SLA

1 INTRODUCTION

English Mofun Show is a mobile application that has revolutionized English language acquisition by incorporating popular American dramas and movies. Equipped with detailed and scientific guidance, the application utilizes data analysis techniques to provide a learning experience tailored to individuals of varying ages. Its unique approach to learning through films and videos has garnered a user base of over 5 million individuals. Research has shown that the learning context has a positive effect on second language acquisition, highlighting the importance of exposure to a naturalistic environment (Krashen 1981). Furthermore, recent studies emphasize the need to utilize advanced technology to cultivate an optimal learning environment for users.

In accordance with this research trend, English Mofun Show serves as an exemplary case study to analyze the intersection of second language acquisition and technology. By combining the latest technological advancements with second language acquisition principles, the application has significantly enhanced the language learning process. To explore the underlying principles of second language acquisition within English Mofun Show, this paper

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focuses on critical principles, including immersion, meaningful input, repetition and practice, and social interaction and collaboration. The paper further examines how these principles correspond to the application's features, which include motivation ranking, interactive course tips, and professional comprehensive learning processes. Lastly, the paper provides guidelines for optimal utilization of English Mofun Show to promote second language acquisition.

This paper's focus is of significant importance, as it not only furthers the understanding of interaction theory and feedback's impact on second language acquisition within English Mofun Show, but it also reveals the role of motivation in the learning process. In today's era of numerous applications designed to improve, understanding how to utilize an application, such as English Mofun Show, is crucial. It is hoped that this paper will lead to a more efficient and effective process of second language acquisition for users.

2 SECOND LANGUAGE ACQUISITION THEORY

According to the field of second language acquisition (SLA) theory, language learning involves various factors that impact the process of acquiring a second language. One essential principle of SLA is immersion, which refers to exposing learners to authentic language use in naturalistic settings. As noted by Krashen, this approach provides learners with opportunities to engage with the language in meaningful and relevant ways (Krashen 1981).

Another critical aspect of SLA is the provision of meaningful input, which posits that learners require language input that is relevant and comprehensible to their needs and interests (Long 1996). This approach ensures that learners are exposed to language that is both useful and engaging, which can facilitate their language acquisition.

Repetition and practice are also fundamental components of successful language acquisition that promote automaticity and fluency (DeKyser 2007). By offering targeted language practice and reinforcement exercises, English Mofun Show enables users to engage in repeated practice of critical vocabulary and structures, which can support their development of automaticity and fluency.

Sociocultural theories of SLA highlight the importance of social interaction and collaboration in language learning (Vygotsky & Cole 1978). The creation of a platform for communication and interaction between users in English Mofun Show can promote a sense of community and facilitate language use in meaningful contexts. As learners create and upload their own movie dubbing, they can demonstrate their language proficiency, receive feedback, and contribute to the communal learning environment, fostering the development of communicative competence.

Finally, the use of technology to enhance language learning experiences, such as the mobile platform offered by English Mofun Show, can also be beneficial in promoting user engagement and motivation. By utilizing a gamified approach to language learning, the application can enhance user engagement and motivation, resulting in a valuable and engaging user experience that promotes effective language learning. As noted by Zhang and Zou, technology can play a crucial role in supporting language learning by providing learners with access to a range of language resources and facilitating their engagement with the language in meaningful ways (Zhang & Zou 2022).

3 THE ANALYSIS OF ENGLISH MOFUN SHOW

3.1 *Ranking for motivation*

The field of SLA has been instrumental in advancing people's understanding of the complex process of acquiring a second language. A crucial aspect of language learning involves the

acquisition of new linguistic structures and the development of fluency in the target language. In the context of dubbing, language learners must possess a nuanced understanding of the linguistic structures and intonation patterns used in the original content while accurately conveying the intended meaning in the target language, which presents a challenging task.

English Mofun Show's comprehensive dubbing platform provides a valuable resource for language learners seeking to develop their dubbing skills. The platform's inclusion of high-quality content and a leaderboard system inspires participation and fosters a culture of emulation and learning, thereby enhancing user engagement. Furthermore, the platform's scoring evaluations during the dubbing process provide language learners with feedback on their performance, which is essential in developing a more nuanced understanding of fluency and accuracy and enhancing the efficacy of dubbing imitation.

Rod Ellis, an SLA theorist, noted that "Language learners need to engage in activities that require the use of the language system they are learning in order to internalize the new linguistic structures" (Klimova & Zamborova 2020). English Mofun Show's dubbing platform enables language learners to engage in dubbing activities that require the use of the language system they are learning, facilitating the practice of speaking and listening skills that are fundamental in language acquisition. Additionally, the platform's leaderboard system creates a competitive environment that motivates users to continuously improve their dubbing skills.

Furthermore, English Mofun Show's dubbing platform aligns with SLA theory's emphasis on establishing benchmarks for progress. Stephen Krashen, another SLA theorist, suggests that "Language acquisition does not require extensive use of conscious grammatical rules, and does not require tedious drill" (Nah *et al.* 2008). Instead, language learners benefit from engaging in activities that provide opportunities for input and feedback, allowing them to develop an intuitive understanding of the target language. The platform's scoring evaluations provide language learners with feedback that supports their acquisition of the target language, enabling them to progress and ultimately become proficient in the art of dubbing.

The scoring evaluations offered by English Mofun Show's platform are a valuable tool for language learners, as they enable users to receive feedback on their performance and identify areas of improvement. Additionally, feedback helps users to develop a more nuanced understanding of fluency and accuracy, which are fundamental components of language learning.

English Mofun Show's dubbing platform also fosters a supportive community committed to the art of dubbing. By creating an environment of emulation and learning, the platform enables users to exchange ideas and experiences, enhancing their learning. This community-driven approach to language learning aligns with the SLA theory, which emphasizes the importance of a supportive learning environment for language acquisition.

English Mofun Show's dubbing platform aligns with SLA theory by providing a supportive environment that facilitates the development of language learners' dubbing skills. The platform's inclusion of high-quality content and a leaderboard system fosters a culture of emulation and learning, motivating users to continuously improve their dubbing skills. Additionally, the platform's scoring evaluations enable language learners to receive feedback on their performance, facilitating the development of a more nuanced understanding of fluency and accuracy. Finally, English Mofun Show's platform promotes a supportive community committed to the art of dubbing, enhancing the overall language learning experience.

3.2 *Interaction with course tips*

The paragraph highlights the importance of learner engagement and interaction in language learning, which aligns with the principles of the SLA theory. As stated by Long, "Input alone is not enough for language acquisition; learners must be active participants in the learning

process” (English Mofun Show). This is exemplified in the Course Tips page, where users actively engage with the language system, they are learning by sharing their experiences and providing guidance to others.

The concept of learner engagement and interaction is central to the SLA theory. According to SLA theory, learners acquire a second language through a process of exposure to language input and active engagement with the language system. The input should be comprehensible and meaningful to the learner to be acquired, and learners must be active participants in the learning process to internalize the new linguistic structures. This is because language acquisition involves more than simply memorizing grammatical rules and vocabulary; it requires learners to develop an intuitive sense of the language and how it is used in context. As Long notes, “the learner must develop an internalized representation of the system that includes rules, constraints, and a store of lexical items, as well as their meanings and collocational patterns” (Collentine & Freed 2004).

The Course Tips page facilitates learner engagement and interaction by providing a platform for users to share their personal learning experiences and summaries. By doing so, users not only reflect on their learning outcomes but also interact with each other to improve their learning efficiency. This interaction provides learners with the opportunity to engage in language production, which is an essential part of language acquisition. By producing language, learners are actively engaging with the language system, and this engagement helps to internalize the new linguistic structures.

Furthermore, Krashen’s theory of SLA emphasizes the importance of meaningful input in language learning, rather than the use of conscious grammatical rules or tedious drills (Nah *et al.* 2008). The Course Tips page allows users to access relevant solutions to the challenges they encounter, which provides them with meaningful input that they can internalize to enhance their language learning.

Krashen’s theory also highlights the importance of the affective filter in language acquisition. According to Krashen, the affective filter is the emotional and psychological factors that influence language acquisition (Nah *et al.* 2008). An optimistic attitude towards language learning can lower the affective filter and enhance language acquisition. This is because a negative attitude can hinder language acquisition, whereas a positive attitude can facilitate it.

The Course Tips page fosters an optimistic attitude toward language learning by promoting interaction and collaboration. By sharing their experiences, users can give and receive advice, which can be encouraging and motivating. This interaction helps to create a sense of community among learners, which can be beneficial for language acquisition. As Dörnyei notes, “Learning a second language is often a social process, and motivation and attitude play a critical role in the language learning process” (Plonsky & Ziegler 2016).

In conclusion, the Course Tips page on the English Mofun Show platform aligns with the principles of SLA theory by promoting learner engagement, meaningful input, and a positive attitude toward language learning. By providing a platform for users to share their personal learning experiences and summaries, the Course Tips page facilitates learner engagement and interaction, which is essential for language acquisition. Additionally, by promoting a positive attitude towards language learning, the Course Tips page helps to lower the affective filter and enhance language acquisition. As such, it exemplifies an exceptional independent English language learning software that effectively facilitates language learning for its users.

3.3 *Professions for comprehensive learning process*

SLA theories offer valuable insights into the process of learning a second language. Krashen’s Input Hypothesis emphasizes the importance of exposure to comprehensible input that is slightly beyond the learner’s current proficiency level (Ellis 2008). Long’s Interaction Hypothesis highlights the significance of interaction and participation in the language

learning process, while Dörnyei's theory of motivation emphasizes the role of motivation and attitude in language learning (Collentine 2004; Krashen 1982).

The English Mofun Show platform aligns well with these SLA theories, providing learners with thematic albums and corresponding activities that offer a range of English language input. The platform's modular approach to language learning and personalized feedback improves learners' English pronunciation and listening comprehension, as found by Shyr and Chen's study (Long 1996). The interactive and communicative teaching approach of the platform, as noted by Xu, is beneficial for learners in developing their speaking skills (Dörnyei 2014). The flexible and personalized approach of the platform, as observed by Challob study, can contribute to learners' motivation and engagement in the learning process, ultimately leading to successful language acquisition (Krashen 1992).

The English Mofun Show platform offers learners an opportunity to engage with and listen to thematic albums, providing them with a valuable source of input to improve their English pronunciation. The platform's approach to language learning enables learners to actively engage in the learning process, promoting interaction and participation, as emphasized by Long's Interaction Hypothesis (English Mofun Show). The personalized approach of the platform and the variety of teaching styles offered can help learners find a teaching style that matches their learning preferences, enhancing their motivation to learn, in line with Dörnyei's theory (Krashen 1982).

In conclusion, the English Mofun Show platform offers an effective and efficient approach to improving English pronunciation by aligning with SLA theories such as the Input Hypothesis, Interaction Hypothesis, and motivation theory. The platform's alignment with these theories has been supported by recent studies, which found the platform to be effective in enhancing SLA. The platform's approach to language learning provides learners with the necessary input, interaction, and motivation to achieve their language learning goals.

4 CONCLUSION

To sum up, the English Mofun Show platform offers an effective and efficient approach to improving English pronunciation by aligning with SLA theories such as the Input Hypothesis, Interaction Hypothesis, and motivation theory. The platform's alignment with these theories has been supported by recent studies, which found the platform to be effective in enhancing SLA. The platform's approach to language learning provides learners with the necessary input, interaction, and motivation to achieve their language learning goals.

AUTHORS CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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Engaging college students in English writing with game-based learning

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ABSTRACT: English proficiency has been widely acknowledged as important in China due to gradually globalization and internationalization, and English learners need to apply English for pursuing higher education working and living abroad. Despite efforts to enhance English education, many Chinese college students still have lots of problems on their English writing skills, which may be attributed to insufficient practice and neglect in universities' curriculum. This study investigates the potential of game-based learning to improve English writing skills among Chinese college students by identifying key elements in educational games that can stimulate interest and maintain students' engagement. Hence, a literature review is conducted to extract these elements including the strategies of cognition, motivation, affection and sociocultural. Moreover, a digital game prototype based on these key elements is developed to engage students in English writing. The study also discusses strategies for improving English writing skills and the potential of game-based learning to address teaching challenges.

Keywords: college, English Writing, Game-Based Learning, Game Prototype

1 INTRODUCTION

1.1 *Problem statement*

Writing is an essential skill that students need to master in order to succeed academically and professionally. However, many students struggle with writing, particularly in a second language context like China, where English writing is often taught as a foreign language. So do the Chinese college students. The limited curriculum and syllabus, as well as the emphasis on standardized tests such as CET, have contributed to the challenge of improving English writing skills among Chinese university students (Sang 2017). Additionally, many universities have a harsh language environment that further exacerbates the issue (Sang 2017). Chinese universities mainly emphasize English reading while neglecting English writing, especially for students in non-English majors, with less than 20% of class time devoted to learning English writing (Sang 2017). Overall, Chinese undergraduates lack sufficient practice in English writing and often neglect its importance. In order to address this problem, Chinese universities and relevant authorities need to optimize the curriculum and syllabus. However, this study aims to provide a feasible solution as an addition to college English courses, which can effectively enhance the motivation of Chinese college students to learn English writing and improve their overall learning efficiency.

1.2 *Study focus*

Many college students now are gamers, in 2019, Young Gamers and Gamblers Education Trust conducted a research study to investigate more than 2,000 undergraduates and

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postgraduates, and discovered that 92% of participants play digital games regularly, while 35% playing in most days (Adair 2022). Overall, 75% students play games over 20 hours every week and around 40% is over 30 hours (Adair 2022). In addition to the phenomenon that digital games attract a large number of college students, advocates have been raised that digital games are optimal media to promote learning, which can engage learners in terms of affection, behavior, cognition, and sociocultural matters (Plass *et al.* 2015). In recent years, a considerable number of scholars have dedicated their research efforts to game-based learning, which involves using games as a tool for acquiring knowledge and skills (Mazhar 2019). Furthermore, technology-mediated writing learning for primary and secondary educational students has demonstrated promising results in improving students' writing skills, enhancing their knowledge and application of new literacies, promoting engagement in writing assignments, and fostering peer collaboration and social interaction (Williams & Beam 2019). Therefore, game-based learning through digital technology can be an efficient learning method for English writing. Given the reviews mentioned above, this article will focus on how to apply the game-based learning method to stimulate undergraduates' learning motivation and better engage them in English writing in the long period. There are two research questions: first, what elements in educational games can stimulate learners' interest and keep them engaged in English writing for a long time? Second, what kind of digital games, including specific game scenarios, game mechanics and gameplay strategies, can increase student interest in English writing and maintain long-term learning?

1.3 Audience

For some part of learners having not obtained basic vocabulary and grammar, it needs substantial work to improve their English writing competence step by step. The Bloom Revised Taxonomy suggests that beginner-level English writing improvement involves engaging with all aspects of the taxonomy, including remembering, understanding, applying, analyzing, evaluating, and creating (Amer 2006). It is not feasible to include all functions into one game-based learning model. Additionally, this study is only a begin to analyze how to engage students in English writing through game-based learning, so the audience in this article will be narrowed down to a smaller part, who are college students, the learners having already acquired basic vocabulary and grammar for English writing. For these learners, English writing mainly reflects their ability of creating, according to the Bloom Revised Taxonomy (Amer 2006).

In order to solve two research questions, this study will include a literature review to extract the key elements for facilitating and maintaining learners' interest in English writing through game-based learning. Second, a digital game prototype with learning objectives, game scenarios, mechanics and gameplay strategies to engage college students in English writing will be presented.

2 BACKGROUND

2.1 Strategies for improving English writing skills

Improving English writing skills has been a significant challenge for many Chinese college students. Several studies have explored the current situation and identified various problems, such as lack of writing practice, insufficient feedback, and inadequate teaching methods. To address these issues, scholars have suggested several strategies, such as using English writing tools, incorporating writing into daily activities, and providing meaningful feedback. For instance, Huang and Zhang recommended the use of process approach to improve writing skills, while Wei and Su suggested that teachers should focus on developing students' writing strategies and skills (Huang & Zhang 2017; Wei & Su 2019). Additionally, Wang and Zhang proposed the use of authentic materials, such as news articles and social media posts, to help students understand

the context and purpose of writing in English (Wang & Zhang 2018). Overall, to improve English writing skills, Chinese college students need to practice writing frequently, receive constructive feedback, and use effective teaching methods and tools (Huang & Zhang 2017).

2.2 *Teaching challenges*

One of the main challenges in teaching English writing is that it requires a lot of practice and feedback. Students need to write frequently and receive feedback on their writing in order to improve their skills. However, providing feedback on writing can be time-consuming for teachers, especially in large classes. In addition, writing can be a difficult and intimidating task for students, which can lead to a lack of motivation and engagement.

2.3 *Improving English writing skills through games-based learning*

To overcome the challenges of improving English writing skills among college students in China, game-based learning has emerged as a promising solution. By offering an immersive and interactive learning environment, games have the potential to engage and motivate students to practice writing. Game-based learning approaches can provide students with a fun and engaging way to practice writing while simultaneously receiving valuable feedback to enhance their writing abilities. Furthermore, game-based learning can address the challenges of providing feedback on writing. In a game-based learning environment, feedback can be provided automatically, allowing students to receive immediate feedback on their writing. In addition, game-based learning can provide students with a safe and supportive environment in which to practice writing, without the fear of being judged or criticized. Overall, game-based learning has the potential to address the challenges of teaching English writing and provide students with an effective and engaging way to improve their skills.

3 GAME PROTOTYPE

3.1 *Learning objectives*

- Learners aim to remember the specific vocabulary according to different scenarios.
- Learners can learn grammar and imitating sentence patterns to make sentences.
- Learners will learn different writing styles such as narrative, argumentative, letter and email, propositional writing, paraphrasing and summary, etc.
- According to different writing styles, learners should understand how to organize sentences to form a structural and logical paragraph.
- According to different situations and topics, learners are able to produce appropriate English compositions.

3.2 *Key strategies to facilitate English writing in the game*

Key elements in game-based learning for English writing Previous studies have identified several key elements that can facilitate and maintain learners' interest in English writing through game-based learning. These elements can be categorized into cognitive and motivational strategies (Plass *et al.* 2015).

3.2.1 *Cognitive strategy*

This strategy aims to engage learners in the English writing learning activity by creating a flow vibe. This can be achieved by providing a challenging yet achievable task that requires learners to use their skills and knowledge. Learners should feel fully immersed in the activity, to the point of being in a state of absorption. This can be achieved by using game mechanics

such as narrative, challenges, and rewards (Plass *et al.* 2015). For the part of challenge, the game should provide an appropriate level of challenge that is neither too easy nor too difficult for learners (Plass *et al.* 2015). As for the feedback mechanics, the game should provide timely and specific feedback to help learners improve their writing skills (Plass *et al.* 2015). The Goal setting of the game should provide clear goals and objectives to motivate learners (Plass *et al.* 2015). For the adaptivity, the game should adapt to learners' progress and adjust the level of challenge accordingly (Plass *et al.* 2015).

3.2.2 *Motivational strategy*

This strategy focuses on fostering learners' motivation by providing them with timely objective feedback and a sense of control. However, certain types of feedback such as written corrective feedback (WCF) and process-oriented feedback may discourage learners' motivation for writing in a second language. Instead, expressive feedback, scoring, peer, and self-feedback can boost learner writing motivation and engagement (Plass *et al.* 2015).

3.2.3 *Affective strategy*

This strategy aims to boost learners' creativity in English writing by providing them with fantasy fulfillment. This can be achieved by creating a game world that meets learners' needs for intrinsic and extrinsic fantasy. For instance, learners can take on the role of a character in the game world and complete tasks related to English writing (Whitton 2011).

3.2.4 *Sociocultural strategy*

This strategy aims to engage learners in teamwork and daily practice by creating a game-based community. Learners can collaborate with each other and receive feedback from peers and instructors. This can foster a sense of belonging and motivation to continue learning (Wood & Reiners 2015).

3.3 *Design models and instructions*

There are different design models and instructions that can be used to facilitate English writing in games. One such model is the "game design for learning" model, which focuses on designing games that promote learning. Another model is the "learning through game design" model, which focuses on teaching learners how to design games that promote learning. Some instructions for designing games for English writing include using storytelling, providing opportunities for practice and feedback, and integrating different writing styles and genres into the game (Plass *et al.* 2015).

3.4 *Game prototype*

3.4.1 *Overall design*

The digital game prototype developed for this study features an engaging narrative that follows a group of students as they prepare for a writing competition. The game is structured around the different stages of the writing process, including pre-writing, drafting, revising, and editing, with each level presenting the player with a specific writing task. By utilizing the skills and knowledge they have acquired in previous levels, the player is able to successfully complete each task. Additionally, the game incorporates collaborative elements, such as peer-review and feedback, which promote teamwork and idea-sharing among players. The game prototype outlined in the above passage includes several features designed to engage users in English writing learning activities.

3.4.2 *Game scenarios*

The profile building process will create an individualized character that represents the user and will help them explore the world of English writing. The game scenarios are divided into

modules such as school, daily life, and working place, and each module includes various passageways with different degrees of challenge based on the user's English level, as determined by an AI test. The passageways will be blocked until the user passes the previous checkpoints. Users can collect stars during the journey to purchase products in the game center.

3.4.3 *Game center*

According to Shen, game centers in English learning prototypes are effective in providing a platform for users to engage in various fun activities while learning (Shen 2013). This is consistent with the present game prototype, where users can participate in little games and communicate with each other to enhance their English writing skills. Furthermore, Sun argues that incorporating trading centers in game prototypes can improve users' learning motivation and outcomes (Shen 2013). In this game prototype, users can purchase lesson packages and learning videos to further enhance their English writing skills.

3.4.4 *Feedback mechanics*

The feedback mechanics in this game prototype align with the principle of expressive feedback, which has been shown to boost learners' motivation and engagement (Zhu 2020). Moreover, the use of AI to suggest the next challenge based on the user's performance aligns with the cognitive strategy of providing a challenging yet achievable task that requires learners to use their skills and knowledge (Kumaravadivelu 2006).

3.4.5 *Daily activities*

Daily activities are an important part of gamification in education, as they help to motivate and engage learners by providing regular feedback and rewards for their progress (Hamari *et al.* 2014). The use of badges has been shown to be an effective way to motivate learners by providing tangible evidence of their achievements (Denny *et al.* 2013). In addition, competitions and challenges can create a sense of excitement and engagement among learners, encouraging them to participate in the learning process (Kapp 2012). By incorporating such elements into the game prototype, it is hoped that users will be motivated to continue learning and improving their English writing skills.

4 EVALUATION

In evaluating the effectiveness of this game prototype for improving English writing, Teng's framework for game-based language learning can be used. This framework includes four dimensions of evaluation: cognitive, affective, social, and linguistic (Teng 2021). It provides the overall prospective to value the user's learning experience and outcome. However, except for those theoretical dimensions for guiding evaluation, learners' practices on English writing to meet a various of requirements is the most significant evaluating point, which needs to be added to the evaluation study. Hence, a standard test for evaluating learners' English writing skills combined with the educational game will be conducted in the future study. However, comparison and data reference of similar English learning prototypes, such as the one developed by Shen, can provide further insights into the strengths and weaknesses of the proposed game prototype (Shen 2013). Shen did data analysis such as T-test based on SPSS 11.5 software's function to see if the experimental group can make more progress than the control group, whose answer was positive (Shen 2013). It is an effective method for evaluating a teaching model. However, as the game prototype in this article is only a rough model, using the analyzing method as Shen's may not exactly reveals its teaching outcome. Therefore, this part will be left to the further study.

5 CONCLUSION

Research has demonstrated that game-based learning is a successful educational approach that can boost learners' involvement, drive, and analytical abilities. In the context of English writing education, game-based learning can provide an immersive and interactive learning environment that can help learners develop essential writing skills. This study has discovered that certain essential components, such as game development, feedback, and support structures, are vital in guaranteeing the success of game-based learning for English writing instruction. Therefore, educators should carefully consider these elements when designing and implementing game-based learning activities in their English writing classrooms. With the increasing popularity and accessibility of digital games, it is important for educators to explore and utilize game-based learning to enhance their students' writing proficiency and ultimately, their academic success.

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Chinese primary school students improve English through VR-based drama education games

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ABSTRACT: This literature review explores the potential of VR (Virtual Reality) games that incorporate drama education techniques to enhance English language learning for elementary school students in China. The review begins by highlighting the benefits of gamification and the potential of games to facilitate language acquisition. The limitations of traditional drama education are discussed, including limited opportunities to satisfy students' preferences, different learning goals for each student, high time costs, and limited hardware facilities in schools. Researchers have found that AI (Artificial Intelligence) technologies, in combination with VR games, can provide personalized feedback and adaptive learning experiences, potentially creating a more engaging and personalized language learning experience for Chinese elementary school students. The review concludes that game-based learning through VR, incorporating drama education techniques, has the potential to significantly improve English language proficiency among Chinese elementary school students, while addressing the challenges of traditional drama education. More research is needed to establish the efficacy of this method and its possible impact on language learning results. Therefore, this paper contributes to the field by proposing game-based VR learning with drama education techniques to enhance English proficiency among Chinese elementary students, addressing challenges of traditional drama education.

Keywords: Drama Education, Game-based Learning, Virtual Reality, English Proficiency, Gamification

1 INTRODUCTION

There has been a surge of interest in the use of virtual reality (VR) games as an aid for language acquisition in recent years. One particularly promising area of research is the use of VR games that incorporate drama education techniques to enhance the English language learning experience for elementary school students in China. Reiners and Wood suggest that gamification has the potential to improve the learning experience by promoting engagement, motivation, and active participation (Wood & Reiner 2015). This idea is particularly relevant to the implementation of VR games in language learning, as it has been shown that games can facilitate language acquisition by creating a context for meaningful communication (Zhang & Aslan 2021).

Drama in Education, which involves the use of drama techniques to facilitate subject knowledge learning, has been the subject of theoretical research and practical exploration worldwide for many years. The emphasis is on “education” rather than “drama.” In China, there is theoretical basis for introducing drama teaching into English classrooms, including

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research on drama teaching both domestically and internationally, the theoretical basis for language learning through drama, and the significance of drama teaching for language learning. Some theories suggest that English learning is based on holistic learning in a situational context, rather than on individual aspects such as vocabulary, grammar, or pronunciation, which is an advanced concept in English teaching that has been promoted in recent years in China. Drama teaching has also gradually been introduced into English language learning for primary school students, with the author having served as an English drama instructor in the six-month English drama teaching program at Beijing Hepingli Elementary School. However, the problem with such an enjoyable English teaching mode is that there are significant limitations in terms of promotion.

The purpose of this literature review is to present an overview of current research on the possibility of drama-based virtual reality games to improve English language acquisition among Chinese students in elementary schools.

2 CHALLENGES OF TRADITIONAL DRAMA EDUCATION

Drama education has become increasingly popular in English language teaching, as it provides students with opportunities to develop their language skills, creativity, and confidence. During the process of drama performance, students' self-enjoyment is evident, as their interpretation of lines, scenes, and different cultural lifestyles reflect their understanding and re-creation of the language. Specifically, their ability to control and express themselves through language is rare in regular English classrooms. Therefore, drama education provides meaningful value in many aspects, such as cultivating students' internal motivation for language application, their tension in oral output, enjoyment, and sense of achievement, as well as the immersive experience of drama itself. However, there are several problems that need to be addressed in current drama education.

2.1 *Boring rehearsal for plain text dialogue*

Teachers often find that students lack motivation when faced with a plain text dialogue during drama lessons. This is mainly due to a lack of understanding of the script, which makes it difficult for them to visualize the plot. Moreover, plain text dialogues can be challenging for elementary school students to comprehend, and videos or animations can be more effective in facilitating their understanding. Therefore, some supplementary videos are needed to help students grasp the content more quickly and immerse themselves in their roles.

2.2 *Limited opportunities to satisfy students' preferences*

Students' interests in script selection and character preferences are often constrained by the practical limitations of English drama classes. For instance, in a semester, a class can only rehearse, perform, and present one play, and a role can only be played by one student. To be more specific, some students prefer fantasy fairy tales like "Frozen", while some students prefer fantasy adventures like "The Hobbit". As a result, some students may be disappointed if they cannot play the lead role or if the chosen play does not align with their interests. This can lead to decreased motivation and interest in the rehearsal process and learning.

2.3 *Different learning goals for each student*

It is difficult to create a play that benefits all students equally, as students have varying abilities in language expression. Based on Bloom's Revised Taxonomy, which includes six stages of educational goals and cognitive levels, some students may benefit more from the

adaptation and creation of dialogue (apply & create), while others may only remember and understand the lines (remember & understand) (Mizbani & Chalak 2017). Students' learning goals and proficiency levels in language and communication are different, making it challenging for traditional offline English drama teaching to meet their diverse needs.

2.4 *High time costs for students*

Practical English drama activities, such as rehearsing and performing, require a lot of coordination from different parties. Every student involved in a play needs to attend rehearsals at the same time, which reduces the frequency of class scheduling and the overall opportunities for students to practice. In addition, some students may have a better grasp of lines and scripts than others, which leads to ineffective rehearsals and wasted time for students who are well-prepared.

2.5 *Limited hardware facilities in schools*

Generally, schools do not have the necessary hardware facilities, such as professional drama halls, sound and lighting equipment, and props and costumes. Without these basic facilities, English drama education is challenging to promote in more schools, especially in relatively underdeveloped regions.

Therefore, without tailored teaching content and goals, limited time and space, and the lack of easy-to-implement media, it is challenging to promote the English drama teaching model to a broader audience.

2.6 *Methodology*

It can be seen that the traditional drama teaching has been restricted by the above. However, many researchers have found that with the popularization of artificial intelligence technology, using VR technology as a medium can help to address these issues and allow more children to experience the joy of learning English drama. Zhang and Aslan discuss the potential of AI technologies to enhance language learning by providing personalized feedback and adaptive learning experiences. This can be particularly beneficial for students who struggle with English language learning. By incorporating AI technologies into VR games that use drama education techniques, it may be able to provide Chinese elementary school pupils with a more personalized and engaging language learning approach (Zhang & Aslan 2021).

2.7 *In-game learning supports*

Incorporating in-game learning supports, according to Wouters and van Oostendorp's research, can improve learners' cognitive capacities as they play by helping them concentrate on crucial information, make decisions about their next steps, and engage in more effective learning (Wouters & Van Oostendorp 2013). However, ineffective learning tools can interfere with game play and make it more difficult to make the connections between game tasks and prior knowledge, as noted by Schrader and Bastiaens (Schrader & Bastiaens 2012). As a result, literature on in-game learning supports has produced mixed results. Nonetheless, a meta-analysis by Wouters and van Oostendorp suggested that learning aids that blend auditory and visual forms, such as videos, have a moderate impact on learning (Wouters & Van Oostendorp 2013). For instance, in an English-teaching game with learning support videos, students who regularly watched these videos outperformed a control group in terms of language imitation, pronunciation, and intonation. Before the students start the drama performance, it is very necessary to put a supporting video, which can bring the correct demonstration to the students, and the students can choose a native English speaker to do

the demonstration, so that they can focus on observing and imitating the authentic pronunciation and tone. Lack of in-game learning support will make students at a loss, that is, they don't know the plot clues of the script, and they don't know the lines. Thus, students can choose between prompt support for plot cues, or demonstration support for specific lines, including pronunciation and intonation of voice.

2.7.1 *The modality principle*

The modality principle suggests that individuals are able to learn more effectively from graphics accompanied by narration as compared to text alone (Mayer 2017). For instance, when an English class is provided using narration through an auditory aid rather than textual content, pupils are more likely to learn language points. This principle aids students in processing information utilizing both audio and video channels, thereby reducing the cognitive load on the visual channel (Mayer 2017). The objective of this principle is managing essential cognitive processing.

2.7.2 *The multimedia principle*

The multimedia principle is a principle designed to promote generative cognitive processing. It suggests that students with words as well as images, when compared to words alone, helps them learn with greater effectiveness. This principle helps learners to connect and comprehend verbal and visual mental representations (Kuba *et al.* 2021; Mayer 2017). The goal of this principle is to foster generative cognitive processing.

To enhance cognitive processing and improve learning outcomes, it is beneficial to address multiple objectives using various principles when designing multimedia instructional materials. Therefore, multiple principles were used to create in-game learning support videos. Kuba *et al.* suggest that in-game learning support videos can be a valuable tool for enhancing the learning experience in VR games (Kuba *et al.* 2021). By using multimedia learning principles to design these videos, it may be possible to provide more effective and efficient language learning support for the students.

2.8 *Motivation*

Laine and Lindberg conducted a systematic literature review concerning design principles and game motivating factors, identifying key factors that contribute to the engagement and motivation of game players (Laine & Lindberg 2020). Adequate learner engagement is crucial for educational interventions to be effective. However, achieving such engagement can be a challenge if the learner lacks motivation. It has been shown that games exhibit influential motivators that have the ability to stimulate interest in tasks that may otherwise seem unappealing, such as language learning. Nonetheless, designing an educational game that can deliver sustained motivation is a difficult task. A variety of game design principles and motivating factors have been suggested in previous studies as solutions to this problem, but a thorough synthesis is still lacking (Laine & Lindberg 2020).

Engagement is the term used to describe the learner's level of participation and interest during the learning process, while motivation refers to the underlying rationale that drives the learner to become engaged in and committed to a learning activity. Extrinsic and internally driven involvement must be distinguished since they can have differing effects on how well long-term goals are achieved. According to Ryan and Deci, extrinsic motivation, which is driven by external rewards like money, grades, praise, or avoidance of punishment, is associated with extrinsically motivated engagement (Ryan & Deci 2000). While it's relatively easy to establish, maintaining it over an extended period can be challenging. On the other hand, as Malone indicated, intrinsically motivated engagement is rooted in intrinsic motivators including inquisitiveness, challenge, and teamwork, which bring about genuine pleasure and gratification in performing the activity (Malone 1981). As a result, this form of

engagement is inclined to endure for a greater duration and even result in the state of flow, where the person is fully absorbed in the activity. However, the challenge is to cultivate and sustain motivation, whether intrinsic or extrinsic, for tasks that people might not be innately enthusiastic about, like mastering a challenging subject or skiing in the summer.

2.9 *Design principles*

2.9.1 *Provide opportunities for collaboration*

Incorporating collaborative game activities is an effective strategy for fostering the development of social bonds and camaraderie among players can augment their engagement over a longer period of time. To achieve this, the game should feature activities that encourage a team-based approach to achieving a common goal (Annetta 2010). These cooperative endeavors may generate a degree of conflict among players, which can, consequently, promote team interaction and expedite decisional process in devising a course of action (Wendel *et al.* 2013). It is crucial to offer communication and engagement options both inside and outside the game to encourage in-game cooperation. Give students the opportunity to collaborate on the understanding of scripts and plots in dramatic performances, create group-based activities that require students to work together towards a common goal. Moreover, students could work in teams to solve language puzzles or engage in role-play conversations where they must use English to interact with virtual characters.

2.9.2 *Allow players to form and manage groups*

The game mechanics allows players to build and organize groups (Nah *et al.* 2013; Rapp 2017), it also enabling players to create and join groups is crucial in promoting group-based identification, fostering both cooperation and competition among them (Rapp 2017). This principle is widely employed in popular online games to enable multiple-player experiences and encourage community formation within game, thereby promoting player engagement. Group membership enables players to feel a sense of belonging and purpose, which can lead to increased recognition, while providing them with the ability to manage their groups empowers them with a sense of control. To apply these theories, teachers should provide students with tools to manage their groups, such as allowing them to create group goals, assign tasks, and monitor progress towards achievements. The game can recognize and celebrate the achievements of players and groups to foster a sense of belonging and purpose. The game could include leaderboards, badges, or certificates that students can earn for completing language-related tasks or contributing to group activities.

2.10 *Game mechanics*

Based on the research of which design principles, learning theories and motivation theories, this VR game is designed with three modes: single-player, multiplayer, and collaborative. Additionally, the game difficulty settings can be adjusted based on the student's language level, allowing them to progress gradually and effectively. The key to applying these design principles effectively is to create a game environment that promotes social interaction, collaboration, and competition while also providing opportunities for players to develop their language skills in a fun and engaging way. To motivate students and encourage their learning, a reward mechanism is also included in the game.

2.10.1 *Single-player mode*

Single-player mode allows students to individually select a script of their choice and then choose any character from the script. They will then perform the English lines with an NPC in a theater setting and ultimately generate a stage play video. The single-player mode allows students to freely choose scripts and roles, which can better meet individual needs, and also helps to practice English speaking when interacting with NPCs.

2.10.2 *Multiplayer mode*

In the multiplayer mode, students form groups to collectively choose a fixed script, and each person portrays a character. If there are not enough people, the remaining roles will be filled by NPCs. The play is performed in English, and a stage play video is created at the end. The multiplayer mode can develop students' teamwork and role-playing abilities, and also improve their English-speaking skills when communicating with other players.

2.10.3 *Collaborative mode*

In the collaborative mode, students work in groups to create a brand-new script. They can choose stage design, lighting design, and scenery, then create characters and write their own scripts. Each student can upload their own lines, and after one person goes offline, other classmates can continue rehearsing and performing. Finally, a stage play video is generated. The co-creation mode can stimulate students' creativity and imagination, and enhance their English expression and collaboration skills when working together with other players to create scripts.

This game mechanism can improve students' English-speaking ability, expression ability, and teamwork skills, and can be combined with VR devices to increase engagement and immersion. The game difficulty settings can be adjusted according to language difficulty, allowing novice players to imitate and mimic existing dialogues, intermediate players to perform using a cloze test, and advanced players to create their own dialogue on the spot. This game mechanism can be combined with VR devices to more realistically simulate theatrical performance scenes, thereby increasing students' engagement and immersive experience.

2.11 *Game difficulty settings*

Students select the script, character, and task mode in sequence on their computers. They rehearse and perform English drama using a VR headset device. Specifically, based on a rough story line, the specific dialogue can be set according to language difficulty. For novice players, they follow existing dialogues, and the subtitles floating in front of their eyes in the VR goggles are presented just like in karaoke. The learning objective is to imitate and mimic, which falls under Bloom's Revised Taxonomy as input learning and language memorization. For intermediate players, they perform drama using a cloze test, which requires them to read out the lines and fill in the missing information. This tests their understanding of the story and their language application abilities, which falls under Apply. Finally, advanced players create dialogue based on the main story line, and each conversation can be improvised by students on the spot. This tests their application abilities and falls under output learning, which is Create.

2.12 *Game rewards*

The use of a reward mechanism is based on motivational and interest theories that can provide timely and effective positive feedback to students to encourage their learning. Even in single-player mode, students will receive feedback in the form of sound effects and visual rewards for correctly performing their lines. Research suggests that rewards should be controlled within a certain range to avoid disrupting the overall performance flow and rhythm. Specifically, a faint and pleasant sound can be used, and a reward module can be added to the upper right corner of the VR headset's perspective to ensure that students receive timely and effective rewards that they can both hear and see.

2.13 *Immersive environment*

An immersive environment refers to a learning environment that provides a feeling of being there and immersion in a virtual or simulated world, which can stimulate learners' interests

and motivations. In this type of environment, learners can be more engaged, active, and willing to explore than in traditional learning environments. The cognitive theory of multimodal learning claims that, when learners are immersed in a complex and dynamic environment, they are more likely to engage in deeper processing, which can lead to better learning outcomes. Therefore, incorporating immersive environments into language learning games can increase the motivation and engagement of learners (Kuba *et al.* 2021).

3 CONCLUSION

In conclusion, traditional drama education in China faces several challenges that hinder its ability to effectively teach English to elementary school students. However, with the widespread adoption of artificial intelligence technology, VR technology has the potential to revolutionize the way English drama education is taught. By incorporating in-game learning supports that follow the modality and multimedia principles, as well as design principles that encourage motivation, collaboration, feedback, and immersion, it may be possible to create an engaging and personalized language learning experience for Chinese elementary school students. However, further research is required to substantiate the effectiveness of VR-based English drama education and to optimize the design of VR games for language learning. With further development and refinement, VR technology may become an essential tool for teaching English to Chinese elementary school students in the future.

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The theoretical validity construct of grammatic assessment initiating in field and transitivity system

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ABSTRACT: One of the pedagogy implications in the Systemic Functional Grammar (SFL) framework is grammar teaching contextualizing through the inter-trajectory play between “language learning” and “learning about language.” One way to approach contextualization is known as genre pedagogy programmed by Sydney School. The cycle of teaching, learning, and evaluation starts down from genre, that is, the thematic languages. However, there can be another way to resolve decontextualized SFL learning, which initiates in Filed, that is, the environmental relevance of the language. On the one hand, the initiation refers to a theoretical validity construct through the Hallidayan lens, on the other hand, an attempt was made to articulate an initiation up from field knowledge, that is, transitivity system, to genre. In all, the initiation is a theoretical construing of scaffolding assessment embedded in situations of Chinese college SFL teaching practices and experiences. The situations are termed decontextualized SFL learning, featured as horizontal progressions rather than ongoing stages or cycling in genre pedagogy. Explicitly, the learning outcome of decontextualized one cannot preclude an ongoing language learning and pedagogy implication. Through analysis, it can be better to contextualize starts down from field to approach SFL knowledge.

Keywords: Theoretical Validity Construct, Field, Register, Grammatics

1 INTRODUCTION

The basic validity principles can be concluded as: (1) A test’s validity is not a property. Instead, it refers to using a test for a specific reason. (2) Multiple sources of evidence are required to evaluate a test’s utility and suitability for a given purpose. (3) Adequate evidence must be presented to support the use of a test for a certain purpose if the use of the test is to be justified. (4) Evaluating test validity is a continual reoccurring; it is not a static, one-time occurrence (Sireci 2007).

The motif of validity emphasizes both the necessity of theoretical underpinnings matching curricula and pedagogy and ongoing practical evidence being consistent with the theory. Thus, validation can begin with theory constructs. However, the construct should be in a practical situation (Messick 1996).

The assessment is validated for English major students in a China university. They are English as Foreigner Language Learners (EFLs) and some of them will go for linguistic, translation, foreign language teaching, or literature discipline in their later graduate studying. As a result, the Systemic Functional Grammar (SFG) or Grammatic introduction class is compulsory and necessary in their cultivated curricula. However, the teaching is not always successful overlooking MAK. Halliday’s expectations and his theoretical constructs (Halliday 1993). One of his expectations or one of the implications in his theory can be the

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contextualization of grammar teaching through learning language accompanying learning about language. However, the failure can be much more explicit in their learning outcome. One example can be that some learners always ask what the role of functional grammar in language learning is or why learners should learn another grammar functionally.

Thus, the theoretical validation begins with the possible explanation for not being successful simultaneously with the depiction of the teaching practice. It is depicted as de-contextualized teaching modeling compared with a contextualizing instance featured as Genre-based pedagogy. Then, it is the validity construct initiated in the transitivity system and “field,” which can be different from genre-knowledge-based pedagogy in the direction and orders of teaching and learning. Genre-based pedagogy approaches Systemic Functional Grammar (SFL) down from genre to the register and its corresponding language structures. “We had no knowledge about language to work with . . . So, we decided to begin not with language with genre, and begin to re-introduce ‘knowledge about language’” (Rose & Martin 2012). However, for Chinese university English major students, their knowledge of language is competitive starting from register to genre, from field to mode, and from ‘actor’ line to ‘theme’ line. However, they approach grammar in a constituent and orthodox way. Thus, one outstanding difficulty for them is the conceptual transformation from formal structures knowledge to Grammatical awareness. The transformation can be gestured as ongoing grammatical learning, referring to the systematic study of lexicogrammar (Williams 2006). In turn, it implicates with respect to four goals entering into a grammatical awareness development, i.e., how language really does its work semantically (Halliday 1966, 1985; Halliday & Hasan 1980; Halliday & Matthiessen 1999, 2013; Sinclair 2000).

In all, the paper contains a theoretical validity construct initiation of scaffolding assessment on SFL grammatical teaching in a decontextualized situation. However, it is destined to mainly articulate the SFL arguments rather than the property of scaffolding referred to in SCT theory.

2 THE COMPARING TEACHING PRACTICES DEPICTION

The author used to be a tutor and an instructor at a Chinese university, foreign languages department. The teaching method in this experience is about traditional-grammar-teaching alike (see Figure 1).

Figure 1 shows a linear progression from constituency knowledge of the English Language and explicit functions of language and its corresponding systems. However, the consistency or correspondence is not being aware by most of the learners. After the linear progression alike teaching and learning, the learners are expected to operate a discursive analysis using one system with its labels.

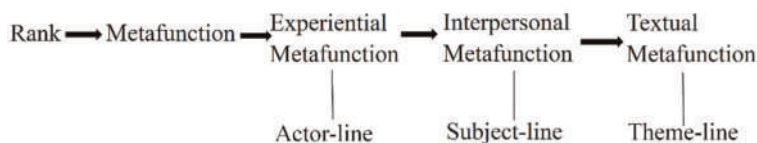


Figure 1. The decontextualized teaching progressions.

In the learning process, the learners always ask:

- What is the role of functional grammar in language learning? Why should people learn another grammar functionally?
- Is there any connection among the three meta-functions? For instance, how are the projections in the verbal process and appraisal analysis correlated? Or are they just two angles to analyze clauses?

- What does function mean? Why does meaning equal function? Does context refer to context or the situation of communication or talking?
- Through the author’s reflection on this experience, the queries can be concluded into three matchable difficulties presented by them:
- The meaning of the functional labels learning.
- The grammatic interactive relationships among the three meta-functions: ideational, interpersonal, and textual.
- The potential of lexis and grammar, that is, the notion of “realization” and “wording.”

In turn, these queries and difficulties can be taken as learning outcomes. They are their own reflections on working with discourse and discursive analysis using functional grammar. However, the usages are rough with quantitative methods to investigate the ratio of some specific structures in each system. The purposes of their analysis can be concluded as the text-objectivity using the Transitivity System, the personality or solidarity in the Modality and Appraisal system, and the coherency applying Theme-Rheme placement. Taking Modality as an example, one learner uses functional labels to investigate the personalities of the characters in the narrative genre (excerpt from one of the learners’ final works):

The learner attempts to analyze the interpersonal meaning in Love is a Fallacy through Modality grounded on the data of three protagonists’ dialogues. It focuses on the comparison of modal values and frequency of modal words among characters. His research shows that whether it is possible modal wording or obligatory modal one, the usages of these modal words play a significant role in the change of characters’ personalities and relationships, which helps people to further integrate into the emotional changes of characters and understand the behavior of characters in that situation, so as to better the discourse analysis. It is found that Dobie, Petey, and Polly use medium-value modal verbs most frequently, accounting for 48.5%, 45.5%, and 37.5% respectively. From the perspective of modal values, most of the words indicating possibility are low-value, while most of the words indicating obligation are high-value. The use of low-value possibility modality indicates the speaker’s calm and relaxed state of mind, and the use of high-value obligation modality reflects the speaker’s emotional excitement. These further readers’ appreciation of the personalities of the characters.

Compared with another Contextualization–Decontextualization–Recontextualization modeling teaching practice instance, the linear progression figure can be taken as a decontextualized situation of SFL teaching and learning. However, their target population differs. The learning outcomes of Chinese college learners show that their learning of SFL is grammar rules and forms applied to discourse analysis without reframing and rethinking grammar as resources in the context of situation and culture to accomplish their particular goals (Halliday 1993). Nevertheless, the application does make them aware of the difference between traditional grammar and functional grammar to some extent.

Troyan & Sembiant published their work on SFL-knowledge-based instruction for world language teachers, whether pre-service or in-service (Troyan & Sembiant 2020). Their teaching practice can be modeled as decontextualization accompanying the introduction to field, tenor, and mode knowledge, and Recontextualization articulating the analysis in daily languages (see Figure 2).

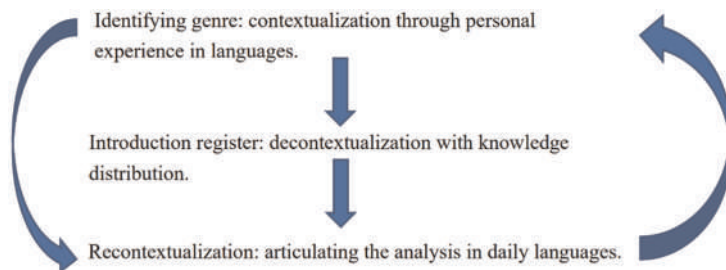


Figure 2. The contextualized teaching stages (Troyan & Sembiant 2020).

In conclusion, the contextualized one is sufficiently supportive evidence of Halliday's pedagogy expectations or implications. However, it is genre-theory-based. "In our work with students, we define genre according to the theory developed by the Sydney School of Linguistics (Troyan & Sembiente 2020)."

Introducing daily language use, that is, identifying daily genres and introduction to "Register" (Field, Tenor, and Mode) differ the two teaching practices. Nonetheless, the result of teaching practice can also be the distinguishment. In the contextualized instance, the learners developed a meta-language awareness, and they also built an ongoing negotiation with texts. The results derive from the principle of "learning language." However, the purposes or results of the de-contextualized one are based on the emphasis on "learning about language":

- Comprehend rank-shift as a syntactic basis of realization (Halliday 1966, 1985; Halliday & Matthiessen 2013).
- The role of ideation or field is concerned with the nature of activity or the semiotic base in discourse analysis (Halliday & Hasan 1980; Halliday & Matthiessen 1999).
- The interactive relationship between the field of discourse and tenor of discourse: "event flow and intersubjectivity" (Halliday & Hasan 1980).
- The issues of the lexicogrammatical nature of lexical organization in the SFL framework (Sinclair 2000).

3 THEORETICAL CONSTRUCT

3.1 *Halliday's pedagogy implication*

One of the significant pedagogy implications or expectations is grammar teaching contextualizing through the negotiation and co-relating of learning language and learning about language in Halliday's theoretical constructs. Halliday proposed: nothing makes the thought that language is interpreted in relevance to its surroundings more explicit than the education field (Halliday 1973). Language appears in education in three ways: as a material (EFL), as an instrument or medium (school disciplines learning), and as an object (learning about language: constituency, functions, dictionary learning). In the English language education processes, linguistic structural elements should be more appropriately theatricalized or described in terms functions of language such as 'object of desire, which clearly derives from the 'I want' function of language than in any "purely" grammatical terms, whether these are come from the mature form of the adult speaking or writing, like "subject" or introduced specifically to explain the saying-features of the child, like "pivot" (Halliday 1999; Martin & Rothery 1980). However, the language-function descriptions, that is, grammatical features of languages, are less direct and less immediately apparent. In turn, the success of presenting the processes in teaching practices is granted by the notion of "context." It is the notion that shrouds the interpretation of grammatic.

The context is some sort of situational surroundings; it's the event flow, and the unified situation language is somehow involved (Martin & Rothery 1980). It can be expanded in four ways, one is adjective contextual, then the verb "contextualize," and the prefixed de- and re-. Thus, language can be contextualized, decontextualized, and recontextualized in the contextual descriptions. In language teaching and learning, language is first contextualized through the negotiation of learning language and learning about language. In consequence, language learning can be decontextualized in "learning about language." Then it can be recontextualized in "learning language."

From a specific angle, "genre" can be taken for the grant, which can replace "context" in the sense of "discourse" (see Figure 3) rather than "text" (Martin & Rose 2005).

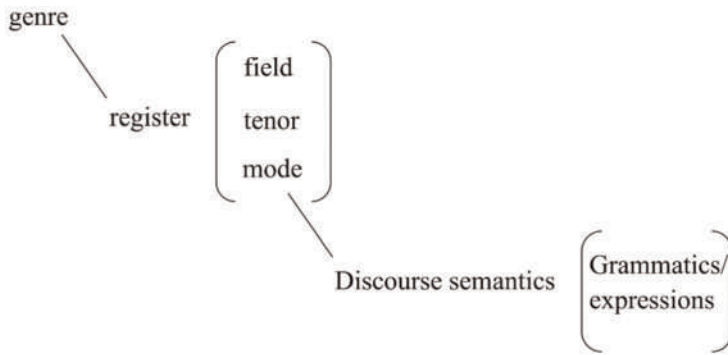


Figure 3. Register, genre & discourse.

In turn, genre pedagogy can be ordered and staged as (Hyon 1996; Martin & Rose 2005):

- Deconstruction: The pilot discourse is promoted, together with discussions of its genre, purposes of authors, discourse coherence, and linguistic characteristics.
- Joint construction: Teachers and students collaboratively finish a discourse modeled in the genre introduced. To make students experience the writing process, teachers will be “scribe” who exemplify a discourse written by themselves in the genre or context based on class discussion.
- Independent construction: refers to independent writing with the field knowledge learner, the general tenor and mode in that genre, going through drafting, teacher and peer evaluation, and final draft (Halliday 1998).

In conclusion, genre-pedagogy is proof of grammar contextualization pedagogy implication. And the order is staged down from “genre” (Deconstruction), i.e., the thematic languages, to “register” knowledge (“learning about language” or Joint construction) and “language learning” (Independent construction) (see Figure 4).

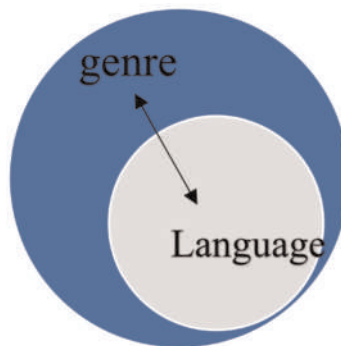


Figure 4. Negotiation of Genre & Language (Messick 1996).

3.2 Register in Halliday’s perception

Register is semantic figures, the configuration of semantic instantiations (Halliday 2014).

Grammatics embroiders certain features of context that affect language choices speakers or writers make with theoretical and analytical tools for describing the specific linguistic choices made in the view of “realization” in the levels of lexico-grammar, semantics, and

expressions. Besides, the choices are the repertoire of language resources that the language speakers or writers' control (Halliday 2014).

From Halliday's perception or in a sense of text (see Figure 5), the concept of register is a dynamic and flowing transparency on text as processes, that is, placing emphasis on register as the meaning "can be realized" in a dynamic and flowing situational context. Thus, register is bound to the language activities in the context varieties represented in the situationally selected texts or choices made in the given languages. The selections or choices are associations of grammar figures and a configuration of situational features, that is, the ratio-unfolding of the field, mode, and tenor.

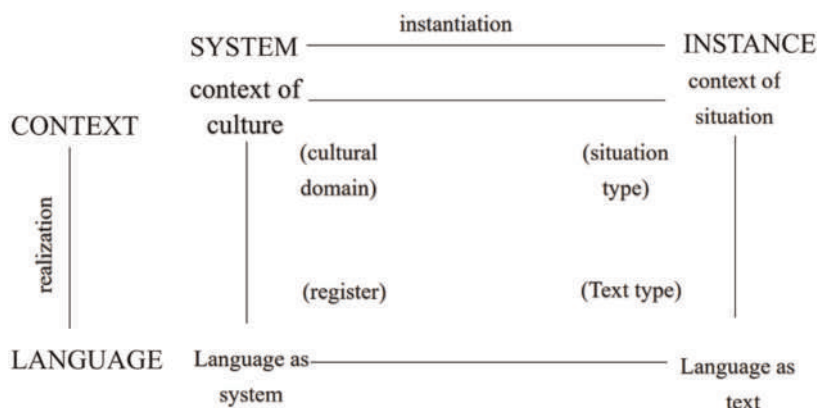


Figure 5. Language and context: system and instance (Halliday & Matthiessen 2013).

Besides, Halliday perceives the priority of register beyond genre. He says that “If there are no changes in grammar or lexis between two samples of language activity from what could otherwise be thought to be separate situation-types, they are categorized as belonging to the same register (Halliday 2014).”

The priority is a contemporary issue on the matter of how broadly the concept of context is defined, for instance, Martin's construct. However, the author would adopt the context perception of Halliday in the remodeling of decontextualized teaching practice, which focuses on the inter-trajectory of dynamic situations and lexico-grammars. From this perspective, the languages will not be thematic even fixed through the measure of “genre.” Therefore, the material environment associated with the transitivity system appears first in the theoretical constructs. It is concord with the semantic basis or semiotic base.

It has been said that the transitivity system is a meaning basis of experience constructs whether inner brain or outer world. It is mainly about the ontogenesis or language development of human beings. Besides, such paradigmatic and syntagmatic choices are contributed to the complex construal. (I) In paradigmatic construal, people construe a phenomenon as being of some particular type—some selection from a set of potential types. The ideation base is in fact organized as a network of interrelated types of phenomenon. (II) In syntagmatic construal, people construe a phenomenon as having some particular composition—as consisting of parts in some structural configuration (Halliday & Matthiessen 2013).

4 CONCLUSION

The paper mainly argues that it is valid to initiate grammatic scaffolding assessing from field to genre in the decontextualized teaching practice. It is a reflection on the author's personal experience of SFL tutoring and instructor in a decontextualized situation. In the reflection,

the functional label itself, which derives from social situations, can be taken as a contextualization of traditional grammar. However, learners cannot be aware of that without repeated reflections. In turn, learning functional grammar can be dull. Thus, it is necessary to undergo contextualizing teaching. Besides, the necessity is also a coherent requirement in the SFL theory framework. The construct initiating in field knowledge negotiates with Halliday's register perception positively, focusing on the situations in texts and their semantic features. It is also a reasonable "bounce" from field to genre. Besides, the "bounce" is applicable to learners in China who are especially familiar with constituent grammar.

However, there are some limitations in this study. There should be a survey on the learners' attitudes toward decontextualized or less-recontextualization functional grammar teaching and learning and their learning outcomes. It is one implication of the theoretical validation. Looking for continuing practical evidence is another, notwithstanding, the ambition is to construe an assessment of the whole functional grammar from the register as pieces to register as a whole, in a broad sense, genre.

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Exploring learners' anxiety in the learning process of music education

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ABSTRACT: The paper uses the research methodology of a literature review. It examines three aspects of music education learners' anxiety, including the overview of anxiety, its manifestations and influences, and the ways to relieve it. The author attempts to fully understand anxiety and find appropriate ways to relieve it by analyzing these three issues. This review covers three types of learner anxiety: subject anxiety, test anxiety, and employment anxiety, and also investigates the root causes of these three types of anxiety. The author then discusses the various manifestations and influences of anxiety, as well as methods for relieving anxiety from three perspectives: school, family, and learners themselves. This review also identifies a problem in relieving learners' anxiety: learners cannot rely solely on themselves to alleviate anxiety. Hence, they might not relieve anxiety well by themselves. There is also the importance of the help from schools and families. This paper will help music education learners and even more other music learners to better understand and relieve their anxiety. In the meantime, it will also help teachers to understand different anxieties that learners may have, so that they can better help them to relieve their anxiety and enhance their learning.

Keywords: Music education learners' anxiety, Types of learners' anxiety, Manifestations and influences of anxiety, Ways to relieve anxiety

1 INTRODUCTION

Knowing anxiety and mastering ways to relieve anxiety are necessary for music education learners, which can help them better understand and relieve anxiety to make them better devote themselves to their studies. Three different types of anxiety could be produced in universities by different students. This review paper is to investigate three research questions. The first one is the overview of anxiety in music education. The second one is what the manifestations and influences of music education learners' anxiety are. The third one is how to relieve their anxiety. This review paper covers three types and causes of learners' anxiety, four manifestations and influences of anxiety, and three ways of relieving learners' anxiety from three perspectives, including school, family, and learners themselves. These three questions are critical because they can work together to elicit learners' knowledge and relieve their anxiety about having a great school life. The main body of this paper will go over these three research questions in depth.

2 THE OVERVIEW OF ANXIETY IN MUSIC EDUCATION

2.1 *The definitions and causes of anxiety*

Anxiety is one of the emotional states produced by people in the face of unknown situations. Zhai Liwu, Dai Yongxia, and Cui Ying mention that anxiety refers to being nervous about

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inward feelings of pressure, conflict, and contradiction, resulting in a less relaxed and balanced mood, thereby causing an unhealthy psychological state (Zhai *et al.* 2007). The author thinks that it is almost the same as the anxiety of music educational learners. It means that people's bodies generate a feeling of tension and discomfort due to concerns about the reality and future of the process of music educational learning. These anxieties can be divided into three parts: subject anxiety, test anxiety, and employment anxiety.

2.2 *Subject anxiety*

Firstly, Yang Xiaoxing and Zhao Yan explain that subject anxiety refers to individuals generating emotions of tension and fear while dealing with subject problems, using subject concepts, learning subject knowledge, or taking a subject test. They identify various reasons for subject anxiety. Besides the difficulty factor of the subject, a number of other factors can also lead to subject anxiety, such as family factor and teacher factor. (Yang & Zhao 2011). The author considers that subject anxiety is learners feeling nervous and scared when facing daily subject learning and tests and there are three major factors influencing subject anxiety: subject difficulty factor, teacher factor, and time management factor.

2.2.1 *Subject difficulty factor*

Regarding the subject difficulty factor, it could be due to the fact that music education students must study a variety of boring and intricate subjects such as the history of Chinese and Western music, harmonics, music form, and so on. Aside from these music courses, students must also study culture courses such as mathematics, philosophy, English, psychology, and so on. All of these are difficult for students to grasp. Learners must improve their cultural quality while also improving their musical and professional abilities.

2.2.2 *Teacher factor*

Regarding the teacher factor, the paper argues that it has a great influence on students' studies. Excellent teachers may have good teaching methods to help students learn efficiently in the process of learning certain subjects. They can also communicate with students who are in trouble to ease their anxieties.

2.2.3 *Time management factor*

In regard to the time management factor, Lou Tianyu points out that a large proportion of students lack core goals and the skills of time management. Meanwhile, they have to study so many kinds of subjects that they cannot allocate time to each subject rationally (Luo 2009). This ensures that learners proceed with tasks without focus, resulting in low learning efficiency and loss of interest in studying. Consequently, they may struggle to keep up with the progress of several disciplines over time. They eventually develop subject anxiety.

2.3 *Test anxiety*

Second, to test anxiety, Zeidner holds the view that test anxiety is a universal emotion of nervousness, annoyance, and fear for students before and during the exam in modern society, leading to an adverse effect on study and examination performance. It has many aspects of factors, including not only individual factors, such as personality characteristics and coping strategies, but also social factors, such as family environment and educational systems (Zeidner 1998). The author considers that the factors of test anxiety should be divided into two parts: internal factors and external factors.

2.3.1 *Internal factors in test anxiety*

Zhai Liwu *et al.* points out three internal factors that affect the students' anxiety: cognitive evaluation ability, personality characteristics, and knowledge preparation. The external factors of test anxiety are school, family, and society (Zhai *et al.* 2007). For the internal factors, the cognitive evaluation factor is the primary factor among internal factors. On the one hand,

students subjectively recognize or even exaggerate the terrible exam, leading to a fear of test anxiety. On the other hand, students expect too much of themselves, resulting in having complex emotions of shame, loss, and inferiority while failing the test or getting unsatisfactory grades, then they have test anxiety. Personality characteristics are important factors, some students are impatient when facing difficult problems in the tests. In that case, they will lose more and more confidence in solving the problems. Some students are introverted and unwilling to communicate with their classmates and teachers, which is bad for their daily studies and tests. Knowledge preparation is another important factor in test anxiety. If students master the knowledge of study well before the test, they may not have test anxiety.

2.3.2 *External factors in test anxiety*

For the external factors, the author considers that all the factors of school, family, and society have a great influence on students' test anxiety. The school system and teachers' teaching methods are vital to students, if the school organizes examinations frequently or the teacher overemphasizes rote learning, students may feel a lot of pressure and have test anxiety. Students' families are also important to their development, a good family education can relieve students' pressure. For example, some parents pay too much attention to the grades and set unrealistic goals for them. These will put too much pressure on students and make them anxious. In addition, with the development of society, it has higher and higher requirements for students' grades, which will also bring test anxiety to students.

2.4 *Employment anxiety*

Thirdly, with regard to the definition of employment anxiety, Pan Ming and Lu Yijia refer to employment anxiety as the emotional experience of college students while they are facing the problem of applying for a job after graduation (Pan & Lu 2006). According to Jiang Chunlei, employment anxiety is a kind of state anxiety that refers to a transient and fluctuant emotional experience caused by tension, anxiety, and fear (Jiang 2009). These conclusions are reasonable. The author argues that employment anxiety is a bad emotion for college students while they are facing the problem of getting a job after graduation. Regarding the influencing factors of employment anxiety, Li Jiping argues that all the causes of employment anxiety can be summarized into subjective and objective aspects (Lee 2009).

2.4.1 *Subject aspects of employment anxiety*

For the subjective aspects, there are three main reasons. First reason is high employment expectations. In modern society, college students want to go to big cities and get a job with a high salary and good treatment after graduation, but such jobs usually have high standards of employment, leading to employment anxiety when their abilities cannot meet the requirements of a job application. Second is no specific employment plans. A number of music education learners make no definite plans for their future, so when they first enter society, they will have no employment direction and produce employment anxiety. Third is personality problems. Some learners concentrate on their studies at ordinary times or are introverted and they are not good at communicating with others, this is a serious problem in job interviews. In the field of music education, this can lead interviewer to believe that these students are not qualified for the job.

2.4.2 *Object aspects of employment anxiety*

For the objective aspects, there are three main reasons. First, a large number of graduates. According to Wu Jie, in China, the number of college graduates nationwide has increased from 8.74 million in 2020 to 10.76 in 2022 (Wu 2022). With each year's increase in university enrollment, the number of graduates grows rapidly, putting them under increasing competitive pressure. Second, there are strict employment requirements. The job market for music education students is becoming increasingly competitive. It requires learners to have not only high academic qualifications but also strong comprehensive abilities, making it difficult for

them to find work. Third, there are family pressures. It is divided into two sections. First, it is the pressure of parents' high expectations. Some parents want their children to find a good job that does not match their abilities, it will put a lot of mental pressure on them. Second, it is the family's economic pressure. Learners from poor families have more pressure than others. Their family cannot provide them with good conditions and resources, so they are eager to get a good job to change the current situations of their families, which will put a lot of pressure on children invisibly. Finally, the author argues that the subjective and objective aspects work together to produce employment anxiety.

3 THE MANIFESTATIONS AND INFLUENCES OF ANXIETY

Lan Guiping defines anxiety manifestations as “complex emotional responses caused by psychological conflict or frustration, usually manifested as irrational compound negative emotions such as tension, repression, anxiety, irritability, fear, distress, impulsion, and so on” (Lan 2014). The author claims that this conclusion is incomplete. Anxiety manifestations can be divided into five categories, each of which has a different impact on learners.

3.1 *Physical reactions and influences*

First is physical reactions. According to Xu Qiling, people with anxiety disorder often have a feeling of physical discomfort such as palpitation, shortness of breath, chest tightness, and even pain in the precordial area. They may also exhibit symptoms such as increased heart rate, general weakness, decreased ability to live and work, and feeling difficult in performing tasks (Xu 2020). These physical reactions have a great influence on learners. For example, they may experience these symptoms when teaching students in the future, resulting in less effective classroom experience. In addition, learners sometimes have to face some music performances, and rapid heart and breathing may cause fatigue and breathlessness during the performance, ultimately leading to the failure of the performance.

3.2 *Self-doubt and influences*

Second is self-doubt. Self-doubt is a subjective and uncertain state of self-view. It is an emotional experience accompanied by a cognitive process, which is closely related to ability and self-worth and directly affects the level of individual self-esteem (Gong & Zhang 2019). The author thinks that self-doubt can lead learners to doubt their learning ability and performance, thus affecting their confidence in learning music education and losing their motivation to learn, even giving up learning in the end.

3.3 *Emotional expressions and influences*

Third is the presence of emotional expressions. Emotionally, anxiety is manifested as paroxysmal or continuous inexplicable fear, tension, anxiety, trepidation, disquiet, inability to concentrate, etc. (Xu 2020). For music education learners who face many tests, these emotions can cause fear in learners and result in unsatisfactory grades. The inability to concentrate will bring about students' low learning efficiency at ordinary times; it means that they have to spend more time studying because they have many subjects to study. Eventually, they cannot manage their time effectively and form a vicious circle.

3.4 *Social phobia and influences*

Fourth is social phobia. Social phobia is also one of the manifestations of anxiety. According to Zhang Haitao, on the one hand, people with social phobia cannot communicate with others face to face. On the other hand, they feel insecure and keep a distance from others

instinctively (Zhang 2021). These have a great influence on people's daily life. Social phobia not only causes learners to be afraid to ask for help while facing difficulties but also makes learners unable to deal with interpersonal relationships well.

4 THE WAYS TO RELIEVE ANXIETY

Regarding the ways to relieve anxiety, the author points out that it is not enough for learners to rely on themselves. Liu Yumei suggests that the countermeasures to relieve college students' anxiety should start from three aspects: society, school, and individual (Liu 2002). But the author does not think that. The author argues that the ways to relieve learners' anxiety can be divided into three perspectives: school, family, and themselves.

4.1 *Perspective of school*

From the school's perspective, Sun Ping holds the view that there are two aspects to relieving students' anxiety. On the one hand, schools should combine psychological health education with ideological and political education, and carry out psychological education and counseling to help students build confidence and set goals. On the other hand, schools should hold abundant campus cultural activities (Sun 2008). The author argues that school counselors play an important role in relieving students' anxiety. They should communicate with students more to understand their psychological state to help them while they are facing difficulties, especially before important tests and near graduation. In daily study, counselors can also chat with students and help them make reasonable study plans to reduce their pressure and thus relieve their anxiety. In addition, it is also important for schools to hold various activities. For example, the school can hold sports meetings regularly to help students strengthen physical exercise to relieve their anxiety. Schools can also hold chorus competitions and debate competitions to enrich their spare time to relieve anxiety. Besides these activities, schools can provide students with some opportunities for mock job interviews to make them calm in future interviews.

4.2 *Perspective of family*

From a family perspective, according to the research of Li Jing, Pan Hongna, etc., family plays an important role in the development of students, including modes of family education, family relationship, and parents' educational level (Li *et al.* 1997). The author argues that the modes of family education are the most important for learners. A good mode of family education can help learners relieve their anxiety. For example, parents should encourage their children when they fail the exams. In daily life, parents should communicate with their children more to understand their inner thoughts, so as to help them in time while they are encountering difficulties. In addition, parents should not give their children too high expectations. Instead, parents can set reasonable goals for children to make them improve little by little. This will make learners more motivated to learn and benefit from building a relationship between students and parents.

4.3 *Learners' own perspective*

For learners themselves, there are many ways to relieve anxiety. Xie Yulan suggests that there are five ways to relieve anxiety. First, learn to relax; second, seek support; third, vent the emotions in time; fourth, let nature take its course; and fifth, set new goals and enhance self-confidence (Xie 2007). In the author's opinion, first, learners should set up a correct world outlook, outlook on life, and values. This will help them to establish a correct value orientation and set up the right life goal. Second, learners should manage their time well. They may make a schedule to remind them what to do at different times. This will help them

do everything efficiently. Third, learners should communicate with teachers, parents, and friends. They may give some advice when learners are in difficulties. Fourth, learners should have good living habits such as maintaining regular sleep, eating healthily, and doing proper exercise. These good habits can help learners to relieve anxiety. Fifth, learners should participate in more collective activities. They can divert their attention and relax through these activities to relieve their anxiety.

5 CONCLUSION

In this paper, the author analyzes three aspects of music education learners' anxiety: the overview of anxiety, the manifestations and influences of anxiety, and the ways to relieve anxiety. Anxiety overview entails introducing the definition, types, and causes of anxiety, such as subject anxiety, test anxiety, and employment anxiety, for learners to fully comprehend the anxiety. Anxiety manifestations and influences refer to the behaviors and effects produced during the anxiety process, such as physical reactions, self-doubt, emotional expressions, and social phobia, among others. Furthermore, the methods for relieving anxiety are defined as relieving students' anxiety from three perspectives: school, family, and students themselves. After reviewing these three aspects of anxiety, it can be found that these three aspects are helpful for learners to know and relieve anxiety. According to this review paper, it can also be found that it is not enough for learners to rely on themselves to relieve anxiety. Therefore, in the future, schools, families, and learners themselves should work together to help learners relieve their anxiety, then they will produce less anxiety and have a wonderful school life.

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Relationship between anxiety and academic burnout in college students: The mediating role of emotion regulation strategy

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ABSTRACT: One of the growing concerns of society is how to improve the academic achievement of college students. In recent years, researchers have found that negative emotions have a marked influence on the level of college students' academic burnout among college students. Also, the ability to use emotion regulation strategies to improve the problem of academic burnout is one of the topics that researchers have studied for a long time. However, few studies have combined anxiety and emotion regulation strategies to analyze their role between them in burnout. Therefore, this study analyzed the relationship between emotion regulation strategies and academic burnout, introducing anxiety as a mediating variable to further analyze the relationship between the three variables. Collecting research data by distributing and returning web-based questionnaires to current students at Xi'an International Studies University, and quantitative analysis of the data was analyzed using SPSS 26.0. The results of the study showed a two-by-two interaction between the three variables of anxiety, emotion regulation strategies, and academic burnout. Among them, anxiety, as a mediating variable, has a full mediating role. That is, using emotion regulation strategies affecting academic burnout was achieved by influencing the level of anxiety. This study concluded that academic burnout could be reduced to a great extent if college students knew how to better use emotion regulation strategies to improve their anxiety.

Keywords: Academic Burnout, Anxiety, Emotion Regulation Strategies

1 INTRODUCTION

Since 1999, many universities have started to relax their admissions requirements due to China's swift social and economic development. China's higher education is in the process of popularization as the total number of students enrolled in general colleges and universities in 2021 is approximately 10 times higher than that in 1998. Studying continues to be the most crucial task for college students at this time. According to recent research, many college students started to lose interest in their studies and became bored and anxious. Academic burnout will not only significantly affect students' future plans but also have an impact on their academic success. As a result, research on students' academic burnout will help to better understand their learning status and offer solutions to issues they may encounter in their subsequent studies.

2 LITERATURE REVIEW

Yu Dajun *et al.*'s research found that the main reason for Chinese university students' anxiety is that Chinese people's motivation for achievement has a strong collective

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orientation due to the influence of the traditional Chinese educational model (Yu *et al.* 2022). Chinese people know how to pursue achievement both for themselves and the integration of their families. In the course of modernization, socially oriented achievement motivation has become weaker and weaker in Chinese society, while individually oriented achievement motivation has become stronger and stronger, leading to increased psychological pressure. Li Wei also mentioned that anxiety among university students in China is caused by factors such as nervousness about exams, lack of self-confidence, excessive worry about exam results, loss of academic goals, and other factors in academic life and cognitive disorders (Li 2022). Chinese researchers' research gradually began to correlate academic achievement with anxiety in their analysis.

2.1 *Academic burnout*

Zeinab Rahmati examined the relationship between academic burnout and self-efficacy and found that burnout may be one of the influential elements of mental distress like anxiety (Rahmati 2015). He defined burnout as a mismatch between the job and the worker himself. Before, there was only research on job burnout. Rahmati argues that student learning can also be seen as 'work', which leads to the idea of academic burnout by analogy with a burnout in the profession. According to previous research, the burnout syndrome in students is similar to the burnout syndrome in service personnel. Student burnout can lead to a reluctance to attend learning activities on time, loss of motivation to come and complete required courses, reluctance to attend, or even dropping out of school. His research shows that the correlation between self-efficacy and the level of academic burnout is negative, and self-efficacy is strongly correlated with negative emotions. Studies have shown that negative emotions such as boredom and anxiety can reduce students' self-efficacy and lead to higher levels of academic burnout.

2.2 *Emotion regulation strategies*

The expression inhibition strategy refers to an individual's suppression of an individual's response to an emotion, which is a strategy that focuses on emotion regulation. Emotion regulation strategies play a vital role in the generation of depressed mood. It is generally believed that the more frequently individuals use emotion regulation strategies, the lower the probability of negative emotions and the lower the symptoms. Cui Xiangjun *et al.* conducted a survey of 288 ordinary college students and found that the more college students used emotion regulation strategies, the less depressed emotions they experienced (Cui 2012). The results indicated that university students agreed to use emotion regulation and were more likely to use reappraisal strategies. They suggested that the reason for this phenomenon is that reappraisal brings positive emotions to the individual and this positive state of mind leads to better integration into the group. Conversely, those who frequently used expression inhibition would gradually alienate themselves from the group and be more inclined to self-digest their emotions.

2.3 *Relations among anxiety, academic burnout, and emotion regulation strategies*

The results of the Branko Slivar's study found that anxiety levels predicted secondary school students' academic burnout levels. In addition, when people have higher levels of anxiety, their academic performance decreases, and they also experience adverse symptoms such as academic exhaustion (Slivar 2001). Yang Xiangyi's study results show that individuals who would be less likely to use cognitive reappraisal strategies to improve their emotional experience had higher levels of low mood, lower appearance of academic achievement, and higher levels of academic burnout (Yang 2001). Meanwhile, research by Huang Sicheng *et al.* has shown that university students high in the use of negative CERS are accustomed to

processing events with negative strategies, and they are less able to manage their emotions, which makes them more likely to induce anxiety (Huang *et al.* 2021). In summary, previous research concludes that both anxiety and emotion regulation strategies are significantly correlated with academic burnout. Therefore, this study hypothesizes that anxiety could be set as a mediating variable to influence emotion regulation strategies and the level of academic burnout. Recent research has focused much more on the direct link between negative emotions like anxiety and academic burnout in college students. In order to strengthen college students' self-discipline, find more motivation for learning and life goals, and have a better understanding of these three factors, this study tries to examine the mediating role of anxiety in anxiety and college students' academic burnout.

3 METHODOLOGY

3.1 *Participants*

This study used convenient sampling. Participants have enrolled students at Xi'an International Studies University. Surveys were sent to students' learning groups via an online survey tool (Wenjuanxing). 255 responses were received, of which the number of valid questionnaires was 177. The sample had 49 (27.6%) men and 128 (72.3%) women from the first year of university to the fourth year of university in different majors.

3.2 *Measurement*

This study adopted three questionnaires into one to examine these variables. To test anxiety, this study used a questionnaire created by W.K. Zung to quantify anxiety (Zung 2013). The questionnaire has been reported with a high-reliability coefficient of 0.931. To test emotion regulation strategies, this study used Cognitive Emotion Regulation Questionnaire – Chinese version (CERQ-C) (Zhu *et al.* 2007). The questionnaire has been reported with a high-reliability coefficient of 0.957. To test academic burnout, this study used the Academic Burnout Scale developed by Lian Rong (Lian *et al.* 2005). This scale is formed after the modification of Marlach's job burnout scale. Lian's study's Cronbach's alpha was 0.865, and the coefficient of each dimension was between 0.704–0.812.

3.3 *Analysis*

Analysis of variance, correlation, and linear regression analyses was performed in this study using SPSS 26.0.

4 RESULTS

4.1 *Reliability analysis*

Through SPSS analysis of the questionnaire data, the following results showed high reliability of these three scales. SAS's Cronbach's alpha was 0.840. The Cronbach's alpha of the CERQ-C was 0.875. The Cronbach's alpha on the scale of Student academic burnout was 0.914. The reliabilities of these three scales are high enough, so they can be used as a reliable source for data analysis.

4.2 *Descriptive analysis*

Tables 1, 2, and 3 present the basic descriptive analysis among the variables for the data sets.

Table 1. Results of descriptive statistical analysis of anxiety.

	Mean	SD	Min	Max	Variance
Cognitive	2.43	0.96	1.25	5.00	0.92
Autonomic	1.99	0.66	1.25	3.91	0.44
Motor	2.52	0.60	1.25	3.96	0.37
Central nervous	2.73	0.78	1.25	5.00	0.62

Table 2. Results of descriptive statistics analysis of emotion regulation strategies.

	Mean	SD	Min	Max	Variance
Self-blame	2.94	0.76	1.00	5.00	0.58
Acceptance	3.43	0.63	1.00	5.00	0.40
Rumination	3.46	0.61	1.00	5.00	0.37
Positive refocusing	3.40	0.58	1.00	5.00	0.34
Refocus on planning	3.61	0.62	1.00	5.00	0.39
Positive reappraisal	3.51	0.65	1.00	5.00	0.42
Putting into perspective	3.33	0.68	1.00	5.00	0.46
Catastrophising	3.60	0.77	1.00	5.00	0.59
Blaming others	3.44	0.88	1.00	5.00	0.77

Table 3. Results of descriptive statistical analysis of academic burnout scale.

	Mean	SD	Min	Max	Variance
Academic exhaustion	2.73	0.82	1.00	5.00	0.67
Academic uninterested	2.87	0.78	1.00	4.67	0.60
Academic inefficacy	2.84	0.73	1.00	5.00	0.53

The data statistics showed that among the 177 subjects, most of the college students were temporarily free of anxiety or had mild anxiety symptoms. Roughly one in nine subjects showed symptoms of moderate or severe anxiety. In the Academic Burnout Scale measure, where 50 is the standard line for low academic burnout, nearly two-thirds of the students were found to be experiencing high levels of academic burnout. The situation of academic burnout and anxiety showing in college students are quite obvious. Fewer students can correctly use emotion regulation strategies that are appropriate for them to improve their emotional state.

4.3 The mediating effect

The most used method for testing mediating effects is the stepwise method. This study used Wen's method to test mediating effects that include both the sequential test and the Sobel test.

Table 4. Results of mediation analysis.

Model	Unstandardized coefficients		Standardized coefficients		
	B	SEM	Beta	t	SIG
(constant)	29.830	8.195		3.640	.000
CERQ-C	.220	.069	.236	3.209	.002
(constant)	24.833	7.798		3.185	.002
CERQ-C	.084	.071	.090	1.182	.239
Anxiety	.458	.096	.362	4.776	.000

Note: a. dependent variable: academic burnout.

Table 4 shows that there was a significant positive correlation between the mediating variable: anxiety, the independent variable: cognitive emotion regulation, and the dependent variable: academic burnout. After adding the mediating variable, the unstandardized coefficient of the independent variable decreases and changes from significantly correlated to insignificantly. At this point, the mediating variable has a significantly positive effect on the dependent variable. It indicates that the mediating variable plays the role of a complete mediator.

5 DISCUSSION

The results of this study showed a significant positive correlation between emotion regulation strategies and academic burnout among college students, the results were similar to those of previous studies. It also found a significant positive correlation between anxiety and emotion regulation strategies, which is also consistent with the findings of previous studies. College students lose interest when they become anxious and use less emotion regulation strategies. This may cause students to lose their motivation and learning direction, thus aggravating students' anxiety leading to a vicious circle and generating academic burnout. More importantly, this study found that anxiety played a fully mediating role.

This phenomenon may arise because when college students know how to better use emotion regulation strategies to manage their anxiety, their academic burnout problems are reduced. These studies have been correlated to the results of previous studies.

This study investigated anxiety, emotion regulation strategies, and academic burnout among university students of different majors, grades, and genders through questionnaire data. The dimensions of anxiety, emotion regulation strategies, and academic burnout were not analyzed in detail. For example, the extent to which the external environment affects anxiety, whether there are differences between male and female genders, and how the grade level and the different stressful situations they are about to face affect the results of the experiment are all questions that need to be addressed in future studies. Although previous studies have mentioned that younger students are more prone to academic burnout than older students, the results are less time-sensitive when experiencing a drastic change in the external environment from the previous environment in which the study was conducted, such as the closure of the school during the epidemic and the Internet access classes. It is worth noting that the questionnaire was administered at a time when the colleges were no longer closed but students were still at home and had not returned to school for intensive living and study.

Future research could therefore investigate the causes of emotion regulation strategies and anxiety after university students have been back at school for a while to conduct normal university life. If conditions permit, the period of the study can be increased to minimize the impact of sudden changes in the environment on the experiment. The sample and other controllable variables could be increased appropriately to further refine the effects of anxiety and emotion regulation strategies on academic burnout.

6 CONCLUSION

This study found that anxiety played a fully mediating role in ERS and academic burnout. This suggests that ERS influence the phenomenon of academic burnout by influencing students' anxiety and thus academic burnout. Consistent with previous research, individuals who were able to use emotion regulation strategies appropriately had lower levels of anxiety and lower levels of academic burnout than individuals who were unable to use emotion regulation strategies appropriately. However, due to the limited sample size, this study did not delineate the dimensions and did not discuss whether there were differences in the

frequency of using emotion regulation strategies across age and gender. A more detailed analysis of the above control variables could be conducted in the future.

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The interrelationship between teacher's expectancy and middle school students' self-efficacy in China

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ABSTRACT: With the increasing focus on education, the study of teacher expectancy and middle school students' self-efficacy has significant theoretical and practical implications. Self-efficacy is an important aspect that affects students' academic performance. In addition to the transfer of knowledge, teachers' expectancy has also been proven to have an impact on students. To better understand the interrelationship between teacher's expectancy and middle school students' self-efficacy, this paper summarizes and analyzes the theory, impacts, and possible coping strategies for improving students' self-efficacy from a psychological perspective. The different teacher expectancy would lead to the varied correlational results in students' efficacy, and it is highly essential for teachers to deliver the expectancy in an appropriate way and be in consistent with students' demands. Simultaneously, middle school students' self-efficacy can also implicitly influence teacher's expectancy via their academic, classroom, or daily performance. The students' efficacy and teacher's expectancy are highly interrelated with one another. To better promote students' psychological and academic development, teachers could set up a more balanced evaluation system, offer appropriate teachers' feedback, optimize the mechanism of class cadres, and ultimately establish a rapport relationship with students.

Keywords: Teacher's Expectancy, Self-efficacy, Middle School Students' Self-efficacy

1 INTRODUCTION

The research aims to bring public attention to the effects that teacher expectancy would have on the students' self-efficacy. Teacher expectancy refers to the predictions of students' academic abilities based on their grades and classroom performance, and self-efficacy is an individual's confidence in their ability to complete a task or achieve a goal (Thought Co. Homepage 2021). From the teachers' perspective, the teachers' expectancy effect makes a great contribution to the practice of education fairness and teaching promotion, alleviating neglect. For students, it has a profound impact on their fair education, personality development, and academic achievement. This paper mainly collects the theoretical and practical research at home and abroad, summarizes the influence of teachers' expectancy on students' self-efficacy, and provides potential pedagogical development suggestions.

2 THEORETICAL BACKGROUND

2.1 *Teachers' expectancy*

The expectancy refers to the anticipated perception or cognitive driving force based on past experiences, and according to Zhu, the expectancy is a cognitive variable and a motivation

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for belief values (Zhu 1997). In the educational context, Rosenthal and Jacobsen first proposed the teacher expectation effect, and it is an important verification of self-fulfilling prophecy and expectation effects in the field of education, which is also known as the “Pygmalion effect”. In 1974, Borphy and Good believed that expectation is inferred from students’ academic performance and test scores (Zhang 2022).

Braun put forward the teacher expectancy loop model, as students’ ultimate academic behaviors would ultimately approach and even match the initial teachers’ expectations, which tend to be intensified and circulated as a loop (Zhang 2018). The students’ academic behaviors would be regarded as the information input for the teachers, and teachers’ attitudes would be the information input for students; therefore, this teachers’ expectation effect would only be circulated as the students’ behaviors and teachers’ attitudes toward them are closely interrelated.

2.2 *Students’ self-efficacy*

As a representative of self-efficacy, Bandura points out that whether an individual faces a challenging task depends on his assessment of self-efficacy (Zhang 2022). Self-efficacy is when an individual determines whether he or she is capable of accomplishing a certain task based on previous success or failure. The resulting factor of behavior is reinforcement, which refers to the motivation to stimulate and maintain behavior to regulate an individual’s performance (Denovan *et al.* 2022). Self-efficacy theory integrates people’s needs, cognition, and emotion to explore human behavior motivation and expands and develops the motivation theory. This theory has some enlightenment significance to educational theory and practice.

The students’ self-efficacy serves as an essential factor that would influence the students’ overall development for different age groups, and it is crucial for teachers to pay more attention to promoting students’ self-efficacy. From a psychological perspective, the students’ self-efficacy would have impacts on mental well-being and learning motivation. Students with low efficacy experience learning burnout as they lose interest and confidence when encountering obstacles (Jia 2015). Besides, there would be a higher anxiety level dealing with challenging tasks, and it may easily lead to frustration and even depression if there is no guidance. Particularly for junior high school students, due to the immaturity of overall development, low self-efficacy will contain unsound self-attribution, leading to a decline in middle school students’ learning motivation and inability to persist in accomplishing difficult learning tasks. With few motivations, it would be hard for students to achieve academic achievement. For undergraduate students, prior studies have indicated that learning self-efficacy was positively correlated with college students’ learning ability in all dimensions (Lee *et al.* 1994).

2.3 *Middle school students’ self-efficacy*

The learning efficacy of middle school students shows different trends in different grades, genders, and achievement levels. First of all, the efficacy of middle school students shows a different trend in different grades. The efficacy is highest in the first and third years, with the second year is generally the lowest. In middle school, students’ self-awareness, cognitive ability, and psychological status have entered a period of rapid development. Self-awareness evaluation is relatively one-sided; therefore, it is more likely to have a biased self-evaluation. Due to the immaturity of their mental development, middle school students rely more on external indicators in the evaluation of personal learning ability (Cai 2011).

Students with different personalities have different self-efficacy. In general, middle school students are in a stage of strong self-esteem and self-confidence compared with primary school students. Self-confidence will significantly affect middle school students’ performance, and this performance will also , in turn, interact with self-efficacy (Ran 2021).

3 THE IMPACT OF TEACHER EXPECTANCY ON MIDDLE SCHOOL STUDENTS' SELF-EFFICACY

Teachers' expectancy could be generally delivered via classroom interaction and the teachers' evaluation feedback. For classroom interaction, the information is mostly conveyed through both explicit verbal and nonverbal delivery. In addition to class activities and questions, teachers' eye contact and body language can also convey information and their emotional attitudes will be revealed from these nonverbal behaviors. Those changes in teachers' attitudes would be easily captured by students (Li 2020).

This study reviews the methods and findings of previous research on the effects of teacher expectations on students' self-efficacy. The specific findings mainly concentrated on the teachers' expectancy processing model. In 1970, Brophy and Good proposed the expectancy process model, as the teacher forms a fixed expectation based on students' usual grades and classroom performance. Influenced by expectancy, teachers might convey their emotional attitudes via interaction with students. Perceiving teachers' attitudes and the students' learning attitudes and habits would also modify accordingly. As time goes by, students' self-identity would be influenced, for example, some competent students would have more self-assurance than those weak students. Their self-efficacy will gradually match the expectations of teachers, achieving the expected goals successfully (Zhang 2022).

For methodology, current studies generally have collected large sample sizes ranging from approximately 500–1000 participants to conduct questionnaires. The participants are all middle school students with different demographic backgrounds. Simultaneously, the researchers have ensured the synthesis and balance of demographic variables of participants, including gender, grade, family background, student academic competence, and achievement, and whether the students served as class leaders. For example, Wang selected around 1000 rural junior high school students as the research target group and used the questionnaire survey as the main instrument to investigate the basic information of students, teachers' expectation perception, academic self-efficacy, and learning engagement in three rural junior high schools (Li 2020). The group of participants in the study of Ren is geographically limited, which were 800 middle school students from Shandong Province. Among them, in urban and rural areas, the ratio of males and females and the distribution of grades were basically balanced (Cai 2011). Zhang took 479 junior high school students from three schools in Yanji City as the research target groups, using the questionnaire as the main instrument (Zhang 2022).

Regarding the scale of the questionnaire, for estimating the teachers' expectancy, most of the research has adopted the "Teacher Expectation Perception Scale Perceived by Students", which was categorized as three main dimensions: "Teacher Support", "Teaching Interaction" and "Academic Feedback" (Wang 2021). Generally, the questionnaires are used in research to collect data. This is conducive to exploring the extent to which teachers expect to be perceived by students, and the teachers' expectancy status can be detected from these three main means of delivery. Because it mainly collects opinions from students, the researchers could conclude the direct relationship between teachers and students' psychological feedback. In Wang's study, on the other hand, she adapted the exploratory factor analysis (EFA) and confirmatory factor Analysis and categorized the teacher expectancy into two aspects, namely attitudes and behaviors (Wang 2019). The questionnaire based on this scale aimed at investigating the psychological evaluation and students' perception of teachers' expectancy.

For evaluating students' self-efficacy, the researchers used the "Academic Self-efficacy Questionnaire" compiled by Liang Yusong. The questionnaire is divided into two perspectives, namely "self-efficacy of learning ability" and "self-efficacy of learning behavior", which is reasonable for investigating students' self-efficacy in learning. For Li's research, the factors for evaluation were more specified as English score recognition, the sense of English learning competence, English learning confidence, and anxiety (Ran 2021). Wang has

investigated the students' self-efficacy from more comprehensive aspects, dividing it into five dimensions: positive self-prediction, self-assurance, conviction, objectives achievement, and talent and sense of good academic achievements (Wang 2019).

Among all prior studies, there are only valid data collected within all the questionnaires and then put into SPSS for statistical analysis. The main data analysis methods used are descriptive analysis, difference test, and correlation analysis, which comprehensively show the relationship between middle school students' self-efficacy and related factors, such as different grades, genders, and class positions. One interesting point is that many literatures have used the model of teacher expectation theory to verify the influence of teacher expectations on middle school students' learning. Then, the variable of self-efficacy was added and the PROCESS-Model 4 analysis was used to explore its mediating role between the three variables: teachers' expectancy, students' learning, and students' learning efficacy. Some of the literature suggests that gender differences and whether to hold a class position have a great impact on the correlation between teacher expectations and the self-efficacy of middle school students.

3.1 *Positive impact of teacher's expectancy*

Teacher's perception plays an important role in molding students' self-efficacy. If their expectancy is delivered in an appropriate way and in line with students' perceptions, teacher expectancy and student's self-efficacy would be positively correlated. Academic self-efficacy would increase with the intensity of teachers' expectation perception. If a teacher has high expectancy toward a student, the student would be much willing to learn and progress, being capable of accomplishing tasks with independence and high quality. If the teacher's expectancy precisely meets students' self-perception, the students would even be more initiative to challenge more difficult learning tasks (Cai 2011). Teachers' expectancy to some extent would satisfy the psychological demands of middle school students who desire a sense of identity and attention (Ran 2021).

3.2 *Negative impact of teacher's expectancy*

There are amount of research on the negative impact the teacher's unreasonable expectancy would have on students' self-efficacy. First, if the teacher's expectancy is biased among different students, it would cause the imbalanced development, for example, those favored students would excel and interact positively in class, while the neglected ones who are quiet would have relatively mediocre grades because they are not motivated and consider they cannot reach the goals like other students do (Jia 2015). Students with low expectancy may lose trust in their teachers, resulting in a loss of interest in learning, and there would also be a reduced sense of effectiveness.

Second, when the expectations are expressed inappropriately, such as using force, threat, and punishment, it would cause immediate and long-term damage, physically and spiritually. This can ultimately lead to students feeling inferior and developing their mental resistance to learning. Besides, excessive attention can also have negative educational impacts; students are prone to complacency or loss of positive learning efficacy due to excessive stress (Lee *et al.* 1994).

Third, the inaccurate expected scale would also lead to negative self-efficacy, resulting in students doubting their development path. For example, the teacher's expectancy that contradicts students' self-expectations can also hinder student development; the student will have psychological conflicts and eventually tend to abandon the teacher's expectations and stick to self-perception instead (Cai 2011). Therefore, it is highly important for the teachers to establish reasonable expectancy on the basis of objective evaluation of students and transmit the expectation information to students in an appropriate way to promote students' learning progress and physical and mental development.

4 THE IMPACT OF MIDDLE SCHOOL STUDENTS' SELF-EFFICACY ON TEACHER EXPECTANCY

Middle school students' self-efficacy can indirectly affect teacher expectations in explicit ways of academic performance, classroom or daily performance (Cai 2011). Higher self-efficacy leads to better grades and more satisfactory classroom performance, and teachers' expectations are positively correlated with self-efficacy. However, some teachers may judge students' academic competence based on their grades, which will lead to biased expectancy and disparate impact. In addition to grades, the fact that those middle school students serve as class leaders also affect the judgment of teachers' expectations. Generally, class leaders have more opportunities for teacher-student communication because of their special status, and teachers may be more familiar with those students' traits, considering that they have relatively more excellent qualities such as high responsibility and executive force (Cai 2011). Hence, during the class, teachers may pay more attention to those students who have left a deep impression on teachers.

5 SUGGESTIONS

For limitation of prior studies, there are some limitations in the usage of teachers' expectancy scales. The students' perception of teachers' expectancy is affected by varied factors, which are not only limited to the teacher-student direct relationship. For future study, the scales could be optimized and attempts to examine the dynamics in the class. The researcher could conduct an in-depth investigation of the teacher's care distribution in different students. For example, when students find that teachers have higher expectations of other students than themselves, students may produce negative emotions, such as anxiety and jealousy, and their self-efficacy would be affected, becoming less confident about themselves.

Besides, the scale is based on students' psychological perceptions, and the study lacks a teacher's perspective. Therefore, teacher expectation perception does not fully explain the real teacher expectation situation. On top of that, the scale cannot evaluate the difference gap between students' perceptions and teachers' expectations. However, this gap is of great significance regarding how teachers can better transmit their expectations and how can students be more likely to receive positive teacher expectations. Therefore, a scale that could estimate teachers' perception of expectancy level and dimensions should be developed, and based on the scales, the gap between real teachers' expectancy and the gap between students' and teachers' perceptions could be further investigated.

For those individuals with significant differences, researchers may consider combining quantitative data analysis and qualitative thematic analysis. Based on the results of quantitative data, researchers could select individual teachers and students with large difference gaps and conduct interviews to explore the reasons for the existence of the gap, helping to establish a rapport relationship between students and teachers, exploring coping strategies to better deliver the teachers' expectations.

According to Bandura's approach to enhancing self-efficacy, one of the most important ways for students to gain self-efficacy is to improve individual success, such as providing students with opportunities for performance. The second is to increase positive verbal persuasion, which is based on positive verbal feedback, such as public or private praise (Li 2020). Persuasion is an important factor affecting an individual's sense of efficacy. The more verbal praise school teachers give to students who have performed well or made progress, the greater sense of learning effectiveness students will gain (Lei *et al.* 2015).

In addition, different students could adopt different teaching attitudes and methods according to their aptitude. The study found that students with high levels of learning were more likely to be mentored by gentle and democratic teachers, and regardless of the low

expectations, it would have a relatively small negative impact on their learning (Yu & Zhan 2022).

Besides, optimizing the mechanism of class cadres is also important, as it could encourage every student to obtain their own value as much as possible. To be more specific, setting up a regular evaluation and rotation system, allowing more students to participate in class construction, cultivating their sense of responsibility, and then subtly affecting their self-efficacy in learning can subtly impact their self-efficacy in learning. The more competence and confidence appeared within students would also affect teachers' expectancy, which creates a positive correlation between students and teachers.

6 CONCLUSION

The essay summarizes the previous research on the theory of teachers' expectancy and students' self-efficacy, influencing factors of teacher's expectancy and self-efficacy, and offers bits of advice on how to balance teacher expectancy and students' self-efficacy.

In addition, this review summarizes and analyzes the advantages and limitations regarding the methodology of previous studies, including the instruments, data collection, and analysis. Most research conducted a quantitative study with a large sample size and used standard scales to design the questionnaire from students' perspective. For future research, the study scale could be optimized from the teacher's perspective, examining the real teacher expectations delivered to students and the reasons for the difference gap between real teacher expectations and students' perceived ones. This is conducive for teachers to better deliver their expectations, and it is also beneficial to promote the development of students' self-efficacy.

Most of the literature focuses on the analysis of theoretical and process factors, and there is still relatively little research on how to correctly establish teacher expectations. Further study could be more focused on more well-balanced environmental conditions, class regulation, and after-class assessment systems. Environmental conditioning includes factors such as family background and peer pressure. Secondly, the specific measures of classroom activities should also be more detailed, such as how to effectively mobilize the self-efficacy of the whole class, encourage students of different personalities to actively participate in classroom activities, and get positive feedback in time. Additionally, coping strategies should be developed regarding how to make up for the psychological gap of students when the feedback is lacking. These detailed designs require further experiment and study, which is very important for the effectiveness of the teachers' instruction and students' development.

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Exploring Chinese Learners' L1 Chinese transfer on L2 English

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ABSTRACT: Based on the experience of the predecessors, this article intends to analyze the transfer in bilingual learning from three levels: Chinese-English vocabulary, grammar, and pronunciation. Summarizing the views of previous scholars, L1 (first language) can affect the learning effectiveness of L2 (second language), reflecting the following two aspects: 1. Positive transfer, which means that similarities between the mother tongue and the second language can assist learning, manifested as similarities between Chinese and English. 2. Negative transfer, that is, the influence of mother tongue on the second language hinders the correct mastery of the second language knowledge, which is manifested in the differences and conflicts between Chinese and English grammar and pronunciation. In this way, students can use their strengths, avoid their shortcomings, and raise their learning level by being made aware of their learning challenges.

Keywords: Language transfer, Vocabulary, Grammar, Pronunciation

1 INTRODUCTION

Early research focused mainly on Chinese English. The focus of the research has moved from English in China to English in China (Albrecht 2021). Chinese use English by using their mother tongue. In conceptual, Chinese English emphasizes that Chinese people are closer to Chinese due to language and cultural differences when using English. The misunderstandings in words, grammar, and usage may be difficult to understand.

It is clear from prior studies that the three areas of vocabulary, grammar, and pronunciation are being negatively impacted by the transfer of Chinese. Chinese students find it difficult to learn English due to this. The more students comprehend the detrimental impacts of Chinglish and Chinese English, and the development between the two countries, the more successfully they may prevent it. Especially in the background of the development of the Internet, the integration of English has accelerated (Zhang 2017). Chinese transfer is expanding.

2 THE LEVEL OF LANGUAGE TRANSFER

2.1 *Vocabulary*

2.1.1 *Vocabulary formation*

The most significant difference between English and Chinese is expressiveness and voice. As we all know, Chinese is a meaningful text, which is a symbol of strokes, and the writing symbol expresses meaning. When people see the iconic side of the side, you can read the

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meaning of words; In the process of learning, as long as students master the basic pronunciation, they can read the new words, even if they do not know the meaning of the new words at all. Although there are only more than 3,000 commonly used vocabulary in English, although there are fixed roots to help students remember, it is difficult for the Chinese mother tongue to understand the meaning of vocabulary when facing uncommon and professional new words.

Chinese students are learning their mother tongue. First of all, they must learn Chinese pinyin. Hanyu Pinyin is the official Chinese Pinyin Latinization Scheme, the above refers to the consumption of the letters and spelling set forward in the “Hanyu Pinyin Scheme” to generate the phonetic syllables of Putonghua, the standard pronunciation of modern Chinese. Pinyin is a letter system composed of Roman letters, which is the same as English (Li 2017). Pinyin is a useful tool for learning Chinese characters since it shares the same infrastructure as the English alphabet. According to Ming Li, both the English alphabet and the Chinese system Pinyin (The Spelt Sound of Chinese Characters) have their roots in the Roman alphabet.

Secondly, Chinese word-making is similar to English. Despite the fact that Chinese is a logographic language and English is an alphabetic language, the fundamental building blocks of Chinese word production are inflection, derivation, and compounding (Li 2017). Eighty to ninety percent of Chinese characters used now are made up of phonetic and semantic elements (Shu & Anderson 1997). The semantic part of the auxiliary literacy and the voice part of the pronunciation, which is similar to the roots in English. The conclusion is concluded.

2.1.2 *Semantic*

The formation of language and text is closely related to the development of civilization. The vocabulary of Chinese and English has continued to eliminate and innovate in the development of civilization history. In the context of different civilization development, there will always be a kind of vocabulary in a country, but there will be no correspondence words that can explain its meaning in other countries. In different cultural circles, even if it is similar to words, it may be due to cultural differences or incorrect translations in cultural exchanges, resulting in different meanings.

The Chinese language has a huge vocabulary, and synonymous words make up a substantial portion of it. Another issue is how to accurately translate Chinese vocabulary. Heuven and Wen have conducted experiments. They summoned a group of Chinese and English bilinguals, gave 1429 English words, and asked the subject to give accurate English translations. When translating from English to Chinese, there is a lot of translation uncertainty, as evidenced by the results, which showed that 71% of the English words received more than one right translation. Out of the 1,429 English terms, 0.3% (five words) had inaccurate translations, 28.6% (408 words) had a single correct translation, and 71.2% (1,017 words) had multiple correct translations, making them translation confusing (Wen & Heuven 2017). The histogram of the number of translations is displayed. High-frequency or abstract vocabulary has a wider range of translations. This study demonstrates that Chinese vocabulary exhibits.

2.2 *Grammar*

2.2.1 *Temporal error*

Both Chinese and English sentences can express the time when things happen, but the expression is different. The way Chinese express time is to add time words in sentences. In English, the expression time not only uses time words but also changes the tense of the predicate. In Chinese, the predicate will not change. This is because predicates are more frequently used in Chinese sentences than in English, where they are used to represent the active, passive, and tense by changing their form. In contrast, predicates in Chinese only

express acts that are subordinate to the subject (Chai 2022). When writing, Chinese pupils fail to account for tense variations.

2.2.2 *Sentence formation*

The essence of Chinese grammar and English grammar is similar. Judging from the main part of the sentence, the basic composition is the three parts of the predicate and the guest. In this point, the sequence of Chinese and English grammar is the same, so the Chinese mother tongue is easy to create a simple sentence with correct grammar. Quoting: Chinese and English belong to two languages of two different language systems. Chinese college students therefore frequently write with faults in their English or utilize it improperly due to the impact of the Chinese. However, only the arrangement of brief expressions shares similarities or can be compared between the two languages. In English, native speakers often use subordinate and compound clauses to convey complex ideas, whereas such clauses are rarely employed in Chinese except for adverbial clauses. Terms like subject, object, predicate, or determiner clauses are unfamiliar to most beginner English learners. If students want to incorporate these clauses into their writing, they must acquire the proper usage and understanding.

Chinese and English sentences are different. In English, the design, word order, and word of sentences are basic (Zhang 2017). If there is no ambiguity in Chinese, people can omit the ingredients in the sentence or even omit the subject, and English must be strictly standardized. Even if the subject is omitted, the “it” represents the form subject.

The content of the Han and British paragraphs is also very different. The organization and development of English discourse are linear. Chinese paragraph ordering is the exact opposite of the typical, which is straightforward. In Chinese paragraphs, the main sentence frequently appears in the middle or even near the end of the paragraph. The author introduces it gradually and displays it in an indirect manner across the entire section to explain the information (Chai 2022). Obvious difference between Chinese and English grammar is the modification of the sentence, which is related to the way of thinking of the Chinese and British people. Chinese individuals are accustomed to providing contextual information when describing an incident, resulting in direct and explicit modification words in Chinese. On the other hand, British people are accustomed to conveying important information using concise and well-known phrases, leading to a scarcity of modification words in English. Due to the influence of their native language thinking, Chinese students may encounter challenges in expressing themselves in English, which can cause confusion for others.

2.2.3 *Grammar teaching*

China has traditionally employed the Grammar Translation method for teaching English, a method that has faced substantial criticism in the realm of international education. In fact, there have been suggestions to completely prohibit its usage as a teaching approach. The Grammar Translation method entails a detailed analysis of grammar rules followed by translation of sentences and texts to and from the target language, with the aim of applying this knowledge in language learning (Richards & Rodgers 2014). It has been widely used worldwide for a long time, and now, in the face of new and more efficient teaching methods, it seems outdated. In terms of entry-level teaching, Grammar Translation can improve the accuracy of students, but it also has an unfavorable side. Some scholars point out that they should not rely too much on translation in English teaching because this will inevitably be affected by the transfer of the mother tongue. Indeed, grammar translation methods are being questioned precisely due to the uncertainty of translation, which amplifies the negative transfer of the mother tongue (Yi 2021).

Chinese English instruction is mainly reliant on textbooks. It's probable that grammar-translation techniques are used because grammar-translation textbooks are widely used in China. As Litz suggests, textbooks can essentially determine language teaching methods (Litz 2005). About the choice of textbooks, it can be said that although in the past all schools

were required to use textbooks prescribed by the Ministry of Education, more and more secondary schools and universities now have the right to customize their own textbooks based on the special needs of the school and students. Unfortunately, passing the exam is the primary task for students. So grammar translation textbooks are still their first choice, even if there are innovations in the way they are used.

Another possible reason that should not be ignored is that consistent with the approach in grammar translation, in Chinese culture, the role of a teacher is often seen as an omniscient input provider. Perhaps European and American education places more emphasis on thinking, but many Chinese students are accustomed to learning through attentive listening and uncritical acceptance of the knowledge of teachers and textbooks, as they still consider teachers and textbooks as authorities. It should be noted that due to the scale of Chinese language and Chinese language classrooms, it is difficult for Chinese language teachers to transition from a teaching method to a learning method, such as communicative language teaching.

2.2.4 *Part-of-speech classification*

The division of Chinese and English is roughly similar. The most important words, such as nouns, verbs, etc., all have strict and accurate definitions. English does not have a direct equivalent to “crown words,” as mentioned by Yang, which Chinese students often overlook or misuse in their writing (Yang 2009). The presence of prepositions in English is relatively distinct, whereas the concept of prepositions exists in Chinese, but most of the prepositions used in modern Chinese originated from ancient Chinese. Apart from specific pairings, prepositions are rarely utilized in Chinese language conventions, and there is a lack of standardized usage (Albrecht 2021). Therefore, the use of rare or even unprecedented use in Chinese such as crown words and prepositions has become a common error-prone point in Chinese students’ English learning.

2.3 *Pronunciation*

2.3.1 *Vowel*

Three renowned professors Wang, Perfetti, and Liu (2004) conducted a study on and writing system transfer in bilingual acquisition between Chinese and English through data collection. 46 Chinese immigrant children in the second and third grades of a public elementary school in Washington, D.C. were among the participants. They received English education at school and continued to learn their mother tongue at weekend Chinese language schools. Participants performed phonetic and spelling tasks in English and Chinese. The results show that the Chinese starting matching skill is significantly related to the English starting matching skill and crime matching skill. Pinyin is highly correlated with English kana reading. Orthography processing in both writing systems does not predict each other’s reading ability, because Chinese is an orthographic language and English is the alphabet. The results confirm the impact of Chinese transfer on English phonology learning. In bilingual reading acquisition, Chinese and English share a common phonetic process.

There are differences in the number of Chinese and English. There are 15 commonly used vowels in English, while only 5 common vowels in Chinese. Chinese students learn to use the difficulty of overcoming vowel pronunciation for speaking (Han 2013). There are long sounds and short sounds in English. In the conventional Chinese-style of teaching, teachers will distinguish between two voices by changing the duration of reading words, but the correct pronunciation is to resist the tongue to different parties high. Because of this kind of spoken teaching, it is difficult for Chinese students to distinguish some similar voices.

There are additional distinctions between Chinese and English languages. English incorporates stress, while Chinese lacks stress patterns. The influence of the Chinese mother tongue can lead to confusion when learning and applying stress in English words. In order to

overcome this, learners often associate and remember the pronunciation rhythm of English words. Chinese has four tones, which is not present in English, but English does have sentence intonation and tone. Although there are differences, there are also similarities between the two languages. The variation in tones can be compensated for by developing a sense of language.

2.3.2 *Consonant*

Most of the discourse and pragmatic features of Chinese and English can be attributed to the transfer of Chinese from a linguistic and cultural perspective. Some types of discourse, such as local discourse that has been passed down since ancient times, assumptions about common cultural knowledge, and famous sayings full of Chinese philosophy, pose obstacles to understanding and may not be understood by English speakers. Similarly, the ordering of information for modifier modifiers may conflict with the expectations of consumers of other English variants without conforming to grammar.

The consonants in Chinese are more vowels. Unfortunately, even so, there is still a consonant in English in English. For example, it is difficult for Chinese people to make the sound of [θ] and [ð], because there is no teeth in Chinese Mandarin. In addition, there is a consonant group in English, which refers to the combination of two or more adjacent consonants in the same syllable, while only one consonant in Chinese is similar to it, so Chinese students will confuse the pronunciation. In Chinese, each syllable usually starts with a consonant, ending in the voicing, and English, a syllable can start with a consonant cluster or ends with vowels or consonants. Due to the difference in pronunciation between these two languages, Chinese learners are facing difficulties when they produce words ending with a consonant (Han 2013). English pronunciation tends to follow a streamlining pattern, where certain words may be pronounced weakly or connected in sentence coordination. On the other hand, Chinese pronunciation is more segmented, where each word is pronounced individually. Even if there are instances of connected speech in Chinese, it mostly occurs within compound words. Chinese native speakers prioritize accurate word pronunciation, which can be challenging to correct when learning English. However, mastering the skill of correctly pronouncing weakly stressed words in English is comparatively less difficult.

3 CONCLUSION

Summarizing previous research results, it can be concluded that the impact of L1 on L2 is specifically reflected in three aspects: vocabulary, grammar, and pronunciation, and the difficulties encountered by Chinese students in learning English are also concentrated here. On the positive side, the existence of pinyin can assist English teaching, and the similarity in vocabulary and grammar composition between Chinese and English can also facilitate students' understanding of a second language; On the negative side, the use of parts of speech and tenses is ignored by Chinese students, cultural differences lead to unequal lexical meanings, and traditional English teaching methods affect students' learning of grammar and pronunciation. Due to the coexistence of positive and negative impacts, it is necessary to dialectically examine the impact of the mother tongue on second language acquisition during the research process.

Learning a language from a different country can pose challenges for individuals, making the study of second language transfer crucial in language learning. This article provides a summary and analysis of the transfer effects of Chinese on three levels of English. Despite the difficulties Chinese students encounter in English learning due to the influence of their native language, linguists and educators are dedicated to finding solutions to these issues. Exploring and applying the first-level transfer from Chinese to English in language learning is an ongoing research topic that holds significant importance for the future.

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Exploring the factors affecting willingness to communicate in learning English as a second language

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ABSTRACT: Willingness to Communicate (WTC) in Second Language (L2) is an individual's intention to communicate with a specific object using the second language at a specific time. It is not only influenced by psychological and situational factors but also an important variable that affects students' communication with the second language (L2) in the classroom. Using MacIntyre's heuristic model of the factors affecting WTC as a foundation, this paper explores the factors affecting WTC in the second language, divide them into most frequent factors and less frequent factors, mine and summarize the relevant factors, and analyze the relationship between them and L2 WTC. According to the findings, self-motivation, language proficiency, and classroom environment are three common characteristics that have an impact on L2 WTC. Motivation has an indirect or direct influence on students' L2 WTC. The better the students' L2 WTC, the higher their second language proficiency. At the same time, an encouraging and supportive environment can help students feel more confident and motivated to communicate. Finally, based on relevant research theories, this paper puts forward suggestions for teachers, so as to optimize the classroom environment, increase the willingness of students to communicate in a second language, and further improve their communicative competence.

Keywords: Willingness to Communicate, Second Language, Factors, Self-motivation, Language Proficiency, Classroom Environment

1 INTRODUCTION

The willingness to communicate (WTC) has become a significant variable in language training, especially when studying a second language or a foreign language. The interaction between the teacher and the student is often limited by the inability of both parties to interact effectively. The main element of this interaction is always communication. Hence, learning becomes challenging when one party is unwilling to communicate.

Several factors influence learners' WTC such as language attitude, learner belief, degree of internationalization, personality, gender, and age from the macro perspective, as well as

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communication object, communication place, communication task, ethnicity, familiarity and appearance of communication object from the micro perspective, but they are not mentioned frequently. Initially, a learner studying a new language does not have the proficiency required to speak; this, in turn, affects their motivation and confidence to use the language. After reading about 50 relevant papers, the summary identified that the three most commonly mentioned elements that affect L2 WTC are language competency, self-motivation, and classroom environment.

These aspects were also included in the heuristic model of variables influencing WTC (MacIntyre *et al.* 1998).

2 WILLINGNESS TO COMMUNICATE IN SECOND LANGUAGE

The field of second language acquisition focuses on the WTC in a second language. In the middle of the 1990s, researchers like MacIntyre and Charos brought the concept of WTC to the study of second language learning (Skehan 1991). L2 WTC is an important variable that influences students' use of a second language for communicative purposes. In the broad sense of the concept of WTC, it means an individual's tendency to begin verbal communication with others. Thus, L2WTC is conceptualized as a person's WTC in a second language. Clearly, improving students' L2 WTC is conducive to their second language acquisition. According to Shi (MacIntyre & Charos 1996), the research on L2WTC can be broadly divided into two stages. In the first stage, the main guiding theory is the heuristic model of variables influencing WTC which explores the factors that influence L2 WTC under macro conditions, such as second language confidence, motivation, learning attitudes, personality, gender and age, etc., and there is also a mutual influence relationship between factors (Kim & Kim 2014; Shi & Fan 2022). While such factors are mostly static, research has demonstrated the dynamic nature of L2WTC (Yashima 2002). Thus, research on L2WTC has entered the second phase, which examines the dynamic developmental process of L2WTC. Peng and Xie also classified L2 WTC research into two categories (MacIntyre *et al.* 2007). The early study paid more attention to the above-mentioned individual factors and environmental factors such as classroom and social support, while later studies focused more on the dynamic effects of classroom factors in L2 WTC. Many studies have explored the factors affecting L2WTC (Khajavy *et al.* 2018; Mulyono & Saskia 2021). Through a questionnaire survey, Mulyono and Saskia investigated the connections between second language learners' motivation, anxiety, and confidence and the environment. They found that oral anxiety is significantly correlated with classroom L2WTC (Pintrich *et al.* 2003). In a different study, Khajavy polled 1,528 students and discovered that whereas worry only decreased L2WTC at the student level, pleasure was a significant factor in raising L2WTC at the student and classroom levels (McEown *et al.* 2014). Although there are many studies on the factors affecting L2 WTC, there are few literature reviews summarizing all the factors. Therefore, this article divides the factors into most and less frequent factors and discusses the most frequent factors in detail.

3 MOST FREQUENT FACTORS OF SELF-MOTIVATION, LANGUAGE PROFICIENCY AND CLASSROOM ENVIRONMENT

3.1 *Self-motivation*

3.1.1 *Review studies on self-motivation*

Self-determination theory holds that people have a variety of different motivations, from external rewards to intrinsic values. These motivations can influence an individual's behavior and goal choices. Kimberly A. Noels refers that extrinsically motivated learners may begin learning because of external rewards or punishments, but struggle to maintain interest and engagement due to a lack of intrinsic motivation (Namaziandost *et al.* 2019). Unmotivated learners learn for other reasons, such as stress or social expectations. Learners

of these motivational types typically exhibit lower engagement and learning outcomes. Stimulating intrinsic motivation is more likely to produce lasting behavior change than triggering extrinsic motivation. The higher a person's autonomy, the more likely they are to exhibit positive self-expression behaviors. When individuals feel that the three needs of autonomy, relationships, and competence are being met, they exhibit higher WTC. Some educational practices, such as encouraging intrinsic motivation, providing challenging tasks, creating supportive learning environments, and so on, can enhance students' intrinsic motivation and learning experience. As cross-language teachers, their own qualities, skills, and personal charm have a great influence on the students. How to attract the students and how to make them learn the language better? This paper argues that timely communication and timely feedback from the students, what do they think of the teachers, and maintain their love for cross-linguistics. The references should include both internal and external motivation. We can also see that communication is a process in which people interact with each other. Speaking and thinking boldly is the best way to cross-cultural linguistics.

3.1.2 *The relationship between self-motivation and L2 WTC*

From an overall perspective, Ellis argues that motivation is the effort that students put into learning a foreign language out of need or desire (Lee & Lu 2021). Ryan and Deci divided the motivation of students into two main dimensions: intrinsic motivation and extrinsic motivation (Khajavy *et al.* 2018). Intrinsic motivation is an activity that learners perform for their own benefit or intrinsic interest; for example, students have a strong interest in the subject they are studying and a strong desire to learn. Extrinsic motivation, on the other hand, is the behavior of students for reasons other than intrinsic satisfaction, such as the academic atmosphere of the school, the teaching style of the teacher, etc.

Motivation has an indirect or direct impact on students' communicative Intentions (Arabai 2022). It has a great positive effect on English teaching and can improve students' interest in English and their ability to use English. Li and Wang refer that the intensity of students' internal motivation influenced their WTC in the classroom and divided students into three categories: students with extrinsic motivation, students with mixed motivation (both extrinsic and intrinsic motivation), and students with no motivation. The study finds that students with mixed motivation are most eager for communicative opportunities in the classroom (Fu *et al.* 2012). Students who were internally motivated had a greater WTC compared to those who were not motivated (Lee & Lu 2021). Therefore, increasing students' willingness to speak English requires teachers not only to provide a good environment for second language learning but also to foster their interest in the subject.

When motivation is used as an indirect influence, it evokes various negative and positive emotions, such as self-confidence and anxiety, which in turn influence students' communicative attitudes and intentions to some extent. That is, negative emotions tend to make people less motivated, which have a negative effect on motivation. For example, it happens when a student is willing to join a class he previously enjoyed after becoming bored or fed up with it and is less motivated to interact in the classroom in that class. Positive emotions, on the other hand, have a greater connection to learner motivation than negative emotions since they are intrinsically motivating. When learners are interested in the class and are willing to share their ideas in class, they will be more devoted and more willing to learn or participate in the class which can create a virtuous cycle.

3.1.3 *Ideal self*

Ideal self L2 is a part of the L2 motivational self-system; it reflects the extent to which students have aspirations for their future and a clear understanding of their future position. According to the research by Ju Seong Lee & Ying *et al.*, students who have a more vivid ideal self L2 also have stronger WTC (Lee & Lu 2021). A typical example in the study is a student who really likes the National Basketball Association (NBA) and wants to be a broadcaster who will often fantasizes about talking about NBA games and communicating fluently with NBA players on the show, so he will practice his oral English constantly and tries to broadcast. It means that if

students have a strong ideal self L2, they will seize more to speak up in class or talk with a stranger in L2. Hence, teachers can add more activities with strong motivation. Seong Lee & Ying think teachers should spend more time exploring students' interests and helping them to identify at least a few future careers, and in which English is necessary or potentially useful. This can subconsciously enhance students' WTC from their own perspective.

Self L2 can also improve students' confidence and in turn, reduce their anxiety when they speak L2. According to the research by MacIntyre, P. D. *et al.*, language anxiety is a key barrier to English as a Foreign Language (EFL) (MacIntyre 2007). In some cases, the anxiety of speaking in L2 can even affect their L1 speaking status, leading to more serious communication difficulties and mental illness. In MacIntyre's study, many people will have to speak L2. For example, when encountering a foreigner asking for something, this last resort can increase their resistance to speaking L2, and their fear of being unable to express themselves well; if students have a strong Ideal self L2, they have actually already imagined being asked for directions by a foreigner or other situations where they will be able to communicate with a native English speaker; and when they encounter such situations, they may even feel inwardly pleased as a preview of what might happen in their future work. As for being corrected, the students with strong Ideal self L2 do not feel too anxious and embarrassed when they are corrected. Instead, they accept it as a precious help (after all, there are very few opportunities to communicate with people who are capable of correcting L2). This helps students significantly reduce their anxiety when speaking L2.

3.2 *Language proficiency*

3.2.1 *Review studies on language proficiency*

Most learners often attribute their ability to speak effectively to the proficiency they have in the language. Language learners who feel more comfortable speaking with people and interacting with teachers are frequently motivated and more open to communication. According to the research by Derakhshan *et al.*, the student's motivation and confidence in speaking are crucial in developing the learner's communication skills (Derakhshan *et al.* 2015). This implies that learners can develop more communication skills when they are more proficient, thus increasing their willingness to speak.

Confident students are more inclined to speak up and take part in conversations during class activities. Additionally, students who are more adept in the language are frequently inspired to take chances to learn and communicate in the language. Therefore, teachers must help learners develop their proficiency and WTC. Derakhshan and his colleagues suggest the best way to train confidence and motivation is in a supportive and non-judgmental environment. Moreover, language proficiency, motivation, and confidence are intertwined, with each having an equal effect on the learners' progress the other.

3.2.2 *Relationship between language proficiency and L2 WTC*

According to a study by Namaziandost *et al.*, intermediate learners should be assisted in gaining confidence by training proficiency (Namaziandost *et al.* 2019). Enhancing oral proficiency will make one more motivated and confident to communicate in a cooperative learning environment. According to the study, a cooperative learning technique is essential in training proficiency and confidence simultaneously.

This led to the development of good communication skills, which enabled the student to gain intrinsic motivation toward using the language, contributing to more WTC. Therefore, it is determined that it is difficult to know whether the student has acquired proficiency in speaking a new language without the confidence to speak. However, the learner can display proficiency upon gaining intrinsic motivation to communicate. According to Tanaka and Ellis, the students who have studied in environments where the languages are used have shown faster improvement in proficiency and are motivated to learn.

Therefore, proficiency plays a significant role in ensuring that students are motivated and confident to communicate, enhancing learning interaction, especially with the teachers.

However, it has been determined that these three factors are intertwined and affect each other. For instance, learners need the motivation to learn proficiency and confidence so that they are motivated to communicate.

3.3 *Classroom environment*

3.3.1 *Review studies on classroom environment*

The classroom environment has a great influence on students. As more and more attention is paid to foreign language education in China, teaching methods are also different. The context of the teacher and the social climate plays an important role in teaching in the classroom. The expression of students' ideas and behaviors in class group activities, the way people think and behave in the classroom group through the interpersonal relationships that exist in the literature classroom environment the communication patterns between individuals, and other processes can be seen as part of this social climate of the classroom as cultures continue to integrate. Students' awareness of improving their WTC has been strengthened. The atmosphere of the English class affects students, especially the competition from peers. The desire to keep a friendly relationship with others encourages students to join in communication and improve themselves more actively.

According to the literature, the reason that restricts the student's intention with each other in classroom teaching depend on teachers' ability; Good psychological quality and attitude toward all aspects of the teaching process; Students' learning motivation and learning strategies for learning foreign language, and the suitability of the classroom environment. First of all, in a good teaching atmosphere, students' self-confidence in English learning will be greatly improved. The results show that in English teaching, students play a very important role in English teaching. This is because learners are more likely to interact and communicate with teachers and classmates in a pleasant and relaxed classroom atmosphere, thereby improving their language use and expression skills. Second, a good teacher-student relationship helps promote communication in a second foreign language. The study also found that good teacher-student relationships are an important part of the classroom atmosphere, and this relationship has a positive effect on promoting students' second language communication skills.

3.3.2 *Relationship between classroom environment and L2 WTC*

The strongest independent predictor of WTC was the classroom atmosphere. Khajavy defines the word "classroom environment" as anything that is present in the space and has the capacity to influence student participation. Three elements of the classroom environment will be examined in this essay: student cooperation, task orientation, and teacher assistance. In Khajavy's study, participants filled out a 5-point Likert scale, where 1 represented the strongest agreement and 5 represented the strongest disagreement. Examples of questions are if the teacher is patient when instructing, how well the respondent cooperates with other students, and whether the communication tasks the teacher assigns in the classroom are appealing. Because teacher support, student cohesion, and task orientation may be changed by the classroom activities teachers utilize and the environment they foster, teacher support plays the most important role in building trust, fostering positive relationships, and taking an interest in their students. For instance, it has been discovered that support from teachers in the form of brief affirmations or smiles had a good effect on students' WTC. A student interviewed once said that he liked to speak in Professor C's class because the teacher listened to him very carefully and thanked the student for his answer with a smile. The students felt more secure in the classroom and more inclined to utilize the second language thanks to the teacher's encouragement. The teacher also created a happy and secure classroom by smiling, supporting, and encouraging. It can be seen that the support of teachers can create a good classroom atmosphere, thus stimulating students' interest in learning and communication.

Student cohesion under interactive tasks can improve student engagement in the classroom. The study concluded that five factors are required for successful interactive tasks in the classroom. First, the topic of the task is new or unfamiliar to students, which can serve the purpose of attracting students' attention. The second is that students should communicate with each other in communication groups can produce longer sentences and negotiate meaning than communication with teachers (Joe *et al.* 2017; Li *et al.* 2021; MacIntyre *et al.* 1999; Tanaka & Ellis 2003; Shima *et al.* 2020). The third is that there should be a specific result and the content should be detailed. Fourth, the task of intra-group communication must be centered on a problem, such as a fire in a museum where only one thing can be saved; the learner needs to decide whether to save a cat or a painting. Then, the dialogue among the group members needs to occur naturally. Through interactive tasks in the classroom, teachers can provide learners with opportunities to use L2 communication and gradually build students' self-confidence in communication. At the same time, task-based teaching provides an opportunity for learners to interact with each other, improves student cohesion, and promotes communication and cooperation among students in the classroom. Therefore, teachers can provide students with a relaxed and pleasant class, take the task as the orientation to guide students to work in groups, and promote student cohesion to improve students' L2WTC.

4 CONCLUSION

In conclusion, one important element that is vital to language learning, especially in EFL, is the WTC. This review has discussed various factors that affect learners' WTC, including language proficiency, self-motivation, and class environment. First, language proficiency influences WTC by providing learners with the necessary skills to communicate effectively in the target language. Secondly, self-motivation is a critical factor that affects WTC, extrinsic motivation and intrinsic motivation are the two divisions. The student's interest in and desire to study the language are referred to as intrinsic motivation., while extrinsic motivation is the behavior of students for reasons other than intrinsic satisfaction. Lastly, the class atmosphere also plays a significant role in learners' WTC, as an encouraging and supportive environment can help students feel more confident and motivated to communicate.

One of the significant findings of this review is that learners' ideal self-L2 can impact their WTC. When learners have a clear vision of their future careers and aspirations, they tend to put more effort into bridging the gap between whom they are today and whom they want to be in the future. This, in turn, improves their willingness to speak up in class or talk to strangers in L2. Teachers can encourage learners to explore their interests and help them identify future careers in which English is necessary or potentially useful. This can subconsciously enhance learners' WTC from their own perspective. Overall, this analysis reveals that communication readiness is a complex issue that is influenced by a number of factors. To promote learners' WTC in EFL, teachers should provide a supportive and encouraging class atmosphere, and learners should be encouraged to develop their language proficiency and intrinsic motivation to help them feel more confident and motivated to communicate.

In the future, limitations such as a lack of focus on the impact of culture on WTC should be addressed. The review looks at factors that affect WTC in general without considering the learners' cultural differences. Future research could look into the cultural aspects of WTC and how they affect second language learning.

AUTHOR CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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An exploration of Chinese EFL learners' English-speaking anxiety in class

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ABSTRACT: This paper reviews English Speaking Anxiety among Chinese EFL students. In the first part, it introduces the background of English-speaking anxiety and the significance of this article. In the second part, it discusses the definition of English anxiety from different aspects, the current situations of the study on English speaking anxiety, including the approaches of examining speaking anxiety, some current findings from other researchers, and the causes of English-speaking anxiety. In the third part, this article gives some implications for pedagogical from students and teachers' aspect to cooperate with English-speaking anxiety.

Keywords: English speaking anxiety, Chinese EFL students

1 INTRODUCTION

As the research of the intersection between cognitive psychology and second language learning (SLA) develops, anxiety has been supposed to be a factor of impediments in dealing with foreign language speaking tasks, especially in the classroom (Horwitz & Cope 1986; Young 1990). As a consequence, this study reviews the causes that contribute to anxiety when English as a Foreign Language (EFL) students from China speaking English in class and effective solutions suggested for Chinese teachers and learners. Chapter one functions well in introducing the background and the significance of research.

1.1 *Research background*

Results of the research in foreign language acquisition combined with humanistic psychology show that the emotional factor is considered as a key in deriving motivations and making responses, which acts as an indispensable part in directly interfering with the process of acquiring a language. (Horwitz & Cope 1986; Kim 2000; Oxford 1990; Young 1990).

Anxiety, known as a complex comprehensive construct, impedes fluent oral language output and is related to “specific language skills including foreign language listening, speaking, reading and writing” (Aida 1994; Arnold 2005; Elkhafaifi 2005; Guo & Xu 2014; Hewitt &

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Stephenson 2012; Horwitz & Young 1991; Hu 2020). Among them, the process of expressing oneself through speaking is important in foreign language learning. However, most Chinese students pay more attention to the ability to read articles and write short passages when they are learning English in primary school, middle school, and high school, which means they hardly have a better speaking performance in English class (Xiong 2012). The level of anxiety among Chinese students speaking English in class is thus “much higher than that of listening, reading, and writing” (Hu 2020). The lack of confidence in one’s ability to speak English as a result of a learner’s nervousness can have a detrimental impact on one’s performance in reading, writing, and listening as well as on how well they perform in oral tests, presentations, and conversations. Further research is being done to determine the extent to which speaking a foreign language in a school context while feeling anxious has negative impacts. (Hu 2020)

1.2 *Research significance*

This article mainly focuses on the different definitions of English-speaking anxiety, the situation of current studies, the causes of foreign language speaking anxiety, and the corresponding strategies, aiming at improving learners’ attitudes towards speaking anxiety and benefiting their speaking performance in English class, which contains theoretical significance in SLA research and practical value for both students and teachers.

In terms of theoretical value, this study sums up the theories and definitions of foreign language anxiety and speaking strategies and collects some helpful experience in foreign language teaching and learning, especially in speaking-oriented fields. The research results include the gradual recognition of the nature of anxiety, English anxiety, English speaking anxiety, and speaking anxiety in English class in order, which systematically sorts out the theories of anxiety in English learning. Through reviewing the previous studies, this research builds a more comprehensive stage for future studies in English speaking anxiety in class and offers enlightenment to educators.

In terms of practical significance, this study proposes to help Chinese college students understand their own speaking anxiety better with the introduction of speaking anxiety in class and to help them deal with speaking anxiety with scientific and effective methods correctly. In addition, by making an analysis on the factors that cause speaking anxiety in class and providing corresponding strategies for students according to different learning environments, it also helps students successfully reduce speaking anxiety. At the same time, this study will provide teachers with reasonable suggestions about teaching methods and ideas, so that they can better apply them in class, which helps students to relieve their speaking anxiety and improve their enthusiasm for English speaking and their oral communication ability to a large extent.

2 ENGLISH SPEAKING ANXIETY

2.1 *Definition and theory of speaking anxiety*

Anxiety, as one of the negative feelings, can be defined as a state of overall anxiety that involves excessive alertness, heightened activation of the sympathetic nervous system, and challenges with maintaining focus (Subasi 2010). Anxiety when studying a foreign language is a normal emotional response in humans, and many experts have conducted extensive research on anxiety in many fields. Due to the fact that there are various factors that can influence the process of acquiring a foreign language, the anxiety when studying a foreign language can be explored from three aspects (Hu 2020), regarding anxiety as a personality trait (Spielberger 1983), an emotional state (Gardner & MacIntyre 1993; Spielberger 1983), and the reaction that always appears within certain situations, such as the pressure when student is speaking a target language, which heavily affects student’s oral performance in English class (Woodrow 2006). On the basis of the classification, more studies support a more specific concept called the anxiety about English, abbreviated as Foreign Language

Anxiety, which is used to describe and evaluate students' adverse responses when learning the target language (Horwitz 2001; Horwitz & Cope 1986).

Nearly all English learners will suffer English anxiety while learning the language. However, more focused types of English anxiety are required to depict students' negative emotions, measure various types of variables, indicate more potential research directions, and provide targeted recommendations for English learning and studying in order to advance the field of second language acquisition. As a result, English anxiety is further broken down into three categories: oral anxiety, writing anxiety, and listening anxiety. Additionally, English anxiety can be further broken down into listening anxiety, writing anxiety, and oral anxiety. When communicating in English or using English, English learners frequently experience oral anxiety. An extensive definition of English-speaking anxiety has been put out by academics. Oral communication apprehension is described by the Personal Report of Communication Application (PRCA) as "an individual's level of fear or anxiety associated with either real or opposed (oral) communication with another person or individuals," according to McCroskey. (James & McCroskey 1970). Due to the lack of systematic verification of the effectiveness of this report at the time, the definition of oral communication apprehension was still relatively one-sided. Phillips defined it as a concern associated with fear, tension, and depression in speaking tests, which has a negative impact on students' English-speaking performance and attitudes (Phillips 1992). However, this definition narrows the range into the emotion and experiences that learners may have when speaking English, it doesn't consider other relative factors. What's more, the definition generalizes the learning context, regardless of whether the context is social or academic. In Liu and Jackson's study, they defined English speaking anxiety as concerns caused by weak beliefs in English proficiency or negative evaluations of one's own performance in English (Liu & Jackson 2008). The definition is specific in identifying a possible alternative translation could be: "English language anxiety" refers to a type of anxiety that is specifically related to speaking in English. This specificity can help readers have a focused understanding of the types of situations that may cause anxiety. However, this definition may not consider the difference between individuals with different backgrounds.

English Speaking anxiety, a crucial component of learning English, has grown to be a significant element influencing students' learning in English classes. While asked to give a lecture, be graded orally, or respond to questions in a language other than one's native tongue in an English classroom, Young thought that anxiety while one is expressing an idea in a foreign language is generated (Young 2008). In English classes, students nearly always have to use English to respond to questions or perform activities given by the teacher, which significantly raises their degree of speech anxiety. According to these many criteria, it appears that spoken English anxiety happens more frequently in formal learning settings, such as the classroom. At the same time, the oral anxiety of EFL students and their English proficiency seem to have a mutual impact, which can have a certain negative impact on their English learning and mental health.

2.2 Situation of current studies

2.2.1 Nature of speaking anxiety

The academic research on anxiety and its impact on second language acquisition originated in the 1940s (Zhao & Guo 2022). The essence of anxiety is that there is a gap between reality and ideal, but also between desire and ability, which results in a sense of loss of control, powerlessness, and even fear. Anxiety in a foreign language class is a fairly common occurrence. Although students' willingness to learn a foreign language is stimulated by an appropriate degree of anxiety as a promoting trigger, it may also mitigate hinder negative emotions (Krashen & Terrell 1983). As a result, oral anxiety can be defined as students wanting to say a good foreign language in class, but there is a gap between reality and ideal, resulting in the greater the number of students who want to learn oral English well, the greater their anxiety.

2.2.2 *Approaches of examining speaking anxiety*

Regarding the development of the foreign language in-class oral anxiety scale, many scales were designed with the aim of assessing anxiety related to the use of a foreign language in a classroom setting, as opposed to anxiety related to foreign language use in general, then to second language speaking anxiety. First, Gardner and R. C. developed the “French Class Anxiety Scale” in 1979 (Gardner 1979), which was the first measure designed for examining people’s anxiety when speaking a language other than their native tongue. Horwitz, E. K., and Cope, J. then conducted a thorough examination of the mechanisms behind language-speaking anxiety. The “Foreign Language Classroom Anxiety Scale” (FLCAS) they developed as a measurement tool showed good levels of internal consistency and validity. After the development of FLCAS, more scales focused on measuring students’ specific skills, especially oral English, in second language learning, such as Foreign Language Speaking Anxiety Scale compiled by Woodrow and the questionnaire designed by Young (Woodrow 2006; Young 1990).

2.2.3 *Relation between speaking anxiety and speaking performance*

It is a common issue for second language learners to be fearful of speaking, and it can also affect their proficiency in the target language. Language anxiety, including the unwillingness and fear of speaking a foreign language, can cause a reduction in a learner’s motivation to learn and negatively affect their progress in mastering the language (MacIntyre *et al.* 2016). When learners feel anxious or fearful, they might avoid speaking in order not to make mistakes, which leads to insufficient practice and results in a slower language acquisition process.

Studies show there is a relationship between anxiety related to speaking a foreign language and the competence levels of language learners. For example, a study conducted with Arab EFL learners in Saudi Arabia showed that more anxiety was associated with lower English proficiency levels (Alrabai 2019).

According to the research, speaking anxiety indeed have a correlation with a speaker’s proficiency. However, it seems that there are few researchers whose target students is the college students in China. In this case, we may need to combine different aspects to seek the other reasons that may influence spoken language anxiety.

2.2.4 *Levels of different types of speaking anxiety in class*

Cao conducted a related study status quo of anxiety when college students are expressing themselves in English classrooms. She found that respondents exhibit varying degrees of anxiety when communicating with teachers, and team members, and speaking in public. She also suggested ranking oral anxiety severity from high to low in the following order: communication anxiety with teachers > public speaking > overall speaking > group discussion > partner communication anxiety (Cao 2022). This suggests that college students generally have the most anxiety when speaking in front of teachers; nevertheless, as the number of peers they must address reduces, so does their level of speaking anxiety.

2.3 *Causes of foreign language speaking anxiety*

In English-speaking classes, students may feel anxious for a variety of reasons. There are two types of causes that can contribute to Chinese EFL students’ anxiousness when speaking English in class: personal reasons and outside influences.

2.3.1 *Personal reasons*

From a personal perspective, students’ emotional factors account for a significant portion. In Liu’s study, it was found that many students are afraid of being focused on attention, which means they are afraid of speaking English in public (Liu 2007). Besides, their fear of unfavorable judgment and self-perceived ability will make them feel particularly nervous. An example is the anxiety and negative feelings when they believe they can’t speak English as fluently as their peers in class (Subasi 2010). Meanwhile, Liu also pointed out that many students become anxious in the classroom due to their uncertainty of missing key clues in a conversation or even misunderstanding others’ points with a lack of proficiency in English

speaking (Liu 2007). This demonstrates how difficult-to-understand input for kids contributes significantly to worry. Along with “English proficiency, time for preparation, presenters’ experiences” (Chen 2015), “lack of practice” and “memory dissociation” (Liu & Jackson 2008) are more subjective aspects. A concept known as memory disassociation was also put out, which relates to students experiencing anxiety as a result of forgetting what they had learnt (Liu 2007). Their lack of preparation time contributes to their speaking anxiety and hinders their ability to communicate their views well.

2.3.2 *Extraneous factors*

From the extraneous perspective, including “audience attention, some secondary requirements in presentations” (Chen 2015), interacting with native speakers, and cultural environment (Woodrow 2006). For example, students from Confucian Heritage Cultures, like Japan, Korea, and China, always perform to be more anxious than participants coming from other countries.

There are numerous additional reasons that could heighten fear of public speaking in a foreign language. For students learning a second language, teacher feedback is an important component of learning. But if the teacher’s criticism is inappropriate, it could lead to anxiety related to learning a foreign language. Teachers’ criticism may result in unpleasant feelings and experiences, which heighten pupils’ concern about learning a foreign language. According to research, encouraging comments and motivation might help foreign language learners feel less anxious. Through constructive criticism, teachers can assist students in identifying their strengths and making development.

Except for teachers’ feedback, it is also customary for teachers in a language other than one’s native tongue. speaking classes to correct errors made by students. However, research shows that excessive error correction may cause anxiety and affect students’ motivation and willingness to speak. Studies suggest that error correction should be moderate. Excessive error correction can cause fear and anxiety and cause a negative impact on learners. Instead, error correction should focus on providing feedback that is supportive and constructive rather than just focusing on mistakes.

Also, teachers’ negative feedback and improper correction are easy to cause students’ anxiety. According to Zhu’s results of the questionnaire, 58 percent of students reported feeling worried while waiting for teacher evaluations, and 74 percent reported feeling uncomfortable when teachers offered unfavorable feedback (Zhu 2022). It can be seen that students care about the teacher’s evaluation in the classroom, and hope the teacher to give more positive feedback. Therefore, teachers should give feedback to students in a more appropriate way to reduce their anxiety. Don’t let the students think that the teacher is criticizing them.

In Jin Jing’s study, English speaking environment is also one of the external factors that cause anxiety In English class, teachers have more time to speak, leaving less time for students to output their oral English (Jin & Bao 2020). The lack of oral practice will enhance students’ anxiety in English class. Lack of time to practice will lead to students don’t know whether their pronunciation is correct, which leads to students being afraid to speak English and becoming very anxious.

3 STRATEGIES TO COOPERATE WITH ANXIETY

3.1 *Implications for students*

3.1.1 *Be aware of anxiety*

Liu’s study, through anxiety level tests and in-depth interviews with Chinese university students, it was discovered that students became aware of their English-speaking anxiety in the following ways:

- (1) Poor oral performance: Students become aware of their anxiety when they encounter difficulties or failures in their oral performance. For example, they may stumble, feel nervous, or forget words.

- (2) Physical reactions: Students' physical reactions during oral exams or speeches, such as increased heart rate or sweaty hands, can also make them aware of their anxiety.
- (3) Teacher evaluation: Teacher evaluations can also make students aware of their anxiety. If teachers give negative feedback or criticism, students may feel that their oral ability is insufficient and begin to feel nervous and anxious.

In summary, Liu's study found that there are various ways in which students become aware of their English oral anxiety, including poor performance, physical reactions, teacher evaluation, and peer comparison (Liu 2007).

3.1.2 *Get more training opportunities*

According to the research conducted by Cao, there is a relationship between self-perception and nervousness when speaking in class among non-English majors (Cao 2022). To improve one's English-speaking skills, it is important to seek out more opportunities for practice. Here are some ways to do so:

Firstly, join a language exchange program or club where you can practice speaking with native speakers or other learners.

Secondly, attend conversation classes or workshops offered by language schools or community centers.

Thirdly, find a language partner or tutor who can provide personalized feedback and guidance.

By actively seeking out opportunities for practice, you can improve your confidence and minimize your nervousness when speaking English.

Based on the research by Wang Yue on strategies to overcome English speaking anxiety among non-English major college students, it is suggested that to consolidate their English foundation, students should focus on improving their listening and speaking skills through diverse exercises including role-playing, group debates, and presentations (Wang 2014). In addition, teachers can provide personalized feedback and guidance to help students identify their weaknesses and strengths in English speaking. Moreover, creating a positive and supportive learning environment can also enhance students' confidence and motivation in learning English. Regular practice and exposure to authentic English materials such as movies, TV shows, and podcasts can also be beneficial for consolidating the English foundation.

3.1.3 *Put evaluation in perspective*

According to the research by Cao and Wen Jie Juan & Fang Li Juan, it is important to have a proper mindset toward others' evaluation of one's oral English skills (Cao 2022; Wen & Fang 2011).

Firstly, individuals should recognize that receiving feedback is an essential part of language learning and improvement. Instead of feeling discouraged or defensive, learners should view feedback as an opportunity to identify areas for improvement and work towards enhancing their skills.

Secondly, learners should also understand that different people may have different standards and expectations for oral English proficiency. It is important not to compare oneself with others or feel inferior based on others' evaluations. Instead, learners should focus on their own progress and set achievable goals for themselves.

Lastly, learners can seek guidance from teachers or peers who can provide constructive feedback and support. By actively seeking help and advice, learners can develop a positive attitude towards feedback and improve their oral English skills more effectively.

3.1.4 *Overcome timidity*

By Cao, there are several strategies that can be employed to overcome anxiety and build confidence in English oral communication (Cao 2022).

Firstly, learners can engage in regular practice sessions to improve their speaking skills. This can involve practicing with a language partner, recording and listening to oneself, or

participating in group discussions. By gradually increasing exposure to English-speaking situations, learners can become more comfortable and confident in their abilities.

Secondly, learners can work on developing a positive self-concept toward their English oral skills. This involves recognizing one's strengths and areas for improvement, setting achievable goals, and acknowledging the progress made over time. By cultivating a positive attitude towards oneself and one's abilities, learners can reduce anxiety and build confidence.

Thirdly, learners can seek support from teachers or peers who can provide constructive feedback and encouragement. Teachers can offer guidance on areas for improvement and provide opportunities for practice and feedback. Peers can also provide support through group discussions or language exchange programs.

Lastly, learners can adopt relaxation techniques such as deep breathing or visualization exercises to manage anxiety during English-speaking situations. By learning how to calm oneself down in stressful situations, learners can feel more at ease when communicating in English.

Overall, by employing these strategies consistently over time, learners can overcome anxiety and build confidence in their English oral communication skills.

3.2 *Implications for teachers*

By analyzing the causes of students' speaking anxiety in English classrooms, this section will provide some teaching strategies to inspire teachers and enable them to better help students reduce English speaking anxiety.

Firstly, in order to provide better treatment, teachers should be cognizant of the presence of anxiety. In Liu's study, she proposed that English teachers need to maintain the awareness of "anxiety exists" at all times, and empathize with students during class (Liu 2007). In this research, she also mentioned that teachers should encourage students to share their feelings, which can make them more comfortable during class.

Secondly, teachers should establish a friendly learning environment. Liu proposed that the potential targets require English teachers to offer a welcoming, beneficial, peaceful, and relaxing environment for teaching and learning a second language (Liu 2007). In recent research, Cao proposed that teachers should shift from being classroom leaders to being guides and organizers of classroom activities (Cao 2022). Classroom activities can provide students with opportunities for mutual communication and create a relaxed and free atmosphere and environment, which can appropriately reduce students' speaking anxiety.

The opinions of the professors are also highly significant. According to Cao, teachers should promote communication among students and refrain from giving them unfavorable evaluations, which might damage students' confidence and desire to interact with others (Cao 2022). In order to boost students' confidence in speaking English, she also suggested that teachers should assign appropriate learning objectives that progress from easy to sophisticated. Wang also proposed that teachers should change the rigid teaching mode and use diverse teaching methods and flexible evaluation methods to stimulate students' interest in learning English speaking (Wang 2014). Teachers should also impart certain oral communication strategies in the classroom to reduce students' anxiety. Assign appropriate tasks after class and conduct regular inspections to stimulate students' enthusiasm for speaking English.

4 CONCLUSION

In the article, we have a review of the English-speaking anxiety of Chinese EFL students in English class. In the first part, this article review about the background and development of English-speaking anxiety, and then it discusses the theoretical significance and practical significance of this review paper, which focuses on the Chinese English class environment and teaching improvement. In the second part, this article reviews different types of the

definition from anxiety to English anxiety in the class, which further refines the object of our review paper. And then this paper reviews the present state of anxiety when speaking English, including the nature of speaking anxiety, the development of the approaches to examining speaking anxiety, and some current conclusion from other research. For example, current research has discovered that there is a correlation between English-speaking anxiety and the speaking performance of speakers. The last session of the past is the possible reasons that may cause English speaking anxiety, which is presented from personal and extraneous perspectives. The third part is some strategies to cooperate with English-speaking anxiety. In this part, this article mainly focuses on the aspect of teachers and students. For students, this article mainly reviews the strategies of how to correctly view English-speaking anxiety and deal with it. For teachers, strategies are mainly reviewed from a pedagogical perspective, including how to set assignments for students and create a friendly classroom environment for students, and so on.

In summary, this review article gives practical significance to both students and teachers. This article can help students and teachers have a better understanding of what is English-speaking anxiety and give them some suggestions and strategies on how to relieve or deal with it. In this case, students can adjust their learning methods to improve their speaking ability and teacher can choose different teaching styles to improve their teaching skills.

AUTHORS CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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Inspiration and indoctrination teaching on the self-efficacy of middle school students

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ABSTRACT: During the study of middle schools, due to the critical period of adolescent studies in the development of self-efficacy, the teaching method should be selected according to different stages and goals in teaching to improve students' self-efficacy. The two teaching modes of inspiration (problem/student) and indoctrination (teacher-based) may have different impacts on the students' academic self-efficacy, which will affect their future growth and success. This study provides an overview of the math skills, reading skills, and academic exhaustion of current high school students. Self-efficacy is proven to be beneficial for math and reading skills and could reduce the level of academic burnout. Therefore, investigating its influence and exploring are more significant teaching methods that are more beneficial to students. This article mainly explores the impact of the two teaching models of the two teaching modes on students' self-efficacy and the performance of related aspects of academic and learning ability, so as to provide teachers with guidelines and suggestions.

Keywords: Instilling teaching, Inspiration teaching, Middle school students, Self-efficacy

1 INTRODUCTION

1.1 *Self-efficacy and academic self-efficacy*

Ban Dura's social cognition theory in 1986 shows that self-efficacy is confidence in a person's ability to plan and implement a series of necessary actions to achieve the expected results and the belief that people have the ability to plan and execute to a certain extent. Students' academic self-efficacy includes "attitudes, feelings, and views" of their intelligence or academic ability, which is the basic prerequisite for happiness and academic performance.

2 DOMESTIC AND FOREIGN LITERATURE REVIEW

Many studies have shown that the intake of teaching has a positive impact on students' self-efficacy, but this impact is not as significant as inspiring teaching. Nwafor C. E studies have shown that inspirational teaching has significantly improved students' sense of self-efficacy (Nwafor *et al.* 2019). This study aims to study the impact of inspiration teaching methods on high school students' computers' academic performance. This study was conducted in northern Education in Embalki, Elin Ibaki (Nwafor *et al.* 2019). The study was completed by three Research questions and three Null Hypotheses. The study adopts the method of quasi-experimental design, using an experimental and a control group that uses a control

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group design of non-equivalence before testing. The sample is two hundred SSII students through simple random sampling from six high schools and two of these schools are boy's schools, two are girl's schools, and the two are 2 co-educational. More specifically, there are one hundred and one male students and 99 female students. In these six schools, three schools (one girl school, a boy school, and one co-educational school) are selected as the experimental group. From the teaching plan of computer science, the fundamental concepts of computer hardware are used to teach students' knowledge about computer hardware in their computer science course. The experimental group uses inspiration teaching methods to teach, and the control group uses conventional methods for teaching. Teaching is carried out in a normal school schedule in normal class time. At the beginning of this experiment, the two groups of students were predicted and recorded the data and in the end, the data was also tested and recorded. Use the mean and standard deviation answers in Research questions, and assume that the analysis of covariance (ANCOVA) is tested at the level of 0.05 Alpha. The tools used to collect data are computer research results test (CSAT). The K-R 98 method was used to verify the instrument, and the reliability coefficient was 0.20. The findings of the study revealed that the performance of students who receive inspiration teaching is better than students using traditional methods. In addition, boys' performance is significantly better than girls. According to the results of the research, inspiration teaching methods have promoted higher achievements. Therefore, it is recommended to use inspiration teaching methods during the study of middle school professors to improve the academic performance of students. Zhang Jing's study found that inspirational teaching can improve students' self-efficacy, and this impact can continue to exist in long-term learning (Zhang 2020). The study of Xi Lili shows that inspirational teaching can stimulate students' learning interest and initiative and improve their self-efficacy (Xi 2023).

In summary, studies have shown that instilling teaching and inspiration teaching can affect the students' self-efficacy, and the performance of inspirational teaching in this regard is more prominent. Inspirational teaching focuses on cultivating students' creativity and innovation awareness, but how to evaluate and measure students' creativity and innovation ability is still a problem. The current evaluation system may pay more attention to students' memory, and less consider students' thinking and innovation ability, which will also affect the implementation of inspiration teaching. Therefore, it is necessary to strengthen research on the characteristics of students, teaching resources, and evaluation systems to support teachers to better develop inspiration teaching. In summary, in teaching practice, more inspiration should be adopted to help students improve their sense of self-efficacy and improve their learning results.

3 MEDIATORS CONTRIBUTE TO LEVELS OF SELF-EFFICACY

3.1 Culture

Classroom practices across the world are culturally contextual, as is the extent to which students collaborate with the instructor. They are complicit in the formulation and implementation of patterns of involvement that reflect personal, social, and cultural goals, as well as related value systems (Syarafina *et al.* 2018).

Chinese middle school students displayed an increasing number of negative accomplishment feelings such as boredom, worry, and so on (Ni 2019; Zhu & Kaiser 2022). Thus, boredom and worry may have a detrimental impact on junior high pupils' creative self-efficacy (Ni 2019; Zhu & Kaiser 2022). Chinese education constantly instills students with the experience of those who have gone before them. As a result, students have a solid grasp of knowledge but often tend to neglect their own initiative, which can be detrimental to the development of their creative thinking (Song 2017). In China, where the teacher is in the main role and the students are passive, students often have a good foundation in the subject and the ability to memorize in an indoctrinated classroom (Bong & Skaalvik 2003). Whereas

Western education is trial-and-error-based, where students first attempt to encounter and uncover the challenges, then acquire experience resolving them, and then come to conclusions that are genuinely the product of their own investigation (Cheng & Chen 2022).

Most Western culture contributed to the development of the idea of student-centered education. Teachers in Asian nations may use this strategy in a different way than their Western counterparts, which might have a distinct effect on how well their students learn. Similar cultural backgrounds like collectivist or Confucian cultures may be found in other East Asian nations, such as Japan, Korea, Hong Kong, and Taiwan. The success of the student-centered educational paradigm in this setting has also been a source of disagreement for researchers from various nations or regions (Cheng & Chen 2022). Existing studies have demonstrated the tendency of different educational models in different countries. Future direction of research could be the investigation of an overall efficient learning model with the combination of teacher-based and problem-based learning, taking each other's strengths and compensating the weaknesses. This would improve global teaching efficacy and students' self-efficacy can be improved, as well as their future development in broader fields.

3.2 *Gender*

Some studies have shown that men show higher trust and competence in self-efficacy than women, especially in tasks related to fields such as mathematics and science (Stoet & Geary 2018). There are some domain-specific gender differences (for example, women have higher self-efficacy in understanding emotion and language) (Cheng & Chen 2022). However, some studies have found that the gender difference is not obvious. The stronger the math-gender stereotype of girls, the lower their level of mathematical self-efficacy, and the higher the level of mathematical efficacy, the better their math performance. However, no direct correlation between math-gender stereotypes and math performance has been found. This suggests that educators should consciously help girls to improve their mathematical self-efficacy, an important aspect of which is to avoid math-gender stereotypes. Future research could consider gender as a control variable that may also have an effect on different self-efficacy levels among students.

4 IMPACTS OF SELF-EFFICACY

4.1 *Middle school students reading ability*

Middle school students have continuously enhanced their self-awareness, and their own personality is prominent. After the study of elementary school, they accumulated certain knowledge and experience and began to evaluate and choose themselves in various aspects. In terms of reading ability, most students only read for the exams, not for reading itself, so the average reading ability is relatively weak. This common phenomenon can be obtained in the quantitative study of many researchers. Scholar Qiu Xueyan summarizes the "students 'self-efficacy' 'reading interest' and 'reading attitude'" in reading and learning through quantitative research. The conclusion is that the higher the individual's performance, the higher the ability (Qiu 2016). Therefore, reading ability can positively influence self-efficacy to a certain extent. The judgment of their reading ability is strong. When facing reading tasks, they have the ability to complete them, and vice versa. If the students' evaluation of their reading is strong, their self-efficacy in reading should be high; however, special circumstances are not ruled out. Goodman (K.S.) believes that reading is not a simple decoding process, but a "psychological guess game", which contains higher-level psychological processes and readers' prior knowledge. In other words, reading ability and self-efficacy are related to an individual's prior knowledge or experience, and they are complex psychological processes. Therefore, from the above concepts and their relationships, it is necessary to explore the connection between these factors and effectively use it to develop junior high school students' reading skills.

4.2 Middle school student academic burnout

There is a certain connection between self-efficacy and academic burnout. Specifically, students with high self-efficacy usually show positive learning behaviors, show their ability to explore, challenge, and adapt to changes, and can better cope with academic challenges. On the contrary, students with lower self-efficacy are prone to negative emotions and behaviors such as academic burnout, laziness, and unconfident. Lu Wanling *et al.* showed that there is a remarkable relationship between self-acceptance, academic self-efficacy, and learning burnout in junior high school students. Self-acceptance predict academic self-efficacy and negatively predicts learning burnout (Liu *et al.* 2023). The study of Ma Chuang about academic burnout and learning self-efficacy of high school students further shows that academic burnout is negatively related to learning self-efficacy while learning investment is positively correlated with it (Ma 2022). This relationship is usually two-way, that is, the improvement of self-efficacy can reduce the occurrence of academic burnout, and the increase in academic burnout may also affect students' self-efficacy. For example, when students are in a state of school burnout for a long time, they may gradually lose their confidence in themselves and think they cannot complete their tasks. This will further affect the formation and improvement of its self-efficacy. The results have important theoretical and practical significance for preventing and intervening in learning burnouts of middle school students.

4.3 Middle school mathematics teaching

Several but a few research are paying attention to the teaching behavior of mathematics teachers in the class. How their teaching affects the quality of teaching and what it creates "good" mathematics teaching. Although, teachers are the most important factor in affecting students' learning. School-related factors, including the development of mathematics disciplines, also play a role. Although according to the wide study of general education, teachers are the most important thing to affect students' learning. School-related factors, including the development of mathematics disciplines (Zhu & Kaiser 2022). According to the research on the effectiveness of teachers, the impact of teaching quality on students' studies is multi-faceted. According to the universal consensus, high-quality teachers not only help students improve their academic performance but also provide a social skills construction environment, assist in controlling classroom behaviors, teach accurate curriculum knowledge and cultivate critical thinking. In addition to the inequality of academic achievements, research has shown that teachers are very different in their ability to influence children's social-emotional growth and a series of intra-school behaviors. For example, the role of teachers in the achievements of students' society and behavior. The impact of teachers on social and behavioral achievements was greater than the impact of academic performance on students. Due to the complexity of teachers' self-efficacy of students' mathematics learning and their future development, and lack of research on the effective teaching model of different students, this study aims to analyze different teaching methods behind the level of academic self-efficacy. Although these two teaching methods have their own strengths, it is necessary to combine them to improve their learning ability and future development in different cultural backgrounds and genders.

5 MEASUREMENT MODE

The Generalized Self-Efficacy Scale involves a 10-item psychometric instrument used to assess one's level of confidence in their capacity to face a range of demanding situations in life. Self-report surveys used to gauge junior high school students' academic feelings are susceptible to the self-expectancy impact (Stoet & Geary 2018); as a result, the objectivity of the outcomes must be improved. The scale has demonstrated validity in terms of convergent

and discriminant validity in addition to being sparse and reliable. This scale specifically mentions personal agency or having the belief that one's behaviors are what lead to positive outcomes, in contrast to previous scales meant to measure optimism. It has a four-point range from 1 (not at all true) to 4 (exactly true) and strives for a broad and consistent feeling of personal ability to handle a variety of problem-solving scenarios. Students are asked to complete the self-efficacy scale at the beginning and after the problem-based learning activities to investigate the impact of this learning mode. To improve the objectivity of the data, future research can utilize more subjective techniques of observation, such as functional magnetic resonance imaging (fMRI) and electroencephalogram (EEG) (Ren *et al.* 2022). Besides, since the data were gained from self-report, results may involve response bias for social disability, and future studies could evaluate the objective at greater levels, like peer rating and teacher rating, for higher validity (Ren *et al.* 2022).

6 TEACHING MODELS

6.1 *Student/problem-based and exploratory learning model*

The utilization of genuine practice problems, teamwork, and reflection are three particular Problem-Based Learning instructional tactics that are highlighted as the driving force behind students' increased self-efficacy. The assumption is that social and cognitive interactions are what lead to learning. The self-efficacy of students was seen to rise, and their success experience was raised (Dunlap 2005). Students can improve critical thinking skills, problem-solving abilities, high-level thinking abilities, and autonomy as learners during the process (Lin 2021; Syarafina *et al.* 2018). In addition, it improves their ability to obtain information, coordinate activities, achieve objectives, and assess comprehension, as well as strengthens their abilities to adapt to their environment and have self-control by sharing their opinion, thinking positively, and talking in class (Liu *et al.* 2021).

The self-regulatory strategy suggests that with increased engagement in class, there is better cognitive ability and self-efficacy. According to Ryan and Deci in 2000, students have three types of fundamental psychological requirements: autonomy, relatedness, and competence. It is believed that satisfying these three demands is a prerequisite for creating an innate drive, and positively mediate teenagers' self-efficacy (Cheng & Chen 2022). Support from teachers is also crucial for creating a positive learning environment for students (Liu *et al.* 2021; Ren *et al.* 2022). External information input can affect the choice of goals students make by promoting their motivation sub-system, especially among high school teenagers who are still developing their decision-making skills (Cheng & Chen 2022).

In the framework of discursive practice, 'student agency' might be encouraged and supported through classroom autonomy. Agentic engagement happens when students actively construct, improve, and personalize the learning environment in the classroom and seek a change in the flow of teaching. It encourages students to provide serious opinions, seek thorough clarification, or seek constructive solutions to challenges that enrich their learning circumstances. By engaging teenagers in acquiring knowledge and solving problems and tasks that parallel the genuine nature and needs of the future work sector, this learning mode also aids students in feeling prepared to study effectively in their jobs (Dunlap 2005).

6.2 *Teacher-based and cramming learning model*

The teacher-based or cramming learning model refers to the practice of teachers immediately informing students what they need to understand about the condition of a certain activity, with minimal independence and weakening students' autonomy for free exploration (Balloo *et al.* 2018). From an epistemological standpoint, spoon-feeding may be traced back to a representational paradigm in which instructors passively transfer information to passive

pupils who have been trained into a culture of reliance on them. It might be examined transactionally as something done to learners rather than to teachers. In the context of evaluation, cramming teaching may include: instead of leaving it to them to decide, clearly explain to learners what they need to do for an assignment and the steps required to meet the evaluation requirements. “Criteria compliance” refers to addressing task requirements while lacking knowledge of the topic under examination. However, precise assessment criteria can directly facilitate self-regulation. Explicit criteria have been found to improve all stages of the self-control process. Criterion-referencing, for example, is a typical feature of self-assessment, which may be viewed as a type of self-feedback incorporating the self-control abilities of self-monitoring as well as self-evaluation. Self-evaluation can improve self-efficacy and drive to learn, and therefore, improve achievement. According to the famous mathematician Goldbach in the nineteenth century, in early childhood, heuristic learning does not work because students do not understand the material and may be on the wrong side of it, which is time-consuming. Children show strong resistance before they form a will, which can only be controlled by strict management. The cramming mode is flawed but essential and is inevitable and more or less present at primary and secondary levels. Teacher support seems to be more significant for middle-high school students when compared to other age groups and has a higher influence on their motivating confidence throughout these school years.

7 DISCUSSION

A number of researches have investigated the impact of different teaching models on secondary school students’ self-efficacy. Overall, student-centered and problem-based learning positively correlate with their self-efficacy because this learning model significantly improves critical thinking, problem-solving, and adaptation skills. At the same time, though cramming learning may lead to passive learning and learning dependence, it is still crucial for young age teenagers to facilitate self-regulation and improvement of learning efficiency. Meanwhile, mediators that could contribute to self-efficacy differences were discussed in previous studies. For example, gender difference suggests girls have relatively higher self-efficacy in verbal tasks, and lower self-efficacy in mathematical learning compared to boys. When it comes to cultural factors, western countries carry out more problem-based learning activities whereas Asian countries especially China focus more on teacher-based learning. Moreover, secondary school students learning fatigue as well as learning ability, play a significant role in their self-efficacy. Researches show that reading ability is positively related to self-efficacy level whereas learning fatigue negatively predicts self-efficacy.

Previous studies also imply future research directions. First, the existing measure tool is basically the self-report self-efficacy scale. The data resource is objective and lacks validity. To minimize response bias, a greater level of evaluation resource could be applied here, with peer rating and teacher rating, rather than just from students themselves. Subjective observation methods such as functional magnetic resonance imaging (fMRI) and electroencephalogram (EEG) can also be considered in the future. Second, regarding students’ reading ability, the research reveals a robust correlation between self-efficacy and reading ability. However, it is essential to note the limitation that this correlation may not be causative. Although it might be intuitive to believe that enhancing self-efficacy will lead to improved reading abilities, the research is not yet definitive. Therefore, future studies should not only investigate the correlation between self-efficacy and reading ability but also test the causal effects of self-efficacy interventions on reading abilities. Third, on the subject of academic burnout, the research suggests a significant negative correlation with self-efficacy. However, related practitioners must bear in mind that the effect of self-efficacy on academic burnout is likely complex and bidirectional. Intervention studies are needed to determine whether enhancing self-efficacy could reduce academic burnout, and vice versa.

Moreover, it is critical to consider the role of external factors, for example, family environment, socioeconomic status, and institutional support, in these three areas of focus. A limitation of the current research is that it often views the student in isolation, while their interaction with these external factors may significantly impact their learning outcomes, reading ability, and experience of academic burnout. Future research should take a more ecological approach and consider the full range of influences on students' academic experiences. On the basis of the main characteristics of different students, teachers could combine both learning models, and flexibly apply strategies for enhancing teaching and learning efficacy. And the cross-sectional nature of most research in this area is another limitation. Longitudinal research would provide a more precise understanding of the relationships between teacher quality, reading ability, academic burnout, and self-efficacy over time.

8 CONCLUSION

In conclusion, this paper offers valuable insights into educational psychology. The present study provides an overview of self-efficacy and its influence. The findings suggest that self-efficacy is significantly related to various aspects of students' academic performance. While the existing research provides valuable insights, more nuanced, comprehensive, and longitudinal research is needed to deepen our understanding of these complex phenomena and to develop effective interventions.

AUTHORS CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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The influence of internal and external motivation on non-Chinese students Chinese language ability

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ABSTRACT: With the continuous improvement of China's comprehensive strength in the world, the demand of non-Chinese indigenous speakers for Chinese is expanding. The HSK exam has become a means to test the language learning of non-Chinese native speakers. Students' HSK test scores are influenced by numerous factors. Through the research, it is found that among many factors, internal motivation and external motivation of individual learning motivation have a more significant influence on students' achievement. In terms of learning motivation, the learning motivation of international students in mastering Chinese is influenced by numerous aspects, such as the differences in the ability of students to master different languages. Some students have powerful capacities, but some students have weak ability. The differences in the regions where students are born, and whether students' cognitive ability and courses are helpful to students all influence the learning motivation. Measures have been developed to solve the learning challenge. These measures include teachers, students, and teaching materials.

Keywords: Learning Motivation, Influencing Factors, Improvement Measures

1 INTRODUCTION

In the teaching of Chinese as a foreign language, students' motivation plays a very significant role. Learning motivation, learning capacity, and cognitive factors affect students' academic performance. Motivation is a kind of psychological behavior tendency that can cause an individual to generate behavioral impulses and ideas and can maintain such behavior and impulses for a long time. This kind of psychological tendency, learning motivation is divided into internal motivation and external motivation. Learning motivation was put forward by Covington, an American educational psychologist. Learning motivation is a kind of motivation tendency that directs and maintains students' learning behavior and directs it to a certain learning goal. Based on motivation theory and success or failure attribution theory, learning motivation theory examines what factors lead students to be unwilling to work hard. The learning influence of non-native Chinese speakers in China is also impacted by internal motivation and external motivation. Some foreigners come to China to learn Chinese, their external motivation is stronger. Students try to acquire more benefits by studying Chinese. For example, they can get scholarships on campus after mastering Chinese. In the workplace, if students can pass the HSK test and reach the required level, then students are more likely to find better job resources or get promoted faster in the job. However, studying internal motivation can also assist students in fostering their enthusiasm and interest in studying. Typical internal motivation is students' belief that mastering Chinese can extend their knowledge.

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There is research on the motivation of second language learning. The results were summarized by foreign linguist Jakobovits through investigation. The main factors influencing second language acquisition were motivation (33%), talent (33%), and intellect (20%). Among the numerous factors influencing second language learning, motivation accounts for 33%, accounting for the highest proportion (Li & Meng 2013).

Qian and others are the main figures in the study of second language learning motivation in China (Qian 2008). This scholar mainly studies the classification of learning motivation. His research objects are mostly on-the-job learners. Qin Xiaoqing, Gao Yihong, Li Shujing *et al.* studied the influencing factors of learning motivation (Qin 2002). However, due to the influx of foreign students, the study of learning motivation needs a new perspective. In 2013, Gao Yuanyuan mainly reviewed the Chinese acquisition and research in the recent two decades in China and concluded by summarizing relevant studies (Gao 2013). In 2015, Tan Xiaojian conducted a study on language acquisition over a long-time span, summarized the recent studies in the 1930s, and analyzed the advantages and disadvantages (Tan 2015). The motivation for second language acquisition has also been studied internationally, starting from the late 1950s. Lambert and Gardner were the first researchers to study motivation. They designed the motivation scale. At the same time, the second language learning motivation can be divided into integration motivation and instrumental motivation. Integration motivation has a greater impact on the second language. In addition, researchers construct a new learning model based on motivation. Dornyei designed the motivation model in the 1990s (Dornyei 2004). His research focused on learning and divided the motivation model into language level, learner level, and learning situation level, and proposed the motivation model of second language learning.

To sum up, it is theoretically advocated to compare the influence of “internal motivation and external motivation” on students’ HSK test scores. At the same time, it can provide a reference for Chinese teachers to conduct more targeted teaching and cultural communication activities according to the learning motivation and attitude of learners to determine what kind of learning motivation Chinese learners have and which kind of motivation has a greater influence on students’ learning. This study will contribute to the development of international Chinese education, enhance the teaching efficiency of international Chinese teachers, and improve the learning effect of students.

This paper predominantly adopts the way of text review to analyze the influence of students’ learning motivation on students’ HSK scores. The literature is principally based on online research, demanding Chinese learners and foreign students on campus to appreciate the psychological feelings of students’ learning. At the same time, the author also reviews relevant journals in CNKI, and refers to some books related to teaching Chinese as an international language and instructional psychology.

In the China National Knowledge Network, the author first input learning motivation, HSK and Chinese words and searched relevant literature. The author mainly found 588 relevant sources based on the latest literature. There were 58 literatures in 2022, 131 in 2021, 118 in 2020, and 88 in 2019. This paper mainly selects literatures from 2019 to 2023 and sorts them according to citation, so as to conduct a literature review.

At the same time, the author also conducted relevant literature search on Baidu Academic, inputting Chinese as a foreign language, learning motivation, and HSK, and found 12,300 relevant research. There was only one literature in 2023, 12 in 2022, 51 in 2021, 124 in 2020, and 280 in 2019. This paper mainly selects literatures from 2019 to 2023 and sorts them according to citation, so as to conduct literature review. This paper mainly selects literatures with high citations and related literatures in core journals for literature review.

Most researchers adopt the method of data analysis or questionnaire survey. The research objects are usually students. Through long-term observation and tracking, the specific behaviors of students or the examination results of students are analyzed. This paper will analyze the learning motivation of teaching Chinese as a foreign language, the influencing

factors of students' motivation and students' test scores, and find reasonable improvement measures.

2 THE INFLUENCING FACTORS OF LEARNING MOTIVATION

2.1 Chinese learning motivation affected by certain internal factors

2.1.1 Gender factors

When students are learning Chinese, their learning motivation will be different when they are of different genders, thus affecting their academic performance. According to the survey, women have higher intrinsic motivation than men when learning Chinese (Trembley & Gardner 1995). Most women are interested in Chinese culture, and they can have a deep understanding of their favorite content by learning Chinese. However, when men learn Chinese, extrinsic motivation is higher than intrinsic motivation. Men hope that by learning Chinese, they can get promotion opportunities, realize their dream of going abroad, and constantly expand their social circle (Zhang & Tsung 2021). Therefore, Wiley believes that girls' positive learning attitude enables them to achieve better grades, and good grades encourage them and become the motivation for their next stage of learning.

2.1.2 Age factors

Age also has a certain impact on students' motivation to learn Chinese (Nichols & Joannis 2016). When students are younger, they have stronger external motivation to learn Chinese. For example, as shown in Figure 1, students have a great motivation to learn Chinese. Most of them learn Chinese when they are minors to improve their grades, gain rewards from teachers, gain recognition from peers, or pass certain exams. However, with the growth in the age of students, when learning Chinese, the external motivation weakens and the internal motivation increases. The purpose of learning Chinese is not only to upgrade the grades but also to improve the intrinsic interest motivation and individual development motivation of students. In addition, students have a certain foundation for Chinese and profound feelings and gradually become absorbed in Chinese culture (food, clothing, etc.).

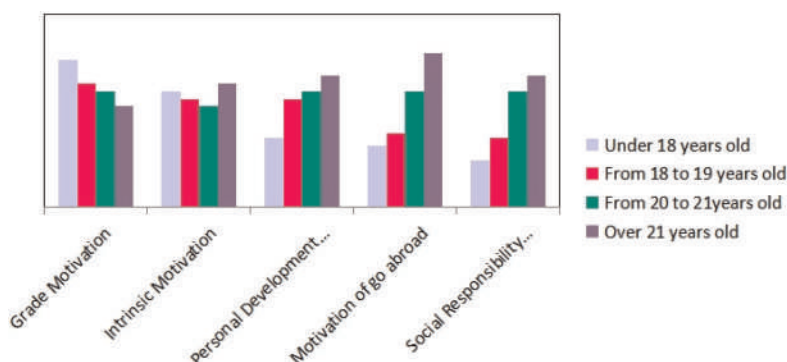


Figure 1. The impact of gender factors on academic transcripts (Wang 2022).

2.1.3 Learners' own Chinese level

According to the experimental research, the higher the Chinese level of Chinese learners, the stronger the motivation for learning Chinese, which is primarily internal motivation. The higher the level of students' Chinese language, the more eager they are to study Chinese, the more they switch from the original external motivation which is only to enhance their

educational performance, including attaining their life ideal (individual development motivation), broadening their knowledge horizon (information media motivation), or studying abroad or touring (overseas motivation) to the internal motivation which is gradually enjoying Chinese. Students no longer regard mastering Chinese as a task, but more a kind of enjoyment, from which they can acquire happiness. Students hope that by mastering Chinese, they can have the opportunity to personally experience the cultural customs of China and enhance their Chinese to a higher level so that their HSK test scores will be enhanced.

2.1.4 Chinese learning motivation affected by some external factors

Economic factors: For example, as shown in Figures 2 and 3, there is frequent diplomacy between China and Tajikistan (Saidamirzukhur 2022). Therefore, the students from Tajikistan have a higher learning motivation while learning Chinese. The students who initially study from external motivation are gradually transformed into internal motivation, and the results have been improved.

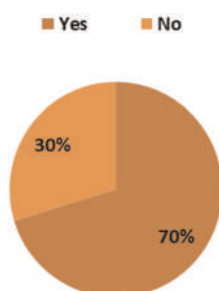


Figure 2. The intrinsic motivation of coming to China in Tajikistan (Saidamirzukhur 2022).

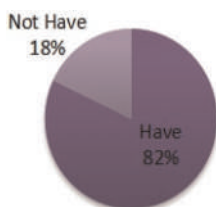


Figure 3. Opportunities and motives for coming to China in Tajikistan (Saidamirzukhur 2022).

Culture factors: Recognition of Chinese culture also affects students' motivation to learn. Culture first appeared in Zhouyi China “looks at astronomy, observes the changes of time, looks at humanity, and transforms into the world”. China has a thousand-year history and culture, rich tourism resources, a magnificent cultural landscape, and different dialect cultures, which are highly attractive to Chinese learners. In 2013, the Research Center for International Communication of China Foreign Language Administration evaluated the influence of Chinese traditional culture. Many non-native speakers of Chinese came to China to learn Chinese culture. Students are very interested in Chinese martial arts, traditional Chinese medicine, food, architecture, opera, history, clothing, and other cultures. Students are familiar with modern popular movies and songs and often listen to their favorite Chinese movies and songs with the help of YouTube and other online resources. There are also students in China with a more serious attitude toward learning, which makes the internal motivation of students far more than the external motivation. If the research

finds that cultural factors will make students change from external motivation to internal motivation in language acquisition, the final result will be improved.

2.1.5 *Chinese learning motivation affected by certain learning situation factors*

Considering teaching material factor, teaching materials are an essential component of teaching Chinese as a foreign language (Dornyei 2004). Teaching materials have many influences on learners. The quality of teaching materials affects students' learning motivation and their efforts in class. If the textbook is boring, it will reduce the internal motivation of students to learn Chinese and make learning Chinese a task, which will eliminate the enthusiasm of students to learn Chinese and lead to a decline in students' performance.

Considering classroom environment factors, the classroom environment is the key to students' learning in teaching Chinese as a foreign language. All factors in the classroom environment will affect students' learning in terms of teaching tasks, classroom environment, and activities in and out of class. These factors will affect students' learning motivation. A comfortable living room atmosphere can enhance students' creative ability, stimulate students' enthusiasm for learning, and thus generate interest in learning Chinese. The students' learning motivation changed from external to internal and finally improved their grades. Some scholars have found through data research and analysis that when the class management is good, students abide by the class order and the relationship between classmates is harmonious, a relaxed and happy classroom atmosphere will be generated, and students' enthusiasm for learning will be generated accordingly. Students' learning is no longer external motivation, internal motivation will become the main factor. Students will also improve their Chinese test scores. As shown in the figure below, when teachers change the teaching method and classroom environment, students' academic performance has been significantly improved.

3 THE INFLUENCE OF INTERNAL AND EXTERNAL MOTIVATION ON CHINESE LEARNING ACHIEVEMENT OF NON-NATIVE SPEAKERS

3.1 *The influence of external motivation on language learning performance*

Internal and external motivations also affect students' language learning performance. With the continuous development of science and technology, economic globalization has become a general trend, and the importance of language learning is constantly increasing. More and more people choose to learn languages, and many students are no longer limited to English in language learning. French, Spanish, German, and Arabic have gradually become some major courses for students. In the process of learning these languages, students are also affected by internal motivation and external motivation.

English is a compulsory course for every primary and middle school students. After finishing a semester of study, students will take the final exam. Some students think that students' final exam results are a way of evaluation, while others think that learning English is a very interesting thing. The study of English is different from the study of Chinese and mathematics. Students think that the study of English is very fresh, and at the same time, they will take the initiative to learn, and they will supplement the knowledge in the classroom. As students have a great interest in learning English, they will listen to some English news after class and read some English original works. They will also apply English to life. For example, they will participate in some English-related volunteer services and take the initiative to communicate with foreigners. In the process of learning English, students will face great difficulties such as the learning of grammar. However, due to strong internal motivation, students will continue to explore some new knowledge. Internal motivation plays a very important role at this time, and students' academic performance will be improved accordingly.

However, some students learn English mainly through some external motives. For example, students learn English to pass the entrance examination and learn English to improve their scores, but they have no interest in learning English. Such thinking can also affect students' academic performance. Because students have no internal motivation to learn, learning depends more on the support of external motivation, so students will lack the spirit of active exploration when they encounter difficulties in the process of learning, and will also produce feeling of anxiety and exhaustion, which will result in the decline of performance.

Whether in primary school or graduate school, some students learn English in order to pass exams and get good grades through learning English. IELTS, TOEFL, CET 4, and CET 6 have become a major part of the examination for students. Students' English learning is also based on these external motivations. Students learn by listening, speaking, watching, reading, and other different ways and channels. Short learning can help students to improve their grades. This is because external motivation has a greater impact on students' academic performance. However, when students graduate or no longer need to take exams or improve their scores, their external motivation will continue to weaken and their extracurricular learning of English will be reduced. The improvement of language performance requires long-term persistence and continuous learning. Since students no longer study after passing the test, when students take the test again, their scores will be much lower than before.

3.2 *The influence of internal of internal and external motivation on Chinese learning (non-native speakers)*

Grade is an important indicator to measure students' academic performance. It can measure a person's mastery of knowledge and language learning ability. There is a specific standard when measuring academic performance, that is to say, excellent academic performance is relative, it measures a person's learning ability and the result of a semester's learning. Internal and external motivation has an important impact on students' language achievement. Some scholars have conducted investigation and research, and the subjects are Miao junior high school students in the border minority areas. Through research and discovery, it was found that internal motivation can stimulate students' interest in learning. Learning motivation has a direct impact on students' academic performance. Internal motivation will affect students' academic performance and also strengthen students' learning motivation from weak to strong. Students' motivation will gradually change from external motivation to internal motivation. Students' language performance will also improve. Deep learning motivation can also be called internal motivation, which has a great impact on students' learning. Internal motivation has a direct influence on academic performance. Good internal motivation can improve the language performance of non-native speakers. However, external motivation affects academic performance through internal motivation. When students rely too much on external motivation, the language performance of non-native speakers will decline.

There were once some students who had been exposed to Chinese in primary school and junior high school. The students liked watching Chinese TV series and some traditional Chinese culture very much and decided to continue learning Chinese in university, hoping to have the opportunity to come to China and study Chinese traditional culture. Due to the strong internal motivation of the students, the students gradually enjoyed the process of learning Chinese. They can also maintain a good state of learning, so their Chinese scores have been among the best. There are also scholars studying students' Chinese learning in Thai universities. Some Chinese non-native speakers are not majoring in Chinese, but they change their major to Chinese because of their strong interest in learning Chinese. In the process of learning, students continue to learn Chinese-related content. In the final exam, it was found that students' academic performance was far beyond some Chinese major students.

The influence of internal motivation on academic performance includes students' learning attitude and so on. Some students have some knowledge of Chinese, so they are willing to learn Chinese. Students will constantly consult their teachers for relevant questions, actively participate in class, review carefully after class, learn some extracurricular knowledge, and participate in some extracurricular activities. Extracurricular activities include "International Chinese Language Day" where students can sing Chinese songs and share their Chinese learning experiences. Due to the lack of a second language acquisition environment in the local Confucius Institute, students are unable to use a second language in life. However, this does not affect and weaken students' learning motivation but helps students better devote themselves to the classroom. Students' continuous excellent results in examinations will also enhance students' interest in learning, thus forming a virtuous circle, and students' academic performance will be greatly improved.

External motivation will also have an impact on non-native speakers of Chinese. In the learning process of non-native speakers of Chinese, external motivation will also have some impact on Chinese. The external motivation of students to learn Chinese is mainly to get better academic performance, to find a better job in the process of job hunting, and to learn Chinese well so as to better participate in the communication of enterprises. Through the research, it is found that when the external motivation of students' learning motivation is too strong, the internal motivation of students will continue to weaken, and their interest in learning Chinese will also continue to decline. When the external motivation is too high, the non-native Chinese learners will feel anxious because their grades are not improved, and they will also have utilitarian thoughts.

Through the research, it was found that the correlation analysis between learning motivation and Chinese achievement showed that both internal motivation and external motivation had a certain correlation with Chinese teaching and research. Although there are individual differences in subjects (age, gender, class), these differences do not have a great impact on students' academic performance. When the internal motivation of students becomes more and more strong, there will also be some integrated learning motivation. The higher the internal motivation of Chinese learning, the higher the score of college students will be. External motivation can help students improve their grades, but it does not improve their grades as much as internal motivation.

4 SUGGESTIONS

4.1 *For teachers*

Teachers can stimulate students' learning by improving the classroom environment, which requires not only the theoretical knowledge related to classroom management and education, but also an in-depth understanding and understanding of students. Teachers first need to create a comfortable classroom atmosphere, so that students have good interpersonal relationships. After that, some group activities or group discussions can be set up in class to clarify classroom tasks, which can help students improve their ability to work as a team. Teachers need to increase some communicative activities for students to help them improve their expression ability. After the improvement of their ability, the Chinese language barrier for students will be weakened, and the external motivation will be transformed into internal motivation. Teachers also need to keep their teaching ability and take part in more training. Set some preset situations in the class to help students learn better.

4.2 *For teaching materials*

Teachers can improve the learning motivation of students by improving the curriculum and teaching materials, so as to achieve higher grades. Most students learn Chinese because they

are interested in traditional Chinese culture. Find the part related to the cultural content and the curriculum and teach it. For example, in the HSK Standard Course, each course is set with cultural teaching content, such as the theme of the text is simple love, which also corresponds to the traditional Chinese love stories related to the theme.

Teachers can also adopt cultural stimulation strategies in the process of compiling textbooks or handouts. One of the influential factors at the linguistic level of the three-level theory of motivation proposed by Dornyei is the factor related to the country of the target language. A school survey found that for many foreign students, the textbook could add some introductory content of Chinese culture, so as to promote the integration of cultural knowledge without any cultural conflict. This can also enhance the interest in teaching. By adding some cultural knowledge, students' grades will be significantly improved and their interest in learning Chinese will be further enhanced. For example, when learning location words and places, in "A+ is far/near away from B+", students can choose the scenic spots that they really want to go to when they learn this sentence pattern. Then introduce some scenic spots and cultural history of the places mentioned, if students like.

5 CONCLUSION

Learning motivation is affected by many factors such as gender factors, age factors, their own Chinese level, and many other factors. But these factors are not for everyone, nor can they completely determine a learner's test score. If students have good learning strategies, learning ability, and good learning habits, the influencing factors of academic performance are more complex. At present, there is no direct relationship between learning motivation and HSK test scores in teaching Chinese as a foreign language. Scholars' research on this aspect is relatively simple, and only by controlling variables can accurate conclusions and data be obtained.

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The impact of students' academic self-efficacy and learning motivation on academic achievements in private colleges

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ABSTRACT: Students at private universities and colleges are generally tired of learning, truant, obsessed with online games, and lack concentration in their studies. It has a detrimental impact on the academic student accomplishments in private colleges as well as universities. Therefore, on the basis of the research to date, this paper will summarize the causes of a lack from learning motivation (LM) among students in private colleges, improve students' self-efficacy (SE), and stimulate LM. This study explores whether it affects students' academic performance (AP), in order to provide reference for identifying the reasons for insufficient LM among students in private colleges. From the literature review, this paper concludes that there are a significant number of positive correlations between the SE and the internal motivation of study. There is a positive, negative, or no correlation between SE and external motivation from learning. Academic self-efficacy could positively affect and predict AP. The relationship between the LM and the AP confirms that LM has one certain predictive effect on the AP, and the positive correlation between intrinsic motivation and the AP is significant, while the correlation between extrinsic motivation and intrinsic motivation AP is not significant. Future research can use cross-lag analysis to investigate the longitudinal relationship between the SE and the motivation regulating and using motivation regulation policy. The reciprocity relationship model can also be used to consider multiple important variables together, revealing the impact of multiple variables on the research object, and clearly showing the internal relationship between variables.

Keywords: Private College Students, Self-efficacy, Learning Motivation, Academic Performance

1 TOPIC SELECTION BASIS

1.1 *Research background and issues*

There are significant differences between private and public universities with regard to teaching form, educational direction, and student organization (Yang *et al.*, 2022; Zhao *et al.* 1993), which makes the education of private universities unique (Zhou 2022). The enrollment targets of private universities are fresh and former high school graduates with low scores in the college entrance examination. These students' parents from their original families belong to the middle class, are busy with work, and pay little attention to their students. Therefore, these students have low AP and poor learning initiative (Zhao 2020, 2021). Therefore, students in private universities are not only a part of the social group but also belong to the group of college students; however, they also have their unique characteristics. Compared to students in public universities, they have to face more physiological, psychological, and environmental changes

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and bear more pressure. When these students are not satisfied with the school, they often choose private universities for studies due to their unsatisfactory college entrance examination results. This leads to general phenomena such as addiction to online games, aversion to learning, and skipping classes. Poor learning skills and knowledge and improper learning techniques lead to unsatisfactory AP and insufficient confidence in employment.

Psychological research suggests that human behavior is always dominated by certain motivations. Students' learning achievement motivation is the internal motivation that directly promotes their learning, while their SE directly affects their LM (Zhao 2019). So far, the theory of SE has had a lot of success closely related to achievement, goal setting, motivation attribution, self-concept, self-regulated learning, and other theories (Fan *et al.* 2023; Li 2021; Lu *et al.* 2023). The purpose of the paper is to explore whether the SE of the company's private undergraduates can affect their AP.

1.2 *Significance and purpose of the study*

By studying the differences between the SE of students with other academic achievements in private colleges and universities, as well as the differences in SE between students from different backgrounds, we can gain a better understanding of the importance of SE to students' LM and achievements. Through discussing relationship between students' SE, LM, and AP in personal colleges and higher education, it is very important to improve students' subjectivity, initiative, and creativity in learning. This can be achieved by promoting independent and experiential learning, as well as strengthening the cultivation and education of internal factors in learning.

2 THEORETICAL RESEARCH ON SE IN ACADEMIC STUDIES

2.1 *Theory of SE*

Bandura put forward the concept of SE. The article shows that SE refers to the judgment ability, trust, and subjective feeling of an individual when doing something well (Bandura 1977).

Bandura learned that previous research had focused on people's reactions to knowledge acquisition and behavior, but people have forgotten that the process of mastering knowledge and controlling their own behavior is closely related to each other. For example, people are very aware and clear about what they are doing, but their performance in action is not as satisfactory as they think. This is because there are internal self-referencing elements that adjust the relationship between knowledge and behavior. People make judgments about their abilities, and more importantly, this judgment can affect their behavior and motivation. Therefore, people's judgment of their personal abilities plays a very important role in the self-regulation system. Efficiency beliefs have a significant impact on human behavior and achievement, and can significantly affect people's feelings and thinking patterns, as well as awaken their ability to take action. The sense of SE is that self-confidence and the belief that people have in a specific field to achieve their goals, and in the later stage formed the basic framework of SE (Bandura 1986). The theory of SE has aroused a large number of psychologists' research and attention. Therefore, the research on academic SE is based on Bandura's thought.

2.2 *Scope of academic SE*

According to a large number of literatures, the scope of academic SE is that everyone has the ability to judge and the self-confidence to complete their studies. SE is a very important viewpoint of Bandura's social cognitive theory and learning. Because each field has differences, the abilities and skills required of each person are also different. Thus, people have different SE in different fields.

People made to feel good will constantly strive when encountering problems. People who feel less effective will give up directly. This is the reaction that a person's judgment of SE determines the difference between goals and self-expression. In terms of LM, students with high SE have high LM, and students with low SE have low motivation for learning. The expectation of efficacy is confidence in the behaviors required for success (Bandura 1977).

Domestic scholars have also studied the relationship between SE and AP. Wang Lianlian studied students' SE from two aspects: English learning ability and learning behavior. So academic SE is generally divided into two kinds, one is the SE of the learning capacity, and the other is the SE of learning behavior (Wang 2016). The SE of learning ability refers to one's ability to have confidence in completing their studies, achieving good marks, and avoiding academic failure. Efficacy of learning behavior refers to whether individual students can use certain effective learning methods to achieve their learning goals and confidence. A large number of studies have shown that the level of individual SE of students can directly determine the likelihood of hard learning and is a very important factor in LM.

The academic SE of students in private colleges is significantly lower than that of students in public colleges. From the factors that affect individual SE, this study found that the main reason why private students' academic SE is lower compared to public college students is because of the influence of failed learning experiences and relatively low social evaluation. For students in private institutions themselves, the failure of the college entrance examination has led to doubts about their learning abilities and methods. This kind of setback experience in learning will weaken the SE of students in private higher education institutions and universities. At the same time, private colleges and universities have strongly received widespread attention from the entire society as a new phenomenon. Compared to public institutions, society's current evaluation of this new phenomenon is more in a questioning and wait-and-see stage. Many people still believe that private colleges are not truly educational institutions. These people believe that only students with poor AP abilities will attend private schools. Therefore, this prejudice and doubt in society will affect the SE of students at private colleges and universities, resulting in a lower academic SE of students at private colleges and universities than students in public colleges and universities.

2.3 *Impact of academic SE*

In Collins' experiment in 1982, students with high SE could quickly give up the wrong algorithm to solve more mathematical problems while solving mathematical problems. When encountering problems that they have made mistakes in the past, they can do them again with high accuracy. Huang Shiqing found that students with poor research results gave up on problem-solving due to a lack of problem-solving skills and confidence. So, SE plays a very important role in the learning process of the students (Huang 2020).

The following aspects in particular demonstrate the important influence of SE on the learning process: First, the choice of behavior of students is influenced by SE. In order to prove that their ability is stronger, and their SE is high, students will choose more difficult learning tasks. Students with a low SE are more likely to choose easier challenges and avoid learning tasks that make them feel as if they are difficult. Second, students' persistence in learning is influenced by their SE. Students encounter difficulties in learning. The longer the students with high SE persist, the better effort they make, leading to feel joy in overcoming difficulties. When the goal cannot be achieved, analyze the reasons for the failure and create conditions to overcome difficulties and achieve the goal again. Students with low SE give up facing difficulties and will not think about the reasons for failure. Li also found in the research that students' emotional reactions and thinking patterns would also be affected by SE. Students with high SE will act more, focus all their attention, and effectively use their ability to achieve goals, and students of high SE will be inspired to more possibilities. The students with low SE, because of their lack of self-confidence, regard the difficulties as serious, do not find solutions, and focus on the negative consequences (Li 2021).

2.4 *Main reasons affecting academic SE*

Luo summarized the following main factors that have an impact on the formation and change of academic SE in the study. The experience of success and failure in one's own behavior is the learner's previous experience. Successful experiences can enhance people's self-confidence and SE. The experience of repeated failures will lead to a lack of self-confidence and a decrease in SE. Multiple successful experiences will establish a high level of sense of SE and stability in the sense of efficacy. This feeling of efficacy will not be reduced by a temporary failure but will also be generalized to the similar situation. Non-ability factors such as individual effort, difficulty in achieving goals, external assistance, and attribution of success and failure can all affect the establishment of SE by influencing one's own experience of behavioral success or failure. Second reason is substitute experience. The formation of SE will also be affected by individual indirectness. For example, when individuals see the success of presenters with the same level as themselves, SE will be strengthened, and they also believe that they can complete the same task and achieve success. However, when a presenter at a similar level experiences failure, the individual's SE will decrease and they may feel that they will not be successful. The impact of observational learning on SE is achieved through two different types of cognitive processes, two cognitive processes are responsible for the effect of observational learning on SE. Learners use the comparison method with presenters to judge their own abilities based on their performance, which is the process of social comparison. Learners learn useful problem-solving methods from the performance of the presenter, enhance their ability to solve problems, increase the effectiveness of achieving goal success, and thus enhance SE. Third reason is verbal advice. SE can be changed through suggestions, persuasion, and guidance. This method is commonly used, but the effect is not satisfactory. To maintain lasting effectiveness, it is necessary to be influenced by the authoritative identity and credibility of the persuader. Fourth is activating the emotional state. In special environments, it is easy to activate emotions. Whether emotions can be activated depends on the specific environment that provides information about personal abilities; the higher the emotion activation level, the lower the performance SE, the greater the behavioral barrier, and the relatively weaker the expectation of achievement. For example, overly strong emotions can also hinder behavior and reduce the expectation of SE (Luo 2019).

To improve the SE of private college students, the following methods can be used for this: first, encourage students to use their own ability and experience to get right attribution. Some of the students in schools who fail to pass, attribute their failure to insufficient abilities or efforts, while others put it down to the complex tasks or poor luck, thereby reducing their motivation for learning. Teachers should provide motivational guidance to students' attribution results by analyzing their school achievements so that students can always maintain a positive sense of academic SE and confidence in learning. Second, use the positive role of alternative experience to give full play to SE. Through literature review, it is concluded that alternative experience has a major impact on students' academic SE. In everyday learning and life, students compare themselves with others who exhibit similar or similar behaviors to evaluate their intelligence and abilities. For example, other students easily succeed in doing this task, and they may feel that it can be accomplished with just a little effort from themselves. As long as other students rarely succeed, they will develop a mentality of being not able to complete it. How teachers can create a positive learning environment, set an example, enable students to emulate, improve their poor study habits, and achieve better results through increased exposure to successful role models. Third, using positive language persuasion can have a promoting effect on students' learning. In learning and life, verbal persuasion refers to the positive feedback, evaluation, and encouragement of others' language. For example, during the learning process of completing their studies, teachers provide appropriate positive feedback and actively encourage students, which increases their confidence in learning; however, persuasion must be factual and sincere. On the contrary, it will have a negative impact.

2.5 Research on students' SE and AP

The quality of AP is related to SE in a big way, which builds on the conclusions of previous studies in many areas of education. Both Shenk's and Bandora's research suggests that students' AP can be accurately predicted by their level of academic SE. High achievers are SE individuals with high AP. Low achievers are SE individuals with low AP (Schunk 1983). In the research with middle school students as subjects, Collins observed the connection between individual SE and performance in real terms; SE was a very important part of the mathematical problem-solving process for middle school students. Between learning SE and AP there is a very significant positive correlation. Thomas John *et al.* conclude that students with high SE are good at finding problems, overcoming difficulties, and solving problems, and will achieve good results.

Liu found that students' AP could be accurately predicted by their level of academic SE. Many foreign psychologists have made a meta-analysis on whether SE can affect AP in standardized measurement, experimental design, and student samples (Liu & Hou 2015; Multon *et al.* 1991). Students with different levels of SE have very distinct differences, as they differ in their goal achievement, level of effort, emotional state, personal self-discipline, academic confidence, and learning methods. Students with a high sense of SE are very active in all areas, and also very conducive to achieving good results. Just as good AP can be used as an important standard to identify students' learning ability, so the level of learning SE can also be used as an indicator to identify students' learning ability, and the degree of effort, optimism, and enthusiasm for the subjects studied, the effectiveness of completing homework and other positive or negative effects affect AP. This is a comprehensive summary based on Egan and Kochak's research results on SE. Research on engineering students and science students shows that SE can affect the quality of AP, and high SE can maintain academic passion, and persistence in learning and achieving high AP.

3 THEORETICAL RESEARCH ON LMS

3.1 Research on LM theory

LM is an internal psychological state that can inspire individuals to engage in purposeful learning activities. LM can stimulate learning activities, and learning activities can also strengthen LM. Snarkin believes that external stimuli can trigger an impulsive force towards behavior, which is motivation. A person's tendency to learn depends on the strength of the link established between the previous learning behavior and the stimulus through reinforcement. Reinforcement can be divided into positive reinforcement (internal and external) and negative reinforcement based on the nature and purpose of the reinforcement. Positive reinforcement refers to the appearance of a pleasant stimulus that increases an individual's behavioral response. For example, rewards and verbal praise from teachers for a student's daily performance will reinforce that behavior. Methods of positive reinforcement include bonuses, recognition of grades, praise, improving working conditions and interpersonal relationships, promotion, assigning challenging tasks, providing opportunities for learning and growth, and so on. This belongs to external reinforcement. If students want to avoid failing the exam, they can increase their confidence and emotions through internal reinforcement, and generate more motivation to study harder. Negative reinforcement refers to the reduction or elimination of unpleasant stimuli that are applied to a behavior in order to make it continuously repeated. Methods of negative reinforcement include withdrawal of criticism, punishment, etc. Sometimes the restoration of reduced rewards is also a form of negative reinforcement. However, reinforcement theory emphasizes the external forces that trigger learning behavior but neglects the consciousness and initiative of human learning behavior, so it has limitations.

The activity of learning is an active process, emphasizing the initiative and consciousness of learning, which is the conclusion of cognitive psychologist Bruner. Bruner refers to the

LM formed by external rewards as external motivation; the motivation formed by internal factors such as interest, thirst for knowledge, and curiosity is called internal motivation. The influence of internal motivation on learning activities is long-lasting. Bruner emphasizes the importance of internal motivation in balancing external and internal motivation. So, students' learning mainly depends on the satisfaction of individual curiosity and all the successful experiences they have gained during the learning process.

3.2 *Defining and measuring endogenous and exogenous motivation in learning*

An in-depth study of the types and properties of motivation is inseparable from the study of motivation. Motivation can be divided into two categories: endogenous and exogenous. Endogenous motivation refers to the tendency of individuals to engage in activities in order to seek challenges and satisfy related curiosity. Exogenous motivation refers to the tendency of individuals to engage in activities because of factors other than the activity itself, such as rewards, recognition and approval from others, successful completion of superior instructions, and competition with others.

Internationally, the measurement of LM is usually using the LM Scale developed by Amabile, Hill, Hennessey, and Tighe. It is an effective and reliable tool for distinguishing and measuring internal and external motivation. The scale has 30 items, with two sub-scales, one for endogenous motivation and one for exogenous motivation. The scale is a 4-point scale, with higher scores indicating greater motivation. In 2002, the LM scale developed by Amabile was revised by Chi and Xin from China, Hill, Hennessey, and Tighe. The revised LM scale can be divided into two subscales used to measure endogenous motivation (including two dimensions of challenge and enthusiasm) and exogenous motivation (including four dimensions of reliance on others for evaluation: choice of simple tasks, focus on interpersonal competition, and pursuit of rewards). For this reason, the multiple reliability and validity indicators of the two revised subscales of the Chi Liping are very reasonable and used in relevant research on Chinese subjects (Amabile *et al.* 1994; Chi & Xin 2006).

3.3 *Current status of research on LM of chinese college students*

Empirical research focuses on relevant research and intervention research. Intervention research focuses on attribution training methods. Research on using attribution training to improve students' academic achievement motivation is aimed at primary and secondary school students and is conducted in conjunction with subject-teaching activities (Xie 2019). Theoretical research and domestic empirical research are mostly related in nature. The above research explores the impact of different theories and concepts of cognitive motivation on academic achievement and achievement motivation (Ding 2022; Fan *et al.* 2023; Lu *et al.* 2022; Luo & Fang 2022; Wang *et al.* 2022; Wen & Zeng 2022).

There are many shortcomings in the research on Chinese students' LM. Most of the research on LM is focused on Chinese middle school students and primary school students. There is little research on students with learning difficulties and low SE who have learning problems. The majority of students in private colleges are students with learning difficulties, and there is even less research on the LM of students in private colleges. The vast majority of intervention studies only use attribution training as an intervention method, and attribution training is aimed at problem students, who have poor adaptive cognition and behavior. These students tend to attribute failed results to a lack of ability or a tendency not to attribute achievement results to effort. All intervention studies are based on students' existing motivation problems and seek effective solutions. Normal students' LM can also be influenced by other factors, how to maintain students' positive LM? How should this work be carried out? These issues are all topics that require attention and research.

China should pay more attention to cultivating and stimulating students' LM in private colleges and universities. Due to the influence of the disadvantages of China's education

system, especially the examination system, and the influence of pragmatism, utilitarianism, employment pressure, and other factors in real society, students' LM makes people feel shallow. University learning focuses on organizing teaching from a research perspective and an academic perspective. Students cannot rely solely on instructional activities to stimulate their LM but can use the influence of mediating cognitive regulatory mechanisms to cultivate positive LM.

There have been many achievements in the research field of LM, and different research theories propose different orientations of LM. In the research of Geng Yan, there is no significant correlation between the level of SE achieved by students attending private universities and their exogenous motivation. However, there is a significant correlation between the level of the SE and the endogenous LM of the SE. The conclusion from the research is that when SE is high, endogenous LM is high, and when SE is low, endogenous LM is low. Motivation can be divided into two categories according to its source: endogenous motivation and exogenous motivation. Exogenous motivation refers to motivation inspired by external forces and the external environment (i.e., incentives) (Geng & Li 2013). Compared to public institutions, private colleges in China have different educational systems and management methods. The system of private colleges is not mature enough compared to public colleges, and students in relatively weak private colleges may have some comparative psychology toward this. Students in private colleges will therefore pay more attention to the evaluation of external factors such as teachers and interpersonal competition in their studies. The research shows that there is no significant correlation between the level of SE in learning among private university students and their exogenous motivation, but there is a very significant correlation between them and their endogenous LM. The relatively consistent correlation between endogenous motivation and SE in learning, social interaction, job hunting, and other fields indicates that endogenous motivation may be a stable personality trait of individuals, with consistency across time and situations, so the internal vivid opportunity affects students' learning SE. Therefore, only by improving the students' SE in learning and enhancing their self-confidence in learning can we more effectively stimulate the students' LM in private colleges.

3.4 Research on the relationship between LM and AP

In researching the relationship between LM, learning strategies, and AP, both nationally and internationally, LM is an important influencing factor. Regarding the study of LM, there is a considerable amount of research on achievement motivation. Chinese scholar Yu *et al.* found that students with higher scores have stronger LM, while students with lower scores have relatively lower LM. It was found that more engagement in English learning led to higher grades through multiple linear regression analysis. Less investment in English learning leads to lower grades (Yu 2022). Kang conducted a survey of students through a questionnaire to investigate the relationship between LM among high school students, learning strategies, and how they affect AP. The research results indicate a significant positive correlation between LM and AP in high school students; the higher the LM and SE of the pupils, the lower the LM and SE of the students. Motivational regulation strategies can indirectly affect English grades through partial mediating effects of autonomous learning ability (Kang 2022). Research by Lu *et al.* shows that students' chemistry SE is significantly positively related to their academic performance in chemistry. Self-regulated learning strategies are positively correlated with chemical SE in college students. There is a significant positive correlation between self-regulated learning strategies and academic performance. Self-regulated learning strategies play a role in the mesomeric effect between chemical SE and chemical academic achievement (Lu *et al.* 2022). Hu *et al.* found through a survey of students at a certain normal university that students with strong LM achieved higher grades, while students with weak LM achieved lower grades. LM can promote the improvement of students' AP, and the impact of minimum motivation, environmental motivation, achievement motivation, tool motivation, and interest motivation on students' AP is increasing (Hu & Dong 2020). After analyzing a large amount

of literature, it was found that some studies have confirmed that internal motivation has a significant impact on academic achievement, while others have concluded that external motivation has no impact or negative impact on students' AP. Therefore, the following hypothesis is proposed: there is a positive correlation between the LM of students in higher education and their academic performance.

4 RESEARCH ON THE RELATIONSHIP BETWEEN ACADEMIC SE AND LM

The level of an individual's SE determines his behavioral motivation in the achievement situation. People with high SE are highly motivated to engage in relevant activities and are willing to make an effort to find solutions to problems. When the problems encountered are solved, the individual's sense of efficacy is confirmed, which maintains motivation. Even when the individual occasionally encounters unprecedented difficulties, their confidence in the ability to succeed also helps overcome the negative aspects of previous operations and induce engine behavior. On the contrary, people with low SE tend to be unenthusiastic about getting involved, and are unwilling to make efforts and take corresponding measures to deal with difficulties, which will reduce their SE. These theories have been confirmed by Bandura's research.

The research results of Zhang on the relationship between achievement motivation and SE, learning strategies, and mathematical AP of high school students show that there is a significant positive correlation between mathematical SE and LM. In theory, LM is closely related to an individual's interest, understanding, and perception of difficulty in learning mathematics. Pupils with high levels of LM have a greater interest in learning mathematics, a better understanding of mathematics, and a greater likelihood of believing that mathematics is a subject they can grasp (Zhang 2021). After successful experience, LM opportunities promote the improvement of mathematics SE, and experiences of failure can lead to a decrease in students' mathematical SE, Gao used a university as an example to study the LM and SE of students. He found that SE was positively correlated with LM. The higher the SE, the higher the LM of the students. These studies all show that there is a correlation between academic SE and LM (Guo 2021).

5 RESEARCH ON THE MEDIATING EFFECT OF STUDENTS' ACADEMIC SE ON LM AND AP

Li *et al.* concluded through the analysis of articles that SE has a significant impact on LM, and SE has a significant impact on LM. Liu *et al.* conclude in their article that the research confirms that SE is a promising approach, LM and school performance had a significantly positive correlation, with a predictive role. This result can be understood as that if the SE is high and the students are more involved in their studies, their LM will be constantly enhanced. For example, someone with a low SE is not going to be interested in studying, will not look for internal factors, and will only blame the failure on external environmental factors, which will reduce their LM. Kryshko Olena *et al.*, through research and analysis, pointed out that academic SE and LM can be considered as internal factors of whether students have academic achievement. So, it will have an impact on AP. Su pointed out that students' AP was greatly influenced by SE through research and analysis. Zhang showed that a proactive personality is related to higher SE through the results of article research. High student academic SE will improve LM and AP. Student academic SE plays a mediating role in academic motivation and AP. From the above analysis, it can be seen from the relationship between the three main variables that when students have a high sense of SE, their motivation to learn is higher, the more they invest in learning, the more it will have a positive impact on their AP (Kryshko *et al.* 2022; Li & Cao 2021; Liu *et al.* 2022; Ma 2022; Su 2021).

6 SUGGESTIONS

First, the improvement of the SE and LM of students in private colleges is suggested. Students in private colleges are generally weak in their academic SE and LM. They lack positive evaluation of themselves and positive behavior in learning. They are usually addicted to playing mobile phones and games and focus on surprises before the exam. Therefore, private colleges and universities should take various forms to help students come out of the shadow of poor past performance, re-evaluate themselves, recognize themselves, establish confidence in learning and life, plan their own direction and route, and continue to strive for it. The second approach is to implement diversified evaluation methods. The theory of multiple intelligences suggests that everyone is intelligent, but there are differences in the scope and nature of intelligence. Therefore, the evaluation of students cannot be solely based on their AP in cultural courses. Students from private colleges who perform poorly in high school tend to relax their studies in cultural courses after entering university; however, this does not mean that the overall quality of students is low. The fact proves that although some students have average AP, they have a correct attitude, and meticulous work, and can still master excellent skills, becoming outstanding professional talents. Therefore, the diversified evaluation methods adopted by private colleges are a comprehensive evaluation of students and worthy of recognition. The model of flexible entry and exit for the third private education needs to be changed. The traditional view is that students from general high schools have a higher learning attitude and AP than students from private colleges, which may be correct in the middle school stage. However, since entering private universities, the difference between the two has significantly decreased, especially in terms of LM and AP. Students from general high schools have not shown advantages, or have not continued to exert their advantages. This may be related to the current situation where private colleges have a wide range of enrollment and enrollment. Due to various factors such as geographical location and educational conditions, some schools have experienced a situation of “no refusal”, greatly reducing the quality of students in private colleges. At the same time, these students cannot fully immerse themselves in their studies after entering private colleges and universities. They become addicted to playing with mobile phones and neglect their studies. The large number of these students forces schools to relax their conditions and allow students to graduate. That is why we should reform the entrance exams for private colleges and universities, and strengthen the management, social awareness, and recognition of private colleges and universities by improving the quality of education.

7 FUTURE RESEARCH DIRECTIONS

Cross-lag analysis was used to examine the longitudinal relationship between SE of motivation regulation and the use of motivation regulation strategies. Studying the relationship between these two motivational regulatory structures has both theoretical and practical importance. This is an important but less explored aspect of higher education. The perspective of the research is to investigate how these two motivational regulatory structures are vertically related to satisfaction with learning content and satisfaction with coping with learning-related stress. The repeated measures design not only allows researchers to control for previous levels of all variables, but also to explore their potential interactions but also allows the use of the latest modeling techniques to separate the associations between participants (in terms of the process of internal change within individuals). This longitudinal study enriches the process of motivational regulation and its role in academic satisfaction, and can also explore the relationship between improving students' SE of motivational regulation, reducing the frequency of using motivational regulation strategies, and improving academic satisfaction. In addition, longitudinal research can also investigate whether improving students' SE beliefs in the area of motivational regulation is an effective method and whether it can promote students' academic satisfaction.

An important process of self-regulation is motivational regulation, and previous studies have mainly relied on cross-sectional data and analysis of differences between participants. Kryshko *et al.* concluded that the higher the SE of motivational regulation, the more frequently subjects used motivational regulation strategies. The study conducted four studies one semester apart to examine the longitudinal relationship between college students' SE of motivational adjustment strategies and their academic achievement (N=574). The random intercept cross-lagged panel model (RI-CLPMS) was used to distinguish between within-subject correlations (via stable individual differences) and between-subject correlations (via the process of internal individual change) of variables. In addition, both types of motivational regulatory structures are positively correlated with satisfaction with learning content and satisfaction with coping with learning-related stress. The study found that SE has a significant negative cross-effect on strategy use at the internal level and vice versa. In addition, the study found that SE has a significant cross-lagged effect on motivation regulation in both satisfaction dimensions and vice versa. With regard to the cross-lag effect between the two dimensions of strategy use and satisfaction, these findings provide preliminary evidence for the correlation between the change in SE on motivation regulation and the prediction of the change in the frequency of motivation regulation strategy use and academic achievement. Research has shown that changes in SE and motivational regulation are correlated in predicting changes in the frequency of using motivational learning strategies and satisfaction with academic research.

Previous studies have only considered one or two variables while using a reciprocity model to consider three important variables. This approach not only reveals the impact of these three variables on the object of study but also uncovers the internal relationship between them. Unlike existing cross-sectional studies, this research method uses a cross-lagged design to reveal the longitudinal relationship between these variables. The stability of the interaction was confirmed.

Du *et al.* investigated the relationship between mathematics interest, mathematics anxiety, mathematics SE and mathematics performance based on longitudinal data. This paper examines the longitudinal relationship between multiple intelligences, AP, SE, and mathematical performance, and the cross-lag effect between multiple intelligences, AP, and SE. It reveals the positive influence of mathematical performance on the subsequent intelligence test, and the positive relationship between mathematical achievement and mathematical performance, SE and mathematical performance, and between mathematical performance and SE. In addition, previous MA and MSE can predict future MI. Compared to previous studies that considered different variables separately, this study focused on three important variables simultaneously. This study revealed a more realistic relationship between these variables and improved the survey's ecological validity results.

8 CONCLUSION

The relationship between academic SE and LM has been the subject of much research in recent years. Hundreds of studies have been carried out. For the correlation between two variables, due to differences in object hierarchy and categories, the correlation between variables will also be different. From the previous literature review, many research results show that the correlation between SE and learning intrinsic motivation is significantly positive, while research shows that the correlation between SE and learning is both positive and negative or not significant, extrinsic motivation is not significantly correlated. In the research objects, because the grades are different, the gender is different, and the family environment is different, the correlation between the LM and the SE will be different as well. There is a positive correlation between the results of the research on academic SE and Ipswich can predict AP. The research results on the correlation between LM and AP indicate that LM has a predictive effect on AP, and intrinsic motivation is positively correlated with AP. Extrinsic motivation is not significantly correlated with AP.

Most of the existing studies focus on the correlation between the three variables of academic SE, LM, and AP of university students and primary and secondary school students, while there is less research on the correlation between the three variables of private college students. Due to the current overall education situation in China, there are many differences in the attitude, goals, and motivation of students in private colleges in comparison with college students, secondary school students, and primary school students. Middle school and primary school students need to improve their education, and the school has very strict requirements for them. Overall, students are very serious, hardworking, and have strong LM. After the baptism of the college entrance examination, although college students generally have lower learning attitudes than middle school and primary school students, they are better at internalizing motivation and understanding the meaning of learning than students from private colleges. The majority of students from private colleges and universities now have poor student quality. Generally speaking, students in private colleges do not enjoy learning, lack scientific learning methods, have poor analytical skills, and are immature in thinking. Because there is little research on the correlation among the three variables of SE, LM, and AP of students in private colleges, it is necessary to research the correlation between academic SE, LM, and AP of students attending private colleges.

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Factors influencing the learning behavior of college student users of Bilibili from the prospective of theory of planned behavior

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ABSTRACT: With the increasing digitalization of the lives of today's young generation, there is a growing demand for online knowledge acquisition and valuable information. Bilibili, as a new social learning platform, has gained significant popularity among college students due to its extensive learning resources and vibrant interactive community. The purpose of this study is to investigate the factors that might impact college users' independent learning behavior on Bilibili, employing the Theory of Planned Behavior (TPB) as the theoretical framework. The basic model of the study includes three key factors: behavioral attitudes (BA), subjective norms (SN), and perceived behavioral control (PBC). BA refer to college users' evaluations and beliefs regarding the benefits and importance of independent learning on Bilibili. Moreover, the extended model incorporates three additional factors: prestige, content quality, and interactive experience. By investigating these factors, this study provides insights and suggestions for the development and improvement of online learning platforms. Understanding the influences on college users' independent learning behavior on Bilibili can contribute to the construction of effective and user-centered online learning environments that meet the needs and preferences of the new generation of young learners. The result indicated that attitudes, SN, PBC, prestige, interaction, and content quality all positively affect on actual actions through behavioral intentions, with PBC is the most influential factor on actual actions through behavioral intentions and prestige having the least effect on actual actions through behavioral intentions.

Keywords: Theory of Planned Behavior, Bilibili, Learning, Behavioral Willingness, Subjective Norms, Perceived Behavioral Control

1 INTRODUCTION

With the popularity and development of the Internet in this century, China has gradually stepped into the era of universal Internet access. Convenient mobile terminals and large audience groups provide conditions for the development of the live streaming and short video industries. At the same time, as people's demand for knowledge continues to rise, learning short videos begin to enter the public eye (Li & Meng 2013).

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In this paper, we take college students studying on Bilibili as the research object and try to find out what factors influence college students' learning behavior on Bilibili and the extent of their influence, starting from exploring the factors that attract college students' willingness to study (Qian 2008). In addition to the three basic independent variables of the theoretical model of planned behavior, this study introduces the prestige (of communicator and communication channel), content quality (of communication), and interactive experience (of users) as variables from the perspective of communication and builds a new model of the factors influencing college students' learning behavior on Bilibili from the perspective of communication.

This study adopts an empirical research method to understand the learning habits and learning characteristics of college students on Bilibili by distributing questionnaires (Qin 2002). After obtaining the sample data, SPSS analysis is conducted to verify the theoretical model and research hypotheses proposed in this study, and after drawing conclusions, some targeted suggestions are made to the online learning platform based on this model in order to promote its development in a long period.

2 LITERATURE REVIEW

2.1 *Introduction of Bilibili*

Bilibili provides a wealth of learning resources, including but not limited to academic knowledge, skill tutorials, cultural sharing, and career development. It provides an interactive and communicative learning environment through features such as pop-up commenting system, UP owner (creator) interaction, and discussion communities.

B-site users are mainly young people and ACG (animation, comic, game) fans, and these users usually maintain a positive attitude toward learning and acquiring knowledge (Gao 2013). They may have developed the habit of watching videos on B, and therefore also tend to look for learning resources on Bilibili. Bilibili has a large amount of learning content covering a wide range of fields. These contents include academic knowledge sharing, skill tutorials, cultural exchanges, etc., which can meet users' learning needs. B site also cooperates with some universities and institutions to provide professional online courses and learning materials. B site's pop-up comment system enables users to interact and discuss video contents in real time, and this interaction promotes communication and cooperation among learners. Learners can share ideas and ask questions with other users while watching videos, thus enhancing the interactivity and engagement of learning. UP owners on B are video creators who provide a wide range of learning content and interact with viewers. Users can leave comments below the videos, ask questions or communicate with the UP owners. This interaction fosters connection and collaboration between learners and creators, and stimulates motivation and interest in learning.

2.2 *Theory of planned behavior*

The Theory of Planned Behavior (TPB) is a theoretical structure used in psychology to account for the decision-making and the process of behavioral intention formation. The theory was set up in 1975 and has been developed and refined in subsequent research.

TPB considers human behavioral intentions as the most important factor in determining their behavior. Behavioral intention is a measure of a person's willingness to perform a behavior, and it is influenced by the people's assessment of the behavior and the subjective norms of the behavior. Behavioral attitude (BA) is an individual's evaluation of a particular behavior, including the perceived advantages and disadvantages, importance, and consequences of the behavior (Tan 2015). A positive attitude toward the behavior means that the individual is more likely to have positive behavioral intentions. Subjective norms (SN)

are the individual's perceived social pressures and expectations, i.e., the attitudes and expectations of others toward the behavior. The strength of the SN and the importance the individual places on the perceptions of others will influence the formation of behavioral intentions. Perceived behavioral control (PBC) is the individuals' assessment of their confidence and barriers to performing a particular behavior. The higher the individual's confidence in being able to successfully perform the behavior, the stronger the behavioral intention.

TPB is based on Theory of Reasoned Action, which focused on individuals' attitudes and SN toward behavior. TPB adds the variable of PBC to this concept, arguing that an individual's perceived control over behavior also has an impact on behavioral intentions.

TPB is broadly applied in many fields of research, such as health behavior, environmental behavior, purchasing decisions, and educational behavior. Taking health behavior as an example, prior studies have used TPB to explain the formation and change of health behaviors such as smoking, eating habits, and exercise behaviors.

3 HYPOTHESIS OF THE RESEARCH PROBLEM

According to TPB, this paper constructs an extended theoretical model referring to the online learning behavior of college students on Bilibili, and analyzes the factors that influence the willingness and learning behavior of college students on Bilibili by combining the relevant research results in the field of communication (Dornyei 2004) .

In the model based on TPB, behavioral intention is the direct factor that determines behavior. Behavioral intention is mainly determined by three factors: BA, SN, and PBC. Behavioral attitude is an individual's positive or negative evaluation of the implementation of a specific behavior, which is expressed in the Bilibili learning behavior as whether the user has internal motivation to learn online, i.e., internal motivation. SN are perceived social pressures on whether or not to adopt a particular behavior, and are expressed in Bilibili learning behavior as users being influenced by the learning style of the surrounding group, i.e., external motivation. PBC refer to people's perceptions of the ease of performing a particular behavior, also conceptualized as self-efficacy, and is expressed in B-site learning behavior as the user's ability to use the Internet and retrieve information.

This study attempts to investigate the relationship between online learning internal motivation, perception of external pressure, and self-efficacy of learning and users' willingness to learn behavior, and to verify whether users' willingness to learn behavior influences actual behavior, and proposes the following research hypotheses:

- H1: B-station college student users' attitude toward online learning positively influence users' willingness to learn behavior;
- H2: The SN of Bilibili college student users have a positive influence on users' willingness to learn behavior;
- H3: subjective perceived behavioral control of B-station college student users has a positive influence on users' willingness to learn behavior;

In this study, based on the TPB base model, combined with the Lasswell's 5W model of communication, from other factors that influence audience media exposure and use behavior, such as "communicator", "communication content" and "feedback. In addition to the 5W model of communication science, the variables of TPB model were expanded by introducing three variables, namely, "reputation", "content quality" and "interactive experience" from the perspective of "communicator", "content" and "feedback".

This study tries to answer the question of whether the perceived reputation of upkeepers and tutors, the perceived quality of learning contents and the interactive experience of online learning influence the willingness of users to learn and the strength of their influence:

- H4: Perceived prestige of upkeepers and lecturers is positively associated with college users' willingness to learn behavior;

- H5: The perception of the quality of learning content could positively affect on college users' willingness to learn behavior;
- H6: The perception of interactive experience in the learning area has a positive influence on college students' willingness to learn;
- H7: The willingness of learning behavior of college student users of Bilibili has a positive influence on learning behavior.

4 RESEARCH DESIGN AND IMPLEMENTATION

4.1 *Design ideas*

This study is mainly based on what factors influence college users' behavioral willingness and actual actions of learning in B-site under the general environment of the Internet (Trembley & Gardner 1995). For the study of behavioral willingness, previous researchers used to take the data analysis of questionnaires to realize. In this study, we used the TPB as the model basis, and modified and improved the scale according to the practical points and specific situations by referring to the measurement scale of the TPB designed by previous authors (Zhang & Tsung 2021). In this study, 418 valid samples were collected, and descriptive analysis, correlation analysis, and linear analysis were used to explore the factors that influence college students' learning behavior at Bilibili and the degree of influence.

The experimental work of the present study is divided into three segments. First, it involved Likert five-step measurement scale. Second, we collected the questionnaires in the form of online questionnaires for college students and screened the valid data. Third, the data were analyzed by using SPSS.

4.2 *Indicator design*

The model of this study includes seven variable factors:

Independent variables: BASN, PBC, prestige, content quality, and interactive experience, which influence the dependent variables through mediating variables.

Mediating variable: behavioral intentions, which are influenced by both the independent variable and the dependent variable.

Dependent variable: actual action, which is influenced by other variables.

In order to ensure the reliability and validity of the questionnaire, the number of questions was set appropriately for each variable, and a total of 42 questions were selected. The items were scored on a five-point Likert scale, from "strongly agree" scoring 5 to "strongly disagree" is 1.

5 ANALYSIS OF RESEARCH RESULTS

5.1 *Correlation analysis*

The table below shows that the correlation analysis was utilized to investigate the correlation between all variables. Specific analyses revealed that:

All the correlations between attitude and subjective norm, PBC, prestige, interaction, content quality, willingness to act, and actual action were significant, and the correlation coefficient values were 0.548, 0.359, 0.118, 0.167, 0.259, 0.462, and 0.421, respectively, and the correlation coefficient values were all greater than 0, implying that the correlations between attitude and subjective norm, PBC, prestige, interaction, content quality. The correlation coefficients are all greater than 0, implying that there is a positive relationship between BA, SN, PBC, prestige, interaction, content quality, willingness to act, and actual action. The data are suitable for further analysis (Table 1).

Table 1. Results of correlation analysis and descriptive statistics.

	Mean	SD	BA	SN	PBC	Reputation	Interaction	CQ	WA	PA
BA	3.451	0.789	1							
SN	3.238	0.967	0.548**	1						
PBC	3.55	0.906	0.359**	0.333**	1					
Reputation	3.725	0.82	0.118*	0.122*	0.115*	1				
Interaction	3.596	0.93	0.167**	0.185**	0.177**	0.533**	1			
CQ	3.343	0.842	0.259**	0.207**	0.290**	0.255**	0.127**	1		
WA	3.389	0.893	0.462**	0.427**	0.363**	0.211**	0.232**	0.478*	1	
PA	3.231	0.952	0.421**	0.431**	0.415**	0.290*	0.314**	0.362*	0.435**	1

BA, Behavioral attitudes. SN, Subjective norm. PBC, Perceptual behavior control. CQ, Content Quality. WA, Willingness to act. PA, Practical actions. * p<0.05 ** p<0.01.

5.2 Linear regression analysis

Attitude, SN, PBC, prestige, interaction, and content quality were first used as independent variables, and willingness to act was used as the dependent variable for linear regression analysis to explore the effects of each variable on willingness to act.

From the table below, the model formula is: Behavioral intention = 0.040 + 0.247*BA + 0.169*SN + 0.107*PBC + 0.016*prestige + 0.089*interaction + 0.357*content quality, and the model R-squared value is 0.404, which means that attitude, subjective norm, PBC, prestige, interaction, and content quality can explain 40.4% of the variation in behavioral intentions.

As shown in Table 2, the regression coefficients were 0.247 for attitude, 0.169 for subjective norm, 0.107 for PBC, 0.016 for prestige, 0.089 for interaction, and 0.357 for content quality (F(6,411) = 46.351, p = 0.000).

To summarize the analysis, BA, SN, PBC, interaction, and content quality positively influence behavioral intentions, with content quality having the most significant effect on behavioral intentions, interaction experience having the least effect on intentions, and prestige could not affect behavioral intentions.

Table 2. Results of linear regression analysis.

	Non-standardized coefficient		Standardization coefficient	t	p	VIF	R2	Adjusting R2
	B	SE						
Constants	0.04	0.229	–	0.173	0.863	–		
Attitude	0.247	0.053	0.218	4.619	0.000**	1.534		
Subjective norms	0.169	0.043	0.183	3.942	0.000**	1.489	0.404	0.404
Perceptual behavior control	0.107	0.042	0.108	2.538	0.012*	1.25		
Reputation	0.016	0.05	0.015	0.316	0.752	1.472		
Interaction	0.089	0.044	0.093	2.024	0.044*	1.448		
Content Quality	0.357	0.044	0.337	8.093	0.000**	1.192		

SE, Standard Error. Dependent variable: Willingness to act. D-W value: 1.912. * p < 0.05 ** p < 0.01

Second, a linear regression analysis was conducted with BA, SN, PBC, prestige, interaction, and content quality as independent variables, behavioral intention as a mediating

variable, and actual action as the dependent variable. The model is designed to explore how each factor influences actual action through the mediator of behavioral intentions.

From the table below, the model formula is: Actual action = $-0.452 + 0.159 \cdot \text{attitude} + 0.180 \cdot \text{SN} + 0.203 \cdot \text{PBC} + 0.120 \cdot \text{prestige} + 0.129 \cdot \text{interaction} + 0.158 \cdot \text{content quality} + 0.115 \cdot \text{behavioral intention}$, and the model R-squared value is 0.382, which means that attitude, subjective norm, PBC, prestige, interaction, content quality, and behavioral intentions explain 38.2% of the variation in actual actions.

The regression coefficients of BA are 0.159, SN are 0.180, PBC is 0.203, prestige is 0.120, interaction is 0.129, content quality is 0.158, and willingness to act is 0.115.

In summary, BA, SN, PBC, prestige, interaction, and content quality all have significant positive effects on actual actions through behavioral intentions, with PBC having the greatest effect on actual actions through behavioral intentions and prestige having the least effect on actual actions through behavioral intentions.

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As shown in Table 3, the regression coefficients of BA are 0.159, SN are 0.180, PBC is 0.203, prestige is 0.120, interaction is 0.129, content quality is 0.158, and willingness to act is 0.115 ($F(7,410)=36.161, p=0.000$).

In summary, BA, SN, PBC, prestige, interaction, and content quality all have significant positive effects on actual actions through behavioral intentions, with PBC having the greatest effect on actual actions through behavioral intentions and prestige having the least effect on actual actions through behavioral intentions.

Table 3. Results of linear regression analysis.

	Non-standardized coefficient		Standardization coefficient	t	p	VIF	R ²	Adjusting R ²
	B	Standard Error						
Constants	-0.452	0.249	-	-1.814	0.07	-	0.382	0.371
Attitude	0.159	0.06	0.132	2.675	0.008**	1.614		
Subjective norms	0.18	0.048	0.183	3.796	0.000**	1.545		
Perceptual behavior control	0.203	0.046	0.193	4.407	0.000**	1.27		
Reputation	0.12	0.055	0.104	2.197	0.029*	1.473		
Interaction	0.129	0.048	0.126	2.693	0.007**	1.462		
Content Quality	0.158	0.052	0.14	3.068	0.002**	1.382		
Willingness to act	0.115	0.054	0.108	2.141	0.033*	1.677		

Dependent variable: Practical actions, D-W value: 2.045, * $p < 0.05$ ** $p < 0.01$

Based on the results of the linear regression analysis, the assumptions from the previous section of this paper hold as shown in Table 4:

Table 4. Results of model hypothesis testing.

Number	Support or not
H1	Support
H2	Support
H3	Support
H4	Rejection
H5	Support
H6	Support
H7	Support

For the reason why hypothesis H4 is not valid, we can try to make the following possible explanations:

First of all, consider the content production mechanism of Bilibili, the disseminator and receiver are not clear, the video content is mostly original user content, including personal experience and insights, the disadvantage is not strong professionalism. Unlike other platforms, there is no winner-take-all situation for the head content on B-site (Nichols & Joannis 2016). The core traffic is contributed by the majority of content creators, so at this stage of the learning area of Bilibili, there is a situation of a hundred flowers blossoming, and there is no UP master with a particularly high reputation playing the role of “opinion leader”.

Secondly, because learning users focus on different areas and have different learning needs, they pay more attention to the content itself than to the content creators. Especially for content with strong functionality, such as “how to check graduation thesis” and “PS skills teaching”, users tend to search for matching learning videos with the content as keywords (Saidamirzukur 2022). In a short period of time, the more relevant, more played and the better the quality of the content, the more the learning videos are preferred, while the reputation of the UP owner is not a factor to be considered.

6 CONCLUSION

Based on the data support of the previous study, we verified that the model was basically reasonable. The theory of planned behavior has good explanatory power for the factors influencing college students' learning in Bilibili.

First, in the prediction of the independent variables on behavioral intention, the results of the empirical study show that college students' willingness to learn in Bilibili is most positively influenced by content quality and least positively influenced by interactive experience. This is due to the fact that mode of Bilibili nowadays has increased the type and quantity of content output with the increase of user samples, and the learning videos show high saturation, which provides users with very many choices. In addition, as the education level of the young group generally increases, their requirements for the content quality of learning videos also gradually increase.

In addition, the positive influence of PBC is the strongest and the positive influence of prestige is the weakest in the prediction of actual actions by independent variables mediated by behavioral intention. As for PBC, its direct contribution to actual action is already known in the previous analysis and will not be repeated here. This information shows that the independent cognitive style of college students is more obvious, and the inhibiting or facilitating effect of prestige on their willingness and behavior is smaller.

AUTHORS CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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Family factors on adolescents' motivation to learn a second language

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ABSTRACT: Nowadays, the field of second language learning motivation is beginning to receive more and more attention, and this paper focuses on the influence of family factors among the external factors on learning motivation among the factors that influence adolescents' motivation to learn a second language. It includes the influence of family economic background, parents' educational background, and parents' education style on adolescents' motivation to learn a second language. Through a large amount of research data, the paper discusses how these three factors affect adolescents' motivation to learn. It also explains what inappropriate educational styles are and their negative effects, including coercion, criticism, comparison, punishment, and over-protective, coddling, and over-intervention-based educational styles, on adolescents' motivation to learn, and uses them as a premise to avoid inappropriate educational styles and call for parents to establish correct educational concepts, including respecting their children's learning habits and ideas, paying attention to their children's physical and mental health in the learning process, and encouraging them to learn. The review also pointed out the importance of family factors and the direction of future research that could focus on family factors, especially parental education.

Keywords: second language, learning motivation, educational style, family factors

1 INTRODUCTION

Nowadays, there is an increasing interest in motivation for learning a second language, and many studies on second language acquisition have explored learner motivation. According to Dörnyei and Csizér, K, Dörnyei and Csizér, K re-define second language motivation as the willingness to achieve the ideal linguistic self by reducing the difference between the actual self and the ideal self, for which it is clear that the strength of motivation depends on the learner's ability to increase his or her willingness to develop himself or herself as a successful second language learner. At the same time, in another study by Dörnyei on socio-educational models of second language acquisition, it is emphasized that the main contributors to language learning motivation are firstly the student and secondly the student's background and other external factors (Csizér & Dörnyei 2005; Dörnyei 1998). In this paper, focusing on the family factor among other external factors, Abdulla, S argues that the family domain, especially the parental aspect, plays an important role in influencing children's motivation in the learning process of adolescents (Abdulla 2022). For example, talking about the child's attitude towards learning: "Why does he or she want to learn a second language?"; "What aspects of the learning process are more interesting?" "What part of learning the language is the most difficult for him or her?" According to Abdulla, S, the main task of the parents is to develop the child's intrinsic motivation, for example, if the motivation is interest

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in knowledge, the child's learning will be easier and more interesting, while Abdulla, S also discusses how improper development can have a harmful effect on the child's motivation. Abdulla, S also discusses the harmful effects of improper development on children's motivation. However, Abdulla, S does not discuss in detail what constitutes inappropriate nurturing, but there is no doubt that parents' attitudes towards nurturing motivation are somewhat original, and that parents' attitudes influence their children's motivation to learn. Although there has been a great deal of previous work on self-motivation in second language learning (Csizér & Dörnyei 2005; Henry 2017) and on the influence of family factors on motivation (Abdulla 2022), this paper will focus on the influence of family factors on children's motivation in second language learning, with family factors such as economic background, This paper will focus on the influence of family factors on children's motivation to learn a second language, and how family factors such as economic background, parental education, and parental educational philosophy and attitude affect children's motivation to learn a second language.

2 THE INFLUENCE OF FAMILY ECONOMIC BACKGROUND AND PARENTS' EDUCATIONAL BACKGROUND ON CHILDREN'S MOTIVATION TO LEARN SECOND LANGUAGE

Adolescence is an important stage in which the desire for knowledge and the perception of self needs grows, and this stage plays an important role in improving motivation to learn second language. At the same time, family factors also play a role in influencing adolescents' motivation to learn second language. This paragraph focuses on the family's economic background and parents' educational background for discussion.

2.1 *The effect of family economic background on children's motivation to learn a second language*

A large body of research data suggests a significant relationship between family socio-economic background and student achievement (Liu *et al.* 2020). Lower income and poor families are often considered risk factors for parenting, and a large number of research studies indicate the general view that the lower the family income, the less likely it is to provide a good learning environment for children. Does family income have an impact on adolescents' motivation to learn second language? According to WeiMing Tan's research, there is no direct relationship between family socioeconomic status and adolescents' motivation, which means that although family economic background is associated with academic achievement and success, the data obtained do not indicate that family economic background affects children's motivation to learn second language. There was no correlation between children's motivation to learn second language and their family's economic background (Tam 2009).

2.2 *The effect of parents' educational background on children's motivation to learn second language*

As for the parents' educational background, the level of educational background can have an impact on the child's motivation to learn a second language, i.e., the strength of the child's self-desire to learn a second language. In WeiMing Tan's study, the majority of parents in Hong Kong, China, for example, want their children to learn a second language, especially English, which, under today's educational policies in China's broad framework, Chinese parents believe will facilitate their children's future academic development and make it easier for them to find a decent job, however, the fact is that most Chinese parents do not have sufficient English language skills and education to support their children's second

language learning, and they are not able to provide a good English-educating family environment for their children. This leads to a disconnect between the children's own level of proficiency and their parents' expectations and their own expectations, which is mainly reflected in the fact that the children have little opportunity to practice spoken English during their English learning process and their parents are unable to provide English communication at home, so the children themselves will not have a sense of satisfaction and identity in English learning, and will even be under great pressure to learn at school and become unmotivated to learn the subject. These conditions may lead to a weakening of motivation or even the disappearance of motivation to learn the second language, for example, because they believe that they cannot understand the meaning of learning English, they are afraid to use and learn English, or they may give up their motivation because they are not as good as other students (Tam 2009). Similarly, in J Iwaniec's study, it was found that the higher the educational background of the parents, the higher the desire motivation of the child to learn a second language (Iwaniec 2020).

3 THE EFFECT OF PARENTING STYLE ON ADOLESCENTS' MOTIVATION TO LEARN A SECOND LANGUAGE

Research has shown that parenting styles also have a huge as well as profound impact on adolescents' motivation to learn (Abdulla 2022). This paragraph will explore how parenting styles affect children's motivation to learn second language. First of all, parental support and encouragement have a positive impact on children's motivation. Children are more motivated to learn second language if their parents give them sufficient support and encouragement to make them feel valued and recognized in their learning. For example, a study on Chinese adolescents' motivation to learn English found that parental support and encouragement was one of the important factors that influenced students' motivation to learn a second language, i.e., English (Cao & Philip 2016). Not only that, according to Wang, Y., & Li, M, parents' expectations and attitudes also have a significant impact on adolescents' motivation to learn. If parents have negative attitudes towards their children's second language learning or do not value their children's academic performance, then the children will lose their motivation to learn. Conversely, if parents have high expectations for their children's academic performance and believe that learning a second language is important for their children's future development, then children will be more motivated to learn the second language. A study of Thai adolescents' motivation to learn English found that parents' attitudes and expectations about their children's English learning were one of the important factors that influenced children's motivation to learn English (Cao & Philip 2016). In addition, the nature of parents' educational style also has an impact on adolescents' motivation to learn. Studies have shown that controlling parenting style can negatively affect children's motivation to learn. If parents adopt an overly harsh or coercive parenting style, then the child will develop an aversion and resentment towards learning, thus decreasing motivation to learn. Conversely, children who are taught in a gentle, encouraging, and supportive manner will be more motivated to learn. A study of Chinese adolescents' motivation to learn English found that parents' controlling parenting style was one of the negative factors affecting students' motivation to learn English, while parents' supportive parenting style was one of the important factors promoting students' motivation to learn English (Wang & Li 2020).

4 HOW TO CIRCUMVENT INAPPROPRIATE EDUCATIONAL PHILOSOPHY AND ATTITUDES

Parents' educational philosophies and attitudes are important factors that influence children's development. However, inappropriate educational philosophies and attitudes may

have negative effects on children and even lead to problems in children's physical and mental health. Therefore, it is crucial for parents to avoid inappropriate educational philosophies and attitudes.

First, parents should understand the characteristics of inappropriate educational philosophy and attitudes. For example, educational philosophies and attitudes that focus on coercion, punishment, criticism, and comparison can lead to increased stress and anxiety in children, which can inhibit their interest and motivation in learning and result in children's inability to have an ideal self (Yin & Li 2021). In addition, inappropriate educational philosophies and attitudes such as over protection, coddling, and over-interference may also hinder children's self-development and affect their diminished desire to learn (Xu & Liao 2019). In addition, parents should develop healthy educational philosophies and attitudes. Healthy educational philosophies and attitudes such as respect for the adolescents, concern for the adolescents' physical and mental health, encouragement, and support and guidance can facilitate the adolescents' growth and development (Wang & Yang 2017), thus guiding the child to have a good motivation in second language learning. Finally, parents should pay attention to the problems in practice and adjust inappropriate educational concepts and attitudes in time. For example, parents may be too harsh, overly interfering, and neglecting their children's needs in educating their children, which may deal a blow to their children's learning motivation. Parents should promptly adjust their educational philosophy and attitudes based on their children's feedback to provide better educational services (Tao & Cheng 2018). In conclusion, circumventing inappropriate educational philosophies and attitudes is crucial to the healthy development of children. Parents should understand the characteristics of inappropriate educational philosophies and attitudes, develop healthy educational philosophies and attitudes, and adjust their practices in a timely manner.

5 CONCLUSION

In the study of the effect of family economic background on children's motivation to learn second language, it can be concluded that there is no direct correlation between family economic background and motivation to learn. Although many studies have demonstrated a strong association between family economic background and children's academic achievement and academic success, family economic background does not have a direct effect on children's motivation to learn. In terms of parental educational background, children's motivation to learn second language is strongly influenced by it. The level of parental education affects the child's desire to learn second language, and the lack of parental education can lead to a lack of a family atmosphere for children to learn second language. In studies on the influence of parenting style on children's motivation to learn second language, a large number of studies have shown that the correct parenting style has a great influence on children's motivation to learn. Therefore, parents should develop a good parenting style and attitude that does not overly force, punish, criticize, or compare their children, nor overly spoil, protect, or interfere with their children, so that they can develop their own interest and motivation in learning. Parents should also pay attention to whether their own expectations and attitudes affect their children. Higher parental expectations will make children pay more attention to second language learning and increase their motivation to learn second language, while on the contrary, an attitude of disinterest or even neglect will result in a weakened motivation to learn. Similarly, parents should respect their children, pay attention to both of their children's physical and mental health, provide more encouraging education, and learn to educate their children through support and guidance, which will also increase their children's motivation in the process of second language learning. The above review shows that the family factor is an area that cannot be ignored among the factors that influence second language learning motivation, and there are few studies on this area today.

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Exploring language transfer in writing produced by Chinese EFL students

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ABSTRACT: The importance of studying English has grown among Chinese students as cross-cultural communication has grown in popularity. Chinese students' English writing has many issues because of the mother tongue's influence and the difficulty of English grammar. This study initially examines the general evolution of language transfer as well as numerous basic notions widely accepted by the academic community, before listing two sample theoretical theories on language transfer, namely the Contrastive Analysis Hypothesis and the Markedness Differential Hypothesis. In light of the occurrence of language transfer in the English writing of college students, the author focuses on the negative transfer of L1 (the first language) to L2 (the second language), intending to give some reference value for foreign language instruction. The research shows that the academic directions of research in language transfer mainly focus on the results of negative transfer. Previous research has found that the primary source of Chinese students' English writing errors is Intralingual Errors, whereas Interlingual Errors are produced by the incorrect analogy, misanalysis and so on.

Keywords: language transfer, EFL writing, negative transfer, error

1 INTRODUCTION

Writing is an essential component of college student's English education. In countries where English is not the primary language, English writing in education and professional arenas is becoming increasingly important. Most Chinese college students are required to write a variety of documents, including commercial writing, abstracts, practicum reports and research proposals. Writing is a tough activity for many English learners. Cumming found because one reason for this is because successful writing involves complicated syntax and morphology, a diverse vocabulary, and an understanding of traditional forms and methods of communicating textual connections (James 1996). Foreign language students find English writing tough with all of these intricacies.

Language transfer is a crucial aspect of second language learning. Analyzing the internal and environmental elements that affect language learning might help us better understand the second language acquisition process and thereby improve our ability to speak the second language. In the nineteenth century, German linguist Wilhelm von Humboldt created the notion of language contact, stating that language transmission is unavoidable when two languages come into touch. As a second language learner, the mother tongue and second language influence each other, showing similarities and differences in pronunciation, vocabulary and grammar. By comparing the commonness and individuality between their mother tongue and second language, on the one hand, it can guide learners to use mother tongue knowledge reasonably and promote the learning and mastery of a second language;

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on the other hand, it can help teachers design and implement teaching strategies in a targeted manner and provide theoretical support and practical guidance for language teaching.

The academic research on language transfer in the English writing of Chinese college students primarily focuses on negative transfer, according to Shatz, who divides language transfer into positive and negative elements. Writing errors can be broadly categorised into two groups: intralingual errors and interlingual errors, according to results of previous research. While the latter is generally brought on by a lack of acquaintance with the target language, the former is mostly induced by grammar, vocabulary, and discourse (Cumming 2001).

2 LANGUAGE TRANSFER

2.1 *Notions of transfer*

Although Language transfer has been concerned and studied by the academic community for a long time, it has not given a clear definition. Therefore, I will discuss several representative concepts. First of all, “transfer” is a psychological concept derived from behavioral psychology, which means that the existing knowledge or skills of learners in the learning process will have an impact on the acquisition of new knowledge or skills. James describes Language transfer: “First language learning will affect second language learning (Schachter 1983).” Faerch and Kasper believe that language transfer is a language psychological process that second language learners stimulate their native language knowledge to use interlanguage (Odlin 2005). Corder sees migration as a “borrowing”. Schachter believes that language transfer is a “constraint” of previously acquired knowledge on language learning (Kramsch 2007). Odlin regards transfer as the influence of the similarities and differences between the target language and the acquired or incompletely acquired language (Eckman 2013). In conclusion, “Language transfer” can be broadly defined as the mutual influence and promotion of new and existing information. The learner’s mother tongue and any additional languages they may have picked up are included in their existing knowledge. Language transfer exhibits dynamic changes as the learner’s proficiency in their second language increases.

2.2 *Relative theories of transfer*

Language transfer has been widely concerned in applied linguistics, sociolinguistics, second language teaching and other fields. As early as the 19th century, historical linguists found the interaction between languages when studying the communicative environment of languages, and Language transfer officially entered language research in the 1950s. Language transfer was first developed in the field of contrastive linguistics. Lado proposed a contrastive analysis hypothesis: The fundamental barrier to language learning is language transfer, and the examination and comparison of mother tongue and target language can forecast the errors and difficulties that second language learners are prone to making (Shatz 2017). Researchers studying second language acquisition have focused a lot of attention on language transfer at this stage. It developed into the theoretical underpinning of contrastive analysis in parallel with behavioural linguistics, which held a significant position at the time.

In the 1970s, Eckman first proposed the Markedness Differential hypothesis for the Contrastive analysis hypothesis. He believed that the contrastive analysis of language should combine the marked factors of language types (Liu & Liu 2014). By comparing the mother tongue and the target language, it can better predict the difficulties in the process of second language acquisition. At the same time, the difference between the native language and the target language is a necessary condition rather than a sufficient condition to explain acquisition difficulties. Markedness the difference between the mother tongue and the target language does not cause the same level of acquisition difficulty, according to differential hypothesis. Only those marked structures, which only arise in certain situations and less

frequently in linguistic input, can pose acquisition issues. Contrarily, acquisition issues won't arise from structures that are distinct from the target language but are not markedly different from other structures.

3 TRANSFER IN WRITING

3.1 *Classification of transfer in writing*

According to Shatz, the outcomes of language acquisition can be classified as positive transfer or negative transfer (Liu 2013). Positive transfer is more frequent when the learner's mother tongue is near to the learned target language. Negative transfer, on the other hand, is more common when the structural gap between the mother tongue and the target language is considerable, as seen by second language learning problems.

Odlin mentioned that learners' L1 has a positive effect on L2 learning. For instance, Dai and Wang found that similarly enhancing the reading ability in foreign language learning. A review by Karim and Nassaji shows that college students use a combination of L2 and L1 strategies to complete a piece of writing. They use L1 to generate ideas, organize information, and plan goals. This can make up for the possible defects in their L2 proficiency (Karim & Nassaji 2013). In Chinese college students' English writing, the positive transfer is mainly reflected in thinking cognition and the writing process. According to L Meihua's research findings, Chinese college students have a very positive attitude about writing academic papers in English (Phuket & Othman 2015). They take academic writing extremely seriously, which may be affected by the university's academic writing environment but more so by the students themselves. They are very aware of the process involved in producing an academic paper. Positive transfer in English writing is achieved by using these techniques.

The academic directions of research in language transfer mainly focus on the results of negative transfer. There have been a number of studies on second language development touching upon the errors produced by negative transfer. Chinese is the language that most Chinese college students use to express themselves when they write because they only have a very limited amount of exposure to English outside of the classroom. As a result, the language, sentences, discourse patterns, and other elements of their English compositions are heavily marked with Chinese characters. In the following sections, information on negative language transfer would be gathered in detail.

3.2 *Negative transfer and causes*

3.2.1 *Intralingual errors and interlingual errors*

In terms of error types, academic circles often divide them into two categories. First, it is called intralingual error. According to Richards, learners who hypothesize based on low exposure to the target language rather than the structure of their native language. Second, interlingual errors, which are the result of the learner's linguistic habits. Many EFL students, for example, think in their first language and employ straight translation when speaking and writing in L2.

Numerous studies have produced evidence that Chinese negative transfer research began in China in the 1980s, particularly in writing. Because researchers have made significant contributions to the fields of negative transfer and error analysis over the years, a number of common mistakes made by Chinese language learners when producing English can be identified.

3.2.2 *Causing factors*

First, most interlingual errors were found from grammatical errors. This is possible cause by the influence of their first language. Liu examined syntactic mistakes committed by Chinese

university students in their English essays. According to the study's findings, mistakes in tense, voice, and modality were the most common, and the primary sources of errors were student carelessness and native language interference. Hsiao-ping Wu and Esther V. Garza collected 72 % of the errors in the writing error use cases belonging to Interlingual errors, the results reveal that employing subject-verb agreement is the most challenging for participants. The effect of their L1 language is one probable explanation. As a result, they were unaware that modifying the verb form in English was possible.

Interlingual errors occur at the lexical level. Xiaojun He and Lina Niao indicated that in contrast to English, Chinese rarely sees a change in its parts of speech. Thus, when writing, Chinese college students hardly ever take the parts of speech of words into account. According to Hsiao-ping Wu's quantitative classification statistics of lexical errors made by Chinese EFL students, nouns and verbs tend to make errors more frequently than other components of speech. Namely, the English usage of the term is not precise or explicit enough to correspond to the meaning. There is research evidence that lexical error is the measure of language ability, so it can be used as an objective standard to determine the language ability and the quality of language production. Proficiency in vocabulary is directly related to the quality of the articles.

In addition to grammatical errors and lexical levels, semantic errors are mostly interlingual errors. According to Kaweera, it might be challenging for participants to select the proper and right nouns to communicate their thoughts effectively because the meanings of many English nouns are directly translated from Chinese. Additionally, interlingual factors like the differences in thinking styles between English and Chinese influence discourse to some extent. In the comparative study of discourse, Kaplan, R., put Chinese into the spiral cultural thinking mode of the Oriental language while including English in the linear thinking mode.

Second, intralingual errors are frequently induced by the target language rather than by L1 transfer. According to Scovel, "the perplexity that a language learner feels when confronted with patterns within the structure of a newly acquired language, regardless of how the target language patterns differ from the learner's mother tongue." Intralingual errors include incorrect analogy, misanalysis, insufficient rule application, exploiting redundancy, hypercorrection (monitor over usage), overgeneralization, or system-simplification, according to Chittima Kaweera.

4 CONCLUSION

This paper provides a brief overview of the phenomenon of English as Foreign Language students using English as a second language when writing. Whether it is a positive or negative transfer, it is always extremely important for the teaching of English writing at Chinese institutions. Combining the findings of previous studies, it can be said that Chinese college students' difficulties with English writing are caused by both their inability to understand that when they are exposed to a new language, the fundamental rules of that language, and the cognitive differences between English and Chinese. Intralingual and interlingual mistakes are the root causes of Chinese students' English writing faults. The former commonly manifests itself as grammatical, lexical, and semantic problems, but it can also emerge as discrepancies in English and Chinese thought. Incorrect analogy, misanalysis, inadequate rule application, exploiting redundancy, hypercorrection, overgeneralization, or system-simplification are common examples of the latter.

However, there are still several issues with this study. Since college students with a higher level of English proficiency make up the majority of the study subjects for Chinese EFL students' English writing, it is hard to describe the causes of errors more thoroughly from many angles. In order to lessen the influence of their mother tongue on college students' English learning, teachers should immerse students in an English environment when

teaching English in a classroom. The majority of the writing mistakes made by Chinese college students are grammatical in nature. College students would benefit from understanding the English language's meaning as well as the detrimental effects of the disparity between English and Chinese thought.

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Causes and consequences of English writing anxiety in Chinese high school students

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ABSTRACT: Nowadays, an important area of research in second language acquisition is the anxiety associated with writing in a foreign language. Some studies have indicated that anxiety may hinder EFL learners' foreign language writing performance. Researchers have also studied the factors of it. However, more detailed research on foreign language writing anxiety is lacking. Therefore, this paper explores the causes and consequences of English writing anxiety among Chinese high school students by collecting data via questionnaires and uses factor analysis, descriptive analysis, and correlation analysis. The results indicated that 1. English writing anxiety has four underlying factors – fear of evaluation (FLWAS1), low self-confidence (FLWAS2), interest in English writing (FLWAS3), and fear of writing in English (FLWAS4). 2. A descriptive analysis of English writing anxiety was conducted, and it had an average value of 3.071. It indicates that the study sample of Chinese high school students' anxiety level in English writing is above moderate. 3. Correlation analysis indicated that there was no significant correlation between English writing anxiety and Chinese high school students' performance in English writing. There was no significant correlation between anxiety and performance in English writing under Chinese secondary education, possibly due to additional factors such as English writing templates and extra-curricular English writing tutorials.

Keywords: English writing anxiety, consequences, causes

1 INTRODUCTION

Affective factors influence language acquisition (Krashen 1981). Most studies have demonstrated that anxiety related to learning a foreign language affects all areas of language learning. (Liu & Ni 2015). English writing is an important indicator of the language proficiency of EFL learners. But anxiety related to writing has not been adequately studied. With the change in English composition questions on college entrance exams, English writing has recently taken on more significance in the Chinese secondary education system. This paper aims to study the causes and consequences of Chinese high school students' English writing anxiety to guide Chinese high school' English writing teaching.

2 LITERATURE REVIEW

Anxiety is an irrational emotion accompanied by concern and trepidation. (Spielberger 1983). Anxiety fits into a particular sort of anxiety reaction when it is restricted to language learning situations (Horwitz *et al.* 1986). Many second language acquisition researchers

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realized early on that anxiety and language learning were tightly associated. Horwitz et al. argue that effective communication requires complex, non-immediate mental processes and using a second language can cause someone to evaluate their communicative competence, resulting in silence, increased self-consciousness, fear, and even panic. They have then introduced foreign language anxiety and explain it as a conceptually separate variable in foreign language learning by describing its particular impacts on foreign language acquisition. Three distinct kinds of classroom anxiety in foreign languages were identified and Horwitz et al. created the FLCAS to remedy the deficiencies and limitations of previous anxiety measures (Horwitz *et al.* 1986).

Bailey examined 11 students' diaries and these diaries revealed that she experienced anxiety since she believed she could not compete with other students. This study showed that competitiveness can lead to anxiety. In addition, he also found that the way learners and teachers get along with each other can also lead to anxiety in learners (Bailey 1983). Other factors contribute to foreign language anxiety, such as low self-esteem, the role of the teacher and the learning environment can also lead to foreign language anxiety (Naser Oteir & Nijr Al-Otaibi 2019).

Foreign language reading anxiety and foreign language writing anxiety are two notions that emerged from anxiety in foreign language to certain foreign language teaching tasks. Since the 1970s, the relationship between writing apprehension and personal characteristics has been researched. Writing apprehension is a unique form of anxiety arising from these forms of communication (Cheng *et al.* 1999).

Moreover, many studies show that affective factors strongly influence English writing. Lack of them can negatively affect English writing performance (Sabti *et al.* 2019). Kirmizi and Kirmizi invited 172 students at the Turkish State University to participate, and the data were analyzed descriptively, by variance, and by correlation (Kırmızı & Kırmızı 2015). The findings indicated that anxiety makes students bored and frustrated, so that they may develop a negative attitude toward writing (Kırmızı & Kırmızı 2015).

According to the concept of foreign language learning anxiety, Bai defines English writing anxiety as the anxiety that affects the quality of writing output, the improvement of writing level due to poor performance, deficiencies of the particular writer, and elements affecting the writing process while studying or practicing English writing skills in the classroom. (Bai 2017).

The Daly-Miller Writing Apprehension Test is the most popular tool to evaluate second language writing anxiety (Cheng 2004). Although this Writing Apprehension Test' reliability and validity have been demonstrated, there is much room for improvement in its use as a future study in this sphere. Moreover, the FLWAS was developed on the basis of it (Liu & Ni 2015). It has frequently been utilized to gauge writing anxiety in individuals learning foreign languages. (Liu & Ni 2015).

Cheng invited three groups of English majors from Taiwan to participate in the study (Cheng 2004). An open-ended questionnaire that students completed based on their writing anxiety experiences was analyzed using a multidimensional approach to conceptualize anxiety. After the scale item pool was generated, the final composition of the SLWAI was determined, which includes cognitive anxiety, avoidance behaviors and so on (Cheng 2004). It has good reliability and full validity.

Liu studied the concerns about writing in a foreign language among 1,174 undergraduate English learners in China. (Liu & Ni 2015). The outcomes demonstrated a considerable negative influence on students' English writing abilities caused by writing anxiety in a foreign language.

As mentioned above, the FLWAS has been studied and its reliability and validity have been confirmed. Due to foreign language writing as a specific task in foreign language teaching, foreign language writing anxiety needs to be researched more. In the context of Chinese secondary education, English writing is seen as an essential index of overall English usage skills. Based on the lack of related studies, this study intends to investigate Chinese

high school students' causes and consequences of English writing anxiety. The following research questions were posed in order to fulfill this research objective:

Q1: What are the underlying factors of English writing anxiety?

Q2: What are the general profiles of Chinese high school students experiencing English writing anxiety?

Q3: How is English writing anxiety related to high school students' English writing performance?

3 METHODS

3.1 *Participants*

109 sophomore students (51 males and 58 females) from a high school in China's central area participated in this research. The average age is 16.82 and their age range is from 15 to 18. There are 98.17% of students whose native language is Chinese. Among the 109 participants, 59.63% have been learning English since elementary school and 4.59% have been learning English since high school. Before filling out these questionnaires, they were aware of the use of this questionnaire and the purpose of this study.

3.2 *Measures*

3.2.1 *Background information questionnaire*

To gather fundamental personal information, a five-item background information questionnaire was created. The questionnaire included gender, age, native language, stage of starting to learn English, and writing frequency.

3.2.2 *FLWAS questionnaire*

FLWAS was developed and included 26 items (Young 1999). The FLWAS was modified to provide the questionnaire for this investigation. The questionnaire was written in Chinese and the word "foreign language" was replaced with "English" in the 26 items. The questionnaire uses a Likert scale with five options, from "strongly agree" to "strongly disagree," on a scale from 1 to 5.

3.2.3 *English writing exam*

The students needed to write a composition of about 80 words for their monthly English test. This is a propositional composition in which the topic requires students to write an essay in the name of the student council to encourage their classmates to play sports in winter. Students are graded based on the content of their writing, their language ability, and whether they achieve writing purpose. Two teachers scored their essays. The final score is the average of the scores given by the two teachers. Their scores were divided into four grades based on these three items. Fourth grade (13–15), third grade (9–12), second grade (4–8), and first grade (1–3).

3.3 *Data collection*

The questionnaire was given out in the twelfth week in the fourth semester, during which the participants already had relevant English writing experiences. The questionnaires were sent to the class, and students filled them out independently according to their own experience in English writing.

3.4 *Data analysis*

The survey data were analyzed mainly using SPSS. The underlying factors of English writing anxiety among Chinese high school students were analyzed by factor analysis and used

descriptive analysis to study the general profiles of Chinese high school students' anxiety in English writing. Correlation analysis were conducted to investigate the relationship between English writing anxiety and performance in English writing of Chinese high school students.

4 RESULTS

4.1 Factor analysis of FLWAS

Overall, the methods for measuring tourism preferences have gradually evolved from single disciplinary methods such as economics and psychology to a fusion of multiple disciplines. From data collection methods, traditional methods such as questionnaires and interviews to online text mining. Neuroscience experiments, etc. The comprehensive comparison of the above methods for measuring mainstream overseas tourism preferences shows that there is a theoretical common analysis method. Years of qualifications can effectively evaluate tourists' preferences for various qualifications in tourism products. But it is not possible to distinguish the different roles played by each attribute at different stages of the decision-making process. Selective experiments can use quantitative WTP to reflect preference levels of different properties, but experimental design and data collection are quite difficult. IPA can link tourism preferences with the works of travel agencies, but the level of interpretation of tourism preferences is not sufficient. The use of UGC content analysis has some advantages in terms of convenience in data access and EEG usage. It can compensate for the shortcomings of traditional methods and make measurements more objective.

In order to investigate the underlying causes, factor analyses of it were performed. Before using factor analysis, we measured the study data's suitability for factor analysis. The KMO value is 0.877, higher than 0.5, as can be seen in Table 1, indicating that it is suitable for factor analysis.

This study conducted a four-factor analysis and analyzed the correspondence of each factor with items according to the factor loading coefficient value. Then, two weak items were excluded based on the common factor variance in the table of rotated factor loading

Table 1. KMO value and *p* value of Bartlett's test.

KMO value and Bartlett's Test		
KMO value		0.877
Bartlett's Test	<i>p</i> value	0.000

coefficients. As shown in Table 2, the four factors were: fear of evaluation (FLWAS1) consisted of six items, low self-confidence (FLWAS2) included seven items reflecting low self-confidence in English, interest in English writing (FLWAS3) included seven items, and fear of writing in English (FLWAS4) included four items.

Table 2. Rotated factor loading coefficients.

	1	2	3	4
Q1	-0.409	0.331	-0.187	0.425
Q2	0.396	-0.128	0.718	-0.098
Q3	-0.488	0.180	0.115	0.685

(continued)

Table 2. Continued

	1	2	3	4
Q4	0.015	0.188	-0.258	0.822
Q5	-0.063	0.253	-0.235	0.760
Q6	-0.057	0.591	-0.166	0.488
Q7	0.082	0.321	-0.512	0.488
Q8	0.606	-0.165	0.300	-0.050
Q9	0.668	0.013	0.502	-0.096
Q10	0.798	-0.187	0.186	-0.105
Q11	0.831	-0.145	0.014	-0.135
Q12	-0.087	0.546	0.009	0.517
Q13	0.776	-0.216	-0.035	0.182
Q14	0.776	-0.013	0.330	-0.172
Q15	-0.052	0.441	-0.573	0.196
Q16	0.517	-0.123	0.654	-0.179
Q17	-0.127	0.746	-0.311	0.251
Q18	0.473	-0.115	0.709	-0.156
Q19	0.714	-0.232	0.400	-0.112
Q20	-0.050	0.688	-0.350	0.269
Q21	-0.197	0.763	-0.184	0.242
Q22	0.593	-0.508	0.081	-0.081
Q23	-0.267	0.796	0.029	0.003
Q24	-0.414	0.698	-0.033	0.238

4.2 General profile of English writing anxiety

4.2.1 General profile

This study generated an English writing anxiety variable from the 26 items in the FLWAS. It analyzed the variable through descriptive analysis to observe the high school students' English writing anxiety. As shown in Table 3, the average value was 3.071, indicating that Chinese high school students have moderate to high levels of anxiety.

Table 3. Descriptive analyses of foreign language writing anxiety.

Name	Sample Size	Minimum	Maximum	Average
English Writing Anxiety	109	1.256	4.256	3.071

4.2.2 Analyses of the FLWAS items

This research calculated the frequency and percentage of each item to examine the overall profile of Chinese high school students experiencing English writing anxiety.

Table 4 corresponds to the title of Table 2, both from FLWAS (Young 1999). As the results of the factor analysis showed that the common values of item 2 and item 25 in FLWAS were small, the relationship between the factors and the study items was weak. Therefore, these two items were excluded from the current study. The order of the other items remained unchanged.

As shown in Table 4, for FLWAS1 items, 38.53% of the students (strongly) disagreed that they would be afraid to write in English when they knew their compositions would be evaluated (item 3). 43.12% of the students (strongly) agreed that they enjoyed having their compositions published or evaluated (item 8). 29.36% of students (strongly) agreed they

Table 4. FLWAS items with frequency and percentage.

SA	A	N	D	SD
Q1 7/6.42%	21/19.27%	47/43.12%	25/22.94%	9/8.26%
Q2 18/16.52%	43/39.45%	36/33.03%	8/7.34%	4/3.67%
Q3 7/6.42%	19/17.43%	41/37.61%	37/33.94%	5/4.59%
Q4 5/4.59%	14/12.84%	35/32.11%	38/34.86%	17/15.6%
Q5 7/6.42%	12/11.01%	37/33.94%	42/38.53%	11/10.09%
Q6 6/5.5%	11/10.09%	49/44.95%	35/32.11%	8/7.34%
Q7 4/3.67%	8/7.34%	29/26.61%	48/44.04%	20/18.35%
Q8 20/18.35%	27/24.77%	44/40.37%	10/9.17%	8/7.34%
Q9 14/12.84%	24/22.02%	49/44.95%	15/13.76%	7/6.42%
Q10 11/10.09%	21/19.27%	49/44.95%	22/20.18%	6/5.5%
Q11 12/11.01%	20/18.35%	43/39.45%	27/24.77%	7/6.42%
Q12 6/5.5%	27/24.77%	44/40.37%	27/24.77%	5/4.59%
Q13 7/6.42%	6/5.5%	73/66.97%	20/18.35%	3/2.75%
Q14 12/11.01%	23/21.1%	47/43.12%	24/22.02%	3/2.75%
Q15 2/1.83%	8/7.34%	27/24.77%	36/33.03%	36/33.03%
Q16 12/11.01%	48/44.04%	36/33.03%	13/11.93%	0/0%
Q17 4/3.67%	14/12.84%	40/36.7%	35/32.11%	16/14.68%
Q18 11/10.09%	46/42.2%	36/33.03%	14/12.84%	2/1.83%
Q19 13/11.93%	39/35.78%	39/35.78%	15/13.76%	3/2.75%
Q20 5/4.59%	18/16.51%	48/44.04%	30/27.52%	8/7.34%
Q21 4/3.67%	15/13.76%	53/48.62%	26/23.85%	11/10.09%
Q22 10/9.17%	14/12.84%	54/49.54%	24/22.02%	7/6.42%
Q23 10/9.17%	26/23.85%	37/33.94%	28/25.69%	8/7.34%
Q24 8/7.34%	31/28.44%	36/33.03%	29/26.61%	5/4.59%
SA = Strongly Agree	A = Agree	N = Neutral	D = Disagree	SD = Strongly Disagree

would be happy to have their friends read their compositions (item 11). 47.71% of students (strongly) agreed that they had an enjoyable experience discussing English writing with their friends (item 19). These indicated that most of them were not afraid to have their compositions evaluated.

For FLWAS2 items, 34.86% of students (strongly) disagreed that they had difficulty organizing their writing ideas in English (item 20). 49.54% of the students were neutral about the fact that they could easily write a good English composition (item 22). 35.78% of the students (strongly) agreed they were not good at writing English essays. These indicate that most participants showed low self-confidence in their English writing.

For FLWAS3 items, 55.97% of the students (strongly) agreed that they expected to write down their ideas in English (item 2). 62.39% of the students (strongly) disagreed that expressing their views in English was a waste of time (item 7). 66.06% of students (strongly) disagree that they have never enjoyed writing in English (item 15). 55.05% of students (strongly) agree that writing in English is interesting (item 16). 52.29% of students showed they enjoyed seeing their thoughts expressed on paper in English (item 18). These data show that most of the participants were interested in English writing.

For FLWAS4 items, 50.46% of the students (strongly) disagreed that taking an English writing class was a frightening experience (item 4). 48.62% of students (strongly) disagreed that submitting an English composition was an intimidating experience (item 5). 39.45% of the students (strongly) disagreed that their minds went blank when they wrote their English essays (item 6). These reflect that more than half of the students did not develop a fear of English writing.

4.3 Correlation between anxiety and performance in English writing

In order to determine the impact of writing anxiety on English writing skills of students in Chinese high school, correlation analysis was used to examine the data Table 5. Correlations between foreign language writing anxiety and Chinese high school student's performance in English writing.

Table 5. Correlation between anxiety and performance in English writing.

		Performance
Anxiety	Correlation coefficient	-0.444
	p value	0.148

* $p < 0.05$ ** $p < 0.01$.

As can be seen in Table 5, there is no obvious correlation between English writing anxiety and Chinese high school students' performance in English writing.

5 DISCUSSION

Regarding the underlying factors, the factor analysis results showed four underlying factors of FLWAS, two of which were generally consistent with the results of Liu (Liu & Ni 2015). However, the study's findings also showed that there was interest and anxiety of writing in English, in addition to low self-confidence and fear of evaluation. This inconsistency may be related to the participants. The results indicate that more than half of the Chinese high school students did not develop a fear of writing in English and that most of the subjects were interested in English writing.

From a theoretical perspective, anxiety has a detrimental effect on writing ability. (Sabti *et al.* 2019). Previous findings confirmed that foreign language writing anxiety has a

significant negative effect on Chinese university EFL learners' performance on English writing tests (Liu & Ni 2015). The correlational results of this study, however, showed that there is no obvious connection between Chinese high school students' proficiency in English writing and their level of writing anxiety. This is owing to the potential that there are numerous additional elements, such as English writing templates, extracurricular English writing courses, and the significance students have on English writing, that affect their performance in the setting of Chinese secondary education. This leads to the fact that English writing anxiety has a minimal effect on their performance in English writing.

Although this study showed insightful findings, it also had some limitations. This study did not discuss gender effect on Chinese high school students' when exploring the factors that contribute to it. Therefore, future studies could take this factor into consideration. In addition, the current study's sample was limited by the number of samples and the sample size was small. Future studies could draw more samples, thus making the results more refined and accurate.

6 CONCLUSION

This study found that Chinese high school students' English writing anxiety was above the moderate level. Factor analysis showed four main underlying factors of English writing anxiety, which are fear of evaluation (FLWAS1), low self-confidence (FLWAS2), interest in English writing (FLWAS3), and fear of writing in English (FLWAS4). The results of the descriptive analysis conducted on the participants indicated that Chinese high school students experienced moderate to severe anxiety when writing in English. This study bridges the gap in research on high school students' English writing anxiety in a Chinese educational context. This benefits English teachers' English writing instruction in Chinese secondary education. However, the sample selection of this study was limited by the number. Future studies could draw more samples to make the findings more refined and accurate.

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Exploring L1 negative transfer to L2 in college English writing

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ABSTRACT: College English plays a pivotal role in the academic and professional development of students, as it equips them with essential language skills and fosters effective communication in English-speaking environments. The ability to write well is one of the many facets of English competence that is particularly important. Writing in English well shows pupils' language proficiency as well as their capacity to express ideas clearly and concisely. College students, particularly those whose first language is not English, frequently face difficulties when writing in English because of the influence of their original tongue. The study of second language learning has thoroughly examined and documented these instances of native language interference. Understanding and addressing these errors are crucial for promoting accurate and proficient English writing among Chinese EFL learners. This paper will provide a comprehensive review of native language interference errors occurring in college English writing at the lexical level, syntactic level, and discourse level, based on the high-frequency categories found in the literature. Furthermore, suggestions will be given to Chinese EFL learners on how to address L1 interference in L2 writing.

Keywords: L1, L2, negative transfer, college, English writing

1 INTRODUCTION

English has become one of the most popular and influential languages in the quickly changing, economically globalized, and culturally advanced world of today. Chinese college students have a vital role in influencing and advancing cultural development initiatives in this more globalized world. As a result, English instruction in Chinese colleges acquires an even bigger significance.

Despite the importance placed on English language education, many students continue to encounter challenges in English writing. These challenges can be attributed to native language interference, whereby students inadvertently transfer linguistic patterns and structures from their first language into their second language.

Native language interference has been extensively studied, and the errors observed in English writing can be categorized into three distinct levels: lexical, syntactic, and discourse. At the lexical level, students often face difficulties in selecting appropriate vocabulary, and collocations. At the syntactic level, students primarily encounter errors related to incorrect word order, subject-verb disagreement, and improper usage of prepositions. At the discourse level, students commonly make errors in terms of coherence and cohesion.

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This paper will give a detailed review of these three kinds of mistakes and put forward some suggestions for Chinese EFL learners to deal with the negative transfer of their mother tongue. The aim is to enable learners to avoid negative transfer from their native language and utilize more authentic and native-like expressions when producing English output.

2 LEXICAL LEVEL

The lexicon plays a crucial role in language acquisition, and in the context of second language development, lexical errors have been extensively examined in studies on L1 negative transfer. According to Qin, Chinese college students encounter significant challenges in English writing, with lexical errors being the foremost difficulty they face (Qin 2017). Among these errors, issues related to lexical usage and collocation are the most commonly observed. Negative transfer of word meanings from the students' first language often leads to a variety of mistakes in word choice during English learning. When learners encounter areas of uncertainty in their second language, they tend to rely on similar concepts or structures in their first language to compensate for the gaps in their knowledge. Here are some examples:

- (1) They have their self thought. (own)
- (2) They happiness should be shared with your lovers. (boyfriend or girlfriend)
- (3) Traveling alone can take us true joy. (bring)

Wang believes that Chinese and English, belonging to distinct language families, exhibit numerous disparities across various domains, including historical, geographical, conventional, cultural, and logical aspects of language (Wang 2009). From a semantic standpoint, certain words possess divergent connotations and denotations between the two languages. Chinese students may thus struggle to choose the right words for English writing, leading to alterations in the intended meaning and failure to produce the desired effect. For instance, "old" connotes more than just "old age" in Chinese culture; it also connotes "authority and wisdom," hence some students use the word "old" to describe elderly persons in their writing. In English, "old" simply means "old age," which, instead of having the desired effect, shows a demeaning of the abilities of the old person in question. So, we should also respect other culture, language, avoid to use "old" to describe the elderly people, and be replaced by "aged/elderly/pro/advanced", etc.

Wang asserts that students' negative transfer of vocabulary is primarily evident in two areas: improper vocabulary collocation and misuse of parts of speech. Among these, word collocation is an essential and significant aspect (Wang 2016). Collocation refers to the "horizontal combination" of words, denoting the co-occurrence of words in a specific sequence. Due to the inherent generality and ambiguity of Chinese, many words exhibit a strong collocational ability, while English exhibits relatively weaker word collocation patterns. As a result, when writing, numerous students tend to overextend the collocational range of certain words, leading to incorrect usage. (See Example 1-2).

Example 1: as timid as a mouse (rabbit) 胆小如鼠

Example 2: Salary is one of the most effective motivations for employees. (greatest)

In addition, Shi mentioned that Lexical errors can be categorized as lexical Redundancy, literal Translation of Words from Chinese to English and Misuse of Countable Nouns and Uncountable Nouns (Shi 2015). In terms of lexical errors, Liu also pointed out that learners only pay attention to literal understanding and ignore its cultural connotation, and some Chinese meaning will be copied in their writing (Liu 2013).

3 SYNTACTIC LEVEL

Syntax errors represent another significant manifestation of L1 negative transfer. According to He and Niao, Chinese students primarily acquire English as a second foreign language in classroom settings, resulting in limited exposure to English input (He & Niao 2015). As a consequence, learners tend to overly rely on their mother tongue, leading to the Chinese thinking patterns in their English writing, including lexicon, syntax, and discourse. They have classified syntactic errors into various categories, such as improper word order, incorrect use of conjunctions, subject-verb inconsistencies, and a preference for animate subjects.

Regarding word order, it is noteworthy that Chinese speakers often describe things from the whole to the part, and from the macro to the micro, while English follows the opposite pattern. Here's an example:

- a) Chinese: 李明于1989年9月4日早上5点生于四川成都眉山
English: Liming was born in Meishan, Chengdu, Sichuan, China at 5 am. on September 4, 1989.

Chinese likes to use animate subjects, which means that Chinese often uses people as subjects. Here's an example:

- b) The mirror is superior in quality.
I think that the mirror is superior in quality

In English, conjunctions are fully used in order to better connect two sentences, but Chinese college students often do not use conjunctions, do not use conjunctions or use them improperly. Here's an example:

- c) Wrong: Tom is very mean; John can't bear him anymore.

Right: Tom is very mean, and John can't bear him anymore.

English is an inflectional language where the verb changes with the subject, while Chinese is a non-inflectional language where the subject and the verb are not related. Here's an example:

- d) He asks me to lend him a hand.

According to Shi, Chinese English learners often make syntactic errors due to the significant differences in syntax between English and Chinese. These errors are a result of negative transfer at the syntactic level in Chinese (Shi 2015). She identified several types of negative transfer, including word order loss of the subject, misuse of conjunctions in complex sentences, confusion between theme-structured and subject-predicate-structured sentences, incorrect usage of multiple verbs in a sentence, errors in tense and number, and misuse of voice. Chinese language exhibits parataxis, where its syntax relies on invisible logical relationships rather than explicit words. In contrast, English language demonstrates hypotaxis, with its grammar closely tied to punctuation marks and other typographical methods. Following are examples:

- a) When you have time, please come to visit me.
b) When have time, come to visit me.

Chinese relies greatly on logical conjunctions to express meanings. The conjunctions in Chinese usually appear in pairs. For example: because ... so; even though ... but, but in complex English sentences, only one conjunction is sufficient. Examples are as followed:

- a) Because it's raining, you can't go out.
b) Because it's raining, so you can't go out.

Unlike English verbs, Chinese verbs don't have inflectional affixes so they remain unchanged. Here are examples:

- a) There are many people support him.
- b) There are many people supporting him.

Lin and Wen argue that Chinese thinking patterns greatly influence the occurrence of syntactic errors in students' English writing, leading to noticeable and concentrated issues (Lin & Wen 2013). The primary manifestations of negative syntactic transfer can be categorized as null subject sentences, concurrent sentences, and subject-verb inconsistency. The concept of null subject is a significant syntactic structural difference between English and Chinese. English, being a subject-prominent language, emphasizes the relationship between subject and predicate within a complete syntactic structure. With the exception of imperative sentences, an explicit subject is required in English. On the other hand, Chinese, being a topic-prominent language, places emphasis on the entirety of the text. If the subject is a pronoun and its reference can be deduced through grammatical and pragmatic clues, the subject pronoun can be omitted in Chinese. (See Example 3-4)

Example 3: If have no money, you can do nothing. (You have no money)

Example 4: When get on the bus, you should offer your seat to the old. (You get on the bus)

However, according to Chou, syntactic errors in speaking and writing primarily stem from an internal attempt to directly translate between the native language and English. Chinese-speaking English learners commonly make mistakes in ten broad categories, namely articles, conjunctions, the use of "do," questions, negative questions, plurality, quantifiers, pronouns, participles, and prepositions (Chou & Bartz 2007).

4 DISCOURSE LEVEL

Wang believes that Chinese and Western students exhibit distinct thinking patterns. While Europeans and Americans often use a linear thinking technique, Chinese students frequently engage in a spiral thinking process (Wang 2009). Chinese people frequently speak in a circular fashion, introducing subordinate ideas before moving on to the main one. Conversely, Western individuals prefer a direct and concise style of communication, focusing on getting straight to the point when expressing their ideas. Here's an example:

Dear teacher:

Yesterday was very cold. I went to Taidong Shopping Center with my mom. When we wanted to take a taxi to go back home, there were many people waiting for a taxi. We standed in the wind for half an hour, so I caught a bald cold yesterday evening. I am sorry to ask for leave for today's English class. Thank you.

According to Yang, English writing emphasizes explicit cohesion by employing cohesive devices such as connectives, resulting in articles that possess clarity and logical rigor. In contrast, Chinese cohesion is more implicit, relying on the internal interplay of meanings to reflect logical relationships (Yang 2016). Due to the influence of Chinese thinking, Chinese students often encounter challenges in English writing, including unclear themes, excessive inclusion of irrelevant information, insufficient use of cohesive devices, and a lack of logical coherence. For example:

Computers are very popular in China. Computers are widely used in a schools "banks" offices and other places. Even many students have their own computers...The problem is that college students don't have their own computers.

Wan states that negative transfer in discourse is evident in the usage of paratactic sentences (Wan 2020). Chinese, being a paratactic language, places emphasis on semantics,

internal logic, and overall coherence within a passage. Paratactic sentences, also known as run-on sentences, consisting of a series of grammatically complete but loosely connected sentences that flow continuously without being divided into multiple sentences. In Chinese, a comma is used to connect short sentences and form a compound sentence. However, in English writing, it is common to encounter clauses or long sentences with multiple meanings. In such cases, the grammatical function of comma connection does not suffice, and the use of conjunctions becomes necessary to connect the sentences. This difference often leads students to unintentionally produce run-on sentences in their compositions. Here's an example:

Dear Mr. Wilson,

I'm sorry, I will not attend your lecture. My father will come tomorrow. I have to pick up my father at the airport tomorrow morning. I hope you can keep the handout material for me. I want to make up for the missed lesson. I hope my absence will not occasion any inconvenience.

Sincerely,

Li Wen

Furthermore, according to Xu, negative transfer in discourse primarily manifests in issues related to cohesion and coherence. Uncertain themes, a lack of transitional connectives that confuses logical linkages, an overuse of transitional connectives that causes anaphora mistakes, inconsistent use of personal pronouns within the same paragraph, and other issues are all examples of these errors (Xu 2018).

5 SUGGESTIONS FOR COPING WITH NEGATIVE TRANSFER OF MOTHER TONGUE

From the review above, it is evident that college students primarily face issues in English writing related to vocabulary, syntax, and discourse. These errors can be attributed to differences in thinking, overreliance on their first language (L1) due to inadequate mastery of the second language (L2), and insufficient exposure to target language, among other reasons. First and foremost, students should work on improving their core knowledge of English vocabulary and syntax. The foundation must be solid if English competence is to be improved. Second, the context in which English is taught has a direct impact on the shift in thinking style. The teaching of English provides students with the ideal learning environment. Read and listen to a lot of English-language resources, subject to mastering a specific vocabulary, to become familiar with foreign culture and comprehend its history and development in order to alter Chinese thought. Finally, students need to change their study habits. They should try to think independently rather than relying on translation technologies to translate Chinese into English. During the L2 learning process, the habit of associating unfamiliar English words with their Chinese counterparts should be replaced with the memorization and acquisition of familiar English synonyms.

6 CONCLUSION

Based on the aforementioned review, negative transfer of the mother tongue from L1 to L2 is predominantly observed in the areas of vocabulary, syntax, and discourse. Lexical usage and collocation are the most common mistakes at the lexical level. Other scholars have also noted lexical redundancy and word-for-word literal translation errors. At the syntactic level, common errors include word order, conjunction usage, subject-verb inconsistency, and tense. Scholars have also highlighted adverbials, quantifiers, prepositions, and pronouns errors. Cohesion and coherence errors constitute the primary concerns at the discourse level.

The current research does still have certain shortcomings, though. First off, there are additional negative transfer factors that call for examination, including the pragmatic, cultural, and substance levels, among others. Second, junior college students are largely ignored in the research samples that are currently available. Undergraduates with a strong foundation in English typically have fewer instances of negative mother-tongue transfer than junior college students, which may cause some errors to be missed. Finally, the existing analysis primarily concentrates on the differences and comparisons between L1 and L2, disregarding the varying teaching methods employed by instructors in different regions. Future studies should incorporate teaching methods as variables to examine whether L1 negative transfer occurs in relation to L2 under different instructional approaches.

AUTHORS CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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A review of studies on flipped classroom model in EFL context: Benefits, challenges and strategies

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ABSTRACT: The Flipped Classroom model is increasingly popular in English as a Foreign Language teaching and learning due to technological advancements and their pedagogical applications. It reverses traditional classrooms by providing pre-learning content, allowing for more interactive activities during in-class sessions. However, implementation issues pose significant challenges. This paper aims to review recent studies on the FCM, summarize its key benefits, challenges and strategies, and propose potential areas for future research. In total, 16 articles selected from Google Scholar were reviewed and analyzed. By examining the perspectives of teachers' pedagogical approaches and students' learning experiences both inside the classroom environment as well as outside, the main findings of this paper are: 1) the advantages of the flipped approach include teaching effectiveness, in-class and after-class engagement, improving learning abilities and fostering learning motivation and autonomy; 2) main barriers to successful implementation include increased workload, technological barriers and adaptability challenge; and 3) strategies are available such as combining with the conventional model, adopting the approach in specific learning areas, offering specific training and necessary facilities to instructors, design of learning materials, and the use of equipment aids and teacher and student initiative. The findings of this review provide an overview of the positive effects, practical challenges and possible strategies for incorporating the FCM in EFL instructions, offering recommendations for future research and development in this area.

Keywords: Flipped Classroom Model, EFL, TESOL

1 INTRODUCTION

The advent of technology in the educational area has supported pedagogical reforms that have far-reaching impacts on how instruction is delivered and received, leading to new learning environments and methodologies for educators and learners. One such paradigm that has responds to these technology-driven changes in English as a Foreign Language (EFL) teaching is the Flipped Classroom Model (FCM). Within this framework, technology

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is utilized for the purpose of recording and analyzing instructional materials, which are subsequently shared through online platforms in various formats, such as video recordings, to facilitate students' self-directed learning prior to the lesson. The classroom session is spent primarily on problem-solving, in which the teacher and the students engage in collaborative learning. This means that this model essentially inverts the traditional teaching structure by delivering instructional content outside the classroom, thus creating more space during class for interactive learning activities (Arslan 2020).

In the context of learning EFL, FCM research has revealed its pedagogical benefits. For example, Ayçiçek and Yanpar Yelken conducted research to investigate how the FCM affects students' classroom involvement in an English course (Ayçiçek & Yanpar Yelken 2018). The study took place across four weeks during one semester of the 2016–2017 academic year in a school in Hatay, Turkey. The observed group's grades on the pre-test and post-test differed significantly, however, there was no noteworthy difference observed in the ratings of the matched group. The study findings indicate that implementing the flipped classroom approach can effectively enhance students' participation during English courses. Results of further research on the approach showed that well-implemented FCM improved students' contentment in their learning process, promoting self-guided learning and efficiency. It was recommended as an optional mode for combining education with technology advancement.

Regardless of the increasing popularity of FCM in different subject areas including the EFL classrooms, implementation of the approach in different contexts revealed challenges as well, thereby highlighting the need for effective strategies to navigate this innovative pedagogical approach. Examining the benefits of the FCM in EFL situations, with a focus on engagement and student outcomes, is the goal of this review. Furthermore, it will clarify the challenges associated with implementing this model, focusing on teacher preparedness, student readiness, and infrastructural constraints. It will also discuss strategies that have been identified in the literature for overcoming these challenges and maximizing the potential of the FCM. A sum of 16 studies published up to 2022 are selected from Google Scholar, which investigated the implementation of the approach and the perceptions of teachers and students. This study seeks to provide a summary of the positive impacts of FCM, the barriers to its successful implementations and the strategies adopted by teachers and students, and to give suggestions on areas for future research and development.

2 BENEFITS, CHALLENGES AND STRATEGIES OF FLIPPED CLASSROOM MODEL IN EFL INSTRUCTION

2.1 *Benefits of the implementation of flipped classroom model in EFL instruction*

The benefits of the FCM for EFL instruction have been thoroughly examined. In general, current research shows that teachers, students, and researchers have a positive opinion of the model, though problems that could compromise its efficacy have also been identified. The following benefits are summarized from the studies reviewed in this paper.

2.1.1 *Teaching effectiveness*

Flipped Classroom Model is recognized as a useful approach to improving teaching effectiveness and learners' academic performance (Yang & Chen 2020). The methodology is recognized as a successful alternative to the traditional classroom, which incorporates technology to optimize the use of class time. With technology playing a role in teaching and learning, diverse activities and video learning materials assist students in completely understanding the lesson content (Yang & Chen 2020). Specifically, in EFL instructions, studies on FCM have provided evidence of pedagogical benefits that advance the development of students' language abilities. Research carried out in a secondary school in Saudi Arabia

examined that using the strategy increased students' grammar and pronunciation proficiency (Al-Harbi & Alshumaimeri 2016). Additionally, theory-based flipped training with substantial online engagement has been shown to improve idiomatic knowledge, and speaking English proficiency (Zainuddin *et al.* 2019). Moreover, it has been demonstrated that FCM significantly increases the overall writing performance and writing fluency of EFL students (Fathi & Rahimi 2022).

2.1.2 *In-class and after-class engagement*

Another strength of Flipped Classroom Model are that it facilitates classroom interactions (Ayçiçek & Yanpar Yelken 2018). In a study examining K-12 teachers' perceptions regarding FCM in Southwest and South Central Minnesota, it has been noted by teachers of different grade levels that the flipped context affords more time and opportunities for an array of teaching strategies like active studying and higher-order thinking, while also enhancing the student-teacher relationship (Gough *et al.* 2017). Other research about student engagement highlighted the approach's positive impact on improving students' after-class engagement (Li & Li 2022). The students expressed appreciation for the flexible learning spaces provided both within the flipped classroom and outside it, both in person and digitally (Li & Li 2022).

2.1.3 *Learning abilities*

As a flipped classroom requires students to use their class time differently, they are given opportunities to improve their learning abilities through independent and collaborative learning. In many studies, educators and students recognized the benefits of a flipped classroom in helping students develop self-directed learning abilities (Zainuddin & Perera 2018). The utilization of the flipped learning approach in the context of English language acquisition provides learners with valuable opportunities to practice and improve their language skills both inside and outside the classroom, thereby equipping them for in-class activities such as discussions and speaking exercises (Fathi & Rahimi 2022). Apart from academic gains, FCM promotes students' development of soft skills that are transferable. For example, there are merits to the model as it is found to help develop students' collaborative learning skills (Ansori & Nurun Nafi' 2022; Zain 2022). Additionally, it cannot be taught or supplied in a teacher-centered classroom because creativity is improved as a result of the numerous hands-on activities that students participate in (Ansori & Nurun Nafi' 2022). The Flipped Classroom method encourages higher student involvement, interaction, and cooperation in these learning opportunities that demand students to put in the effort rather than simply absorb the knowledge their teachers are imparting (Zainuddin *et al.* 2019).

2.1.4 *Motivation and autonomy*

Through creating a student-centered classroom, another frequently mentioned benefit of the FCM is its positive influence on fostering learning motivation and autonomy. In a more flexible learning environment, students are encouraged to take on their learning responsibilities (Ayçiçek & Yanpar Yelken 2018). Not only does the model require students to do so, but it also offers conditions conducive to students owning their learning. The time kids spend in class is an opportunity for them to learn and reason better, not just a conduit for information. Another essential component to the effective application of this strategy is the asynchronous nature of learning tasks. For instance, an investigation of a flipped writing classroom found that students are given more learning flexibility in terms of learning pace (Alghasab 2020). With video materials available, flipped learning benefits absent students and struggling learners, as absent students and less able students can review or re-watch recorded lessons so that they don't miss out and are given the opportunities to enhance their understanding of the content (Gough *et al.* 2017).

2.2 *Challenges of the implementation of flipped classroom model in EFL instruction*

While extensive research has recognized the benefits of employing the Flipped Classroom Model (FCM) in the English as a Foreign Language (EFL) context, it is essential to acknowledge the challenges that can impede the desired outcomes of this instructional approach, as highlighted by researchers, educators, and students alike. By reviewing the studies chosen by this paper, the following challenges are frequently reported by teachers and students.

2.2.1 *Increased workload*

In a different study, one of the most reported challenges by teachers is the additional time needed for teaching preparation (Akçayır & Akçayır 2018; Li & Li 2022). Some students have reported a heavier workload because of out-of-class assignments, including reviewing video recordings and taking quizzes online, which compels them to extend home learning time for the course (Akçayır & Akçayır 2018, Bonyadi 2018). Students' time management skills are also put to the test as they try to balance their flipped learning assignments with other academic obligations (Li & Li 2022).

2.2.2 *Technological barriers*

Other studies pointed out that technology might become a barrier to successful implementation as access to technology, and quality of multimedia content are some of the challenges (Zain 2022). Technical obstacles could prevent students from watching the flipped learning videos and disrupt their learning process. These obstacles include limited availability of internet, issues with video quality, lengthy films, and poor internet connections (Lee & Wallace 2017; Li & Li 2022). The difficulty for students to watch and interact with videos on their cellphones has a negative impact on the standard of their educational experience (Li & Li 2022).

2.2.3 *Adaptability challenge*

What is also worth noticing is that the effectiveness of FCM is affected by teachers' understanding of the approach and their adaptability when working with their specific learners. One illustration could be the diverse cultural backgrounds and individual preferences for learning among the students. From students' perspectives, some have had trouble adjusting to the new teaching method (Bonyadi 2018; Li & Li 2022). Specifically, compared to a regular structured course, there is some ambiguity about the challenges that the new class model may bring, which might cause anxiety or resistance for students (Akçayır & Akçayır 2018). Some students preferred the teacher-centered classroom model and seemed to be unsure of what they have learned from online videos and those related to exam questions (Alghasab 2020). Moreover, group discussion and peer feedback are also contextual challenges faced by students in flipped learning activities (Alghasab 2020).

In summary, Flipped Classroom Model has many recognized benefits for EFL teaching and learning. However, it would be unrealistic to assume it is without challenges to achieve the effectiveness of the model in implementation. A number of factors must be carefully considered, ranging from teachers' knowledge and skills, students' motivation and adaptability, and the environment including all the tools involved in the approach. In response to the reported challenges, teachers and students as well as researchers in the education field have identified some strategies to support the implementation of FCM in the EFL context.

2.3 *Strategies for implementing flipped classroom model in EFL instruction*

With FCM's popularity in EFL classrooms, there has emerged an expanding range of studies examining strategies in response to the reported challenges discussed above. To start with, recognizing the novelty of the approach and the complexity in its implementation,

some questioned if all classes are worth flipping. Some studies argued that it should be combined with the conventional model to ensure the restrictions of technology access can be minimized (Bonyadi 2018). Others suggested adopting the approach in specific learning areas such as grammar knowledge (Ayçiçek & Yanpar Yelken 2018).

Another area of research is focused on the participants as a factor in the effectiveness of the implementation. The strategies employed by teachers and students have a critical impact on the practice of the approach. For teachers to implement FCM successfully, it is within schools' and other stakeholders' responsibilities to offer specific training and necessary facilities to instructors (Ansori & Nurun Nafi' 2022). Moreover, given the challenges in maintaining students' motivation and facilitating their independent learning, instructors should develop an in-depth understanding of the individual learners, design activities and content that cater to the students, and guide them through their assignments both in class and out of class (Zain 2022).

The procedure of the FCM includes pre-class, in-class and after-class sections. Some researchers and educators suggested considering what can be done to improve the effectiveness of the approach at every step. Before adopting full-on FCM, it is helpful to prepare students for a smooth transition. Lee and Wallace (Lee & Wallace 2017) proposed the use of a computer lab to help students to practice and get accustomed to the process and other scholars highlighted the importance of developing the independent learning mindset. The design of learning materials is also extensively studied including the format, length and complexity to cater to the student's learning needs and ability (Li & Li 2022).

Beyond the initiatives by teachers, students, who stand at the center of the educational process, also carry a significant duty. Since students are expected to take ownership of their learning, metacognitive skills are essential for both language learning and the success of a flipped classroom. Both learning activities with and without teacher's instruction can benefit from the implementation of several key strategies, including planning, directed attention, self-monitoring, self-evaluation, and selective attention (Shih *et al.* 2019).

3 CONCLUSION

This paper reviewed the implementation of the FCM in EFL contexts, with a focus on its benefits, challenges and relevant strategies. In general, FCM was recommended as an innovative approach with positive effects on both teachers and learners in their working and learning processes. A large proportion of empirical studies have highlighted the advantages and positive outcomes associated with the implementation of FCM. FCM application facilitates teaching effectiveness and enhances classroom engagement, while students' learning abilities, motivation as well as learning autonomy are also boosted with the employment of the approach. Apart from its widely recognized benefits, this paper also reviewed the challenges teachers and students face. There is an agreement among most researchers that the application of flipped classrooms does pose some problems. Researchers pointed out typical challenges in literature, including increased workload, technological barriers, and adaptability difficulties. In light of the discussed challenges, an increasing number of studies investigated pertinent strategies to improve FCM utilization. Different arguments about addressing challenges arise that both participants and model design were the factors concerning classroom modification.

Regarding its benefits, this review highlights the potential of adopting the FCM as a pedagogical approach to improving EFL teaching. Another issue is that, given the limited tactics stated above, further research into effective strategies and solutions to reported challenges is required in the future. Studies have not been summarized and reviewed according to different ages or different proficiency levels. Future studies can focus more on FCM implementation at lower levels of EFL teaching and learning.

AUTHOR CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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Study on the effectiveness of English classroom application in PBL

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ABSTRACT: Nowadays, English teaching has gradually been paid attention to in various universities, but there are still shortcomings. The English teaching mode continues to be rigid and monotonous. Most students learn English in the middle and high school passively under the indoctrination of teachers. After college, the English level of college teachers has improved, but the teaching mode remains unchanged. This paper summarizes the effects and influence of Problem-based Learning (PBL) model teaching method on English classroom teaching, including improving students' thinking skills, promoting the development of quality education, stimulating their interest in learning and improving the ability to solve problems. This paper mainly uses literature study and case study method to clearly support the researcher's ideas. By analyzing some significant effectiveness of PBL teaching methods, the researcher tried to find out how to apply PBL teaching method in English classroom, aiming to improve the efficiency of English teaching in Chinese university classroom, enhance students' cognition of English learning, and improve students' efficiency of learning English. This paper also found out that some universities are not familiar with the application of PBL, so it is also important to increase the understanding of PBL teaching method. This method contributes to the development of PBL and further using in English classes, aiming at improving the learning efficiency of our class and arouse students' interest in learning subjectively, which is meaningful and must make contributions to students' growth and China's development in education.

Keywords: PBL didactic, English classes, Effective application

1 INTRODUCTION

Problem-based Learning (PBL) teaching mode plays an outstanding and indelible role in English teaching classrooms in Chinese universities. It can develop different learning methods according to students' understanding degree and learning efficiency, so as to help students better understand and absorb knowledge. In today's society, the employment pressure is increasing. As a necessary skill for practitioners in all walks of life, English has become the primary factor for major enterprises. However, universities still pay more attention to students' English performance and less attention to students' English ability. In addition, the assessment and distribution are unreasonable. Examination-oriented education is a teaching method that has existed since ancient times. In today's highly competitive society, people selected by test scores are not necessarily able to meet the society's demand for talents. Therefore, the existence of PBL is necessary. Through the PBL teaching method, students' learning is more exploratory and active. The traditional indoctrination teaching is generally "teachers speak, students listen". This way is teacher-oriented as the center, knowledge as the standard, students are in a passive position, and cannot give play to the students'

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exploration and initiative. The PBL teaching method makes students' learning more problematic and participatory. PBL teaching method is based on the organization of problems, it requires students to learn through or around the problem. Through the exploration and solution of problems, students not only acquire knowledge, but also learn the ideas and methods of solving problems. At the same time, the exploration of solving problems is also called the process of students finding problems, putting forward problems and then solving problems. This paper reviews the problems of some aspects, including the use of PBL in the classroom, how to better play the effectiveness of PBL, and how to expose more educators to this efficient teaching method. This paper summarizes some main efficiencies of PBL teaching method, which will be presented in the main part.

2 THE APPLICATION OF PBL IN ENGLISH CLASSES

2.1 *Reading*

English reading is an important part of English learning. Reading also plays an unshakable role in English teaching. It is not only an important way of language input, but also can help students to master relevant knowledge in the context and cultivate students' cross-cultural awareness. However, there are still some shortcomings in English reading teaching in college school. Teachers adopt the traditional teaching method in the reading class, translate articles word by word, and instill grammar knowledge to students. Students always passively accept the language knowledge taught by teachers. Over time, students' enthusiasm and initiative in learning will be greatly reduced, which will further affect students' English reading ability. Therefore, how teachers carry out reading teaching has become the focus of people's attention. With the advancement of curriculum reform, the advantages of PBL teaching method are gradually revealed. The PBL teaching method takes students, problems and cooperation as the center of teaching, and teachers are no longer the instructors of knowledge, but the instructors. He Ruonan believes that the PBL English teaching method can effectively improve students' interest in reading (He 2022). Song Xuejiao believes that the PBL teaching method can establish critical thinking and improve medical students' independent learning ability (Song 2021). Zhu Jiajun believes that PBL can improve students' reading performance as well as cultivate students' awareness of problems (Zhu 2021).

In Song Xuejiao's research, she designed the teaching English questions for the students to think about and answer according to their average English level (He 2022). Four different questions can test students' ability to access information quickly, to skim through reading, and to practice analyzing long, difficult sentences. For the more complex problems, three and questions four, students need to rely on the network to query what the topic sentence and extended sentence is, what types of argumentative arguments, how to draw the mind map, etc. This step is not available in traditional teaching. It can not only make good use of students' time after class, make up for the problem of fewer class hours, but also cultivate students' search ability and independent learning ability. Also, Through Qiao Yuling and Guo Liping's surveys, the researcher can also make a conclusion like that only when the teaching designs problems that can truly meet students' various knowledge needs, they will feel that language learning is meaningful, and students' cooperation and interaction will be more motivated; On the contrary, if educators insist that students simply learn language knowledge, while ignoring children's creativity and imagination, and only conduct role playing or dialogue discussion in hypothetical situations, students will feel that their language learning is stagnant and boring, and learning will have little motivation, low efficiency and poor effect (Qiao & Guo 2011).

It can be seen that in order to complete the tasks assigned by teachers, they need to make learning plans, search for materials and produce ideas. These hard work can help to cultivate students' ability for independent learning and lifelong learning, which are the qualities that students need to have in their future career.

2.2 *Speaking*

Being able to communicate with others in the learned English is direct embodiment of the comprehensive use of English language ability. Ma Yue pointed out that with the changing and development of The Times, the national College English Test of CET-4 and CET-6 keeps up with the pace of The Times, strives to integrate with the international English proficiency test, and cultivate high-quality talents who can carry out international communication (Ma 2023). The improvement of national language ability, the political, economic, cultural and technological exchanges, the use of international lingua franca to tell Chinese stories, and the spread of excellent Chinese culture have put forward higher requirements for the teaching quality of oral English language. Zhu Juanhui believes that the people-oriented teaching method can most widely mobilize the enthusiasm of students, most fully stimulate students' creative vitality, and maximize the efficiency of students' active learning (Yang 2020). PBL teaching method can effectively change the traditional indoctrination teaching that focuses on knowledge transfer. Under the guidance of teachers, students can choose research projects, form student groups, make learning plans and carry out project research independently according to their own interests, hobbies and actual production needs.

In Xue-song Yang PBL teaching method application practice, every school year 3 semester, the application of foreign language department teachers try combining the first two semesters of teaching practice. They give full consideration to students' knowledge background and key knowledge, set the oral practice project goals and give suitable driving problem. Also, according to the PBL teaching mode, plan, explore practice, sharing, feedback evaluation process, they guide students to devote to oral English project, to complete the task, problem solving, improve skills. Take Chengdu in China as an example, Chengdu Neusoft University of China is located in Dujiangyan tourist area, with unique tourism resources, including Dujiangyan, Qingcheng Mountain and Jiezi Ancient town and other famous scenic spots. After receiving the task, the students formed a team to work together to actively complete the project. They collected data, made field visits, designed the route, and drew panoramic maps. In the final evaluation stage, the team members would show the video of the simulated tour guide explaining the UK of the scenic spots. Originally, low interest in learning and reluctance to express themselves is a headache for English teachers when explaining oral expression. The PBL teaching mode returns the classroom to students, gives full play to the driving role of project tasks in the learning process, and fully arouses students' initiative and enthusiasm. In the completion of the task, the team plays different roles according to the characteristics of each member, with a clear division of labor and related to each other. In the competition, many best debaters with clear thinking, strong expression and generous typhoon emerged. These debaters said that honor is inseparable from the concerted efforts of their teammates.

2.3 *Listening*

Under the current educational background, the traditional college school English teaching mode has been unable to adapt to the current teaching needs. Although teachers' teaching plans generally focus on listening, speaking, reading and writing as the main teaching content, listening teaching is always a weak link in English teaching. According to Chen Yanling's research, the experimental group adopted the college English listening learning method based on PBL mode, while the control group still followed the traditional learning method. In the process of student-oriented independent learning, teachers should actively guide and provide help (Chen 2015). The result shows that after introducing the PBL model in college English listening teaching and learning, non-English majors have a significantly greater interest in learning than before. They love to ask questions in the learning process, and the communication between classmates has increased much more than before. Thinking and transfer learning are further enhanced. Students' learning efficiency and the effect are enhanced. Although teachers' teaching plans generally focus on listening, speaking, reading and writing as the main teaching content, listening teaching is always a weak link in English teaching. Liu

Lei and Chen Yanling believe that PBL is a student-oriented teaching method, which has distinct characteristics and advantages in the listening course, which is in line with the new requirements of the current college English listening teaching reform, and has reference and guiding significance for the reform of college English teaching (Liu & Chen 2015).

In the application of PBL teaching model, the first is the design of classroom problems. This part is very critical. In the article, Yan Yan mentioned that in the listening practice unit corresponding to Graceful Hands, Volume 5, Volume 3 of New Vision, Steve Job's speech at Stanford University was played to students on "What is the meaning of life?," "How do you live your every day?" This topic, start to discuss (Yan 2016). The PBL teaching method not only shows the knowledge and content of the textbook to the students, but also fully arouses the students' interest in learning. What's more, in this information age, English classroom teaching should first retain students and arouse students' interest in learning, otherwise the goal to achieve in classroom teaching will be out of the question. In Li Xiaoxu's opinion, under the graded teaching, PBL model can effectively promote the improvement of students' language ability and second language acquisition ability, and improve the current situation of weak independent learning consciousness, rigid thinking mode and poor comprehensive language application ability in college English teaching in China (Li 2017). By adopting qualitative and quantitative methods, 106 non-English major students were selected for a semester of PBL teaching practice, exploring a new classroom model of cultivating college English undergraduates with cooperative learning and independent inquiry. The results provide useful reference for the college English reform of other types of Chinese universities in China, and also provide scientific reference for deepening the teaching reform.

2.4 Writing

Writing skills can also reflect students' English application ability, which is also an important link in English learning. However, in the traditional writing teaching classroom, teachers mostly adopt the writing method that pays attention to results or process, so they often ignore the guidance and interest of the writing process, resulting in students and teachers pay more and less attention to writing teaching. In terms of this, as a learning model, PBL encourages students to actively acquire knowledge and explore background information in the process of solving problems, so as to improve their ability to solve problems and cultivate their ability to deal with challenges (Song *et al.* 2021). Besides, Mei Li and Li Suzhen hold the opinion that the courses teach students only the basic methods and steps of paper writing, but there is no actual writing process can only be on paper (Me & Li 2018). With the help of PBL model, students have gone through the process of topic selection, literature search, literature reading, investigation and research, analysis and induction of data information, and writing papers. This learning process not only cultivates students' critical thinking, but also teaches them how to find, analyze, and solve problems from different aspects, but also significantly improves their research ability.

Furthermore, PBL can not only make students learn more and work more effectively, but also give teachers more challenges and encourage them to learn more and better adapt to the efficient teaching method and environment. At present, more and more universities in China have incorporated academic English writing into the teaching content of non-English doctoral students (Feng 2014). However, many educators still mainly adopt the traditional teaching teacher centered teaching mode, which lacks interaction in the teaching process and ignores the application of language. The main purpose of teaching is to test the teaching objectives and thus influence the influence and quality of language output. These effects make the apparent ability of doctoral students in using English to participate in international academic exchanges and writing papers in English inadequate. The researcher can conclude from it that the PBL teaching method puts forward higher requirements for teachers, and the teacher is the planner and organizer before the discussion; In the discussion, the teacher is the listener; after the discussion, the teacher is the reviewer and the summary. It not only requires teachers to master the knowledge of the subject and related subjects, but also have the ability to use the knowledge flexibly.

3 CONCLUSION

This paper summarizes the effects and influence of the PBL model teaching method on English classroom teaching, including improving students' thinking skills, promoting the development of quality education, stimulating their interest in learning and improving the ability to solve problems. The author found that the characteristics of PBL can be summarized as: taking problems as the teaching drive, improving students' ability to solve practical problems; highlighting students' dominant position, clarifying teachers' guiding position, encouraging students and students to achieve win-win cooperation; developing students' independent learning and self-reflection, and realizing a leap of critical and innovative thinking ability in inquiry. In today's world, the arrival of the information age has promoted the reform and innovation of education. Under the new situation, college English teaching is facing the important task of teaching mode reform. The application of PBL teaching mode can give full play to the advantages of network teaching, change the situation of students' passive learning, and improve students' independent learning ability.

At present, China's globalization status in the world is becoming more and more prominent, and the exchanges between China and other countries are becoming more and more frequent. Oral communication ability under the background of cross-cultural communication is one of the necessary abilities for students in the future. PBL is problem-centered and solves problems together through cooperation, discussion and thinking. The PBL teaching method embodies the learner-centered concept all the time, making the roles of teachers and students exchanged.

However, educators still need to continue to study and better use the PBL teaching method to serve education.

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Exploring problems and strategies of PBL in the primary school settings

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ABSTRACT: Problem-based Learning (PBL) is a student-centered education model that can stimulate students' learning potential. It is popular with teachers in different countries. The purpose of this study is to investigate and analyze the problems that may exist in the application of PBL in primary school classrooms, such as the low professional level of teachers and the inability of group reporting to effectively show individual achievements. This paper uses the literature method to analyze the performance of primary school students in the classroom and the psychological characteristics of learning situation. From the three dimensions of teachers, students and different countries, it puts forward the suggestions that teachers should strengthen the cognition of PBL, students should complete the characteristic learning list, and teachers in China, Europe and America should adjust the teaching methods based on the cognitive development of students. It reveals the direction of PBL change and development in primary school in the future.

Keywords: Problem-based Learning (PBL) model, Cooperation, Profession knowledge

1 INTRODUCTION

Problem-based Learning (PBL) is a student-centered educational approach based on the real world. The core of PBL is to optimize the passive learning mode in traditional education through the concept of "student-centered", which can stimulate students' creativity and potential, and enable students to change from passive learning to active learning (Yew & Goh 2016). It has become a popular international education model until now.

Compared with the traditional subject-based teaching method, PBL emphasizes the students' active learning rather than the teachers' teaching in traditional teaching. PBL links learning to more authentic problems in life, allowing learners to devote themselves to problems. It designs realistic tasks that emphasize letting learning into complex and meaningful problem conditions. Students solve problems through positive exploration and cooperation, so they can realize the knowledge hidden behind the problems, forming problem-solving skills and self-learning abilities.

In many European and American primary schools, teachers use the teaching method of PBL through group cooperation and stage presentations (Drăghicescu *et al.* 2014). Most of the primary school students are active and lively. Moreover, some of them have a strong sense of competition and are willing to show their learning achievements. After class, students often have a strong interest in the questions raised by the teacher, so they think deeply about these questions and why their answers are different from other classmates.

China has made some improvements to the internationally popular PBL mode, which is a localized practice process. Chinese primary school teachers use group cooperation for reference. They divide students in a large classroom into different groups, raise different questions, and let students discuss and report. Teachers finally evaluate the answers discussed by students, and

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then show the correct answers to this question (Wang 2022). This is the PBL process that many primary schools in China, which are currently using. But whether in Europe and America or in China, there are still some problems with the application of PBL in primary school.

This paper focuses on the teachers' professional level, students' cooperation and the implementation of PBL students' feedback in different countries, and puts forward suggestions for it, which is conducive to promoting primary school teachers to improve the cognition of PBL model, cultivate students' active communication ability, and develop primary school PBL model.

2 PROBLEMS

2.1 *Teachers' lack of high-level professional knowledge*

Teachers' lack of high-level professional knowledge decreases the value of group cooperation to be relatively low. Primary school teachers have always been an important part of the classroom. The promotion of PBL is a process of weakening the main role of teachers gradually. However, the weakening does not mean that primary school students are completely free to learn independently. If primary school students lack the correct guidance from teachers, they will have the confusion of "how to solve problems" in learning. Xue holds the view that some teachers, which are in low professional level may not recognize the essence of cooperative learning and be unable to set reasonable teaching objectives (Xue 2022). He takes the primary school math class as an example, thinking that some math problems are not worth discussing (e.g., extremely difficult problems), but teachers in a low professional level decide to let students discuss (Xue 2022). In a class of only 45 minutes, if time is spent solving such questions, students may not get the right answer or get the wrong answer. Although this mode of cooperation can shortly improve the classroom atmosphere, it will reduce the classroom learning efficiency and students' learning effect.

2.2 *The average distribution of scores in group work*

Distributing students' average scores as a criterion in group work has been one of the main problems in PBL learning. The "average" here refers to combining the top students who perform excellently, with someone in the group may retard the progress. This can be used to measure the specific situation (e.g., oral performance) of all group members, which is unfair. Zhao refers that the ambiguous division of group work can lead to an unbalance of group cooperation (Zhao 2023). Usually, one student leads the group to provide a single, correct answer, and the teacher misunderstands that the entire group members will understand the problem correctly although some group members are still confused about this. The erroneous deduction can affect the teacher's specific evaluation of each student, leading to some learning problems, including students who pretend to understand the correct answer.

Sun holds the view that group collaboration is not just an outstanding student game (Sun 2022). If only outstanding students are displayed on stage and show their ideas, students with temporarily weak grades might fall very discouraged. Hence, the outstanding students often prefer to raise their hands to show on the stage, they are more confident than the students with weak grades. Teachers tend to invite outstanding students to answer questions in order to get the right one. From then on, the evaluation of a group may originate from the outstanding students instead of the students with weak performance. Therefore, teachers might misunderstand that students with weak grades can also understand the content in class, which causes serious consequence.

2.3 *Different abilities between test-taking ability and cooperation ability*

2.3.1 *China*

Chinese primary school students have strong test-taking abilities, but weak cooperation abilities. The score is the key factor to judge whether a student's classroom learning effect is good or bad. Most primary schools in China attach great importance to the enrollment rate.

Similarly, the high or low quality of pupils entering middle school is the standard for society to judge the high or low quality of primary school teaching. Therefore, based on exam-oriented education, cramming teaching is the mainstream mode of Chinese education. Cramming is a type of education in which knowledge is shoved down students' throats regardless of whether they understand it, similar to the way nutrients are force-fed to ducks. In this educational condition, the position of PBL mode is awkward.

Although many Chinese primary school teachers attempt to integrate the PBL mode into the classroom, students usually obey the teacher's orders in the real classroom. In group cooperation, the answers discussed by group members may be different from the teacher's answers, but the students usually do not have any doubts. They deny the results of group discussions immediately, write down the teacher's methods and answering steps in a regular way, and then memorize them by rotting. Wu put forward that the most important thing for students to learn is the driving force (Wu 2022). Learning is one of the most important factors that can stimulate students' interest. It can be named as "effective learning". Students memorize standard answers given by teachers inflexible. If they are not internalized and absorbed for their own use, this kind of learning is a kind of memorization. Based on the requirements of the test, reciting the answers for the exam can select some primary school students in good memory, and let them enter high-quality junior high school for learning.

2.3.2 *Europe and America*

European and American primary school students have strong cooperation ability, but weak test-taking ability. The essence of primary education in Europe and America is to cultivate children's creativity. In these countries, every student's school report at the end of the year is his or her own personal belongings, and most students' parents do not put too much pressure on their children in terms of grades. The education mode of European and American countries gives students a large space for independent choice. Not every student should take the "Elite of academic" road, so on the whole, not every primary school student has a strong demand for high scores. The reason why European and American countries develop PBL can achieve ideal results may be that most primary schools give students sufficient discussion time in groups. Primary school teachers will invite a lot of groups to show up on stage and ask other students to evaluate. Finally, when completing the study sheets, each group can hand in the homework with different answers. These teachers regard them as "The accurate answer of condensed wisdom". In this case, primary school students are more active in cooperation and their ability can be improved. But they do not have much time for paper exams, and it's impossible for them to communicate with other students, which may lead to the poor test-taking ability of primary school students in Western countries.

3 LEARNING SITUATION

3.1 *Psychological characteristics*

Primary school junior students are full of curiosity about everything around them. They are perceiving and getting familiar with the world with an inquiring mind. Their mental state is affected by the outside world and their self-control is weak; Middle and senior primary school students' self-awareness and independent consciousness gradually strengthen with the growth of age. Moreover, they can carry out a simple logical deduction. According to Piaget's theory of the stage of cognitive development, primary school students are currently in the stage of concrete operation, and their thinking begins to have great variability (Piaget 1964). Students can solve the conservation problem and classify and understand the logical relationship based on concrete things or images.

3.2 *Learning characteristics*

For most primary school students, teachers are the only seniors who have close contact with them except their relatives. Thus, they hold a strong heart of awe for teachers. Therefore,

most of them complete simple academic tasks according to the requirements of teachers. With the growth of age, middle and senior primary school students are no longer “obedient” to teachers, but to a certain extent will produce their own ideas. Teachers’ imparting knowledge only might result in students’ resistance. According to Piaget’s cognitive theory, primary school students in middle and high grades can cluster operations on specific things, including the operations of combination, reverse, associativity, identity, repeatability, or redundancy (Piaget 1964). However, due to the operation at this stage being still inseparable from the support of concrete things or images, its operation is still scattered and isolated, and it is difficult to form a complete knowledge system.

4 SOLUTIONS

4.1 *Improve teachers’ professional knowledge*

Teachers should improve their own professional knowledge, and fully understand the value of group cooperation. There is a strong connection between the knowledge reserve of teachers and whether students can learn knowledge. Teachers need to keep learning and grasp real talent and practical learning so as not to mislead children. Liu holds the view that teachers should respect the individual differences of each student, pay attention to teaching students according to their aptitude, and have corresponding changes in evaluation and teaching methods (Liu 2020). PBL is not the traditional teaching method, which may not be adapted to traditional concepts. In today’s Internet era, it is an era of knowledge and information explosion. Students can obtain a lot of knowledge through the Internet. There is also a lot of knowledge that primary school teachers do not know, as a primary school teacher must keep pace with the trend of the time.

In addition, a good primary school teacher should also learn to change the traditional teaching methods and teaching ideas. To advocate PBL teaching method, it is necessary to involve teachers in group cooperative learning. During the cooperative learning period of primary school students, Teachers should listen to the students’ group from the platform area, observe the learning situation of the group through communication and questions, and have a preliminary understanding of the discussion situation of each group in a limited time. Appropriate participation of teachers can speed up the learning progress of the group, so as to complete the learning task more quickly and improve the learning efficiency.

4.2 *Carry out class evaluation and create characteristic study sheet*

Students are in the main position of evaluation, teachers need to fully respect their individual differences, and pay attention to observe their performance in class. In a class, attention should be paid to the interaction between students and teachers. The higher the interaction between students and teachers, the better the learning effect of the class. Class evaluations may include students’ participation in class, the frequency of raising hands, and the completion of study sheets.

Different study sheets were distributed to different groups in the class. The teacher designed the questions on the sheets according to the course content of this class. The first 40% of the study sheets should be completed through group discussion, and the last 60% should be completed independently. At the end of the period, teachers take 40% of the group results and 60% of the individual results as the total score of each student. This can not only build inter-group competition, and stimulate the enthusiasm of primary school students to participate, but also effectively reduce the inaction of some students in the group. The study sheets can reflect the specific and real learning situation of each student to some extent, which can not only detect the learning quality of the whole group but also discover the learning situation of the students with weak performance in the group.

Figure 1 is a special study sheet, and the characteristics includes that both group work and individual work can be completed, individual work accounts for a larger proportion, practice and hand in quickly, the whole tasks are few and the difficulty of it is increasing.

Basic properties of proportion—Study sheets

Group work(40%)

1. Calculate the product of the two inner terms and two outer terms of the two proportions (2.4:1.6=60:40, 3/5=9/15) respectively, and discuss what is the relationship between the product of two inner terms and two outer terms in proportion. *Write your answer on the blank below.*

2. Discuss and complete the table—Links and differences between ratios and proportions

	Meaning	Number of terms	Difference	Basic properties	Links
Ratio					
Proportion					

Individual work(60%)

1. Judge right or wrong, and write down the reason on the blank below. (T/F)

(1) In proportion, the product of the two outer terms is 1, thus the inner terms are reciprocal of each other. ()

(2) If $x/4$ is equal to $y/3$, then $4x$ is equal to $3y$. ()

2. Judge which a group or groups can form proportion, and write it or them down on the blank below.

(1) 6:10 and 10:15

(2) 1/8:1/6 and 6:8

(3) 2/5:20 and 0.6:30

3. Jack and Mary are talking. "When I don't exercise, my heart beats 54 times in 45 seconds." Jack says. "So your heart beats 72 times a minute." *Is Mary right? Write your answer on the blank below.*

Figure 1. Basic properties of proportion-Study sheets (Picture credit: Original).

4.3 Encourage students to ask questions and challenge teachers' authority

Under the influence of Confucius culture, students should not challenge the authority of teachers. It is considered immoral for a student to contradict a teacher (Huang & Chang 2017). But it doesn't mean that students don't respect their teachers when they bring up different ideas about learning. For different questions, each group may have different solutions. Whether these solutions are right or wrong, teachers should ask each group as much as possible about the solutions to the questions before announcing the correct answers. Chinese primary school students are at a critical stage of developing innovative thinking. There is no need to give them fixed templates to memorize. Teachers should give encouragement to the groups that give wrong answers. If their solutions are novel but their answers are wrong, they can get appropriate points on their study list. Chinese primary school teachers should encourage students to solve the same problem in multiple ways academically, which will greatly improve their creativity.

4.4 Lay the foundation of test-taking skills for students

European and American primary school curriculum is highly practical, and teachers let pupils understand social skills early. They make pupils realize that school can't be an ivory

tower to shelter them forever. Therefore, the homework of primary schools includes such tasks as “investigate the situation of chocolate sales in a small town”, “how to promote fat reduction cookies”, “interview the daily mood of the staff in the snack shop together with group students” and so on. Primary school students’ ability to social cooperate greatly improves, but there may be a bias in exam taking. Teachers can teach students how to do the questions properly after the class group study. Pupils’ ideas are unrestrained and imaginative, the teacher only needs to gently dial problems, and the tone should be softer. It lets the students understand the methods of solving problems in teachers’ thinking (SanBdoCitySchools 2018). The choice to follow or not is decided by students’ own, they have the right to accept the teacher’s advice or not. Students still have a lot of autonomy.

5 CONCLUSION

This paper analyzes the application of PBL in primary schools in China, Europe and the United States, and finds that teachers have low cognition of PBL, group average scores cannot represent individual scores, and students from different countries cannot achieve the common development of test-taking ability and cooperation ability. Based on this, the author gives suggestions from three aspects: teachers’ own professional level, students’ feedback to the classroom and students’ learning styles in different countries.

No matter in which country, PBL is an important classroom learning model. Allowing primary school students to work in a team can improve students’ cooperation and communication skills. Based on the psychological characteristics of primary school students, they are not suitable for a single dull classroom learning. PBL can activate the atmosphere, strengthen the interaction between teachers and students, improve students’ language expression and communication skills, and enhance their self-confidence in learning. It is hoped that primary education can be given full attention.

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The use of PBL among different subjects in secondary schools

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ABSTRACT: In recent years, junior high school teachers in different subjects have paid more and more attention to Problem-Based Learning (PBL), and they want to implement the concept into their teaching and design their teaching using the PBL model. This research looks at how to effectively design and implement curriculum and instruction in the middle school classroom. This paper sorts out and analyzes the previous general theories and classroom cases to clarify the theoretical basis and main problems faced by this research. Combined with the implementation of some actual cases in the junior high school classroom, the difficulties in the implementation process of the papers. For example: difficulties faced in teamwork, lack of interest in the classroom, etc are reflected and some strategies and insights to solve the difficulties are put forward in combination with the characteristics of the classroom, which helps the implementer to clarify the difficulties that should be considered in the implementation process, improve the level of the implementation of the curriculum, and also help the designers to collect the necessary feedback to revise the original curriculum and teaching design.

Keywords: Problem-based learning, Curriculum and instructional design, Junior high school classroom

1 INTRODUCTION

Problem-Based Learning (PBL) is a concrete manifestation of modern educational concepts, which meets the requirements of the state for educational model reform and innovation. Therefore, the PBL is combined with junior high school education, and the PBL is fully applied to junior high school education, changing the problems existing in the traditional education process, and then improving the efficiency of classroom teaching.

The PBL is problem-based and uses the form of group cooperative inquiry to solve practical problems, which not only turns the content of book knowledge into students' own empirical knowledge, better improves students' ability to flexibly apply knowledge, but also further cultivates students' higher-order thinking, independent learning and problem-solving skills. This teaching mode is in line with the teaching philosophy of junior high school teaching and can provide new ideas for the innovation of junior high school teaching methods. The introduction of PBL into the teaching of junior high schools can not only help teachers enrich teaching forms, but also fit the concept of the new curriculum reform. It meets the requirements for cultivating talents in quality education, and is more in line with the cultivation of students' practical innovation and learning to learn in core literacy.

The key to the PBL is to set an effective central question. It is real and non-trivial. The more real the questions set by the teacher, the more closely the questions are connected to real life, and the more proactive students will be (Wang 2007). Studies on PBL have revealed that PBL implementation achieves certain desired goals. In China, this teaching mode has gradually been recognized and applied to the teaching of various subjects in junior high school.

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2 BASIC CONCEPT OF PBL

PBL was first created by Barrows, an American professor of neurology. Subsequently, this model has been widely used in medical education. In recent years, PBL has also played a role in higher education in China, so PBL has been promoted to different subjects in secondary schools as a new teaching method without any phase (Li *et al.* 2022). This approach is not like traditional teaching where theoretical knowledge is learned first before problem solving. The essence is to place learning in realistic and meaningful problem situations. Through group work, students learn the scientific knowledge behind the problems by solving them together so that they can develop problem-solving skills, independent learning skills and lifelong learning skills. The teacher's role in this process is that of a questioner, a lesson designer, and an evaluator of results. He is able to increase students' initiative in learning, improve their participation in the teaching process, and easily stimulate their curiosity and enliven their thinking.

The PBL teaching model has four basic characteristics.

First, students need to collect information and discuss the problem by themselves. The teacher, on the other hand, acts as a leader and a supporter (Zhang 2005). Under the guidance of the teacher, students are allowed to explore the solutions to the problems on their own, and go on to gain knowledge in the process. Second, group work is required, dividing students into small groups for cooperative learning, where group members need to have a clear division of labor, each with their own responsibilities, and constantly communicate and coordinate to work together as a team to find answers to questions (Wang *et al.* 2021). Third, the questions need to be in line with students' cognition. Middle school students are young and have active minds and can be emotionally unstable (Qin & Zhu 2018). Therefore, teachers should pay attention to adjusting the difficulty of teaching problems in classroom teaching sessions and pay attention to students' emotions to avoid students' intimidation and frustration because the problems are too difficult. Fourth, it needs to be problem-oriented. It needs to pay attention to the authenticity of the problems and the scientific nature of the problem design. Based on the PBL model, the learners learning tasks should be based on the background of actual educational activities, citing real papers and solving real problems (Gao & Tao 2009).

The authors consider that PBL is not only a simple teaching strategy but also a new educational concept for the secondary school classroom, and it must have certain conditions in the process of implementation, which is in line with the reality and characteristics of the majority of teachers and students, otherwise it is no different from a rootless tree.

3 THE APPLICATION OF PBL IN SECONDARY SCHOOL SUBJECTS

3.1 *Information technology*

3.1.1 *Advantages*

Students have the experience of problem generating and problem solving, and in hands-on operation, skills of collecting and organizing information are improved, so they would feel the value of IT learning and improve their ability. It can highlight the core role of students in IT learning so that it helps teachers better coordinate "teaching" and "learning". Secondary school students have an active thinking and short concentration time. Therefore, teachers would integrate situations and problems that learners are familiar with, which is suitable to the secondary students in PBL learning.

3.1.2 *Disadvantages*

Students are not fully adapted to the current situation of PBL teaching method application, and they have a certain dependence on teachers. Teachers have insufficient knowledge of teaching based on PBL mode, so PBL is unfamiliar to some teachers.

Liu Zhiwen's study presents a PBL-based instructional design based on the People's Education Publishing of the IT textbook. The case tests the learning effects of the experimental students in the second grade A and B classes after the implementation of the PBL instructional method. Accordingly, students tend to think that the application of PBL teaching method has improved their ability to find out problems and solve them. Also, it stimulates their learning motivation, so they are more interested in IT subjects and more motivated to learn IT (Liu 2021).

3.2 *Science*

3.2.1 *Advantages*

By using the PBL teaching mode, students carry out experimental investigation through cooperative group learning, thus the communication skill between students will be enhanced, which is good for the connection between them. PBL teaching mode applied in experimental teaching exercises students' ability to ask questions as well as their innovative ability, and it can improve students' ability to analyze problems and collect information. Also, the process of inquiry experiments can enhance scientific inquiry literacy and problem-solving ability.

3.2.2 *Disadvantages*

The amount of experimental teaching time is small and is fixed every semester, so these times for students to conduct experimental investigations is relatively small. The innovation of experimental content is not good, so there is a certain "lag" in the content of teaching materials. Teachers need to update the specific content of teaching. Experiments and teaching are not matching as experiments finished are to fulfill teaching requirements, which not well connected to the teaching and practical. It also will be subject to the constraints of equipment and vision. Learning effect is not good. This is primarily because secondary school students have strong curiosity and will be excited to see a variety of experimental equipment, so their attention is relatively distracted. Therefore, they obviously did not listen to the experimental contents and steps taught by the teacher.

Chen Danni's paper is a questionnaire survey after students have learned two lessons in PBL teaching mode, in order to help students' learning and improve the author's teaching method. In this survey, the objects are mainly the students of the two classes taught by Chen Danni in the school, and the main purpose was to analyze the effect of the application of PBL teaching mode in science experimental investigation in terms of the students' interest in learning, the effect of group cooperation, and the degree of students' knowledge mastery. Through the questionnaire survey after the class and Chen Danni in the teaching process, it indicates that the students perform well in the class using PBL teaching mode, in which the students can actively explore the knowledge, and the students can grasp the relevant knowledge solidly through a lesson, which improves the efficiency of students' learning (Chen 2021).

3.3 *English*

3.3.1 *Advantages*

It can focus students' attention; motivate students to actively participate, think and find opportunities to speak. Also, students will actively complete group tasks and learning tasks. Their awareness and ability to ask questions will be improved and they will actively answer questions, actively participate in class discussions, and positively seek help when they do not understand.

3.3.2 *Disadvantages*

Requirements for teachers, so in the process of PBL teaching, the teacher changes from the instructor of knowledge to the coach of teaching, which has higher requirements on the teacher and requires the teacher to have a broad knowledge in order to better set up teaching situations and problems.

Liu Xingyu's paper was studied in the second year of secondary school, and the students in the other classes were still taught English reading in the English reading teaching classroom by the previous ordinary teaching method without using the problem-based teaching method. Using the questionnaire method, Liu Xingyu surveyed the students twice before and after using the PBL teaching model. This indicates that the problem-based approach is more advantageous than using the grammar-translation approach in reading instruction. The results of the questionnaire survey proved that the problem-based teaching method made students more active in class and promoted the classroom teaching atmosphere, which greatly increased students' interest and motivation in learning English reading. Combined with the two English reading achievement tests, indicating that the use of problem-based teaching method in English reading teaching can improve students' English reading performance to a certain extent, promote their English reading learning and enhance their English reading ability (Liu 2018).

PBL teaching is much more effective than the ordinary lecture method in secondary school in terms of effectively learners' interest, motivation, initiative, energetic, and giving play to their subjective status. In addition, it is helpful to develop learners' spirit of collaboration and collaborative skills because PBL is group centered. Also, since PBL is problem-centered, it is positive for developing the ability to apply theories to solve practical problems and to bring out their creativity.

4 THE CHALLENGES AND SOLUTIONS THAT PBL MAY FACE IN CHINA

4.1 *Group cooperation*

4.1.1 *Problems*

PBL offers a significant chance for students to enhance their teamwork skills. When executed correctly, team members can assist each other in comprehending key concepts and work collaboratively on challenging tasks, leading to a deeper understanding of the material. However, issues can arise when certain students within a group bear the brunt of the workload, resulting in a lack of genuine teamwork. This can be due to some members of the team refusing to participate in the work or because one or both members prefer to exclude others, fearing that their grades will suffer due to the participation of less skilled peers (W 2012).

4.1.2 *Solution*

To foster effective collaboration among students, it is recommended to assign individual tasks for grading instead of group work. This approach allows students to focus on their work without worrying about the impact of their grades or the potential effect of their peers' performance. It also encourages all students to participate and work together to collect data and complete tasks, building a comprehensive understanding of the subject matter. Ultimately, each student will have to demonstrate their own knowledge and understanding through individual assessments. To support effective collaboration, teachers should consider implementing three strategies: (1) Helping students identify their respective roles and functions. (2) Providing support and to-do lists for each role. (3) Teaching students how to work together. Another reason for avoiding group scores is the elimination of erroneous data. When grading group work, students who contribute less or not at all may still receive high scores. This can lead to false grades, which cover up real gaps in learning and prevent teachers from having accurate data to help their students grow. Additionally, high-performing students may receive lower scores due to the work of their less competent peers, creating an inaccurate assessment of their skills. This assessment fog can lead to redundant and unnecessary work for teachers. Therefore, individual task assignments are recommended to provide a more accurate reflection of each student's understanding and promote effective collaboration (Zhu 2008).

4.2 *Lack of interest*

4.2.1 *Problem*

If a project behaves like a traditional unit, there is a risk that students may become disinterested. This can happen when the results of the assignment don't seem meaningful or relevant to them. Simply displaying a student's work in class or on a school wall may not be the best way to show case it. To make PBL units more valuable to students, it is important to create answers and products that are meaningful to individuals, groups, or organizations they care about. By doing so, students are more likely to be engaged and motivated to produce high-quality work.

4.2.2 *Solution*

Knowing who could benefit from the results may encourage students to a certain degree. Inviting people or organizations affected by the problems that students are exploring can have a profound impact on the students' work, and make it more purposeful. Face-to-face or online interviews can be arranged with these experts. Encouraging students to think more relevant individuals or organizations' stand point of view helps them learn knowledge and skills related to real-life situations, which could be more useful and meaningful. It would be better if the recipients be invited to listen to the students' reports and provide feedback in person or via videoconferencing.

Afterward, students can complete their projects by giving presentations or publishing their work for external audiences (Zhang 2016).

4.3 *Students are lack of initiative*

4.3.1 *Problem*

To build a strong PBL experience, teachers need to first guide students to take initiative and be responsible for their own learning, as many students feel like passive participants in learning activities due to past educational experiences (Huang *et al.* 2007).

4.3.2 *Solution*

One way to do this is to let students participate in decision-making. When people have decision-making power on the content and method of learning, they are more willing to take responsibility for their learning. Giving children some choices is a starting point, but it is not the ultimate solution. Teachers should design options for students to participate in the project and express their true thoughts. Here are some ways to empower students and encourage them to express their opinions: (1) Teacher provides evaluation criteria but allow students to decide for themselves how their learning outcomes will ultimately be presented. This means that students can choose to make a short film, produce a newsletter or write a short case, or any presentation of learning outcomes that qualifies. (2) Teacher should use methods that enable students to lead learning activities, such as "chalk talk" (silent discussion on chart case) or "Save the last words for me" (a group reading comprehension discussion method). (3) Teacher should have students discuss and set the learner's professional performance in class. Then empower them to monitor and support each other. By implementing these three methods, students are more likely to become engaged in their learning and have a strong, authentic experience while participating in project-based learning.

5 CONCLUSION

At present, China's education method from elementary school to high school is still the traditional lecture mode, and students and teachers have long been accustomed to the traditional teaching mode, thus this mode has been deeply rooted in China. Currently, it is

common that emphasizing the importance of focusing on student achievement along with other aspects of student potential, which gives students a clear understanding of themselves and build their self-confidence. PBL teaching method, based on the problem, starts the teaching activities. This method changes the traditional teacher-centered teaching mode and makes students become the master of the classroom, allowing them to change from passive input to active learning. It greatly stimulates students' imagination and creativity, improves students' interest in learning, and facilitates the improvement of students' learning effect. At the same time, it cultivates students' active learning habits and independent thinking ability, and students no longer heavily rely on the teacher's knowledge in the classroom, but put more effort into studying the problems after the class. The group discussion makes students closer to each other and learn to cooperate, learn to work together, and learn to use collective wisdom to solve problems. In this process, students help each other and complement each other's strengths. The use of PBL teaching method has a positive effect on students' learning attitude, learning habit, learning motivation and learning effect, and has an important influence on the development of secondary school. Although learning in secondary school is an important stage for students, there are still many problems in secondary school education nowadays, and the traditional way of teaching in secondary school has been difficult to adapt to the changes and development of the education field in the new situation. PBL is a totally brand new problem-based teaching method, which stimulates students' interest in learning, changes their learning habits and leads them to establish a habit of active learning, exercises and improves their thinking ability and learning effect. It has a positive effect on the improvement of teaching quality in secondary schools. Therefore, PBL teaching method can be promoted and applied.

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The influence of speaking habits and native accents on oral English learning and the resultant oral anxiety among high school students

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ABSTRACT: Oral learning is known to be a very important part of second language learning. The goal of this study is to investigate the factors that influence Chinese high school students' oral English level, the impact of speaking habits and native accents on oral English learning among Chinese high school students, and the consequent oral English learning anxiety. Questionnaires were sent to 120 senior high school students in China, and field tests and focus interviews were conducted on 40 students from four cities in China. The overall results show that speaking habits and native dialect are two factors that have the greatest influence on oral English learning and lead to oral English learning anxiety among Chinese high school students. This study is important because spoken English is not only a way of expressing English, but also a state of learning. Perfecting and improving their oral cognitive system will help Chinese high school students really bring English from written to daily life, and make English really become a handy tool in high school students' life. Strengthening the popularization of oral language learning will also help to enhance regional integration and help the balanced and coordinated development of all regions.

Keywords: Oral English learning, Speaking habit, Native accent, High school

1 INTRODUCTION

Some scholars have been interested in second language reading anxiety in recent years, employing questionnaires and focused interviews (Hashemi 2011; Iakovos 2009; Jamilah 2017). The existing research mainly takes University students as objects, and the research questions mostly focus on their reading anxiety. The studies focusing on the English learning anxiety of middle school students are inadequate, especially on their oral English learning anxiety. This lack of oral English learning is especially prominent in China, although some first-tier cities have added listening and speaking simulation tests, but in fact, it is only floating on the surface, and cannot help in-depth oral English learning (Fadi 2016). What's more, in some relatively backward areas, there is even a phenomenon of "dumb English", that is, students there are poor at oral English and can only do reading and written projects. Mandarin proficiency (dialect) is closely related to the language learning environment, and Mandarin proficiency (dialect) is also related to urban backwardness, which in turn affects oral English learning. This article attempts to conduct a comprehensive analysis of the relationship between speaking habits, native accent, and oral English learning and adds some research to the oral English learning anxiety of middle school students in China (Xing & Benjamin 2019).

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2 LITERATURE REVIEW

One of the examples related to this topic attempts to investigate the primary drivers of reading anxiety (Leong & Seyedeh 2017). According to the study's findings, students' primary sources of worry are related to both tactics and linguistic issues, such as a lack of vocabulary and grammar background knowledge (Sawir 2005).

Like the previous article, the second language learning anxiety of native Arabic speakers was also investigated in the following paper:

The research questions were tailored to address the level of language anxiety and the relationship between the level of language anxiety and the year of the particular course and the age of the student. According to the results of this study, EFL students had moderate levels of anxiety. In addition to this, the findings showed that there was no significant change in anxiety levels for the year of the particular program. However, the findings showed that there were significant differences in the level of language anxiety with age (Choomthong 2014).

In another paper, it used qualitative semi-structured interviews and focus group discussion techniques with EFL students at Hamadan Branch of Islamic Azad University in Iran to investigate the underlying factors of language learning anxiety in classroom and social settings. Subjects were 60 EFL English language students specializing in English translation and literature, who were randomly selected from a pool of 300. It was concluded that language anxiety was related to how learners perceive the language learning process, how they perceive themselves and how they should behave in any communicative activity, and the language barriers they encounter when communicating in English (Yan & Elaine 2008).

Another paper is an applied study. Although its study aimed to discover the causes of foreign language speaking anxiety, its main purpose was to design classroom therapy to minimize foreign language speaking fears. Short-term initiatives, as well as the creation of learning communities and supportive classroom environments, are examples of interventions. The ultimate conclusion of the article is that teachers must assume the role of researcher in their own classrooms. Before implementing strategies to help students overcome foreign language speaking anxiety, develop motivation, and improve foreign language performance, practitioners should get to know their students, their attitudes toward oral expression, and articulate the reasons for their poor performance and reluctance to participate in speaking activities (Mahmoodzadeh 2012). In this study, the aim is to explore the influence of speaking habits and native accents on oral English learning, which tends to examine the following research questions:

- What factors will affect the oral English level of high school students?
- Whether speaking habit or dialect has more influence on the oral English level of high school students?

3 METHOD

Using the methods of focus interviews and field tests, this study attempts to investigate the influence of speaking habit and native accent on oral English leaning of Chinese high-school students from the 10th to 12th grade.

3.1 *Field test*

The field test is divided into two sections.

- (1) A machine recorded 40 students' reading of the same discourse and converted them from speech to text and tested the recognition.
- (2) Under the premise of hiding the city of the subjects, they were asked to talk to a foreign teacher at an international school on the spot and the teacher gave a score of 1–10.

3.2 Focus interview

In the focus interview, 40 subjects were divided into 4 groups according to the city, and one representative was selected from each group for an interview. Questions and answers are given from three aspects: growth environment, language learning atmosphere and dialect absorption degree.

We selected 100 high school students in China to conduct a questionnaire survey. Table 1 is the sample of this questionnaire.

Table 1. The sample of questionnaire.

Question	Answer
Do you think your city is a recognized city with a strong accent?	54:yes / 35:no / 11: not sure
Please rate your accent.	3:5 / 5:4 / 76:3 / 13:2 / 3:1
Please rate your oral English level.	14:4 / 72:3 / 9:2 / 5:1
What do you think are the factors that affect your oral English learning?	Language learning environment (52%) / Accent (43%) / Speaking habit (38%)
Do you think speaking habit is an important factor affecting oral English learning?	87: yes / 13: no
Do you think accent is an important factor affecting oral English learning?	82: yes /18: no
Which do you think has more influence on oral English learning? (Accent or speaking habit)	64: speaking habit / 36: accent
Which accent in China do you think is most conducive to the learning of spoken second language?	Ji Lin
Which part of China do you think has the most unfavorable accent for learning spoken second language	Gansu Province
Do you think standard Mandarin is conducive to the learning of spoken second language	89: yes/9: no/2: not sure

4 DATA ANALYSIS

4.1 Field test

This study analyzed the scores of the two tests obtained by 40 subjects in the field test and screened out the highest and lowest scores in each data set and averaged them. The average score of the Shanghai group was 8.5, which was in contrast with the scores of 6, 6.5 and 6 in Xinjiang, Guangdong and Fujian. Surprisingly, as a second-tier city, Kunming was only 0.5 points lower than Shanghai.

4.2 Interview

In the focus interview, the representative from Shanghai explained that he began to learn oral English when he was in kindergarten and had a long-term experience of practicing oral English with foreign teachers. The oral English learning environment in Shanghai is relatively good, and the local dialect is also closer to the pronunciation of Mandarin, so he got good results in the oral test and the degree of oral English anxiety was also low.

The representative from Guangdong said that he also began to learn oral English at an early age and has been exposed to oral English in high school, although he did not learn with foreign teachers. Guangdong as a whole also attaches great importance to oral English

learning, but the local dialect of speech and Mandarin pronunciation are very different, so they achieved a low score in the oral test and the level of oral English anxiety is moderate.

The representative from Xinjiang said that he started to learn oral English relatively late. Although the school's English course includes oral English learning, the teaching content is relatively simple, and there is no chance to practice after class. Moreover, the local dialect has some serious pronunciation characteristics, such as the distinction between flat and crooked tongue, so he got a low score in the oral test. The degree of oral anxiety is very high because of the difference in oral mastery.

The representative from Fujian said that he started to learn oral English relatively late, the school's English course has oral English teaching and it is difficult to learn. After class, he will participate in tutoring classes and have some oral practice, but the local dialect also has some serious pronunciation characteristics and these pronunciation problems will seriously hinder his English pronunciation. Therefore, they achieved a moderate score in the oral test and the degree of oral anxiety is moderate.

4.3 Questionnaire

We analyzed the responses to 100 questionnaires and found that most respondents rated their accent inversely to their speaking skills, and as expected, speaking habit and accent are considered to have the greatest impact on second language oral learning and speaking habit has more influence. 54 said their city was recognized as a heavily accented city, 35 said it was not; Three rated their accent as a five, five as a four, 76 as a three, 13 as a two, and three as a one; In the question of rating their oral English level, 14 people give 4 points, 72 people give 3 points, 9 people give 2 points, 5 people give 1 points; Among the questions that have the greatest impact on oral learning, 52% choose Language learning environment, 43% choose Accent and 38% choose Speaking habit. 87% and 82% respectively believe that speaking habit/accents is an important factor affecting the second language learning, and of those, 64 percent say speaking habit has more influence on the second language speaking. And author concludes that Ji Lin's accent is most conducive to oral English learning and by contrast Gansu Province has the most unfavorable accent for oral English learning. In addition, 89 percent think standard Mandarin helps with oral English learning.

5 CONCLUSION

With the existing research basis and references, and the analysis of the results of questionnaires, field tests and interviews, it can be concluded that speaking habit and dialect are the two most important factors affecting second language oral learning, and speaking habits have a greater impact than dialects since speaking habits determine pronunciation habits and the way of processing syllables, and are more closely related to the accuracy of oral second language learning. Furthermore, author discovered deeper research results based on the study's goal, which suggest that some dialects whose pronunciation is similar to that of a foreign language would boost second language oral acquisition, but that Mandarin is the best way to speak a foreign language overall. As a result of the study findings, it is believed that China's education system should promote oral English learning earlier and strengthen the popularization of this method of learning, as well as schools should strengthen Mandarin education.

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Conjunction acquisition survey in oral Mandarin of Chinese foreign students

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ABSTRACT: In recent years, the corpus survey of Chinese learners has yielded fruitful results. However, few studies focus on the overall acquisition of conjunctions. This research surveyed the oral Mandarin of 58 Chinese foreign students, the investigation object is conjunctions collection which plays a connective role in Chinese clauses. The conjunctions usage was divided into 8 categories: cases in line with typical usage, semantic confusion, mixed semantic hierarchy, misuse of conjunctions, absence of syntactic components, incorrect collocation of conjunctions, wrong placement of conjunctions, and ellipsis. The research found that each case of conjunction usage was distinguished from others, but these foreign students have already mastered the typical usage of high-frequency conjunctions, furthermore, they intended to imitate native speakers' way of expression. All of these above were analyzed deeply and practicable learning suggestion was given in this article.

Keywords: Interlanguage, Chinese conjunctions, Second language acquisition

1 INTRODUCTION

The results of research in conjunction with the acquisition are rich. Some researchers focused on differences of native language background: Randy *et al.* surveyed the written expression of English conjunctions, and according to the statistical results, people with the same native language background show obvious consistency in the use of individual conjunctions (Appel & Szeib 2018); Liu investigated 116 Chinese undergraduate students' written English, found that discourse cohesion markers of these students were very distinctive (Liu 2021). And also, some researchers paid attention to the gap between interlanguage and target language, such as Deng & Rasinski, and Xu, both of whom used the theory of Interlanguage Contrastive Analysis (Deng & Rasinski 2021; Xu 2013). Fewer researchers are dedicated in rank the conjunction acquisition order (e.g., Wang) (Wang 2017). Through oral survey and corpus analysis, this article tries to figure out the characteristics of conjunctions used by Chinese foreign students.

2 RESEARCH METHOD

2.1 *Research object*

The research object is the spoken language materials of 58 foreign students come from Capital Normal University. Of these students, 38 are female and 20 are male, including preparatory students, undergraduate students, and graduate students. Their Chinese

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proficiency has reached the intermediate and advanced levels; thus they can communicate with native speakers about a definite topic. The language materials collection finished in 2019, each conversation sustains for 20 minutes/per person. Conversations are about life in China or cultural differences. After deleting of interviewers' words, the remaining interviewees' words are about, 19,0000.

Zhu and Hu selected a series of conjunction words whose frequency of usage exceeds 50 times in the Modern Chinese Corpus of the National Language Commission (Zhu & Hu 2021). The amount of these words reached 142. Based on these 142 words, the present research deleted the fixed phrases and conjunctions that link phrases according to the *modern Chinese dictionary* and *Practical Grammar of Modern Chinese*, 116 conjunctions were left (Dictionary Editing Office of the Language Research Institute of the Chinese Academy of Social Sciences. 2016, Liu *et al.* 2006).

2.2 Research procedure

The interviewees' words are further processed. Python and Jieba word segmentation are used to finely segment the corpus; then researcher enters the plain text corpus after word segmentation into AntConc, uses the above 116 conjunctions as search items, retrieves the conjunctions in the corpus one by one, and recorded the data after excluding non-conjunction usages. Finally, the researcher has to screen the corpus of foreign students using these conjunctions, describe and find the pattern.

Corpus Investigation. According to Table 1, 33 conjunctions were used in 116 conjunctions by these foreign students, total frequency is up to 4388. "但是(however)" occupied the highest frequency among these conjunctions, the value reached 889, and the minimum value is 1. "但是 (however)" 然后 (then)" 因为 (because)" 所以 (so)" 如果(if)" 还是 (or)" 或者 (or)" 可是 (however)", The frequency of these 8 conjunctions made up 91.54% of the total.

Table 1. Conjunction statistics.

Name	Meaning of dictionaries	Frequency
但是	表示转折,引出同上文相对立的意思,或限制、补充上文的意思;要表达的重点在“但是”之后,上一小句常用“虽然”或“尽管”(Lü 2008)。	889
But	This word expresses the meaning of turning, the clause after “但是”, which is the focus of the speaker, is the opposite of the last sentence and phrase or complements the meaning of the previous sentence. “但是” often appears with “虽然” and “尽管” in a sentence.	
然后	表示一件事情之后接着又发生另一件事情,前句有时用先、首先等,后句有时用“再、又、还”等(Lü 2008)。	837
Then	This word means that one thing appears after something, there are words like “先” 首先” in the former clause, and“再” 又” 还” in the latter clause.	
所以	表示因果关系的连词,用于后分句,表示结果;单用“所以”其功能相当于用“因为…所以…”的格式(Liu <i>et al.</i> 2006)。	824
So	The word means causation, is often used in the latter clause of a complex sentence to express the result of something. The function of “所以” is equal to the fixed format “因为…所以…”.	
因为	“因为”是表示因果关系的连词,多用在因果复句的前一分句,引出某情况发生或存在的原因,后常用“所以”“就”“只好”等连接;“因为”引出的偏句也可以放在正句的后边,也可以在“是”字句里作宾语(Liu <i>et al.</i> 2006)。	786
Because	The word means causation, which is often used in the former clause of complex sentence to express the reason for something, this word often appears with“所	

(continued)

Table 1. Continued

Name	Meaning of dictionaries	Frequency
如果	以“就”只好”在句中。The clause of “因为” could appear in front of the main clause, and could also be an object of a special sentence pattern called “是字句”。 表示假设, 用于前一小句,后一小句推断出结论或提出问题,常用“那么、那、则、就、便”呼应,可省略, 如果:..’末尾可加助词“的话”(Lü 2008)。	261
If	The word means assumption, is often used in the former clause of a complex sentence, and the conclusion is inferred in the latter clause. This word often appears with“那么”就”则” and”便” in a sentence. If there is a particle“的话”, “如果” could be omitted.	
还是	表示选择关系的连词,用来构成选择疑问句,有时“还是”所在的分句还具有疑问的性质,但整个句子是一个陈述句 (Liu <i>et al.</i> 2006)。	186
Or	The word means optional, is used in optional interrogative sentences. Sometimes, this word could be used in a declarative sentence that has questionable meaning.	
或者	“或者”是表示选择关系的连词.有时句中可同时用两个或两个以上的“或者”, “或者”用于陈述句 (Liu <i>et al.</i> 2006)。	119
Or	The word means optional, is used in a declarative sentence. Sometimes, the word “或者” could be used more than one time in a sentence.	
可是	表示转折,语气较轻;可用在主语前或主语后 (Lü 2008)。	115
However	This word expresses the meaning of lesser turning and could be used both before and after the subject.	

According to the statistics, specific conjunctions are used very frequently. It's obvious that students depend on specific conjunctions, these conjunctions are viewed as mainly discourse cohesion, the result means that other categories of discursive cohesion devices are ignored such as reference, anaphora, and ellipsis (Appel & Szeib 2018). Syntactic ellipsis is the none expression of a word or phrase that is, nevertheless, expected to occupy a place in the syntactic structure of a sentence (McShane 2005). Besides, is there any overuse in these high-frequency conjunctions?

From these high-frequency conjunctions' functional categories, foreign students prefer the following items: contrastive(但是 but, 可是 however), enumerative(然后 then), resultative (因为because, 所以 so), hypothetical (如果if), alternative(或者 or, 还是 or).

Classification. Based on the above analysis results the following questions should be clarified:

What are the usage characteristics of these 33 conjunctions?

Is there any overuse in high frequency—conjunctions?

To clarify the first question, the researcher needs to read a lot of statements that contain all 33 conjunctions carefully. As for these high-frequency—conjunctions whose statements are higher than 200, the researcher will extract 200 sentences randomly to read. Referring to Bolton's practice, this paper view sentences as a unit of overuse investigation (Bolton *et al.* 2003). Based on Randy Appel's results, if one conjunction occurs 14 times in 1000 sentences, that conjunction was overused (Appel & Szeib 2018).

The scope of investigation includes complex sentences, clauses, constituents, and related conjunctions content words are not included. The following situations will be viewed as invalid: ①sentence is interrupted; ②the speaker does not continue after the conjunction; ③after saying one conjunction, the speaker changes the way of expression or doesn't use that conjunction. In the corpus investigation, the researcher looks up the following dictionaries' definitions and usage: Eight Hundred Words of Modern Chinese, Practical Chinese

Grammar (see form 1). If the use of conjunction in a sentence agrees with the dictionary, this paper will classify this sentence as “in typical usage”, If the use of conjunctions in a sentence doesn’t agree with the dictionary, this article will further judge the characteristics of this sentence using conjunctions. Sentences using conjunctions will be viewed and recorded categories one by one.

Literature on the classification of the acquisition of multiple conjunctions in Chinese is not sufficient, most of the researchers dedicate to the classification of usage errors of conjunctions, such as Lihua Xu (2001) classifies foreign students’ errors of conjunctions as four categories:” 连词错用 (misuse conjunctions) “连词简化 (simplify conjunctions)” 连词多用 (add conjunctions) “连词缺省 (miss conjunction)” (Xu 2001); a more comprehensive classification and analysis was carried out by Modern Chinese, which divided conjunctions and relative sentences into three levels, and there are a total of 8 sub-categories in the three levels (Huang & Liao 2007). After analyzing, the researcher found that these categories are representative, but not comprehensive. Combining the results of the research, this paper divided the corpus of foreign students under investigation into the following categories:

Cases in line with typical usage:

The use of conjunctions in a sentence agrees with the dictionary.

Eg: 我觉得很多人喜欢他, 所以我发给你了, 有的时候我能听, 但是一般我不听俄语的。

I think many people like him (a Russian singer), so I sent it to you, sometimes I can listen to it, but generally, I don’t listen to Russian.

Semantic confusion

The conjunction cannot connect the upper and lower sentences well, and the sentence after the conjunction does not match the logical expectation of the listener, there is only this conjunction in the sentence.

Eg: 我跟他们比赛过的, 他们也认识我, 如果他们看见是我。

I played against them, they know me too, if they see me.

Mixed semantic hierarchy

The conjunction cannot connect the upper and lower sentences well, and there is more than one conjunction in the sentence.

Eg: 如果我有机会, 其实我可以继续, 如果没有我 ...回我的国家, 还是我找别的国家。

If I have the chance, actually I can continue (my studies), without me ... go back to my country, or I look for another country.

Misuse of conjunctions

The conjunction shouldn’t occur in this sentence, or one conjunction is replaced by another wrongly.

Eg: 如果没实现平等, 就不合法的, 还有一个老婆应该同意, 所以基本上一个老婆不会同意。

If equality is not achieved, illegally, another wife should agree, so basically a wife will not agree.

Absence of syntactic components

The subject of the clause is missing and the subject of the clause is different from the main clause; the predicate of the sentence is missing; the object of the sentence is missing.

Eg: 我也喜欢, 但是不是最有意思的。

I like too, but not the most interesting.

Incorrect collocation of conjunctions

The conjunction paired with the retrieved conjunction is not used, or a wrong collocation is used.

Eg: 你知道怎么读, 但是你不知道它们的意思是什么, 如果它们在一起, 你不知道。

You know how to read, but you don’t know what they mean, if they are together, you do not know (the meaning).

Wrong placement of conjunctions

The conjunction is in the wrong place in the sentence, or the clause in which the conjunction is located is not in the correct position in the overall compound sentence.

Eg: 走得很辛苦, 但很陡很直的, 风景很漂亮。

Walk hard, but (the cliff) is steep, and the scenery is beautiful.

Ellipsis

Omit conclusions that should be inferred from the utterance information, or omit the topic and syntactic components which have been mentioned.

Eg: 他们都觉得...很遗憾我不会, 因为他觉得是...啊...要...比较重要的因为就是...一种文化

一种家人的文化我...都不知道, 所以他觉得。

They all feel...sadly I can't (speak this dialect), because he thinks it is important because it is a culture of family, but I don't know, so he thinks.

3 RESULTS AND DISCUSSION

3.1 *The characteristics of conjunctions*

After data statistics and correction, the statistical results of the corpus investigation and classification are listed in Tables 2 and 3 as follows, including the top 5 and the last 5 words:

Table 2. Statistical table of classification of conjunction usage (the top 5).

Name	Cases in line with typical usage	Semantic confusion	Mixed semantic hierarchy	Misuse of conjunctions	Absence of syntactic components	Incorrect collocation of conjunctions	Wrong placement of conjunctions	Omission
但是 However	165 (83%)	7(4%)	3 (2%)	15 (8%)	6 (3%)	1 (<1%)	2 (1%)	1 (<1%)
所以 So	138 (66%)	18 (9%)	5 (2%)	11 (5%)	16 (8%)	2 (<1%)	2 (<1%)	20 (10%)
然后 Then	124 (68%)	5 (2%)	1 (<1%)	68 (33%)	1 (<1%)	1 (<1%)	3 (1%)	1 (<1%)
因为 Because	164 (80%)	11 (5%)	10 (5%)	7 (3%)	5 (2%)	2 (1%)	1 (<1%)	5 (2%)
如果 If	137 (62%)	13 (6%)	16 (7%)	7 (3%)	4 (2%)	39 (18%)	2 (1%)	3 (1%)
还是 Or	43 (43%)	4 (-%)	3 (-%)	33 (-%)	3 (-%)	-	3 (-%)	13 (-%)
或者 Or	90 (75%)	1 (-%)	-	23 (-%)	-	-	3 (-%)	3 (-%)
可是 But	69 (60%)	2 (-%)	5 (-%)	28 (-%)	3 (-%)	-	3 (-%)	4 (-%)

Table 3. Statistical table of classification of conjunction usage (the last 5).

Name	Cases in line with typical usage	Semantic confusion	Mixed semantic hierarchy	Misuse of conjunctions	Absence of syntactic components	Incorrect collocation of conjunctions	Wrong placement of conjunctions	Omission
既 Now that	-	-	1 (-%)	-	-	-	-	-
无论 What ever	-	-	-	1 (-%)	-	-	-	-
除非 Unless	1 (100%)	-	-	-	-	-	-	-
不光 Not only	1 (100%)	-	-	-	-	-	-	-
一来 Firstly	1 (100%)	-	-	-	-	-	-	-

From the statistics, most of the cases where foreign students use conjunctions can be classified into these seven categories. From the perspective of the frequency of different categories, the usage of each conjunction has its characteristics, and there are significant differences in the frequency of different conjunctions in different categories.

Looking at the percentage of the first category of all conjunctions, only four out of 33 conjunctions, “还是” (or), “而” (while), “即使” (even if), and “无论” (regardless of), have a frequency of correct usage according to the dictionary standard of less than 50%. This indicates that foreign students have basically acquired the standard usage of each conjunction and can use them correctly.

In the misuse of the fourth category of conjunctions, conjunctions are often misused as their synonyms, 33 out of 100 uses of “还是” are misused, almost all of which are misused as “或者”, both of these two words are conjunctions expressing choice.

The word “所以” has the highest frequency share in the omitted category, when using the word “所以” (so), students often omit certain parts of the sentence, and Chinese native speakers also often use the omitted expression when using “所以” in spoken language. Students imitate the expression habits of native speakers when using conjunctions, which not only enables them to learn the usage of conjunctions in written language but also partially learn the oral expression of these conjunctions. Similar examples include the semantic generalization of the word “然后” (then) when used by foreign students.

3.2 *Excessive use*

There are a total of 6386 sentences in this corpus, with an average of 148 occurrences per thousand sentences for “但是(but)”; an average of 139 occurrences per thousand sentences for “然后(then)”; an average of 137 occurrences per thousand sentences for “所以(so)”; an average of 134 occurrences per thousand sentences for “因为(because)”; an average of 44 occurrences per thousand sentences for “如果(if)”; an average of 31 occurrences per thousand sentences for “还是(or)”; an average of 20 occurrences per thousand sentences for “或者(or)”; an average of 19 occurrences per thousand sentences for “可是(but)”. If a single word appears 14 times per thousand sentences, it should be considered excessive use, and all eight conjunctions mentioned above are overused.

3.3 *Learning suggestions*

3.3.1 *Pay attention to the completeness of expression*

This paper found that in the fifth category “lack of sentence components”, the lack of subject is the most significant. This indicates that international students have noticed that native speakers often omit the subject when using conjunctions, but students do not know when the subject can be omitted. Whether the subject can be omitted depends on two factors: whether the subject of the previous and subsequent clauses is consistent, and the type of conjunction. When learners have not mastered these implicit rules, they should express the sentence completely until they fully understand the usage of the conjunction and then try to omit it.

3.3.2 *Value the distinction and induction of similar conjunctions*

The situation of misusing conjunctions with similar meanings is very common. At the same time, international students often only use a specific conjunction in a series of similar conjunctions with the same function and do not have diversity in the use of similar conjunctions. Conjunctions, which are not proficiently used, usually escape from use (Wang & Zhang 2003). This suggests that learners should clarify the usage rules of similar conjunctions in the sentence and master the differences between similar conjunctions to use conjunctions accurately and achieve diversity in conjunction usage.

3.3.3 Using multiple discourse cohesive devices

Using conjunctions is not the only way to establish discourse cohesion. It's necessary to highlight other cohesive devices like reference, substitution, ellipsis, and lexical cohesion, and more implicit methods in establishing discourse cohesion (Appel & Szeib 2018; Deng & Rasinski 2021).

4 CONCLUSION

Based on the results of the survey and analysis above, Chinese foreign students have mastered the typical usage of conjunctions, and some features distinguish learners' usage from native's, including semantic confusion, mixed semantic hierarchy, misuse of conjunctions, absence of syntactic components, incorrect collocation of conjunctions, wrong placement of conjunctions, ellipsis, and overused conjunctions. From these features, the researcher found that although conjunctions are used differently, some rules are reflected. Therefore, the following practical suggestions are proposed for learners: pay attention to the completeness of expression, expressing the sentence completely could be the best option; value the distinction and induction of similar conjunctions, through this way, learners could achieve diversity in conjunction usage; using multiple discourse cohesive devices, such as reference, substitution, ellipsis, and lexical cohesion, and more implicit methods.

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The way of applying PBL to Chinese primary schools

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ABSTRACT: PBL (Problem-Based Learning) is a teaching method that helps to develop critical thinking and independent problem-solving in students. PBL provides opportunities for users to work in groups, and find and evaluate material. Since elementary school is a critical period for developing critical thinking and problem-solving skills, it will be of great help later in the learning process if students develop the ability to think independently during the initial stages of compulsory education. However, Chinese primary school students generally lack the ability in these aspects, and PBL is rarely used in Chinese primary schools. Therefore, the researchers in this group searched the literature on the application of PBL in primary schools in various countries and conducted research. Studies have shown that after the use of PBL in elementary schools, students' learning interests and mastery increased. Hence, in the future primary school education in China, the PBL teaching method should be cited, and the experience of using PBL abroad should be used for reference, to further create a PBL suitable for China's national conditions.

Keywords: Problem-based learning, Primary School, Critical thinking, Problem-Solving

1 INTRODUCTION

1.1 *Introduction of problem-based learning*

Problem-Based Learning (PBL), a comprehensive collection of techniques for creating learning scenarios, was developed in the 1950s in the context of medical education. PBL was first presented to the educational community in the 1990s by two American specialists in education administration, Professor Bridges of Stanford University and Professor Hellinger of Vanderbilt University. In 1986, Shanghai Second Medical University and Xi'an Medical University in China used PBL for the first time. After PBL was introduced at the University of Hong Kong Medical School in 1997, there was a significant growth in the investigation of using PBL in Chinese education.

Different from traditional subject-based pedagogy, PBL emphasizes active learning by students and links learning to larger tasks or problems. PBL students require autonomous investigation and teamwork to solve problems in order to acquire the scientific principles behind the issues and ultimately develop problem-solving abilities and independent learning capabilities.

1.2 *Relevant policies and cases support*

The fundamental curriculum reform in China has continued since 21 century. The Core Literacy of Chinese Students' Development, published in 2014, emphasized the development

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of “well-rounded people” and demonstrated the demands for students’ abilities such as “critical thinking” “problem solving” and “independent learning” (China Government Network 2014). The Opinions on Deepening Education and Teaching Reform and Comprehensively Improving the Quality of Compulsory Education issued in 2019 clearly stated that research-based, project-based and cooperative learning should be actively explored and carried out (Chinese government 2019).

PBL has emerged as a hot issue in the field of global education in light of all these practices and policies, and it has also been modified to meet the demands of China’s basic education reform. Therefore, the current state and potential course of PBL in elementary education merit our consideration and study. Many nations throughout the world, including the United States, Britain, France, Canada, Singapore, etc., are now using PBL in their curricula. More and more schools in some provinces and cities, such as Beijing, Shanghai, Zhejiang, Jiangsu, Guangdong, etc., have begun to explore PBL teaching method. PBL has also been applied in various stages of education from preschool education to higher education.

1.3 *Justification and focus of the paper*

For the following three reasons, this paper has chosen to examine how PBL is used in Chinese primary school curricula: The initial level of obligatory education is primary school, which is also a crucial time to develop skills like “critical thinking” “problem solving” “independent learning” and others. Early development of these skills will create a strong basis for pupils’ future academic endeavors. Second, primary students’ knowledge retention is not strong, so the PBL teaching approach is chosen to enable students to apply what they learn in the classroom to real-world situations. Third, there is greater room for study in this area because PBL is used very seldom in Chinese primary schools. The majority of Chinese researchers and educators are investigating PBL as a teaching strategy in primary school single subjects (such as Chinese, mathematics, English, science, etc.). However, these PBL practices are mostly surface applications of the PBL. Few academics have also focused on certain common issues with the Sinicization of PBL and the implementation of PBL to the entirety of Chinese primary education.

Therefore, this paper uses the literature research method, focuses on the common issues with PBL implementation in various disciplines in Chinese primary schools, and draws inspiration from examples of successful PBL implementation in other nations. It also makes the recommendation that PBL teaching methods be “Sinicized” for use in Chinese primary schools. This study aims to further the understanding of PBL’s use in Chinese primary education, investigate practical Sinicization strategies for PBL, and promote the reform of China’s basic education system’s mandate for the development of students’ abilities.

2 EDUCATIONAL PROBLEMS OF CHINESE PRIMARY SCHOOLS

There are two key problems in the current Chinese primary education system: lack of critical thinking and ineffective group cooperative learning. First of all, the “critical thinking” proposed by Ryan is that the ability to form judgments by analyzing known information (Ryan 2022). However, most primary school teachers also lack the ability to critically think because they are only teaching knowledge mechanically, eliminating the opportunity to cultivate students’ critical thinking (Guo 2020). It has been shown that students are afraid of challenging authority critically, so the whole class is still dominated by the teacher totally. Furthermore, the questions raised by the teacher are not deep enough (e.g. Do you think this is right or wrong?) to stimulate students’ ability to problem-solve, so there is seldom help for students to establish the link between the knowledge and real-life (Li & Zhou 2022). It might result in low enthusiasm for participating in group discussions and even delay the scheduled progress of the class, leading to a vicious circle.

Moreover, there are some problems with group cooperative learning in primary school (Guo 2020; Wan 2020). For example, the focus of group cooperative learning is ambiguous, and it is difficult for teachers to keep the class in order (Wan 2020). Without problem-oriented group discussion, students may have no idea what they are going to do or how to carry out the discussion. Hence, the teacher might not be able to guide them. Additionally, primary students may struggle with self-learning and keeping their attention, which leads to failed teamwork. If students are simply talking about questions with predetermined answers and they eventually get the prescribed responses from the teacher, then the entire group's participation will become a mere formality (Guo 2020). When group collaboration is influenced by "formalism", it is difficult for interactions to result in thought collisions, which reduces group collaboration to a surface-level activity with no consequence on its initial goals. In conclusion, cultivating students' critical thinking, problem-solving, as well as group cooperation abilities, are essential in the initial stage of primary education.

3 ADVANTAGES OF PBL APPLICATION IN FOREIGN PRIMARY SCHOOLS

There are several advantages to PBL in primary schools. The efficacy, practicability, and effectiveness of PBL have been proven to be high with PBL in several primary school courses, such as Indonesia (Fitria & Idriyeni 2017). Teachers in the experimental group taught in a PBL style, whereas those in the control group taught in a teacher-centered manner in elementary school chemistry lessons. In contrast, it was discovered that the experimental group's students at Sarajevo had much higher test results and were more engaged in chemistry (Zejnilagić-Hajrić *et al.* 2015). Additionally, it has been discovered that PBL can enhance students' mathematical ability more than direct learning through comparisons between PBL and direct teaching methods in primary school at Bandung mathematics classrooms (Firdaus *et al.* 2017). Through a study of Pujidadi Binjai Primary School, it was shown that PBL has the advantage over the other two educational approaches in that it presents real-world problems that must be solved in multiple dimensions (Utomo *et al.* 2020). Additionally, PBL is more effective than direct learning at teaching physics in Denpasar. The use of PBL fosters students' ability to think critically and creatively (Santayasa *et al.* 2019). This process cultivates students' learning motivation and physics problem-solving thinking, which is beneficial for physics learning (Santayasa *et al.* 2019). In general, by using the PBL teaching model, students can be cultivated with independent thinking, problem-solving abilities, and self-learning-based orientation, along with the goal of communicating and cooperating with others. Based on this, it is deduced that PBL is more efficient than traditional education.

From a teacher's perspective, PBL is known as the "best way for students" and "student-centered learning" since it allows students from the southwestern United States to truly take ownership of their education and makes them more interested and engaged in learning (Nariman & Chrispeels 2017). Learning will be more enjoyable if PBL can increase student interest in it, allowing each student to improve their learning skills as they go along. Romania researchers believe that students will be inspired to engage in precise analysis of the problem, comprehend its nature, and advance a high degree of understanding in PBL learning when they begin with a real-world situation (Gorghiu *et al.* 2015). As it can be shown, PBL learning considerably develops students' capacity for independent learning because they no longer rely just on professors' explanations but rather independently analyze and solve problems. Students will benefit for a lifetime from developing autonomous learning skills early on. Students from Ciparay who learn using a problem-based learning model have stronger critical thinking skills than students who learn using a standard learning model (Pebriana & Disman 2017). It is clear that problem-based learning empowers students to solve real-world challenges and exercise critical thinking. Students are in the role of problem solvers in the interim, allowing them to effectively practice and develop critical thinking.

4 SUGGESTIONS

Primary school teachers, as implementers of PBL education, need to systematically understand PBL teaching methods and learn to apply them in the classroom. Primary Schools, as the main positions for applying PBL teaching, need support in teacher training, management, and motivation. The country also needs to introduce relevant policies to ensure the smooth development of PBL in primary education. Therefore, this paper puts forward the following suggestions from the three levels of teachers, schools and the country.

4.1 *For teachers*

Teachers must first become familiar with the PBL process and instructional strategies before introducing PBL to students. As the “deliverer” of PBL, teachers should professionally deliver the content of PBL to the “recipient” (Du & Chaaban 2020). Once the teacher is familiar with PBL, he/she will offer more in-depth and creative questions in order to encourage students’ capacity to think critically and solve problems. If so, teachers and students to create a positive cycle the learning environment is livelier and students are motivated. Therefore, teachers should be carefully trained to make teachers confident in PBL and have a full understanding of PBL to reduce the occurrence of problems (Du & Chaaban 2020).

When applying PBL to the context of Chinese primary schools, teachers need to maintain good classroom conditions, such as reasonable grouping and keeping teaching equipment in normal operation, so that all students can follow along well. In order for students to feel like the problems they solve are related to real life and that the knowledge they have acquired can be applied in real life, teachers should secondly ask students real questions and create real problem situations (Pebriana & Disman 2017). As a result, students’ enthusiasm for learning will be improved, and at the same time, their participation in group cooperation will rise, and the effects of group cooperation will be better.

4.2 *For schools*

According to surveys, most teachers said that the school’s PBL teaching materials are insufficient; technical support is not enough, teacher training is not in place; and they hope that there will be more incentive mechanisms for PBL teaching (Ye 2022). In order to create a better environment for the implementation of PBL teaching methods, the school first needs to provide teachers with more domestic and foreign books, materials about PBL theory and practice. Besides, schools are opposed to organize teachers to carry out the learning of PBL teaching methods, and update the school’s teaching materials and hardware equipment in real time. Secondly, schools should have more diversified evaluation criteria for teachers. They could use the PBL teaching method as an additional bonus item for teachers to reduce the teaching pressure on teachers brought by the traditional teacher evaluation system. In addition, schools should also set up encouragement Mechanism, giving material rewards to teachers who implement PBL teaching methods, and mobilizing teachers’ enthusiasm for participating in PBL teaching.

In addition, schools should optimize teacher training. They could invite domestic and foreign PBL research scholars to give teacher training lectures at the school, and apply PBL teaching methods to teacher training. For example, PBL scholars tell teachers PBL’s teaching theories and methods through lectures, provide teachers with training in real situation design, classroom management, student presentation, etc., and then divide teachers of different subjects in primary schools into several groups. The micro-course development task is carried out around a specific theme, and the content of the micro-course should correspond to the key points in the primary school textbooks. Finally, the teachers of each group will present the micro-courses, and then the instructors will evaluate and give

feedback, and the teachers will optimize the PBL classroom. This training method can help teachers communicate with PBL experts face to face, they can learn in depth. Moreover, it can also solve the problem of lack of targeted training for teachers in traditional teacher training and the incomplete training of “teacher-student pairing” training (Xu 2021).

4.3 For country

The country should continue to track the implementation of basic education reform, oppose Spoon-fed education. They also should optimize the education evaluation system of each province, formulate relevant rules and regulations, increase pilot primary schools. Besides, the country also should encourage domestic PBL experts to enter primary schools to carry out PBL teaching demonstrations and implement PBL in schools, which is able to institutionalize and standardize the management of teaching.

For example, first, the Bureau of Education and schools conduct a survey on basic education reform across the country, extensively soliciting opinions from different groups such as educators, parents, and students. Second, the school chooses more economically developed areas to carry out pilot PBL teaching in primary schools, improves teaching equipment and teacher allocation in underdeveloped areas, and increases the number of PBL teaching pilots across the country. Third, the Bureau of Education set up a PBL expert group to conduct regular lectures and inspections in pilot primary schools, pointing out and optimizing problems in the application of PBL teaching methods. Fourth, the school introduces PBL teaching management norms, manages formal PBL teaching practice, and promotes the scientific and systematic development of PBL practice.

5 CONCLUSION

PBL is more profoundly significant to support the reform of China’s basic education mode and train talents to adapt to the new era against the backdrop of ongoing progress in basic curriculum reform and more and more comprehensive requirements for students’ training. Since PBL is not commonly used in primary schools, which are the critical years for developing students’ critical thinking, problem solving, and independent learning skills, it can fully exploit its advantages to aid students in strengthening their memory of fundamental information and consolidating what they have learned in actual problem scenarios.

This paper covers the frequent issues that arise when PBL is implemented in several disciplines in elementary schools using literature research. It summarizes the benefits of PBL teaching in foreign primary schools for the development of students’ abilities by compiling successful examples of the use of the PBL teaching technique in foreign primary schools. This study offers some recommendations to support the effective development of PBL in primary schools from three perspectives: teachers, schools, and the nation, in light of the common issues with PBL practice in Chinese primary schools.

AUTHOR CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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The study of social software dependency syndrome online in undergraduates—taking the LOFTER of Netease as an example

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ABSTRACT: The research on collaborative content creation is one of the hot topics in today's research, but there are still certain gaps in the research on the content platform of collaborative content creation; therefore, the authors chose LOFTER as the research object. LOFTER originated from the word loft and is a Chinese collaborative content creation website. This paper collects data related to the use of LOFTER by undergraduates and conducts content analysis and questionnaire analysis on the data to explore the reasons for the dependence of undergraduates on collaborative content creation in LOFTER. The results show that the increase in the number of secondary works created by producers is more conducive to the formation of exclusive language within the circle, thereby separating part of the external environment. On the contrary, an increase in the number of works will reduce its dependence on LOFTER. This may be due to the quality of the work within the community and exclusive language to bring a sense of belonging. In the Internet era, the reasons for relying on content platforms are also diverse. This environment may lead more people to be willing to learn about this culture and create their own productions, providing opportunities for the development of it.

Keywords: Collaborative Content Creation, LOFTER, Emotional Labor

1 INTRODUCTION

With the rapid development of social media and platforms, collaborative content creation has become part of the popular consciousness form niche circle culture. The original hardcore fans have local enclosures and new fans to join. As the most attractive platform for collaborative content creation in the Chinese mainland, LOFTER of Netease has organized plenty of these fanatics. According to the Core Information and Interpretation of Health Education for Adolescents in China (2018 Edition), Internet addiction refers to the uncontrolled behavior of impulsive Internet use without the action of addictive substances, manifested as excessive use of the Internet leading to obvious academic, occupational and social impairment (The Central Committee of the Communist Youth League 2018). The strong atmosphere of collaborative content creation in LOFTER is the most attractive feature that leads the undergraduates become addicted.

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The word collaborative content creation derives from “どうじん” in Japanese, dating to the Meiji period at the earliest. It means that mass audiences create new works, based on their understanding and interests. This behavior can give a new ending to characters and make up for regrets in their minds. Collaborative content creation is defined as a production by themselves without commercial influence. In popular parlance, that is creation for love. Collaborative content creation is a subculture that is different from the dominant culture.

Subculture was brought forward by Milton Gordon who was an American social scientist in the earliest time (Michael 2017). Subculture is just another culture relative to the dominant culture. Because of their difference, the subculture only prevails in certain communities and has a certain value system of culture, life, and thought (Chen 2023). Apart from its uniqueness, this circle needs people to have a steady stream of output, set up a relationship, and form a certain value and emotion recognition. This may lead to the development of participatory culture.

“Participatory Culture” was first proposed by American communication scholar Henry Jenkins in the book “Text Poachers: TV Fans and Participatory Culture” (Henry 2016). The platform Web 2.0 refers to a new type of media culture style that is free, equal, open, inclusive, and shared by actively creating media texts, disseminating media content, and strengthening network exchanges through a certain identity (People’s Daily Online 2017). The user has a strong influence by collaborative content creation in LOFTER. Emotional labor is the second creation of people’s favorite characters or characters, continuing the original storyline, creating works to publish on the platform, and triggering discussion and love in the virtual community.

The word “emotional labor” was proposed by American sociologist Hochschild in his book “The Managed Heart: The Commercialization of Human Feelings” (Arlie 2020). Emotional labor refers to workers who not only engage in physical labor but also need to invest emotions in it (Fang & Zeng 2021). In the practice of emotional labor, workers constantly affirm themselves, give full play to their talents, use likes and passions as the driving force of creation, build online communities, and obtain an extremely consistent sense of identity.

In August 2011, Netease released LOFTER, a content platform mainly in the form of light blogs, on Weibo. On September 6 of the same year, LOFTER was officially launched and launched closed beta. At this stage, LOFTER implemented an invitation code access mechanism, and the first users invited to join LOFTER were mainly emerging photographers, directors, and creative designers. It is the peculiarities of these workers that give LOFTER its original character.

After the closed beta period, LOFTER was officially launched, and because of its vertical interest attributes, it was widely welcomed in all aspects at the beginning of its launch. The LOFTER prototype Tumblr was acquired by Yahoo in May 2014, and the original Tumblr users followed, which won more attention for LOFTER. LOFTER’s field is also developed from photography, anime, and painting to film, life, collaborative content creation, and food (Zhou & Liu 2016).

In order to explore the “subculture” communication of interesting groups, the authors focus on a deeper refinement of the case platform of the study and select a more niche social media platform with a more prominent type of information dissemination. Through the collation of literature, it is found that the spread of Netease LOFTER platform for collaborative content creation is more obvious, and has higher user stickiness. Subsequently, searching for the keyword “LOFTER” on the CNKI platform, it was found that there were not many relevant literature, and the platform attributes were more obvious, with only 28 major studies on LOFTER and 265 studies on collaborative content creation.

On the whole, it is more appropriate to use the Netease LOFTER platform as the case platform for this study. Because there are certain difficulties in obtaining data on the platform, there is currently very little data that can be directly found to judge the addiction of LOFTER users, and the age is relatively long, which is not suitable for the current analysis and judgment.

Therefore, this paper chooses the number of download in mobile app a store and the number of the people participating to deliver story and discussions as standards for assessment.

By means of questionnaire, the authors take the LOFTER of Netease as an example to analyze the reason why the undergraduates depend on collaborative content creation. The main content of this paper is to find out what makes the undergraduates love this culture in LOFTER. The authors carefully browse the platform, gather the data of it as a subject, and download it with pertinent use. The authors find out some experience and inspiration.

2 SUMMARY OF REFERENCES

Internet dependency is a slight form of excessive Internet access behavior, somewhere between normal Internet access and addiction. Users who initially become dependent may not show typical addiction symptoms, but psychologically already show the trend of relying on the Internet (Xiang *et al.* 2022). It is mainly manifested by its continuous and frequent use of the Internet and its products under the guidance of its strong willingness to use it. It causes the user to extend longer unchecked. Social media is essentially an Internet product. How does it cause the user's dependence? Liu Baixi replied that to be profitable, social media platforms will have to be constantly optimized and upgraded. It will pursue traffic for the purpose of improving its own attractiveness, so as to enhance the degree of user dependence (Liu 2022).

The specific measure of the platform is to personally provide the most popular information of users on the mobile terminal after fully understanding the users. Liu Baixi mentioned that social media platforms use big data technology to analyze users' usage records and push highly targeted relevant content for users. This behavior will continuously increase the user's usage time, eventually leading to its dependence on the platform (Liu 2022). Lv Xin put forward in the literature that users can form deeply sticky Internet products because the multi-dimensional inner protective circle of users has been broken (Lv & Wang 2019).

In some social media, there are many users with the same interests and values gathered. They are keen to share their own creations. They constantly communicate and interact on the platform to form interest aggregation and produce interest communities with interest groups as the main body. The fun group has its own way of information dissemination on social platforms. Cai Qi said that their way of information dissemination is based on a relatively closed group form to discuss related topics, and the other is based on individual social relations networks to spread relatively open information (Cai 2015). In such a mode of communication, the fun group will constantly produce the subcultural content that they are interested in, thus enhancing the existence of their own value. This leads to a greater reliance on the platform.

About the spread of collaborative content creation, Zhang Jiaqian mentioned some contents in the literature (Zhang 2022). She said that the creative motivation of collaborative content creation is based on the creators' value identification and satisfaction with the original works. Under the future expectations of the creators and disseminators of the love and career of the characters in the works, creators create works that match the user own values or arouse user interest (Zhang 2022). With the continuous progress and updates of social media, collaborative content creation has also developed in communication. Zhang said that after the creators released the second creation works on the platform, users discussed, shared, and expressed their opinions (Zhang 2022). In communication, they enhance the emotional interaction and deepen the degree of mutual understanding, thus obtaining emotional and value recognition. These behaviors enhance the willingness to group activity and cause users' dependency (Zhang 2022).

LOFTER, a social media, has gathered many fun groups who love collaborative content creation. They have become the active users and the main creative force of this platform. Zhou Yifan and others mentioned that the development strategy of LOFTER is conducted with the hashtag of "picture social networking" (Zhou & Liu 2016). Regarding the information dissemination mechanism of LOFTER, Hu Zewei also gave the answer in the

literature (Hu & Zhang 2019). He summarized it into three points: the subdivision of communication content, the simplicity of interaction mode, and the enrichment of online and offline theme activities (Hu & Zhang 2019). Through the above ways, LOFTER not only integrates and improves the communication mechanism of the platform, but also clarifies the differences between its own platform and other social media. It achieves different and differentiated competition.

Zhang Xi also studied the user push mechanism of the LOFTER in the literature (Zhang 2022). She said that users had already chosen their interest tags when they signed up. LOFTER is based on the user's interest tags and according to the user in the use of the content interested in the praise, interaction, and sharing, thus giving users more accurate content push. As a result, users will repeatedly use fragmented time, which will lead to prolonged use and dependence on the platform, as well as addiction to its content. (Zhang 2022). In addition, the marketing of the fan economy and the official collection of the platform content are also the reasons for users' dependency developed by Zhang Xi in the literature (Zhang 2022).

3 METHOD

3.1 Content analysis method

The citation in this literature mainly comes from CNKI. The authors collected relevant literature by searching keywords and narrowing the range. The authors use taxonomy to identify the resource and category of literature. First, the method comes from the platform. Second, they are divided into seven parts, including core journals, general journals, dissertations, conference papers, newspapers, and books. Finally, the authors analyze their high-relevance parts and quote them into this literature.

In the course of searching the literature, the authors search lots of keywords such as IAD, social software dependency syndrome, subculture, collaborative content creation, and so on. In the process of organizing and summarizing, the authors find two phenomena. First, some platforms exist for the communication of subculture, and some users are addicted to them. Second, regardless of the information publishers, readers, and disseminators, they are always based on their own hobbies performing social acts. Some of them publish-secondary creations and communicate with other fans in the comments section. This is the method they keep their affective commitment.

3.2 Model

In order to make the variables and related factors in the study becoming clearer, this study designed the following model (Figure 1).

The independent variables in this model are emotional labor, participatory culture and number of works viewed. The dependent variable of this model is the value identity of character, circle barrier, and dependency.



Figure 1. The relationship between parasocial relationship and dependency (Picture credit: Original).

According to studies of the former, fans of content creation construct a relationship with stars or their characters. This relationship improves their favor of Participatory Culture. At the same time, Parasocial relationships also impact the number of works they view (Wu *et al.* 2021). So the authors divide this problem into two parts: one is the impacts of Participatory Culture, and the other is the impact of the quantity of works they read.

By reading the past literature, the authors find that some offline events and ceremonies are used to gain a sense of belonging. For example, *Tomb Raider*, a Chinese genre fiction, has a lot of events. The fans of this novel have a special festival, called 'Dao Mi Jie'. Every year, on the 17th of August, they change their social media avatars to show their love for the characters in this fiction (Yan & Gao 2021). This is not an incidental phenomenon. On the LOFTER, almost every community has their own events. Most of them are joint text and joint drawings. They often publish works on commemorative days, such as Valentine's Day, Tanabata, Christmas, national holidays, and characters' birthdays. They use this action to show their love.

In spite of this, according to the information, they have their own language. This language only the people who contact with them often could understand. They use this way to improve their sense of identity (Li & Wang 2022). There are even innovations in their languages. For example, in the past years, they have used 'taitai' or 'dada' to show their love of homoerotic creators, but in recent years, they have created a new word called 'laosi'. It is another pronunciation of a teacher in China. This is a part of Emotion Labor. This labor forms an invisible barrier in the circle. It helps them screen people who are similar to them.

In conclusion, this literature puts Participatory Culture, Emotion Labor, and Circle Barrier on one side. This research is devoted to finding their relevance. Writers also want to find the relevant number of works viewed and value identity of the character.

3.3 *Questionnaire*

This research mainly uses questionnaires to survey the participants of collaborative content creation on the LOFTER. The authors distribute questionnaires to the users from 2023.5.13 to 2023.5.17. The sex, age, and their living place are not restricted. The only aspect the authors command is the situation of their degree. The authors only give questionnaires to undergraduate students. They all have a usage history of LOFTER in that month. This survey is anonymous.

In this survey, the quantity of valid questionnaires writers collect is 401. Answers' focus on the age range of 17–24 (93.52%), with the majority being 17–20 (57.11%). Their grades are evenly distributed among freshman and senior students. In terms of the year, the largest proportion of respondents (42.14%) reported using LOFTER for 4–5 years. This aligns with the information presented in other lectures.

The main tool writers use is Questionnaire Star. The writers have collected the data from the internet. The authors analyzed the data by using SPSS 27.0. The function the authors use is reliability, validity, and correlation analysis of independent and dependent variables.

4 DATA ANALYSIS OF THE QUESTIONNAIRE

4.1 *The analysis of reliability and validity*

Reliability is an index that can examine the dependability of the samples and the consistency of the consequences. It can reflect the results of the experiment and measure how stable they are, and how real features of measured objects are. Cronbach's alpha is currently the most common evaluation index to appraise the consistency of the questionnaire. The value of the standardized Cronbach's alpha is between 0 and 1. The closer the coefficient value is to 1, the higher the internal consistency of the questionnaire is, and the more reliable the results are.

Table 1. Reliability analysis.

Cronbach's alpha	Number of terms
0.837	16

This study analyses the reliability by means of SPSS27.0. As Table 1 shows that all the dimensions of Cronbach's alpha is 0.837, it is observed that this questionnaire has a high level of reliability, and has a great consistency in it.

The validity is an index of how accurately the questionnaire reflects the features of measured objects. In other words, it is the effectiveness and correctness of the questionnaire. The higher the validity is, the more realistic the actions of objects are. This questionnaire will be more correct and effective. For this examination, the value of KMO and Bartlett's Test of Sphericity is the comment index. Generally speaking, the ideal value is greater than or equal to 0.9.

Table 2. KMO and Bartlett's test.

KMO sampling appropriateness measure		0.908
Bartlett's Test of Sphericity	Approximate chi-square	2019.950
	Degree of freedom	120
	significance	0.000

According to Table 2, the value of KMO in this table is 0.908, greater than 0.7. The significance of Bartlett's Test of Sphericity is 0. This value conforms to the standard. They can reflect that the questionnaire has a high level of validity.

In the process of analysis, the authors examine all the effective questions, excluding the demographic routine variables and skipped questions. The authors use principal component analysis and Caesar's normalized maximum variance method to form a rotating component matrix.

It turns out that question 32 has not passed the examination, because the load is higher than 0.5 at two latitudes at the same time, belonging to the invalid one. The loads of rest questions are only higher than 0.5 at a single latitude, belonging to the valid. The rest questions pass the examination and need to be reserved.

Based on all the above analysis, the 4th, 5th, 6th, 7th, 8th, 9th, 15th, 16th, 20th, 25th, 30th, 35th, and 36th questions belong to dimension 1 (emotional and value identification), the 31st question belongs to dimension 2 (the number of view of the work), and the 29th question belongs to dimension 3 (degree of dependence).

4.2 Correlation analysis of independent and dependent variables

This paper uses linear regression to explore the correlation between emotional labor, circle barriers, and dependence. The authors choose the frequency of generating works for love in the 20th question as emotional labor, the language that can only be understood by the people in this circle in the 25th question as circle barriers, and the increase of love for the character because of the attention of others. The authors will select them for analysis.

Table 3. Model summary.

Model	R	R Squared	R squared after adjustment	Errors in standard estimates
1	0.361 ^a	0.130	0.128	1.218

Table 3 indicates that the value of R squared in the model is 0.13, and the value of R squared after adjustment is 0.128. It means that the frequency of generating works for love can illustrate the 12.8% change in the circle that other circles cannot understand language.

Table 4. Coefficient^a.

Model		Unstandardized coefficient		Standardized coefficient		
		B	Standard error	Beta	t	Significance
1	Constant	1.1612	0.133		12.089	<0.001
	The frequency of generating works for love	0.370	0.048	0.361	7.720	<0.001

Depending on Table 4, the significance analysis P value of the loved-work generation frequency to the language in a certain circle is less than 0.001, indicating that they show a significant influence relationship.

Associating with the regression coefficient B value, B is a positive figure that is 0.370, indicating that the loved-worked generation frequency influences positively the form of circle barriers.

Table 5. Model summary.

Model	R	R Squared	R squared after adjustment	Errors in standard estimates
2	0.574 ^a	0.330	0.328	2.229

Table 5 indicates that the value of R squared in the model is 0.330, and the value of R squared after adjustment is 0.328. It means that the frequency of generating works for love can illustrate the 32.8% change in increasing love for the character because of the attention of others.

Table 6. Coefficient^a.

Model		Unstandardized coefficient		Standardized coefficient		
		B	Standard error	Beta	t	Significance
1	Constant	3.5111	0.244		14.378	<0.001
	The frequency of generating works for love	-1.232	0.088	-0.574	-14.020	<0.001

Depending on Table 6, the significance analysis P value of the loved-work generation frequency to increasing love for the character because of the attention of others is less than 0.001, indicating that they show a significant influence relationship.

The regression coefficient B value is a negative figure, specifically -1.232. This indicates that the frequency of loved-worked generation has a negative influence on the increase of love for the character because of the attention of others.

5 DISCUSSION

This questionnaire shows that undergraduates do not feel better about belonging to their own circle and prefer roles because of the attention their work receives. In that way, developing their relevant feelings is a vital event, and it improves the significance of this survey. By analyzing the differences between the undergraduates, the authors will find out various tendencies, views, and attention. Furthermore, it will estimate the degree of similarity between character's features and real person, and the infatuation of characters in different circles. These factors may influence the frequency of generating works for love.

As a result, the correlation analysis indicates that the frequency of generating works for love positively correlates with the form of circle barriers. That means the higher the frequency of generating works, the higher the possibility of the form of circle barriers. Besides, the frequency of generating works for love negatively correlates with increase of love for the characters because of other's attention. That means the higher the frequency of generating works, the lower the increasing love for the characters with other's attention.

This paper has these conclusions. First, the fewer attractive published works lead users to be addicted to the function of collaborative content creation in LOFTER. Second, users form the circle barriers because of the language, which creates emotional labor. The feeling of safety brought by these circle barriers leads to addiction and dependence.

The lack of published works can lead users to become addicted to the function of collaborative content creation. First, the authors argue that too much attention can cause creators to experience increased mental pressure. As a result, they may hold themselves to a higher standard and limit their output. They could be so precise about their productions. In addition, the community atmosphere causes the users to be unwilling to publish their work. When the user as a new one comes into it, some crazy and critical opinions criticize and censure originators whose work is seen as an awful one. For the above cases, the platform should have given them a correct indication. If anyone has a meaning of personal abuse, they will be punished in some way. This can create a harmonious atmosphere and be more suitable for originators to create. The platform needs to push useful content for the originators who have sometimes no idea.

Circle barriers formed by certain languages make users more addicted. The authors consider the users to have an exclusive style of communicating their emotions and values. This provides a high sense of safety, identification, and affiliation. The users can change their ideas and learn more about the same favorite character. The platform needs to grasp which kind of content is popular with users at current time. On this basis, the platform could hold some creative activities, which can develop their interests, offer a communication channel, and boost users' activity.

6 CONCLUSION

This article researches the dissemination of collaborative content creation, especially about the reason for dependence. Nowadays, the speed of internet development is becoming higher. The dissemination of collaborative content creation is becoming more extensive than before. Creation, conversation, and discussion increase quickly. This article gives a new reference to this topic. It is meaningful.

However, this article also has limitations. For the model, correlation analysis of independent and dependent variables is not proven. The authors examine the data and the process, but nothing is found. This result is different from the research by other teams. However, the authors also do not know the reason. Considering the number of authors' study, it is a limitation. Only the undergraduate students answer the questionnaires. In the future, other teams can survey more ages.

Overall, with the development of internet skills and the constant emergence of various social media platforms, the opportunity for individuals to create their own lectures for free has become possible. However, this also poses a challenge to the continued development of social media. It requires the tireless efforts of many people.

AUTHOR CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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Teaching method in primary and secondary school classrooms from the theory of multiple intelligences

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ABSTRACT: Education is important for national development. The development of quality education is an important aspect of the nine-year compulsory education implemented in China. Quality education is an education that promotes the comprehensive and individual development of students. The teaching of primary and secondary school teachers of various subjects also put forward higher requirements. But under the influence of Chinese traditional education, teachers only use scores as the sole criterion to evaluate students but ignore the individual differences of each student. Under the guidance of the theory of multiple intelligences, teachers play different teaching methods according to different students' superior intelligence. The present study reviews the important results of previous studies on multiple intelligences. This paper puts forward some suggestions on teachers' individualized teaching plan from five aspects: speech language intelligence, mathematical logic intelligence, visual space intelligence, body movement intelligence and music rhythm intelligence, so as to promote teachers and students to grow up and make progress together.

Keywords: Multiple intelligences, Superior intelligence, Education and teaching, Teaching method

1 INTRODUCTION

Based on the relevant literature from China and foreign countries, American educationist and psychologist Howard Gardner put forward the theory of multiple intelligences in 1983. Different documents from different disciplines, e.g., language, mathematics, English, art, music and so on, study the relationship between multiple intelligences and education and teaching, throughout all stages of learning from primary to high school. This has an important influence on our country's education enterprise also impels our country's education enterprise to reform, has provided a new mentality for teachers' education teaching (Zhang 2018). The theory of multiple intelligences has two core viewpoints of education and teaching: "using multiple intelligences to teach and learn" and "teaching and learning for multiple intelligences". Using Multiple Intelligences to Teach and Learn "means to admit the intelligence difference between students, so that we cannot teach and require each student with a unified teaching method and testing standard, but to design the best learning strategy suitable for each student to teach and achieve the best learning effect." Teaching and learning for the sake of multiple intelligences is a problem of educational aim, that is, we should not only cultivate the individual differences among students, but also pay attention to their all-round development. Therefore, the theory of multiple intelligences is the best interpretation of the concept of "quality education" – the unity of personality development and all-round development (Zhu & Zhang 2005). Under the guidance of the theory of

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multiple intelligences, it is of positive significance for teachers to teach students according to their aptitude, and to promote the coordination and unity of personality development and all-round development.

2 OVERVIEW OF THE THEORY OF MULTIPLE INTELLIGENCES

2.1 *Basic contents and characteristics of multiple intelligence theory*

According to the theory of multiple intelligences, there are eight intelligence types: speech intelligence, mathematical logic intelligence, visual space intelligence, body movement intelligence, music rhythm intelligence, interpersonal communication intelligence, self-cognition intelligence and natural observation intelligence (Liu 2014). Of the above eight kinds of intelligence, the first two have always been the focus of school education; the third, fourth and fifth kinds of intelligence play an outstanding role in art; the sixth and seventh kinds of intelligence are closely related to “human existence”, which are greatly influenced by the individual uniqueness and social cultural history. The last type of intelligence was discussed by Professor Gardner in his annual publication, *Refactoring Intelligence*. He also points out that the list is temporary, that each intelligence has its own unique domain, and that there may be undiscovered intelligence, e.g., intelligence, spiritual intelligence, etc. (Liu 2014).

Multiple intelligences have the following characteristics: Firstly, for universality, each person has eight relatively independent potentials, combined in multiple ways to form a complete set of intelligences that interact and function as a combination. Secondly, for developmental with proper methods, individual intelligence can be improved and enhanced by acquired training. Thirdly, about differences, Due to the different living environment and educational level, not only will there is no person with the same level of intelligence, but also different levels of individual intelligence, the combination of intelligence has its own characteristics (Weng 2022). Fourthly, for practicality. According to Gardner, intelligence is “the ability of individuals to solve real problems and produce and create effective products needed by society in a sociocultural context”. In real life, people have to face many problems every day, so the key to the practicality of the theory of multiple intelligences is how to use multiple intelligences or the combination of multiple intelligences to solve the problems people face in daily life. The practicality of multiple intelligences is to cultivate students’ practical ability (Qin 2017).

2.2 *The importance of multiple intelligence theory in teaching*

Under the background of quality-oriented education, the theory of multiple intelligences plays a more and more important role in promoting the teaching of art courses. Applying the theory of multiple intelligences in education and teaching, on the one hand, teachers can find students with different predominant intelligences in time, and provide them with pertinent development opportunities. On the other hand, teachers can also help students with learning difficulties in some subjects with the help of the theory of multiple intelligences, which plays an important role in cultivating and improving students’ learning abilities (Wang 2023).

The theory of Multiple Intelligences is based on the human intelligence, which is of great significance to the cultivation of high-quality talents. Under the influence of traditional educational ideas, the educational and teaching system often judges students’ learning ability by their achievements. Based on the theory of multiple intelligences, human intelligence is composed of various intelligences. Therefore, the evaluation of schools and teachers on students’ learning ability and learning situation should be diversified. In carrying out education and teaching work, schools should adjust the proportion of the scores of paper-and-pencil tests to student evaluation, and pay attention to cultivating students’ different intelligences in learning (Wang 2023).

3 TEACHING STRATEGIES OF MULTIPLE INTELLIGENCES THEORY IN PRIMARY AND MIDDLE SCHOOLS

3.1 *Measurement of multiple intelligences*

In order to develop and make use of students' advantage intelligence, teachers should first understand students' advantage intelligence and disadvantage intelligence. At present, there are two main ways to understand students' dominant intelligence: one is the self-assessment test, which allows students to determine the type of dominant intelligence by answering a series of questions related to speech language intelligence, mathematical logic intelligence, visual space intelligence, etc. The other is the observation method, whereby teachers observe and understand students' life, study, teaching and extracurricular activities in a purposeful and planned way, so as to determine the type of dominant intelligence of students. Students with a certain tendency of superior intelligence will have different specialties in life and study. Teachers can establish intelligence files for each student according to their performance, and then combine the answers to the test questions answered by the students to determine which type of superior intelligence a student belongs to (Liu 2003).

3.2 *Typical performance of dominant intelligence*

The students who have the advantage of language intelligence like to listen, to read and to write, to spell easily, to play with words, to do things in order, and to have a good memory for trivia. Advantage is the mathematical logic intelligence of students: like the computer, abstract thinking, computing, organization, like to solve problems, take notes organized. Students who are good at imagining, like art, e.g., sketching, drawing, carving, can easily look at maps or other charts, image thinking ability, color sense. The students who have the advantage of physical exercise intelligence have better reaction ability, learn some sports events faster than others, like to participate in sports activities, like to do manual work, can better control their body and time. Students who have the advantage of musical prosodic intelligence are sensitive to tones, rhythms and melodies, and are sensitive to the emotions and complex structures expressed in music (Liu 2003).

4 SUGGESTIONS FOR PERSONALIZED TEACHING PLANS

4.1 *Personalized teaching for students with superior intelligence and speech language intelligence*

Mathematics teachers can keep mathematics diaries so that students can keep a record of their understanding of certain mathematical problems and new insights arising from learning new knowledge. Using the form of mathematics diary, teachers can timely find students' learning problems, and can help students solve problems in time. Students can also express their inner voice, deepen the understanding and grasp of various knowledge of mathematics (Gu 2015).

Teachers in the art classroom create "inspiration and guidance, teacher-student cooperation and exchange" teaching atmosphere as much as possible. Teachers in the classroom require students to appreciate art their works, appreciation. Teachers can let some strong language skills of students express their views and understanding of art. Then, let the students with weaker language abilities appreciate and comment on the works. In the process of art teaching, teachers should insist on students as the main body, give students more opportunities to exchange, performance, and allow students to boldly express their views (Liu 2018).

In music appreciation class, teachers can create language intelligent learning environment. For example, in the teaching of "Dance of the Yao Nationality", students can arrange

Chinese ancient poetry according to the music situation. After listening to the music, students can talk about their understanding and understanding of the Yao Nationality. Teachers connect knowledge and content from music and other disciplines to promote students' interdisciplinary learning (Xiong & Fang 2022).

4.2 *Personalized teaching for students whose superior intelligence is mathematical logic intelligence*

Teachers can design effective Q&A to help students develop their thinking step by step. Teachers can also use a variety of logical frameworks to help students sort out knowledge points, knowledge and structure.

In language learning, teachers can design a series of effective classroom questions and then guide students to compare texts that have something in common (Zhao 2022; Zhou & Sun 2016). Teachers should also pay attention to the pluralistic evaluation of students' answers after students answer questions, inspire students' thinking, promote classroom teaching, guide students' thinking from the surface to the deep, and enhance the deep and agile thinking (Zhao 2022). When learning certain texts with similarities, the teacher can lead the students to compare and analyze their connections and differences (Zhou & Sun 2016). Teachers use the advantage of logical intelligence to promote students' understanding and learning.

In English learning, teachers can guide students to use logical frameworks to sort out the learning content, e.g., attribute networks, timeline, mind map, and so on (Hu 2021). This will help students sort out the old knowledge, learn new knowledge and improve learning efficiency.

4.3 *Personalized teaching for students with superior intelligence and visual spatial intelligence*

Teachers in classroom teaching can use the following three methods of students' visual spatial intelligence to promote the learning of other subjects: 1. Teachers help students turn book knowledge into graphic images, allowing them to imagine with their eyes closed, and creating their own "inner blackboard" in their minds. 2. Colour notation. Teachers and students use different colored pens to mark the blackboard or study materials, and use color to emphasize rules or categories, e.g., red to mark the theme, green to mark the auxiliary data, and yellow to mark the ambiguous parts. When students encounter difficulties, they can use their favorite colors to ease the tension. 3. Graphic metaphor. Teachers guide students to express their thoughts through visual imagery. The educational value of metaphor lies in establishing a link between the students' known knowledge and the unknown knowledge. Developmental psychologists believe that children are masters of metaphor. This ability often disappears with age. It would be helpful if teachers, by tapping into their potential, could help students to acquire new knowledge and focus, and then associate ideas with a visual image, conceive complete metaphors themselves, or develop their own metaphors (Liu 2003).

In language learning, visual spatial intelligence helps students better understand and master the space-time background of ancient poetry and classical Chinese. For example, when learning Su Shi's "Niannu Jiao · Chi Bi Huai Gu", teachers can show students the war situation map of the Three Kingdoms period, thus promoting the enthusiasm of students. In addition, teachers can use mind maps to express their ideas in writing, so that the logic of the article is clearer and more reasonable; in explaining social science articles that are difficult for students to understand, teachers can use color markers, pictures, multimedia and other tools to create a visual learning environment for students, so that the relevant content can be more vividly displayed in front of students, so that rigorous science has the temperature of culture (Zhao 2022).

In English learning, students can draw pictures of spatially and visually relevant English words e.g., fireworks, broadcasts and celebrations in textbooks, and describe what is observed in visual space by reading pictures (Wang & Chen 2022).

4.4 *Personalized teaching for students with superior intelligence and physical movement intelligence*

In class, teachers use physical activity to focus students' attention. Students learn through the neuromuscular coding of their bodies to enhance memory. People have "muscle memory", which can be effectively applied to the study of various disciplines. The combination of body action learning activities with the study of language, mathematics, English and other subjects can not only enhance students' memory and understanding, but also help students see learning as an "easy" thing. In teaching, teachers may express their ideas by means of body answers, classroom theatres (e.g., plays and puppet shows), action awareness (e.g., guessing activities), action thinking (e.g., making physical objects), body diagrams (using body to express ideas), etc., so as to provide students with opportunities to operate and practice (Liu 2003).

The Chinese teacher can choose excellent text to rehearse the play, train the student in the movement language, the written language utilization. These effort can enable the student in the positive thinking activity to appreciate the author to plot the design and the arrangement as well as to the character mold and the description, thus better understanding work style characteristic, appreciates the author to the work unique creation. At the end of the rehearsal, the teacher should ask the students to try to write a short composition, which could be their own experience after the performance, their own understanding of the role of the play, or their own experience of watching the film as an audience. In addition, teachers can also guide students to do some similar "you row I guess" small game, let students use body language to explain idioms or ancient poetry., and use physical intelligence to promote language learning (Zhao 2022).

In English learning, students can imitate and act out relevant words in the vocabulary, e.g., light off fireworks, cheer, broadcasts, etc., in textbooks, ask other students to guess relevant actions in English, and make relevant English words, sayings or idioms into study materials cards. Students are encouraged to use body language to communicate with other students. (Wang & Chen 2022).

Various figures often appear in art works. Teachers can guide students to perform, imitate and act on the contents and figures of the pictures. When teaching the lesson "Qingming Shanghe Tu", there are a large number of character images in the painting. The teacher arranged for students to role-play the character images in this work. Students use role-playing to speculate on the character's personality and psychological characteristics, further deepening their understanding of the work. This method not only enriches the teaching form, but also deepens the students' comprehension and understanding of the work (Liu 2018).

4.5 *Personalized teaching for students with superior intelligence and music rhythm intelligence*

Teachers can use the following methods to integrate music into classroom teaching: 1. Rhythm, songs, beat and singing. Students can also summarize or apply the knowledge of the subjects to songs, poems or allegro to make their knowledge more profound. 2. Super-memory music. Teachers play rhythmic background music, so that students are in a relaxed state of learning, can help students remember the knowledge. The most effective are four quarters of the classical music. 3. Conceptual approach to music. Using musical tunes or rhythms as a tool for expressing concepts, rules, or outlines creates opportunities for students to express themselves with a rich imagination. 4. Emotional music. Matching a unit or course with emotionally charged background music, whether classical or modern, sound

effects or natural sounds, e.g., a recording of a wave before reading a story about the sea, the call of a seagull, etc. (Liu 2003).

Introducing music into language teaching can not only activate the classroom atmosphere, but also help students develop their intelligence. Take the teaching of Shui Diao Ge Tou as an example. The teacher can first play the song “I Wish You Live Long” in the introduction stage to arouse the students’ interest. In addition, teachers should encourage students to use music to express their favorite poetry, enhance aesthetic ability and accomplishment (Zhao 2022).

In English learning, teachers can guide students to sing English songs, imitate English movies, imitate English tapes and make English music programs (Xu 2014). Students are free to recommend English songs e.g., “Happy New Year” to learn to sing or watch English movie clips related to the New Year (Wang & Chen 2022).

In the mathematics teaching, the teacher may help the students study mathematics through the strong rhythm. For example, when teaching the complete square formula, the teacher can use the formula “square head, square tail, two times between the head and the tail put”. The formula has a strong rhythm, which is easy to remember. Students practice several times, can achieve a good memory effect, and can be a simple application of the complete square formula (Gu 2015).

In the art class, the teacher introduces the related music element when playing the picture of the art, enlivens the classroom atmosphere, stimulates the student to study the interest, helps the student to be able to understand the art significance and value thoroughly. For example, when appreciating the works of the Dutch painter Mondrian, the teacher can play jazz while allowing the students to explore the relationship between the painting and the music and let the students express their thoughts and feelings (Liu 2018).

5 CONCLUSION

Based on the theory of multiple intelligences, it has a positive significance and important role for teachers to carry out education and teaching. The theory of Multiple Intelligences provides theoretical guidance for teachers to carry out quality education. Teachers respect individual differences of students and teach students according to their aptitude. Teachers not only improve the quality and effectiveness of teaching, but also assist students in their comprehensive development of morality, intelligence, physical fitness, and aesthetics. However, when teachers use the theory of multiple intelligences, they should not only pay attention to the theory of multiple intelligences to guide the teaching practice, but also pay attention to the students’ learning attitude, learning methods, learning progress, and conduct a diversified developmental evaluation, instead of the fractional theory and the merit theory.

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More than cute nicknames: Understanding animal metaphors in Chinese fandom through symbolic interactionism

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ABSTRACT: In recent years, online Chinese fandoms have embraced using animal metaphors like “bunny” or “kitten” to represent pop idols affectionately. Through an analysis of the Detective Academy fandom on Weibo from the perspective of symbolic interactionism, this study examines how fans assign personalised metaphorical meanings to associate idols with specific animal symbols. It investigates how this meaning-making process around animal metaphors facilitates social bonding between fans and shapes group identity within the fandom community. Additionally, it explores how animal metaphors enable fans’ identity exploration and emotional expression by allowing them to project desired qualities onto idols while modelling powerful caretaker roles for themselves. The study compiles prevalent metaphors attributed to Detective Academy cast members through participatory observation of the Weibo fandom community and textual analysis of posts. Findings reveal that fans actively construct subjective interpretive meanings for metaphors based on idols’ attributes, strengthening emotional expression and deeper bonding between fans and idols. Shared animal metaphors facilitate a sense of belonging, unity, and a common identity among fans. Furthermore, the integration of personalised animal metaphors also allows fans to project desired qualities onto idols and illuminates how meaning is incorporated into the construction of identity.

Keywords: Animal metaphor, symbolic interactionism, online fandom, social media in China

1 INTRODUCTION

In recent years, the practice of fans using animal metaphors to represent idols has proliferated across online Chinese fandoms. Terms like “bunny” or “kitten” are affectionately applied to describe idols, capturing the imaginations of devoted followers. Despite the prevalence of this phenomenon, minimal scholarly attention has investigated the cultural meanings and social dynamics behind such metaphor usage.

Prior research has explored fan activities and relationships in online spaces more broadly. For instance, studies have examined practices of social media fandoms, parasocial bonds with pop idols, and identity cultivation via online personas (Yang 2018; Yan & Yang 2021; Yin & Xie 2021; Wang 2018). However, the specific use of animal metaphors remains undertheorised.

To address this gap, this study adopts the sociological perspective of symbolic interactionism to examine animal metaphors within the fandom for the Chinese variety program Detective Academy (DA). Launched in 2017 by Mango TV, DA follows a cast of idols as they take on challenges and compete in detective-themed roleplay games or quiz games (Mango 2022). The show has cultivated an active online fandom community on platforms like Weibo.

Through participatory observation of this fan community and textual analysis of posts, this study investigates how fans assign personalised metaphorical meanings to animal

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metaphors associated with idols, how this meaning-making process strengthens social interactions and cultivates group identity, and how animal metaphors enable fans to explore facets of their own identities and emotional connections with idols. This essay will first provide background on animal metaphors, then present the theoretical framework, followed by an analysis of the DA fandom case study. By applying core tenets of symbolic interactionism, this study will elucidate the cultural significance and social functions of animal metaphors in online fan communities.

2 ANIMAL METAPHORS IN THE FANDOM COMMUNITY

Comparing a human being to an animal has old traditions in many cultures and can be found in folk mythology and religion, where an animal is represented as having intellectual and spiritual human properties or as having supernatural powers (Sakalauskaite 2010). In linguistics, animal metaphors are also called “zoometaphors” or “zoosemy” (Kiełtyka & Kleparski 2005; Sakalauskaite 2010), which refer to the phenomenon of attributing animal-related characteristics or qualities to humans, objects, or abstract concepts. Grammatically, metaphor, as in “sly fox”, is not the only option: speakers may also use simile, as in “greedy as a dog” (Sakalauskaite 2010).

The figurative or connotative meaning of animal metaphors encompasses a rich portrayal of human beings, encapsulating their age, gender, physical attributes, and spiritual characteristics (Sakalauskaite 2010). In other words, these animal metaphors carry connotations that serve to identify and characterise individuals. This linguistic concept has been extensively examined to unravel the symbolic meanings and cultural associations that emerge when animals are metaphorically employed in human communication. Within fan communities, fans utilise animal metaphors to capture and highlight the qualities and traits they admire in their idols, typically emphasising their positive attributes. By appropriating this concept, fans forge a profound emotional connection and express their adoration through these symbolic representations. Among the animal metaphors adopted by fans, the most common ones are cats (kittens), dogs (puppies), and rabbits (bunnies).

In the case of the DA fandom, fans have attributed distinct animal metaphors to individual cast members. As shown in Table 1, a comprehensive compilation of these metaphors,

Table 1. The most prevalent animal metaphors of each cast member of the DA.

Cast Member (Idol)	Animal Metaphor	Reason (Resemblance)			
		Appearance	Personality	Behaviour	Others
A	Rabbit (Bunny)	Bunny teeth; cute	Shy and clever	Jump high	
B	Fox	Smile like a fox	Smart and even sly		
C	Cat		Languid and independent	Behave like a cat when frightened	Have a pair of cat ear headphones
D	Raccoon				Former Weibo ID was “JZ the raccoon who studies love”
E	Butterfly		Social butterfly	Always dress in fancy or stylish	Once covered a song, <i>Drunken</i>

(continued)

Table 1. Continued

Cast Member (Idol)	Animal Metaphor	Reason (Resemblance)			
		Appearance	Personality	Behaviour	Others
F	Rabbit (Bunny)	Look cute and innocent	Playful but timid; clever	ways Once imitated rabbit	<i>Butterfly</i>
G	Dog (Shiba Inu)	Puppy eyes	Active, energetic and stubborn		
H	Bird (Silver-throated Tit)	Baby face but 6.1-foot-tall (Silver-throated Tit has a small body but a long tail)	Chatterbox		
I	Dog (Samoyed)	Smile like a Samoyed; good looking; personable	Friendly and mild-tempered		
J	Dog (Golden Retriever)		Intelligent, friendly, outgoing, and even-tempered (“happy-go-lucky”)		Surname means “yellow”

one can observe the wide range of choices, encompassing both familiar animals like dogs and rabbits, as well as more unconventional selections such as raccoons and butterflies. Notably, in order to segment and emphasise the differences between the cast members, fans have gone above and beyond, providing finer details such as specifying particular species or breeds associated with each metaphor. For instance, Idol G, Idol I, and Idol J are all likened to dogs. However, fans take the metaphorical representation a step further by attributing specific breeds to each idol, thereby emphasising their unique qualities like appearances, characteristics, and behaviours.

3 SYMBOLIC INTERACTIONISM AND ANIMAL METAPHORS IN FANDOM

Symbolic interactionism, first put forth by theorists like George Herbert Mead and Herbert Blumer, provides a valuable theoretical lens for examining modern fandom culture and practices (Blumer 1969; Mead 1934). This sociological perspective focuses on the importance of shared symbolic meanings and their role in constructing self-identity and social bonds (Hu 1989).

According to Blumer, symbolic interactionism is premised on three core principles: 1) that individuals interact based on the meanings they assign to people or things, 2) that this meaning comes from social interactions and is modified through interpretation, and 3) that individuals’ identities are constructed through internalising these meaning-making processes (Blumer 1969).

Unlike cultivation theory which focuses on media effects, symbolic interactionism provides more nuanced insights into the agentic role of fans in collectively establishing symbolic meanings. This study adopts this perspective to address gaps in understanding how fans redefine symbols like animal metaphors through social interactions within online communities.

In particular, symbolic interactionism suggests that fans actively assign significance to metaphors through communal exchanges, constructing a system of shared cultural symbols. It also illuminates how metaphor usage shapes fan identity and behaviour as individuals

integrate this symbolism into their self-presentation. Therefore, symbolic interactionism offers an optimal framework for examining the meanings, identity, and social dynamics of animal metaphors in modern fandom.

4 MEANING AND INTERPRETATION OF ANIMAL METAPHORS

In the context of fandom, animals carry cultural associations with specific attributes. For instance, dogs represent loyalty, while rabbits symbolise innocence. Symbolic interactionism suggests that individuals assign subjective meanings to symbols through social interaction (Blumer 1969). Aligned with this, fans reinterpret and redefine the meaning of animal symbols, selecting ones that match their idols' image in appearance, personality and other factors. Within the DA fandom, idols are associated with diverse animals like bunnies, dogs, and butterflies, as shown in Table 1. Fans perceive these animals as embodying characteristics that resemble their idols, and engage in meaning-making processes to associate idols with these symbolic metaphors based on points of alignment. This reveals how fans actively construct personalised systems of meaning through social exchanges.

For example, one of the cast members of the DA, Idol A is often likened to a bunny by many of his fans. This is not merely a superficial comparison but rather reflects the fans' shared interpretation of the idol's appearance, personality and behaviour. From an appearance perspective, Idol A possesses bunny-like incisors and an adorably cute look reminiscent of a bunny. Moreover, Idol A's shyness and cleverness further reinforce the association with bunnies, as these are typical qualities attributed to them. As illustrated in Figure 1, fans affectionately refer to Idol A as "bunny" and use words like "clever" and "cute" to capture his qualities.



Figure 1. Fan's post called Idol A "bunny". (Screenshot from Weibo).

Similarly, Idol F, also compared to a rabbit, embodies qualities that fans perceive as cute, innocent-looking, playful, and clever – the same positive characteristics associated with Idol A. The bunny metaphor becomes a meaningful representation for fans to communicate and express their admiration for both idols despite emphasising different specific traits.

In fact, while using the same metaphor, fans accentuate unique aspects of each idol, enhancing their overall image. For Idol A, fans highlight cleverness, as shown in Figure 1. Meanwhile, for Idol F, fans emphasise cuteness as illustrated in Figure 2. By utilising the same animal metaphor in these distinct ways, fans magnify the personal charisma of their idols based on subjective interpretations.

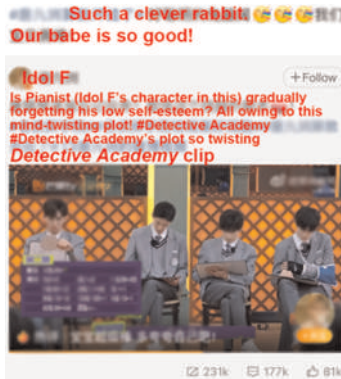


Figure 2. Fan reposted Idol F’s post and called him “rabbit”. (Screenshot from Weibo).

By engaging with animal metaphors, fans explore layers of symbolic meaning through subjective interpretive processes aligned with symbolic interactionism tenets (Blumer 1969). As linguistic analyses reveal, personalised metaphors convey the intricacies of human emotions beyond straightforward descriptive language (Kövecses 2000; Mohammad *et al.* 2016). For instance, calling Idol A a “clever bunny” represents feelings of affection and appreciation in a more nuanced way. Furthermore, shared animal metaphors strengthened affiliations between fans and idols, reflecting cultural values. The exploration of personalised symbols enables identity expression and fosters a sense of belonging. In summary, examining how fans assign individualised metaphorical meaning provides invaluable insight into the social contexts, cultural psychology, emotional experiences, and identity formation processes underlying modern fandoms.

5 SOCIAL INTERACTION AND GROUP IDENTITY

Blumer proposes that human interaction is mediated by the use of symbols and signification (Blumer 1969). This symbolic interactionist concept is seen in online fandoms, where fans engage based on animal metaphor meanings. Within the DA fandom, fans form subgroups around preferred metaphors for idols. For instance, some fans liken Idol A to a bunny while others prefer a cat metaphor as shown in Figure 3.

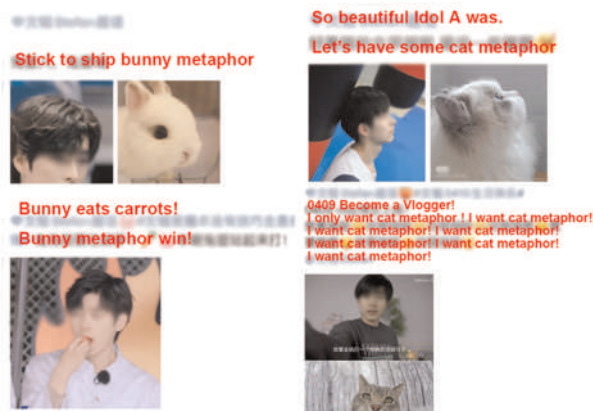


Figure 3. Fans compare Idol A to bunnies and cats. (Screenshots from Weibo).

As fans collectively discuss and negotiate the significance of animal symbols through social exchanges, a shared understanding and agreement begins to emerge. This leads to the formation of common values, norms and culture centred around the agreed-upon metaphors. The use of these shared metaphorical symbols facilitates deeper social connections between fans and reinforces collective group identity.

Moreover, prosumers reinforce symbolic meanings through creative fan works, disseminating metaphors more widely. Prosumers are those who serve as both consumers and producers of fandom content (Sugihartati 2020). Through their creative works, such as fan art, fan fiction, and fan videos, prosumers contribute to the amplification and diffusion of the symbolic meanings associated with these animal metaphors. For instance, one prolific prosumer in DA fandom has generated over 400 pieces of fan art over 1000 days, many featuring Idol B with fox attributes (see Figure 4). These posts consistently received high engagement, with over 200 likes each and top posts earning over 18,000 likes. Fans frequently reposted the fox art with comments like “Fox Idol B is so cute!” praising the metaphor. Some works are even liked by Idol B himself, further validating the symbolism. Through extensive reposts and shares of these popular fox images across platforms, the metaphor rapidly spread, endearing itself to more casual fans. The broad diffusion of the communal metaphor, as exemplified by this widely circulated fox fan art, strengthened group identity as more members integrated the fox symbolism into their own content.



Figure 4. Fan art that adds fox ears and tail to Idol B. (Screenshots from Weibo).

6 REFLEXIVITY AND SELF-IDENTITY

Animal metaphors enable fans to explore facets of their own identities and project desired qualities onto their idols. Through social interactions, fans reflect upon and adopt behaviours and self-presentations aligned with the symbolic meanings they assign to metaphors. This process of identity formation is illuminated by the “bunny” and “kitten” metaphors that fans in DA fandom frequently use. By likening the idol to a “little bunny” or “cute kitten”, fans imagine him as innocent, helpless, and in need of their protection. They strengthen this perception by pairing the vulnerable animal metaphors with affectionate terms like “babe” and “baby boy”. This metaphor usage reflects fans taking on powerful, parental caretaker identities.

The metaphors also enable self-projection, allowing fans to discover admirable qualities in idols that reflect parts of themselves or whom they aspire to be. For instance, when fans

metaphorise Idol A as a “clever bunny”, they directly praise this desirable characteristic by captioning images with phrases like “Our smart little bunny!” or commenting “A is so clever, just like a cute bunny!” By associating Idol A with an animal culturally seen as intelligent, fans implicitly emphasise the cleverness they perceive in him even without explicitly stating it.

Meanwhile, by calling Idol F a “baby bunny”, they are pretending that they are the considerate and careful parent or guardian that they want to be and adopt gentle and protective language and behaviours reminiscent of caring for a baby bunny. In this way, animal metaphors facilitate identity exploration for fans, as they model behaviours and highlight desirable traits based on the symbolic connotations of the metaphors.

Additionally, the repeated use of intimate metaphors over time shapes fans’ self-conception and emotional connections. Referring to an idol as “my baby bunny” enhances fans’ identity as devoted caretakers and strengthens their bond. Vulnerable metaphors also offer an outlet for fans to safely express protective instincts unfulfilled in daily life. Interacting with metaphorical representations provides catharsis for fans’ unmet desires.

Thus, animal metaphors enable fans to try on powerful caretaker or admired identities by projecting vulnerabilities or desired qualities onto idols. The metaphors construct a dichotomy between fans as guardians and idols as innocent figures needing protection. Through social interaction, reinforced metaphor meanings shape fans’ self-presentation and conceptions of their relationship with idols over time.

7 CONCLUSION

This study reveals how animal metaphors provide multilayered insights into modern fandom culture. The analysis indicates that fans actively assign personalised symbolic meaning to associate idols with specific animals based on perceived resemblance. This subjective interpretative process supports core tenets of symbolic interactionism regarding the social construction of meaning. As demonstrated through the examination of the DA fandom, metaphors take on connotations of attributes such as cuteness, cleverness, and vulnerability. This enables more nuanced emotional expression and deeper bonding between fans and idols compared to direct descriptive language.

Furthermore, fans’ collective negotiation of shared metaphorical symbols further reflects the formation of cultural norms and values through interaction. Shared animal metaphors facilitate a sense of belonging, unity, and a common identity among fans as evidenced by the formation of subgroups. The creation and circulation of fan content referencing agreed-upon metaphors reinforce this communal culture and language.

On an individual level, fans’ integration of animal metaphors into their self-presentation illuminates how meaning is incorporated into the construction of identity. Engaging with animal metaphors allows fans to project desired qualities onto idols and model aspirational behaviours and roles for themselves. Vulnerable metaphors especially permit fans to explore powerful caretaker identities.

However, limitations include a focus only on the DA fandom and a lack of direct interviews. Future research could apply this framework across diverse entertainment fandoms and employ ethnographic methods for richer insights. Overall, this study illuminated the multifaceted functions of creative linguistic devices like animal metaphors in fostering social connections, identity, and emotional expression within online fan communities. Exploring similar practices can shed further light on the cultural significance of modern fandoms and online spaces.

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Study on the correlation between learning stressors and coping styles in high school students

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ABSTRACT: Due to the epidemic, population growth and other social factors, the pressure on high school students has increased significantly. With the overall decline of high school students' mental health status, it is necessary to pay attention to the psychological pressure of high school students and find effective countermeasures according to the pressure sources. This study adopts the questionnaire survey method, combines the various dimensions of stressors and coping measures of high school students, discusses the correlation between academic stress and coping measures of high school students, and draws the following conclusions: There is a significant relationship between the stressors of high school students and the coping styles they adopt. The greater the pressure, the more coping styles they adopt tend to be negative. The value of stressors of females is higher than that of males, and the coping measures taken by females show a positive trend, while the coping measures taken by males show a negative trend. The present study concludes that taking appropriate coping ways according to the characteristics of males and females will have an effective influence on the mental health level of high school students.

Keywords: Senior high school student, Pressure source, Coping style, gender difference

1 INTRODUCTION

1.1 *Research background, research progress*

Nowadays, the psychological state of high school students has become a hot topic of social concern. With the rapid development of society and the continuous increase of population, the competition for college entrance examination is becoming more and more fierce, and examination and study have become the main source of psychological pressure for high school students. At the same time, they are faced with various problems such as parents' expectations, interpersonal communication between classmates, and family relations (Fang & Hu 2007). With the continuous development and improvement of body and mind, teenagers between the ages of 15 and 18 begin to enter the sensitive adolescence. With increasing stress comes a variety of mental health problems. Excessive psychological pressure, easy to lead to emotional depression, the view of the problem is irrational, not objective, not comprehensive, showing paranoia, but also easy to produce exam fear and interpersonal sensitivity (Zhou *et al.* 2004). The level of mental health is very important for the growth of high school students. Once mental health problems occur, the child's body and mind will be hurt, and the consequences cannot be underestimated. A large number of studies have shown that excessive pressure can cause a variety of diseases, such as cardiovascular diseases, cancer, respiratory and digestive tract diseases and mental and psychological disorder (Wang & Ma 2003). Bad behaviors such

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as smoking, alcoholism, suicide and antisociety are also closely related to stress. High school students are in the development period of psychological maturity, which is also the key period of cumulative growth. Teachers need to take targeted mental health education (Zhang 2023). The consequences cannot be underestimated, in the high school (youth sensitive period) stage, helping high school students find ways to relieve pressure, pay attention to students' mental health and find effective measures to alleviate this problem is crucial.

2 LITERATURE REVIEW

2.1 *Research on the relationship between stressors and coping measures*

Chinese scholars have conducted in-depth studies on the correlation between stressors and coping styles. In this experiment, the object of study is stressors and coping styles. Stressors are one of the main ways to affect mental health. Chinese scholar An Meina in the “Korean high school students academic pressure on the impact of mental health and educational countermeasures” related results show that academic pressure and mental health are significantly correlated, indicating that the greater the academic pressure of high school students, the more will affect their mental health (An 2020). In his research on middle school students' academic stress, coping strategies and coping psychological mechanisms, Chen Xu formulated the “Middle school students' Academic Stressors Questionnaire” according to the mental health status of middle school students in adolescence, which has good reliability and validity and is in line with the characteristics of Chinese students (Chen 2004). In his study on the Correlation between Stressors and coping Styles of High School Students, Sun Tao divided stressors of high school students into school factors, gender factors, whether they are the only child or not, and grade factors to analyze the stressors of high school students, and concluded that academic stressors are the most important sources of stressors of high school students, and high school stressors have a certain predictive effect on coping styles (Zhang 2016).

In the Relationship between Stressors, coping styles and Mental Health of High School Students, Chinese scholar Zhang Dongliang pointed out that high school students are more likely to adopt positive coping styles, and there are differences in coping styles in terms of gender, grade and parental education, and concluded that there is a significant relationship between mental health and coping styles (Sun 2013). Moreover, the more positive coping styles students adopt, the healthier their mental health will be; on the contrary, the lower the mental health level of students who adopt negative coping style such as withdrawal. Wei Wenjing, a Chinese scholar, said in her research on the sources and countermeasures of psychological pressure of senior high school students that different students have different self-cognition. Some students often deny themselves and are prone to frustration when they encounter problems. A large part of their psychological pressure comes from wrong cognition, and sometimes other people's evaluation seriously affects self-evaluation (Wei & Hao 2022).

2.2 *Research on the impact of gender on coping styles*

In the field of differences caused by gender, Huang Shanshan said in her research on the relationship between gender roles and mental health of high school students that masculine roles rarely reveal or express their personal feelings to others and rarely seek psychological help from others due to the influence of traditional concepts, which leads to mental health problem (Huang 2020). On the other hand, feminine roles are easy to get into trouble in interpersonal communication and emotion, which leads to anxiety and pressure, and gender differences lead to different psychological conditions and different coping styles when encountering trouble. In the relationship between stressors, coping styles and mental health of high school students, Zhang Dongliang said that due to differences in physical and

psychological development, girls are more willing to communicate with their families and friends, while boys have large emotional fluctuations and are prone to negative emotions. It can be seen that gender differences will have an impact on psychophysiology, pressure and emotion, etc. Therefore, this study takes gender differences into account and analyzes gender differences in stressors and coping styles when exploring the correlation between stressors and coping styles.

2.3 *The present study*

Many high school students suffer from the decline in academic performance, anxiety, poor physical health, and life-threatening thoughts such as suicide and self-harm caused by stress. Although many scholars have made some relevant studies on mental health and coping styles, relatively few studies have looked for effective ways through the correlation between stressors and coping styles. This study raises questions about whether stressors and coping measures of high school students are related, and how they are related. Through questionnaire survey, the study analyzes the main sources of psychological stress of high school students and the effectiveness of coping styles, and analyzes the correlation between stressors and coping styles as well as the differences between male and female stressors and coping styles, so as to effectively alleviate the depression of high school students. Finding effective ways to deal with stress issues through gender differences will make coping methods more precise.

3 RESEARCH METHODS

3.1 *Research objects*

This study adopts stratified random sampling. 553 questionnaires were distributed in a high school in Henan Province. After the questionnaires were collected and invalid questionnaires were excluded, a total of 493 valid questionnaires were obtained.

3.2 *Measurements*

The research tools used in this study are “Simple Coping Measures” and “Secondary School Students Learning Stressors Questionnaire”.

The Academic Stressors Questionnaire for middle school students was compiled by Chen Xu of Southwest Normal University in 2004. The internal consistency coefficient of the questionnaire is 0.9041, and the correlation between each factor and the total score of the questionnaire is between 0.618 and 0.880, indicating that there is a high correlation between the internal questions of the questionnaire and it has good reliability and validity. The questionnaire included nine dimensions—competitive stress, frustration stress, task stress, others’ expectation pressure, time pressure, self-development pressure, environmental pressure, demand pressure, and achievement pressure.

The Simple Coping Style Questionnaire was developed by the Shaw Project in 1996 to measure individuals’ strategies for coping with stressful events. The questionnaire consists of 62 items, which are divided into negative coping styles and positive coping styles.

3.3 *Reliability*

The retest correlation coefficient of the scale was 0.89, and the A-coefficient was 0.90. The A-coefficient of the active coping subscale was 0.89; The A-factor of the negative coping subscale was 0.78. The A-coefficient of the scale was 0.89. The A-factor of the negative coping subscale was 0.78. The questionnaire has good reliability and validity.

3.4 Hypothesis

According to previous studies, it is speculated that there is a significant correlation between learning stressors and coping styles of high school students-the greater the pressure index, the negative trend of measures taken.

3.5 Data analysis

The correlation data analysis method is used to explore the relationship between stressors and coping styles of high school students and the relationship between stressors and coping styles under the influence of gender differences.

4 RESULT

High school students learn the correlation analysis of stressors and coping styles According to the correlation analysis of nine factors of stressors: competitive pressure, frustration pressure, task pressure, other people's expectation pressure, time pressure, self-development pressure, environmental pressure, demand pressure Achievement goal pressure, stressors and coping tendency have a significant negative correlation, indicating that with the increase of pressure value, the coping tendency of the respondents is more negative. Meanwhile, according to the correlation analysis results, there is a significant positive correlation between each pressure dimension, and the P-value is less than 0.05.

Table. 1. Data analysis of the correlation between learning stressors and coping styles of high school students.

	CP	FP	TaP	OEP	TiP	SDP	EP	DP	AGP	Stressor	CT
CP	1										
FP	.796**	1									
TaP	.693**	.771**	1								
OEP	.729**	.776**	.838**	1							
TiP	.741**	.791**	.748**	.794**	1						
SDP	.580**	.618**	.590**	.691**	.724**	1					
EP	.655**	.658**	.683**	.715**	.757**	.739**	1				
DP	.661**	.738**	.639**	.698**	.780**	.621**	.731**	1			
AGP	.713**	.745**	.686**	.735**	.822**	.719**	.766**	.818**	1		
Stressor	.865**	.903**	.847**	.888**	.921**	.774**	.829**	.850**	.902**	1	
CT	-.170**	-.125**	-.124**	-.115**	-.170**	-.202**	-.156**	-.115**	-.205**	-.177**	1

Note. CP, Competitive pressure; FP, Frustration pressure; Tap, Task pressure; OEP, Others expectation pressure; TiP, Time pressure; SDP, Self-development pressure; EP, Environmental pressure; DP, Demand pressure; AGP, Achievement goal pressure; CT, Coping tendency. p<0.05 ** p<0.01.

For men, the factors of stressors competitive pressure frustration pressure task pressure time pressure self-development pressure environment pressure achievement goal pressure and stressors have a significant negative correlation with coping tendency, indicating that with the increase of pressure value, the respondent's coping tendency becomes more negative But for men, there was no significant correlation between expectation stress and demand stress and coping tendency

For women, the nine stressors are competitive stress, frustration stress, task stress, other people's expectation pressure, time pressure, self-development pressure, environmental pressure, demand stress Achievement goal pressure, stressors and coping tendency have a

significant negative correlation, indicating that with the increase of pressure value, the coping tendency of the surveyed subjects is more negative. According to the correlation coefficient of male and female, the negative correlation coefficient of female stressors and coping tendencies is relatively larger than that of male.

5 DISCUSSION

Previous studies have shown that there is a significant relationship between the overall stressors of high school students and the coping styles they take, and the greater the pressure, the coping styles they take tend to be negative. Based on confirming this conclusion, this study explores the influence of gender differences on this result. The results show that the coping measures taken by women show a positive trend, while the coping measures taken by men show a negative trend.

5.1 *Suggestions for educational practice*

According to the research results, there is a correlation between the nine stressors and coping measures, which proves that different coping styles reflect different stressors. At the same time, gender differences also cause differences in the correlation between stressors and coping styles. Therefore, the appropriate coping styles will also change for different genders.

5.2 *Suggestions for school*

In the process of education, schools should pay attention to students' psychological pressure and take relevant measures according to their pressure sources.

Among them, teachers should pay attention to teaching based on sex and take appropriate measures for the psychological differences caused by the personality differences between male and female students. Due to gender differences, teachers should find the source of pressure faced by students through observation or timely communication, and adopt an acceptable way to relieve the pressure of students, pay attention to the mental health status of students in time, and avoid some tragedies. At the same time, teachers, parents and students all play important roles. Teachers need to pay attention to their own words and deeds, in the condition of not harming the students' psychology to the pressure of students psychological counseling and put forward suggestions for corresponding measures, deal with the problem of interpersonal communication between students, pay attention to the education of students' knowledge, should also strengthen the psychological education of children, pay attention to the mental health of students.

5.3 *Suggestions for parents*

It is important for parents to keep an eye on their children's mental health, and conflicts between parents and children are occasionally brought about by students' academic pressures. Many parents in China implement the concept of stick education, using the way to beat and scold to make children obedient, and think that learning is the only way out of life, entering a good university is the only goal of life, thus ignoring children's interests and hobbies, etc., this series of phenomena will easily cause students' mental health problems, so adults should pay attention to children's mental health and stress.

5.4 *Suggestions for students*

For students, according to their own situation, students can treat their stressors correctly and take scientific and effective coping measures to relieve pressure, avoid extreme ways as much

as possible, cherish life so far, I believe that with the efforts of school authorities, families and students themselves, students' mental health level will be greatly improved, and the learning atmosphere will be better.

6 LIMITATION

The sample size of data collection in this study is insufficient. Due to the college entrance examination, the number of respondents in senior three is far less than that in senior one and senior two, and the distribution of the number is uneven, which may lead to bias in the results. The current research also has shortcomings in the classification of gender differences, and there is no complete classification.

7 CONCLUSION

There is a significant relationship between stressors and coping styles of high school students. The greater the pressure, the coping styles show a negative trend. Gender difference has a certain impact on the stressors and coping styles of high school students. The main contribution of this paper is to analyze the impact of gender-specific differences on stressors and coping styles of high school students, and to find that stressors and coping styles of different genders are different. Teachers need to take different measures according to the characteristics, which is conducive to effectively solving the psychological problems of high school students. At the same time, teachers should put forward effective suggestions for schools and parents to help high school students relieve pressure, so as to avoid high school students from taking drastic actions due to the accumulated psychological pressure.

The current research has shortcomings in the classification of gender differences. The role differentiation of high school students can be divided into masculine, feminine, intersexual and undifferentiated. This study only considers masculine and feminine, and does not conduct detailed classification and analysis of others. Accurate analysis.

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The relationship between academic motivation and academic performance of elementary school students: The mediation role of academic procrastination

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ABSTRACT: The group with academic procrastination is getting younger. Academic procrastination is related to motivation and has an impact on academic performance. Understanding the relationship between the three has a positive effect on teachers' education and teaching, and students' development. Among them, learning motivation can be divided into internal and external motivation. External motivation is more related to external factors of the activity itself, while intrinsic motivation is more related to the activity itself. This study explores the relationship between the three, using elementary school students as the study population. Academic procrastination was found to be adversely correlated with intrinsic motivation, while academic success was positively correlated. Academic procrastination was positively correlated with external motivation, but academic success was adversely correlated. While academic success was not strongly correlated with external motivation. The mediation effect analysis found that academic procrastination played a fully mediating role in intrinsic motivation and Academic performance. This also inspires us to focus more on motivating elementary school students' intrinsic motivation towards learning, stimulating their interest in learning, and reducing academic procrastination, so that they can achieve better academic performance.

Keywords: Academic motivation, Academic performance, Academic procrastination

1 INTRODUCTION

1.1 *Academic motivation*

An internal psychological energy known as motivation propels and sustains a person's action when it is directed toward a goal or an object (Chi & Xin 2006). As the foundation of the majority of human activities, motivation studies have been a significant topic of study in psychology. Several discoveries from motivation research have also been used in real-world contexts, including organizational management and education. They serve as a theoretical foundation for educators and corporate leaders to create training plans and teaching behavior tactics that are successful. The type or nature of motivation is frequently discussed in research on motivation. Making a distinction between intrinsic and extrinsic motivation is one of the fundamental concepts. The propensity for people to engage in things in order to find challenges and enjoyment or to pique their interest is known as intrinsic motivation. Extrinsic motivation is the propensity for people to engage in activities for reasons unrelated to the action itself, such as prizes, approval and judgment from others, following directions from superiors, and rivalry with others (Chi & Xin 2006). The manifestation of motivation in

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the learning domain is learning motivation. Higher motivated people are more persistent and driven, which enables them to focus on learning activities and put in extra effort to accomplish their academic assignments. While those who are less motivated lack enthusiasm for learning activities and hence have a tendency to behave obediently, this leads to more serious academic procrastination. It is clear that learning motivation plays a significant role in the creation of unique learning activities. Scholars define the concept of learning motivation in a similar way. According to Xingxing, Wei. (2017), learning motivation is the internal drive that motivates students to perform learning activities, and makes them more purposeful and directional (Wei 2017).

1.2 *Academic performance*

Academic performance is mostly presented in numerical terms and is mainly used as a means of evaluating students' learning effectiveness. The evaluation of a student is diversified, and academic performance, as an important indicator, directly reflects the quality of education and teaching (Wei 2017). However, academic performance is not only a single course assessment score, but also the result of students' performance in terms of comprehensive grading of methodological ability, knowledge and skills, and emotional attitude. Li Li (2004) pointed out that students' scores in tests can be used as a reference for academic performance (Li 2021). They can reflect students' learning effects to a certain extent. And most of researchers take the scores of three major subjects, Chinese, Mathematics and English, as reference indicators (Li 2021).

1.3 *Academic procrastination*

Procrastination is the unnecessary delay in doing something (Wang & Zhang 2007). Milgram et al. categorized procrastination into five types: academic procrastination, which refers to finishing homework, preparing for exams, and writing term papers at the last time. Daily life procrastination, which refers to the inability to complete things in daily life at the planned time. Decision making procrastination, which refers to the inability to make timely decisions on many things. Neurotic procrastination, which refers to the tendency to have tendency to delay most life decisions. Compulsive or functional disorder procrastination refers to the presence of both decisional and behavioral procrastination in the same person. Scholars have analyzed the concept of academic procrastination mainly from cognitive, behavioral, and emotional perspectives, and they generally agree that academic procrastination is a "purposeful behavior of delaying or postponing learning tasks" (Zhao 2014).

The occurrence of procrastination is related to personality, self, motivation, emotions, performance, and parenting style. For academic procrastination, both intrinsic and extrinsic motivation have an impact. Many studies have found that students who are externally motivated have significantly more academic procrastination than students who are internally motivated. Students who are intrinsically driven to learn are more likely to be motivated to learn and are better able to resist procrastination, according to Zhang Lu (2022) (Lu 2022). In contrast, those students who are externally motivated feel controlled and have a sense of pressure, and therefore, they are more likely to procrastinate academically.

Academic procrastination often affects students' academic performance and Academic performance, and many studies have found it to be significantly and negatively associated with poor academic performance. In addition, the time pressure caused by procrastination can cause individuals to develop adverse emotions such as stress and anxiety, according to Fritsch (2003) (Wang 2022). This adverse emotional experience can also affect students' academic performance. For more, unsatisfactory academic performance and poor emotional experiences in turn lead to procrastination behaviors, and long-term procrastination has important effects on individuals' physical health (Wang 2022).

1.4 *Current status of research*

Most existing studies have explored the relationship between the two. And they have focused on middle, high school, and college student populations, with less research conducted on elementary school students. There is evidence that academic procrastination is occurring at a younger age. A search of the largest database in China, Zhiwang, found only about 20 studies on elementary school students. However, given the “double reduction policy,” more focus should be placed on the investigation of elementary school pupils’ academic laziness (Zhan *et al.* 2022).

1.4.1 *Academic motivation and academic procrastination*

The relationship between academic motivation and procrastination has been the subject of numerous studies. Additionally, the majority of research divide academic motivation into two categories: extrinsic and intrinsic motivation. Extrinsic motivation has a positive predictive effect on academic procrastination, according to the majority of studies, but intrinsic motivation has a negative predictive effect. Dan Zhao discovered that anxiety somewhat mediated the relationship between extrinsic motivation and academic procrastination and totally mediated the relationship between intrinsic motivation and academic procrastination utilizing college students (Zhao 2014). Lu Zhang, using middle school students, found that intrinsic motivation positively predicted trait/state self-control and negatively predicted academic procrastination; extrinsic motivation was not significantly related to academic procrastination (Lu 2022). Further investigation, however, revealed that the impact of external motivation on academic procrastination was concealed by the state self-control. In other words, there was no connection between academic procrastination and extrinsic motivation. This might be the case since state self-control is the only way extrinsic motivation can combat academic procrastination.

1.4.2 *Academic motivation and academic performance*

The majority of studies have discovered a link between academic achievement and motivation. In her research on elementary and secondary school children, Yihuan Bian discovered that endoregulation, identity regulation, and intrinsic motivation all significantly and favorably predicted academic success (Bian 2022). While academic achievement was considerably and adversely predicted by extrinsic motivation. Haiting Wei used an upper elementary school group as the study population, and divided learning motivation into three dimensions: self-efficacy, values, and goal orientation (Wei 2018). It was discovered that there was a strong and positive correlation between academic achievement and all aspects of learning motivation (self-efficacy, etc.).

1.4.3 *Academic procrastination and academic performance*

Most of the studies for both have focused on the domain of middle and high school students, and mostly found that academic procrastination negatively predicted academic performance. English academic procrastination and academic self-efficacy were determined to have a direct impact on high school students’ English academic performance by Xin Xu in 2022 (Xu 2022). In particular, English academic procrastination predicted 13% of English academic performance, academic self-efficacy predicted 20.2% of English Academic performance, and the joint correlation of English academic procrastination and academic self-efficacy predicted 23.4% of English Academic performance. Academic procrastination and math self-efficacy were also discovered by Cai Lito mitigate the connection between math anxiety and math achievement in a group of elementary school children (Li 2020).

1.4.4 *The relationship between the three*

Fewer studies have addressed the relationship between the three. Academic motivation, academic procrastination, and academic achievement all showed substantial relationships,

according to research done on a group of first-year students by Li Luyao (Li 2021). Additionally, procrastination dimensions and academic motivation both predicted academic success.

1.5 Intermediary role

In conclusion, academic motivation, academic procrastination, and academic achievement are all related. Intrinsic motivation has a negative predictive value for academic procrastination and a positive predictive value for academic performance when motivation is divided into intrinsic and extrinsic motivation dimensions. Extrinsic motivation has a positive predictive value for academic procrastination and a negative predictive value for academic performance. Academic procrastination was a positive predictor of Academic performance. Most of the existing studies focus on the relationship between the three variables, and only two studies only examine the correlation between the three variables without suggesting a mediating effect. Moreover, most of them focus on middle and high school and college students, and less on elementary school students. In order to explain how academic procrastination affects the relationship between academic motivation and performance, this study will present a mediating model. Additionally, the following theories are put forth:

H1: Intrinsic academic motivation is positively correlated with Academic performance

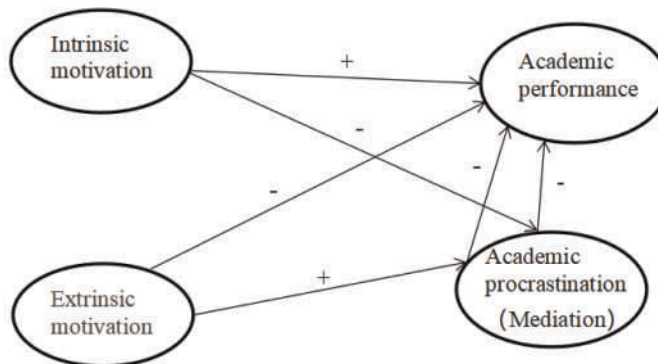
H2: Extrinsic academic motivation is negatively related to Academic performance

H3: Intrinsic academic motivation is negatively related to academic procrastination

H4: Extrinsic academic motivation is positively related to academic procrastination

H5: Academic procrastination is negatively related to academic performance

H6: Academic procrastination modulates the relationship between academic motivation and academic achievement (see Figure 1).



Note: The symbols + and - stand for positive and negative correlation, respectively.

Figure 1. Hypothetical mediation model. (Photo/Picture credit: Original).

2 METHODS

2.1 Subjects

Students in grades 4, 5 and 6 of an elementary school in the eastern region were selected. And the questionnaires were distributed collectively in classes, with three classes randomly selected in each grade, and a total of 389 students were selected. The number of valid

questionnaires recovered was 339, and 87.15% of the questionnaires were recovered. The individuals were 11.30 1.82 years old on average. Table 1 lists the number of students in each grade, both male and female.

Table 1. Demographics of the subjects.

	Fourth Year	Fifth Grade	Sixth Grade	Total
Male	57	56	56	169 (49.9%)
Female	58	54	58	170 (50.1%)
Total	115 (33.9%)	110 (32.4%)	114 (33.6%)	339

2.2 Questionnaire

A paper and pencil questionnaire was used to communicate and cooperate with classroom teachers to conduct the questionnaire.

2.2.1 Learning motivation questionnaire

The Learning Motivation Questionnaire (Li 2019 & 2011), developed by Taiwanese scholar An-Bang Yu, was used, with a total of 13 questions divided into two dimensions, internal and external motivation, with 6 questions on intrinsic motivation and 7 questions on external motivation. A 5-point scoring system was used. Topics 4 and 13 are reverse-scoring among them, and the greater the score, the more intense the motivation.

2.2.2 Academic procrastination questionnaire

A total of 24 questions from Y. H. Li's Academic Procrastination Scale for Elementary School Students (Li *et al.* 2021) were used, and they were broken down into five categories: procrastination during the school day, procrastination during breaks, procrastination during revision and test preparation, autonomous academic procrastination, and procrastination beliefs. The scale's split-half reliability and internal consistency reliability were 0.89 and 0.91, respectively. Higher question scores indicated more severe procrastination behavior. Questions were assessed on a 5-point scale; questions 2, 4, 16, 17, 18, and 19 were reverse scored.

2.2.3 Academic performance

The latest midterm exams in language, mathematics, and English are taken, converted into standardized scores, and then summed to calculate academic performance.

2.3 Analysis of data

For statistical analysis, SPSS 18.0 was used to examine the differences between academic procrastination and motivation in terms of demographic variables as well as the relationship between these three factors and academic performance. The mediating function of academic procrastination between academic motivation and academic performance was then investigated using Model 4 in the PROCESS plug-in of SPSS. The problem of missing data values was dealt with using the mean substitution technique.

3 RESULTS

3.1 Differences in demographic variables of learning motivation and academic procrastination

Independent sample t-tests were used to see if there were differences between academic motivation and academic procrastination in terms of gender and whether they were student leaders. Table 2 displays the specific outcomes.

Table 2. Analysis of the differences between learning motivation and academic procrastination in terms of gender and whether they are student leaders.

Variables	Gender		t	Student leaders		
	Male	Female		Yes	No	t
Intrinsic motivation	20.37 ± 1.95	20.67 ± 2.00	-1.38	20.65 ± 2.03	20.35 ± 1.89	-1.34
Extrinsic motivation	21.01 ± 3.90	20.82 ± 3.80	0.46	20.92 ± 3.79	20.90 ± 3.95	-0.04
Academic procrastination	44.44 ± 15.56	43.86 ± 16.93	0.33	39.94 ± 13.36	50.02 ± 18.09	5.60***

Note: *p < 0.05, **p < 0.01, ***p < 0.001

Only academic procrastination was shown to differ substantially depending on whether or not students were student leaders ($t(242) = 5.60, p < 0.001$, and $= 0.09$). Academic procrastination was significantly lower among students who were student leaders ($M = 39.94, SD = 13.36$) than among students who were not student leaders ($M = 50.02, SD = 18.09$).

One-way ANOVA was used to see if there were differences between academic motivation and academic procrastination across grades. Table 3 displays the precise outcomes.

Table 3. Analysis of the differences between learning motivation and academic procrastination at different grades.

Variables	Fourth Year	Fifth Grade	Sixth Grade	F
Intrinsic motivation	20.72 ± 1.73	20.55 ± 2.11	20.29 ± 2.07	1.42
Extrinsic motivation	21.18 ± 3.93	21.16 ± 3.70	20.40 ± 3.88	1.53
Academic procrastination	39.39 ± 12.40	45.07 ± 17.04	48.06 ± 17.74	8.80***

Note: *p < 0.05, **p < 0.01, ***p < 0.001

Only academic procrastination was found to vary considerably between grades, according to the findings, $F(2, 336) = 8.80, p < 0.001$, and $= 0.05$. Post hoc multiple comparison comparisons revealed that fifth grade academic procrastination ($M = 45.07, SD = 17.04$) were significantly higher than fourth grade academic procrastination ($M = 39.39, SD = 12.40$), sixth grade academic procrastination ($M = 48.06, SD = 17.74$) were significantly higher than fourth grade academic procrastination, and the difference between fifth and sixth grade academic procrastination was not significant.

3.2 The correlation between elementary school pupils' academic motivation, procrastination, and performance

Table 4 displays the outcomes of the correlation analysis that was used to investigate the correlation between two and two.

- 1: Intrinsic motivation, 2: Extrinsic motivation, 3: Academic procrastination
- 4: School day homework delay, 5: Holiday assignment delay
- 6: Review preparation delay, 7: Self-directed learning delay
- 8: Academic procrastination beliefs, 9: Academic Performance.

Analysis of the correlations showed that academic procrastination and intrinsic motivation were both strongly and adversely associated ($r = 0.27$). Academic procrastination significantly correlated positively with external motivation ($r = 0.12, p < 0.01$) but not with academic performance. Academic procrastination and performance were strongly and adversely linked ($r = -.35, p < 0.01$).

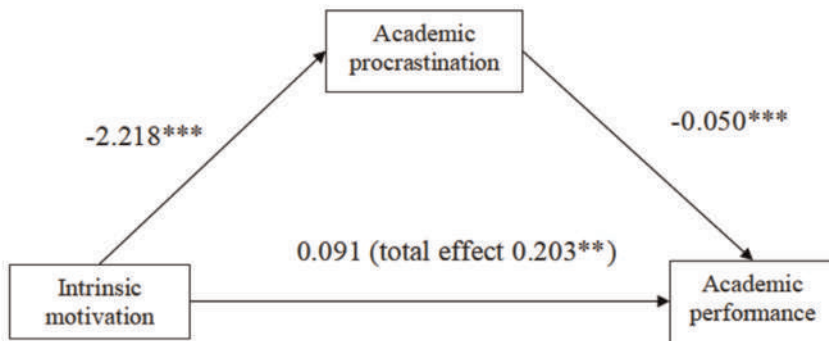
Table 4. Each variable's descriptive statistics and correlation analysis.

M±SD	1	2	3	4	5	6	7	8	9
1 20.52 ± 1.98	1.00								
2 20.91 ± 3.84	0.15**	1.00							
3 44.14 ± 16.24	-0.27**	0.13*	1.00						
4 8.86 ± 3.63	-0.15**	0.09	0.74**	1.00					
5 10.97 ± 5.99	-0.16**	0.13*	0.83**	0.48**	1.00				
6 7.09 ± 3.66	-0.15**	0.14*	0.81**	0.49**	0.56**	1.00			
7 8.63 ± 3.14	-0.43**	-0.01	0.69**	0.44**	0.37**	0.55**	1.00		
8 8.60 ± 3.96	-0.25**	0.12*	0.87**	0.60**	0.65**	0.68**	0.54**	1.00	
9 0 ± 2.51	0.16**	-0.08	-0.35**	-0.20**	-0.31**	-0.28**	-0.29**	-0.28**	1.00

Note: *p < 0. 05, **p < 0. 01, ***p < 0. 001.

3.3 Mediating effects of academic procrastinations

Based on the findings of the correlation analysis, the question of whether academic procrastination mediated the relationship between internal motivation and external motivation in terms of academic performance was further investigated. In order to examine the mediating effect, PROCESS Model 4 was employed. And Bootstrap was used to estimate confidence intervals (sample size was chosen 5000 times). The analysis's findings are displayed in Figure 2, Table 5, Figure 3, and Table 6 below.

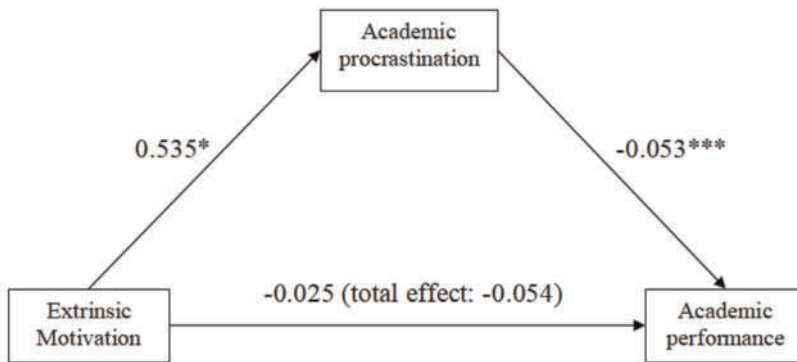


Note: *p < 0. 05, **p < 0. 01, ***p < 0. 001

Figure 2. Academic procrastination in the mediation of intrinsic motivation on academic performance. (Photo/Picture credit: Original).

Table 5. Analysis of the mediating effect of academic procrastination in intrinsic motivation on academic performance.

	Effect Value	Boot Standard Error	BootCI lower limit	BootCI cap	Relative Effect Value
Total effect	0.203	0.068	0.069	0.337	100%
Direct effect	0.091	0.067	-0.041	0.223	44.83%
Indirect effects	0.112	0.034	0.058	0.194	55.17%



Note: *p < 0.05, **p < 0.01, ***p < 0.001

Figure 3. Academic procrastination in the mediation of external motivation on academic performance Figure. (Photo/Picture credit: Original).

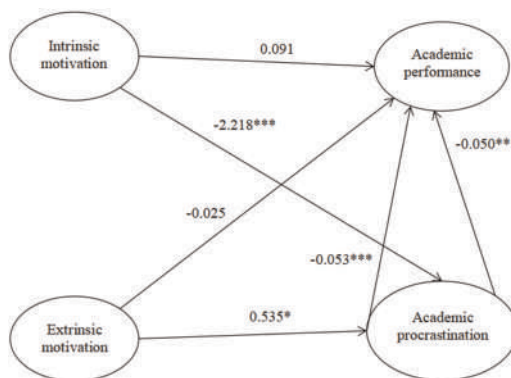
Table 6. Analysis of the mediating effect of academic procrastination in external motivation on academic performance.

	Effect Value	Boot Standard Error	Boot CI lower limit	Boot CI cap	Relative Effect Value
Total effect	-0.054	0.035	-0.123	0.016	100%
Direct effect	-0.025	0.034	-0.092	0.041	46.30%
Indirect effects	-0.029	0.013	-0.059	-0.005	53.70%

While the direct effect was not significant, it was discovered that academic procrastination had a substantial indirect effect in modulating the influence of intrinsic motivation on academic performance. Thus, academic procrastination plays a fully mediating role between intrinsic motivation and academic performance.

The findings showed that, while the total and direct impacts were not statistically significant, the indirect effect of academic procrastination in mediating the influence of intrinsic motivation on academic performance was.

The final model is shown in Figure 4.



Note: *p < 0.05, **p < 0.01, ***p < 0.001

Figure 4. Final intermediary Figure 1(Photo/Picture credit: Original).

4 DISCUSSION

4.1 *Demographic differences in elementary school students' motivation and academic procrastinations*

The study's findings demonstrated that there were no significant gender, class officer status, or grade level variations in either internal or external motivation. For academic procrastination, no significant differences were found for gender, but there were significant differences for being a class officer and grade level. In general, students who were class officers had lower levels of procrastination than those who were not class officers. The older the grade level, the higher the level of procrastination.

4.2 *The relationship between elementary school pupils' academic motivation, procrastination, and performance*

The correlation analysis revealed a substantial inverse relationship between intrinsic motivation and academic procrastination as well as a significant inverse relationship between intrinsic motivation and academic achievement. Academic procrastination was significantly and favorably correlated with external motivation. Academic performance was strongly and adversely correlated with procrastination in the classroom. All of the above are consistent with the hypothesis. Though it is inconsistent with the study's hypothesis, there is no discernible relationship between external motivation and academic performance.

4.3 *The mediating role of academic procrastinations*

The outcomes of the mediation analysis demonstrated that the association between intrinsic motivation and academic performance was totally mediated by academic procrastination. In contrast, the association between external motivation and academic achievement was only significant in an indirect way. It only partially verified the hypothesis of this study.

In conclusion, this study classified academic motivation into two categories—internal and external—and discovered a link between academic procrastination and performance and intrinsic motivation. It also discovered a link between external motivation and academic procrastination. Academic procrastination had a fully mediating role between intrinsic motivation and Academic performance. This also inspired the need to fully motivate the intrinsic motivation in teaching elementary school students to reduce the level of academic procrastination, thus improving academic performance and promoting better development of students.

5 LIMITATION AND OUTLOOK

In this study, academic motivation, academic procrastination, and academic achievement were examined for a group of primary school students. It also filled a gap in related research and suggested a mediating role. It serves as a guideline for the education and teaching of the elementary school student population.

However, there are some limitations in the study. First, in the administration process, individual classes were administered by classroom teachers, and there may be a social approval effect. Second, the sample size was relatively small. In addition, the study was only conducted for the elementary school student group and may not be generalizable to middle and high school groups, for example.

In future studies, it is hoped that the sample size can be further expanded, and the subject population can be enlarged. The study of the influencing mechanism could be further developed.

6 CONCLUSION

This study examines how a group of elementary school pupils' internal and external motivation, academic procrastination, and academic performance are related. It was found that academic procrastination was more severe the higher the grade level, which inspires future study to pay more attention to academic procrastination in higher grades. Students who were not class leaders had more severe academic procrastination than those who were class leaders, which may be because academic performance is usually an important criterion for elementary school teachers to select class leaders. In accordance with the research hypothesis, related studies found a correlation between intrinsic motivation, academic procrastination, and academic performance as well as a correlation between external motivation and academic procrastination. However, there was no correlation between external motivation and academic performance. Academic procrastination was revealed to play a full role in regulating the relationship between intrinsic motivation and academic performance. This encourages primary school teachers to focus more on the initiative, motivation, and interest of their children in order to completely engage their intrinsic motivation and decrease the frequency of academic procrastination behaviors, which will lead to greater academic performance.

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Analyze the feasibility of promoting nature education at the basic education level in the country

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ABSTRACT: Nature holds immense potential as a valuable teacher for children. Encouraging contact and interaction with the natural world can ignite children’s passion for environmental conservation and stimulate their creativity. Conversely, the lack of exposure to nature may lead to adverse consequences, including mental health issues such as anxiety and depression and physical health problems like nearsightedness and obesity in children. However, it is essential to acknowledge that nature education is still a relatively nascent field with inherent challenges. For instance, the theoretical foundation is yet to reach full maturity, a scarcity of skilled professionals persists, and its overall popularization remains limited. Nonetheless, these obstacles should not deter the implementation of nature education programs. Instead, continuous practical experience and diligent efforts can contribute to refining the theoretical framework and knowledge base in nature education. This paper proposes actionable measures to address the existing challenges in promoting nature education. By doing so, it aims to offer valuable references for further research and encourage broader adoption of nature education practices. Ultimately, nurturing children’s bond with nature is beneficial for their personal growth and well-being and crucial for fostering a generation that values and safeguards the environment.

Keywords: Natural education, nature, children

1 INTRODUCTION

Natural education holds a significant place in the history of Western education, with notable proponents like Rousseau, who emphasized cultivating the “natural man” in his work “Emile,” and Comenius, who proposed “natural education” in the “Theory of Great Teaching.” In the context of this paper, “nature” in natural education encompasses both learning and education within the natural environment and the integration of human nature and the laws of nature.

Establishing a harmonious relationship between humans and nature is of par-amount importance for humanity’s well-being. Unfortunately, with the rapid advancement of science and technology, children are increasingly immersed in electronic devices, leading to reduced exposure to nature and resulting in health problems such as obesity, nearsightedness, and vitamin D deficiency. Richard Love’s book “The Last Child in the Woods: Saving Children with Nature-Deficit Disorder” draws attention to the concept of “nature-deficit disorder,” highlighting the urgency of natural education for children.

While developed countries have embraced natural education earlier, conducting extensive research and establishing comprehensive systems, China has recently shown a keen interest in promoting natural education. China possesses abundant natural and cultural resources,

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yet natural education has not been widely popularized. Although some progress has been made in kindergarten natural education, notable shortcomings exist, such as overreliance on foreign models and a lack of diverse theoretical guidance, limiting its effectiveness.

This paper aims to analyze the theory and practice of natural education, address existing challenges, and propose recommendations to enhance the promotion of natural education at the grassroots level in China. By doing so, it seeks to contribute to the development of natural education practices that align with China's unique context and needs.

2 NATURAL EDUCATION

Nature is one of the best places for education and provides many learning opportunities. In nature, one can observe and learn about the workings of various plants, animals, and ecosystems, which helps to develop an ecological understanding and concern. Moreover, nature offers various exploratory and adventurous activities such as mountain climbing, hiking, and wilderness camping. These activities allow children to experience the beauty of nature firsthand and develop courage, perseverance and teamwork. Natural education is a child-centered exploration in a rich outdoor environment that guides children to experience and connect with nature. Living in nature can be a great opportunity for relaxation and learning. In Comenius' book, *The Great Teaching*, "natural education" means education "adapted to nature": first, it follows the "order" of nature; second, it is the basis for education in accordance with the inherent nature of man and the laws of natural development (Comenius 1657). Rousseau was the one who proposed "natural education" as a proper noun. Rousseau's theory of naturalistic education in his work "Emile" is that "education should be adapted to the development of the child's nature, with the aim of cultivating the natural man". The naturalistic view of education opposes the suppression of education and rejects the suppression of education. Rousseau's theory of naturalistic education in his work *Emile* is that "education should be adapted to the development of the child's nature and aim at the cultivation of the natural man", which opposes the suppression of the child's nature and calls for education to "return to nature" and "conform to nature" (Yuan 2013). "Natural education" studied in this paper refers to the use of the natural environment to imitate the natural world. The "natural education" studied in this paper refers to learning in nature to promote children's development in the outdoor environment, imitating the laws of nature and following children's innate nature.

3 BENEFITS OF NATURAL EDUCATION

3.1 *Benefits for children's physical health*

Natural environments have plenty of sunlight, and skin exposure synthesizes vitamin D. Since few natural foods contain vitamin D, sun exposure is the most effective source of vitamin D for humans. Deficiency can lead to the development of osteoporosis and to falls and fractures (Liao *et al.* 2014). Natural environments have fresh air. Trees and green plants can photosynthesize by absorbing carbon dioxide from the air and releasing oxygen. Fresh air is very good for human health. In daily life, individuals are encouraged to spend ample time outdoors to benefit from the fresh air available. Particularly for children, exposure to fresh air in outdoor settings can significantly enhance their cardiorespiratory fitness and boost their immune system. Studies have confirmed that children who live near green spaces are less likely to suffer from respiratory diseases (Maas *et al.* 2009).

In addition, increased outdoor activity may prevent nearsightedness. Numerous studies have shown that increased time spent outdoors delays the onset of myopia (Zhong *et al.* 2022). Children are able to play freely in natural outdoor environments, have sufficient time

to exercise, strengthen their immunity, develop their athletic skills, reduce stress, and reduce childhood obesity, which is beneficial to children's physical health.

3.2 *Benefiting children's mental health*

A green environment is a good cue for children, and a natural environment helps to relax the body and mind. Activities such as walks and picnics in forests, rivers or meadows can help children escape the city's hustle and bustle and stress, promoting the harmonious development of body and mind and contributing to children's mental health.

Fang Huicong, an associate professor at East China Normal University, states in *Environmental Psychology: Mind, Behavior and Environment*, states that during human growth, the development of the psyche is inevitably closely related to the environment in which it is located and that the environment more obviously influences infancy and early childhood in particular (Duan 2022).

A good, green, natural environment can bring positive psychological feelings to children and subtly influence their psychological development. Nature is a natural healing place for children and can reduce their stress. The tranquility and beauty of nature can bring peace of mind and fulfillment, and exposure to nature can help reduce stress, depression and anxiety in children, increase well-being and positive emotions, and promote mental health. An assistant professor at Cornell University, Nancy Wells, says, "Children who live in places rich in natural landscapes suffer less from stress-related mental illness. The more mentally ill children heal in natural environments, the better" (Louv 2008).

Second, a green natural environment provides a good place for children to socialize. As children grow older, they become more social. Children can make new friends and engage in positive activities and games with their friends in the natural environment. Good relationships among children can promote their growth and also help to dispel their negative emotions.

Attention deficit hyperactivity disorder (ADHD) is one of children's most common psychiatric diagnoses. Some studies have shown that green environments may also reduce the prevalence of autism and ADHD (W & Laura 2017). With an emphasis on outdoor activities and experiences that promote physical exercise and mental relaxation, natural education contributes to well-being and quality of life, has many benefits, and has a positive impact on individuals and society.

3.3 *Contribute to the development of children's conservation awareness*

In the 21st century, people face many problems related to environmental pollution. Cultivating children's awareness of nature conservation positively impacts their personal growth and society. Educators play a crucial role in encouraging children to engage with nature through outdoor activities, direct observation of animals and plants, and interactive experiences. By immersing themselves in the natural environment, children develop a deeper understanding of the world around them.

Interacting with nature sparks children's curiosity about natural organisms and phenomena, fostering an appreciation for nature's beauty and mysteries. They also recognize the significance and vulnerability of the natural environment, leading to a genuine love for nature and a heightened sense of responsibility to protect it. Consequently, children are motivated to actively care for and safe-guard the natural world.

Through proper education and guidance, children learn about the importance of maintaining natural ecosystems and understand the impact of human activities on the environment. This knowledge instills a sense of respect for nature and a commitment to preserving it for future generations. By employing these approaches, children can be encouraged to embrace a strong sense of environmental stewardship, promoting the harmonious coexistence of humanity and nature.

4 EXTENSION AND PROBLEMS

4.1 *The present situation*

The natural education industry is booming in China. Although not many companies are investing in natural education to participate in it, and it can only be considered a niche industry, more and more people are becoming interested in natural education. Domestic natural education practice activities mainly focus on ecological education, field practice and environmental education to let children get close to nature, learn about the ecological environment and enhance environmental protection awareness.

Research on natural education in China started late but has developed very rapidly. Since 2018, the number of papers on natural education research has increased significantly, but the literature in core journals is small, and the academic quality is not high. Natural education in China is still in the early stages of development, and there is a serious lack of theoretical research on natural education (Shao & Tang 2021).

Natural education in China takes various forms, ranging from science education in city parks and nature museums to various nature schools and camps that provide natural education with a focus on exploration and practice. For example, nature reserves, forest parks, and wetland parks usually organize all kinds of hands-on nature education activities. Let children get out of the classroom, go out into nature and experience the beauty of nature in the open air.

In addition, there are some civil organizations, enterprises and public welfare institutions, which also actively promote the development of natural education, give full play to the power of society and jointly promote the diversification of natural education, but there are still some shortcomings. In terms of industry practice, it is unique to the development of the natural education industry in China that it was initiated by the private sector and flourished by the private sector. The development of natural education in China is fast but unstable, and there are real problems, such as the lack of laws and standards, the small scale of professional organizations, and the lack of professional talents (Lin & Yong 2022). More and more people are beginning to realize the importance of natural education and that children can develop better in all aspects of nature.

4.2 *Understanding the mechanisms: Why it works*

American author Richard Love's *The Last Child in the Woods*, published in China, introduces the concept of "nature deficit disorder," which is not a real disease but a phenomenon, a phenomenon in which our children are becoming increasingly alienated from nature. It refers to a phenomenon in which our children are becoming increasingly alienated from nature. People are beginning to realize the negative effects of a "denaturalized" life on children and the serious damage it can do to people's physical and mental health (Fan & Zhang 2018). At the same time, people are beginning to think about the importance of restoring the connection between people and nature, and nature education is beginning to attract a great deal of attention.

Natural education promotes physical and mental health. Children can exercise and strengthen their bodies by exploring and playing in nature. Sample surveys show that the way of letting children personally contact and observe nature, and recognize and learn about nature through practical activities is recognized by the majority of parents, which is fully in line with the core essence of natural education, "learning about nature in nature", and also shows that there is a lot of room for acceptance of the promotion of natural education (Su *et al.* 2020).

Overall, through contact and experience with nature, natural education can cultivate students' awareness of environmental protection, physical and mental health, creativity and teamwork ability. These are all qualities and skills that are needed in modern society, so natural education has an important practical value.

4.3 *Resistance and implementation problems*

4.3.1 *Lack of access to natural education*

Some schools place too much emphasis on traditional subjects and lack attention and support for natural education. Schools and families may focus more on exam-oriented education, making integrating natural education into formal teaching programs difficult. Meanwhile, parents may place more importance on academic performance due to the increased pressure to learn. In addition, the curriculum of some schools is already tightly scheduled, leaving less time for students and for activities and free time. Natural education requires a longer schedule and may conflict with the children's existing curriculum.

Some children are also over-supervised by their parents because natural education occurs mostly outdoors, and the risk of accidents is much higher than indoors. Children are restricted from playing freely outdoors because they are too concerned about the safety of outdoor activities. Most children spend most of their free time indoors, preferring to play video games and watch television at home. Differences in societal attitudes and values also affect parental acceptance of natural education. Although most parents believe that exposure to nature benefits children, parents' understanding of the value of natural education is still relatively low.

4.3.2 *Lack of pluralistic theoretical guidance*

Natural education is a relatively new field, and although the domestic natural education industry has developed to a certain extent, the theoretical framework is not mature enough and lacks the guidance of pluralistic theories. China's natural education industry is facing many challenges, and there is no professional industry standard. The curriculum of natural education is relatively unified and lacks innovation. There is much theory but little practice.

Many natural education enterprises initiated by the private sector are relatively homogeneous in content and lack diversified theoretical guidance. Many organizations follow some foreign experiences and lack integration with local culture. At present, natural education mostly adopts the traditional textbook model of education, which emphasizes the teaching of knowledge and downplays experience and practice. This is not conducive to cultivating children's ability to perceive and think, and it is also difficult to inspire them to love and protect nature.

In addition, the existing theoretical system of natural education is not yet sound, the internal research on the practice of natural education and the evaluation of its effects is not deep enough, and the exploration of the various levels and directions of natural education is not yet comprehensive enough. This undoubtedly limits the development of natural education.

Although the current theoretical framework of natural education is imperfect, it does not mean that it cannot be implemented. With the passage of time, more and more scholars and experts have begun to pay attention to and study natural education. In practice, teachers can design and implement natural education activities that meet the needs of schools based on their own experiences and educational goals, combined with the currently available theories and methods. Continuous practice and research can further improve the theoretical and guiding framework of natural education in China. Therefore, it is necessary to draw on more theories of environmental education and outdoor education to form a more comprehensive and three-dimensional theoretical framework of natural education to promote the scientific and healthy development of natural education.

4.3.3 *Shortage of natural education professionals*

Teachers may have limited knowledge and skills in natural education and need appropriate training and support. Many talented people lack a professional and systematic approach to learning about natural education, and teachers want to develop natural education but do not have sufficient capacity to support their teaching. Teachers' understanding of and interest in natural education also affects their teaching outcomes. Developing natural education

requires more flexibility in teachers' teaching. Teachers should have a professional knowledge background and know how to follow children's inner natural and lead them to explore the natural environment, popularize natural knowledge and guide them to think deeply.

At present, the training of natural education personnel carried out by various institutions is relatively short, the quality and level of training are difficult to guarantee, and the training of the vast majority of institutions lacks standardization, which is difficult to meet the current rapid development of the industry on demand for professionals, and it is difficult for the development of the industry to make innovative breakthrough progress (Zhao 2021).

There are also some institutions with unregulated behaviors, where the prices of courses are inflated, but the quality of courses is not high. Teachers involved in natural education are underqualified and inexperienced. They lack professional knowledge and skills and do not guide children well in the process of exploring nature.

5 RECOMMENDATIONS

The gradual promotion of natural education at the basic stage of childhood requires multi-party cooperation, sustained publicity and long-term efforts. More people should realize the importance of natural education for children's development. In view of the problems of promotion, the following measures are suggested:

First, natural education practitioner training should be conducted to train more teachers and childcare workers with the concept and skills of natural education. Specialized training courses should be provided to help them understand the principles and practices of natural education and master appropriate teaching methods to help teachers better implement natural education in their teaching (Chen *et al.* 2018). In addition, licensing of practitioners has been introduced to continuously improve the professional skills and ethical standards of natural education practitioners. The industry will be standardized and improved.

Second, various media platforms have been used to publicize the value and importance of natural education. Launch relevant advertising campaigns, documentaries, television programs and online variety shows. Raise public awareness and interest in natural education. Make more and more people realize that children need more outdoor sports and good interaction with nature.

Third, cooperation and exchange should be promoted. Cooperation can be established between schools and the community, involving families and the community to promote the development of natural education jointly. Exchange activities and discussion sessions should be organized so all parties can share their experiences and resources, and cooperation among schools, communities and families can be strengthened. Parents can encourage their children to participate in natural education activities through school and community publicity to cultivate children's love of nature and awareness of environmental protection. Through the above measures, the popularization and promotion of natural education can be facilitated so that more children can enjoy the benefits of natural education and develop an awareness of nature conservation.

6 CONCLUSION

Natural education helps people understand and recognize the diversity of living things and plants in nature. More contact between children and the natural environment is good for both physical and mental health. Natural education is good for children's health, fosters creativity and curiosity, and helps develop children's awareness of the need to protect the natural environment. Promoting natural education requires the support of society, schools and families. Schools and the community can form partnerships to organize colorful hands-on outdoor activities. Media publicity is used to encourage parental participation and

support. All these measures can facilitate the popularization and promotion of natural education.

This paper summarizes the advantages of natural education and provides suggestions and measures for some problems in promoting natural education in China, which can be used as a reference for further research. However, there are still shortcomings. This paper is only a rough summary of the problems in promoting natural education. China is a vast country with different natural landscapes and characteristic cultural environments in each region. Therefore, in future development, we can combine our own characteristics and promote natural education in more cities. The natural education industry is expected to flourish in China, so children's education will return to Natural Education.

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Comparison of all-girls schools and co-educational schools on female students' development

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ABSTRACT: Single-sex schools have not been popularized in many areas and are a relatively niche form of education. There has been an ongoing controversy surrounding all-girls schools with limited promotion. Many people do not understand the educational focus of single-sex schools versus co-educational schools. This paper examines the effects of all-girls and co-educational schools on girls by comparing them in three areas: academic performance and achievements, psychological wellness, and socialization. The results show that girls have a significant academic advantage in all-girls schools as an all-girl environment reduces the negative impact of gender stereotypes on girls, thus allowing them to focus more on developing their abilities. However, an all-girl environment can cause greater peer pressure, greater body image and appearance anxiety, and social problems. Girls who attend co-educational schools are more likely to be adversely affected academically by gender stereotypes favoring boys, but some other aspects of anxiety are alleviated. Therefore, in the adjustment program, all-girls schools need to enhance discussions on topics of physical and mental health and opportunities for contact with the opposite sex, while co-educational schools need to mitigate the negative effects of gender stereotypes on students.

Keywords: Co-education, girls' schools, gender, health behavior, physical education

1 INTRODUCTION

The worldwide enlightenment of women's group consciousness has a very ancient history. For example, in China, there were schools specialized for female students thousands of years ago, and they were the precursors of modern all-girls schools. Since ancient times, there has been much resistance to the development of all-girls schools, and all-girls schools as a school choice have not been widely known. In the present day, the number of all-girls schools has been low, especially in less developed countries, where they occupy a very small percentage among all schools, and there is a lack of international discourse among all-girls schools. Today, as women's consciousness grows and the power of the female community grows, the number of all-girls schools is increasing, and their status is becoming more important. There are two broad areas of resistance to the development of all-girls schools.

On the one hand, women have long been disadvantaged in society due to the biological differences between the two sexes and the negative influence of fixed stereotypes and discrimination against women, and gender equity education still needs to be improved. On the

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other hand, the factual information on all-girls schools is not very comprehensive, and there is still much controversy about the advantages and disadvantages of all-girls schools and co-educational schools.

Currently, there is a rich body of research on the topic of all-girls schools versus co-educational schools. However, most of the academic research on all-girls schools has focused on academic aspects, and less research has been conducted on the mental health and interpersonal aspects of all-girls schools, which is narrower in scope. Second, research has focused mainly on developed regions such as Europe and the United States, with little attention paid to women's education on a global scale or in less developed regions. Because of this, this study hopes to find conclusions on whether all-girls schools are more favorable to female students compared to co-educational schools by analyzing three comprehensive aspects of female students' academic performance and enrollment rates in all-girls schools and co-educational schools in a global context.

The innovation of this paper is to broaden the dimensions of the comparison by combining the academic, psychological, and interpersonal aspects and to broaden the regional perspective by conducting a large-scale global comparison of all-girls schools and co-educational schools. This will allow this paper to make a more comprehensive judgment of the strengths and weaknesses of all-girls schools. The ultimate goal of this comparison is to draw out the benefits of the two different educational environments and to suggest adjustments to existing all-girls and co-educational schools to compensate for their respective weaknesses.

2 COMPARISON OF STUDENTS' ACADEMIC LEARNING

The first comparative item of this paper is the effect of the learning environment on the academic aspect. Single-sex education policies and gender-specific national requirements for quality education are very closely linked, as the national requirements for quality education are for students to be more focused on learning as well as individual development. Schools are required to provide a more refined learning environment where teachers can develop different programs for individual students, allowing students to better advocate for their own development. A series of literature and data studies have shown that all-girls schools are more beneficial to girls' studies, that girls generally have a more relaxed learning environment, better academic performance, and often have more expectations for their academic development after graduation.

A single-sex educational environment reduces the pressure of gender stereotypes, especially on girls, since many stereotypes that favor boys make girls face more psychological pressure to learn. Math, for example, is a major subject that represents the influence of gender stereotypes. Research has shown that females tend to have more anxiety and less interest while learning math and attribute their successes to ability rather than effort (Clark 2013). Differently, in a single-sex environment, female students have less anxiety, suggesting that math anxiety has to do with environments (Clark 2013). In addition, the study interviewed teachers in all-girls schools about girls' math anxiety. One of the teachers has spoken about the widespread acceptance of mathematical illiteracy, adding that it seems to affect women in particular. She expressed many similar views, such as that very young women, even in childhood, have been culturally and academically expected to behave and be present in the classroom in different ways (Clark 2013). The public has always encouraged boys to take risks, believing that boys are natural risk-takers and accept who they are. These lead to boys' success in math. However, girls are not encouraged as much as boys are. The interviewee believes that to improve girls' confidence in math, how girls and boys are viewed in society should be changed (Clark 2013).

Furthermore, as girls have long been under the impact of stereotypes that favor boys, they tend to have negative ideas about their abilities in learning math. One of the interviewees,

Theresa, emphasized that girls are easily influenced by fixed mindsets. When they face something challenging, they tend to denigrate their intelligence, and it can cause fear of failure (Clark 2013).

The study illustrates how the social views of genders and gender stereotypes can cause girls' anxiety in math. A single-sex environment can help reduce the negative influence of gender on girls and reduce anxiety in learning. Girls in all-girls schools feel more confident in their abilities. Research has shown that girls learn better with higher self-esteem and confidence. When girls no longer need to face comparisons with boys, their potential to learn science is better stimulated, and they can focus on learning science (Chopra & Sharma 2014). Small class sizes and single-sex environments help them feel more comfortable learning science and imposing questions (Chopra & Sharma 2014). A study that compared female students' test scores in all-girls schools versus co-educational schools showed that those who attend all-girls schools scored higher on the lower-secondary school exam in science and humanities (Koniewski & Hawrot 2022). In addition, girls benefit from the learning environment at all-girls schools, which some students feel is more fertile and welcoming (Caplice 1994).

In addition to the favorable impact of an all-female environment on academic performance during school, students attending all-girls schools generally have higher expectations for their future development. Firstly, graduates of all-girls high schools have a higher rate and quality of college admissions (Caplice 1994). In the subsequent process of further education, the number of students in all-girls schools accounts for the majority of female doctoral students (Caplice 1994). Also, females from all-girls universities are more inclined towards better careers, which also contributes to the improvement of leadership (Caplice 1994).

In short, putting boys and girls together and learning within the same educational system, due to differences in their thinking and physiology, this educational system may not always be suitable for all groups. In single-sex schools, it is more convenient for teachers to teach according to their aptitude and develop learning plans that are more suitable for a gender group based on their learning characteristics. Meanwhile, students from single-sex schools often have access to learning methods that are more suitable for them.

3 COMPARISON OF STUDENTS' SELF-EVALUATION AND PSYCHOLOGICAL WELLNESS

The second area is the study of self-evaluation and psychological aspects of single-sex school students. In general, several psychological problems that are detrimental to physical and mental development are more prevalent among girls in single-sex schools, including appearance culture, high intrasexual competition, low body esteem, and eating disorder. According to a study that examines the competitive behaviors of girls in all-girls and co-educational schools through students' decision-making, girls who attend all-girls schools are more competitive (Laury *et al.* 2019). This can apply to aspects other than academic learning, too. It has been found that girls in all-girls schools experienced more intrasexual competition, which is related to body esteem (Lereya *et al.* 2014).

It was predicted that girls attending single-sex schools would be less satisfied with their bodies and more likely to get eating disorders than girls attending co-educational schools (Mensing 2000). Body Mass Index (BMI), a common standard to measure the degree of obesity in the human body, receives a higher degree of attention in all-girls schools than in co-educational schools, meaning that heavier girls in all-girls schools have greater levels of anxiety or difficulty than their counterparts of the same weight in mixed-sex schools (Mensing 2000).

Greater disordered eating patterns are also discovered at all-girls schools. It is often assumed that the cause of unhealthy eating patterns among girls is the pressure to "look good" for boys and the problem is more significant in co-educational settings. However, the

study discovered that girls in all-girls schools have less body satisfaction and thinner ideal figures regardless of their current size, some of which resulted in disordered eating patterns (Mensinger 2000). In contrast, the ideal figures of girls in the co-educational group are more similar to their current size. All-girls environments may have a homogenization effect (Mensinger 2000).

In addition, girls with higher BMIs are more anxious in all-girls settings. Body sizes have less impact on the eating patterns of girls who attend co-educational environments, where having larger sizes is less likely to result in body dissatisfaction or eating disorders. They were found to have greater acceptance of their bodies (Mensinger 2000). Teachers in all-girls schools should pay more attention to the psychological problems that girls in all-girls schools are prone to and increase discussions on these issues in schools to reduce their impact on girls' physical and mental development. However, although many all-girls schools have been offering courses or lectures on these topics, schools also need to consider students' feedback on the effectiveness of such discussions. In a study that interviewed students on the methods taught at schools, students do not believe that such methods can effectively reduce their psychological anxiety; all-girls schools need to adjust their teaching methods or content based on feedback (Mensinger 2000).

In interviews in a study with nine girls at an all-girls school, the strong "appearance culture" that exists in the school was cited as a major factor influencing students' body image issues (Mensinger 2000). The girls spoke of appearance-centered conversations, dieting, and weight monitoring in their daily interactions with friends and peers at school and pointed out the many ways their schools tried to address body image issues, but they doubted the effectiveness of such discussions (Mensinger 2000). Sometimes they might even find the statements unrealistic and counterproductive (Mensinger 2000). These findings suggest that addressing student body image issues requires more attention to this appearance culture within schools and in touch with reality.

Another issue in all-girls schools is about some harmful messages implied in some school rules. In Heyward's study (1995), there is a very clear contradiction in the "valuing femininity" environment in Canada (Mensinger 2000). In many private all-girls schools in North America, girls are required to maintain a "ladylike" appearance but with sack-like uniforms that conspicuously hide any hint of feminine curves or traits of the body (Mensinger 2000). In most cases, feminine overtones such as jewelry and makeup are forbidden, and they portray a masculine appearance for women in the rules (Mensinger 2000). The school administration aims to weaken the emphasis on appearance and body image; however, negative effects inevitably occur (Mensinger 2000). Over time, students may feel this dress code sends a contradictory message (Mensinger 2000). Heyward suggests that the message implied by the dress code and other school policies was that showing female traits was shameful and that pursuing intelligence is for males, and one needs to emulate males to be successful in the academic field (Mensinger 2000).

The message can bring negative consequences to girls because it is a paradox that females are expected to achieve, but at the same time, one needs to have a masculine presentation to be successful (Mensinger 2000). It is harmful to female students' sense of identity (Mensinger 2000). Although all-girls schools only have female students, they are attached to a male-related value system. All-girls schools, as a specialized environment for female students, should pay additional attention to the messages sent. Rules should be designed in ways that are more suitable for females according to their characteristics, and schools should pay more attention to females' internal development rather than setting too many rules that focus on appearance or even demand them with a masculine standard.

To sum up, girls attending all-girls school is still facing much psychological pressure, especially on the appearance aspect, from both peer pressure and the rules of the schools. It is now easier to understand why there is still such a great contradiction in the literature on single-sex education and coeducation. Parents need to learn more about a school's environment before sending their daughter to an all-girls school. It is important for parents to ensure a balance between her physical and mental health and academic development.

4 COMPARISON OF STUDENTS' INTERPERSONAL SITUATION

In comparison to the common co-educational schools, the problems of interpersonal interaction are more pronounced in all-girls schools. A lot of physical and psychological changes take place as students grow older, and their friendship situation will also change, and some students will start dating. Students attending all-girls schools show a clear preference for same-sex interactions, less communication and dating with the opposite sex, later first dates, and more same-sex affection. In this section of the study, this paper will analyze the friendships, dating, and sexual orientation of students in different school settings.

It has been found that students who attended single-sex schools have a higher proportion of close friends of the same sex compared to those who attended co-educational schools (Wong *et al.* 2018). Some evidence shows that gender segregation may bring negative effects on mixed-gender relationships; for example, a study found that 10th-grade students who attended single-sex schools reported that they were less satisfied with other-gender friends than students in co-educational schools (Wong *et al.* 2018).

Another finding shows the continued high proportion of same-sex social circles among students who graduated from single-sex schools (Wong *et al.* 2018). Some possible intervention strategies are to help students expand their social circle and improve their well-being by increasing students' exposure to the opposite sex or by providing a platform for students to practice communication with the opposite sex (Wong *et al.* 2018). These methods help to address the interpersonal disadvantages of students in single-sex schools (Wong *et al.* 2018).

For the dating aspect, participants in single-sex schools reported having later onsets of first dates than those in co-educational schools (Wong *et al.* 2018). Compared to the participants who attended co-educational schools, those who attended single-sex schools were less likely to make close friends with people of other sex with whom they were not romantically involved (Wong *et al.* 2018). It shows the negative impact on students' interpersonal relationships due to the lack of exposure to the other sex.

Research has also found that students who graduated from single-sex schools reported having more same-sex sexuality in the past. Single-sex schools tend to have an impact on sexual orientation during secondary school (Wong *et al.* 2018). It is suggested that same-sex sexuality among female students who graduated from all-girls schools might have increased during secondary schooling (Wong *et al.* 2018). Furthermore, these differences found were not likely to be caused by different personal characteristics (Wong *et al.* 2018). Therefore, the environments are likely to be a major impact on students' sexual orientation. Since single-sex schools separate students from the other sex, they have limited choices of dating partners with the other sex. It is possible that some students' changes in sexual orientation are due to a lack of exposure. Long-term gender uniformity is not conducive to student's exploration of their own sexual orientation in the process of growing up. The process of exploring sexual orientation needs to be based on having access to a wide variety of people so that students know whom they are attracted to. The process of communicating with people of different genders is an indispensable experience in exploring one's sexual orientation.

In addition to the negative effects on students' exploration of sexual orientation, students attending single-sex schools were also found to have higher levels of mixed-gender anxiety due to less exposure to mixed-gender interactions (Wong *et al.* 2018). This may cause avoidance of mixed-gender situations in the future, which is harmful to the development process of social skills and relationship formation (Wong *et al.* 2018). The mixed-gender anxiety, or "dating anxiety", was found to affect initiative, satisfaction, and performance in mixed-gender social situations (Wong *et al.* 2018). For heterosexual people, it is also associated with fewer dating and sexual experiences and more difficulties in romantic relationships (Wong *et al.* 2018). The anxiety of mixed-gender situations has negative impacts on physical and psychological well-being and can cause greater depression and loneliness (Wong *et al.* 2018). Mixed-gender anxiety affects not only heterosexual people in romantic situations. For people with any sexual orientation, it also affects non-romantic situations (Wong *et al.* 2018). Therefore, it is a

common issue in single-sex schools, and everyone could be affected. This further illustrates the importance of single-sex schools to increase students' access to the other sex.

5 DISCUSSIONS AND SUGGESTIONS

Based on the comprehensive evaluation of the advantages and disadvantages mentioned above, compared to various aspects of co-educational schools, girls have significant advantages in their academic performance in all-girls schools, but they are also more prone to psychological and social problems. All-girls schools are an ideal learning environment, but they still have room for improvement in other aspects. The following will further discuss the shortcomings and solutions of all-girls schools in psychology and socialization through the experience of universality, and there are also some suggestions for adjusting the current co-educational school mechanism.

What all-girls schools need to do is strengthen their mental health programs or discussions. Although many all-girls schools now have programs or lectures in this area, we need to listen to and consider feedback from students on the effectiveness of these programs. Because sometimes students do not feel that the methods taught in the school's curriculum are effective in improving their mental anxiety, such as body anxiety, all-girls schools need to make adjustments to the delivery or content based on this feedback. According to the study that discusses possible solutions to reduce appearance anxiety, instead of telling girls they look "perfect" and that appearance is not important, an alternative approach would be to frankly acknowledge the importance of appearance, and then broaden the existing narrow standards of beauty and break people's excessive focus on appearance (Carey *et al.* 2011). Schools can make it clear to students that the critique of the standard of beauty is not equal to the critique of appearance, and it may allow students to think more deeply and widely about appearance-related practices and their pros and cons. It is crucial to let girls be clear that their satisfaction with their appearance is not defined by the standards promoted by the media or films, but that beauty has room for creation and exploration. Schools may address appearance as a self-expression and representation of one's identity so that girls can discuss appearance in a more relaxing way (Carey *et al.* 2011). It could be emphasized that everyone has unique personal traits in their appearance, and conforming oneself to a single standard of beauty that society promotes may weaken the unique characteristics of a person.

There are now influential people on the internet who are aware of these issues and are promoting individual uniqueness, using creative ways to create diversity in appearance. Their message is to encourage people to look beyond the confines of a single aesthetic standard, and these messages are also helpful in reducing appearance anxiety. Schools can refer to these cases to provide more ideas on appearance for girls who are drowning in appearance anxiety so that they are not stuck in a uniform aesthetic standard that is harmful to their physical and mental health.

Second, because girls in all-girls schools are generally anxious in a mixed-gender environment, schools need to increase some opportunities for girls to have contact with the opposite sex and create more mixed-gender social events, such as having frequent extra-curriculum activities with the other sex. Although sorority events are now held more often in some all-girls schools, they are still not enough for a long-term impact, and some seven-day boarding schools result in fewer opportunities for girls to meet the opposite sex outside of school.

While there is still room for improvement in both of these areas, much research has shown that all-girls schools are very beneficial to girls' academic development and that the all-girls environment reduces the negative impact of gender stereotypes on girls. It is necessary to let more girls and parents know about the benefits of all-girls schools so that awareness of this option can be increased. Girls are more vulnerable to gender stereotypes in co-educational schools than in all-girls schools, so teachers in co-educational schools need to be more aware

of the need to reduce the presence of gender stereotypes. Research has shown that gender stereotypes make girls self-defeating, thus losing their motivation to learn STEM subjects (Gibb *et al.* 2008). A new study at Monash University has discovered that girls in single-sex schools are more likely to take STEM subjects such as chemistry, intermediate math, advanced math, and physics in high school than in co-educational schools, so all-girls schools play an active role in encouraging girls to enter STEM fields (Gibb *et al.* 2008).

It is not realistic for co-educational schools to reduce the impact of gender stereotypes on learning by separating boys and girls, but teachers can raise their awareness of this issue and design curriculum in a more specialized way for a certain gender group to compensate for the negative impact of gender stereotypes on the group. For example, because girls are often under the pressure of being compared to boys in terms of academic performance, they feel less open to making mistakes and are less willing to take risks while learning some subjects, such as Math. Participants in the study of math anxiety among girls found that female students enjoy working with partners while studying math, so teachers use collaborative learning as a method to help them with math anxiety (Chopra & Sharma 2014). Teaching in front of peers is another way to build female students' confidence and let female students feel more open to taking risks and making mistakes (Chopra & Sharma 2014).

In summary, both single-sex and co-educational schools need to make some adjustments to their shortcomings. They can learn from each other's strengths to create a more integrated environment for students.

6 CONCLUSION

This paper compares the advantages and disadvantages of all-girls schools and co-educational schools for girls' learning, mental health, and socialization. The results show that: 1. All-girls schools are beneficial to academic learning since they reduce the impact of gender stereotypes that favors boys. 2. All-girls schools have a negative impact on girls' self-evaluation of appearance and body satisfaction due to peer pressure and some school rules, and these problems are not apparent in co-educational schools. 3. Lack of exposure to the other sex is a common problem in single-sex schools that cause mixed-gender anxiety and other interpersonal relationship obstacles. After the comparison, this paper suggests some widely applicable changes, including for all-girls schools to improve the discussion on appearance-related topics, for single-sex schools to increase exposure to the other sex through activities, and for co-educational schools to develop teaching methods according to different gender groups' unique traits and learning styles. The implications are for society to understand how all-girls schools can give girls an academic advantage; for girls' schools to compensate for their disadvantages by adapting their curricula and activities, and for co-educational schools to incorporate the advantages of single-sex schools to reduce the impact of gender stereotypes on students. Indeed, extensive discussions and comparisons do not necessarily apply to all situations, which reflects the limitations of this paper. The lack of primary data and the lack of rigor in the collection and study of data, the typicality and rigor of the cases, and the regionalized comparison of all-girls schools and co-educational schools warrant further work. In conclusion, although the dimension of this study is still limited and the coverage of the study is narrow, it is still hoped that these cases will contribute to the next step of the study. To foster the identification of suitable teaching methods and environments for diverse student populations and bridge the educational disparities across different settings, it is essential to acknowledge and explore the contrasting advantages and disadvantages inherent in all-girls schools and co-educational schools. Embracing the concept of mutual learning allows for an exchange of insights, leading to the development of more tailored approaches that cater to the specific needs of students in various educational contexts. This part of the study also further reflects the equality of human rights in education, hoping to achieve a relatively egalitarian education based on the needs of the students.

AUTHOR CONTRIBUTION

All the authors contributed equally, and their names were listed in alphabetical order.

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A study based on the impact of natural education on the environmental behavior of college students and its impact on peer networks

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ABSTRACT: Nature education has become a highly focused field due to the increasing emphasis on the natural environment. Nature education plays an important role in cultivating individual environmental awareness and promoting sustainable behavior. This study explores the existence of the Ripple effect in college students and its impact on environmental behavior. The paper defines basic education in nature as providing opportunities for college students to interact with the natural environment. Using qualitative research methods, the study aims to gain a deeper understanding of the views, attitudes, and behaviors of college students after receiving nature education. The study collected 108 questionnaires from college students and conducted in-depth interviews with five participants. The data were analyzed using the grounded theory approach and Nvivo software for three-level coding analysis. The research findings reveal that basic natural education not only directly affects individual students but also indirectly affects their peer networks, fostering positive environmental behavior in the broader university community. This study highlights the importance of nature education in promoting sustainable behavior among college students who represent future social leaders and decision-makers.

Keywords: nature education, college students, Ripple effect, environmental behavior, sustainable development

1 INTRODUCTION

Faced with increasingly severe global environmental challenges, education has become one of the key factors shaping a sustainable future. With the increasing emphasis on the natural environment, education based on nature has become a highly focused field, providing individuals with opportunities to interact with nature to enhance their understanding and emotional connection to the environment. Nature education plays an important role in cultivating individual environmental awareness and promoting sustainable behavior. However, understanding the impact of environmental behavior on college students after receiving natural education is particularly important for this group, as they represent future social leaders and decision-makers.

This study aims to explore the existence of the Ripple effect in college students and its impact on environmental behavior. The paper will focus on the role of basic education in nature, defining it as providing opportunities for college students to interact with the natural environment. By using qualitative research methods, we aim to gain a deeper understanding of the views, attitudes, and behaviors of college students after receiving nature education. By

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studying the Ripple effect, it is revealed that basic natural education not only directly affects individual students but also indirectly affects their peer networks, thus fostering positive environmental behavior in the broader university community.

2 LITERATURE REVIEW

With the increasing impact of human activities on the natural environment, environmental education has become a research hot spot in recent years. Scholars generally believe that environmental education can improve people's environmental awareness and behavior. For example, the development of the concept of environmental education has gone through various processes, from information transmission to value cultivation, from knowledge level to emotional level, and from classroom teaching to practical activities. Some researchers believe that environmental education should focus on imparting scientific knowledge and facts about nature to improve people's cognitive level and judgment ability; Other researchers believe that environmental education should focus on cultivating people's emotional connections and value orientations toward nature in order to enhance people's attitudes and sense of responsibility; Some researchers also believe that environmental education should focus on promoting people's participation in actions and skills to solve environmental problems, in order to enhance people's sense of efficacy and influence. This article believes that the main content of the concept of environmental education is natural-based education, which promotes people's environmental learning and behavioral changes through interaction and experience with nature.

Existing research can be roughly divided into the following two categories based on different themes. The main viewpoint of the first category is based on the impact of natural education on individuals, which is further divided into two representative viewpoints. One view is that education based on nature can improve individuals' mental health and happiness, such as enhancing positive emotions like confidence and decreasing negative emotions like tension, anxiety, and depression, creativity, and satisfaction. For example, Chawla found through interviews with adults from multiple countries and cultural backgrounds that their intimate contact with nature during childhood has a profound impact on their mental health and happiness as adults (Chawla 2015); Sabine Pirciho *et al.* showed an association between pro-environmental beliefs and actions, psychological and physical wellbeing, pro-social conduct, empathy, and students' life satisfaction that is both favorable and substantial (Pirciho *et al.* 2021). On the other hand, another view suggests that education based on nature can enhance individual environmental behavior and action, such as increasing environmental knowledge, awareness, attitude, sense of responsibility, and skills, thereby promoting individuals to adopt a more environmentally friendly lifestyle and participate in more environmental protection activities. For example, Rickinson *et al.* found through an evaluation of multiple nature education-based projects in the UK that these projects have a significant positive impact on participants' environmental behavior and action (Rickinson *et al.* 2004). Silvia Collado assessed how a nature-based environmental education program affected South Korean children's environmental attitudes and behaviors (Collado *et al.* 2020). From these, it can be seen that a basic consensus revealed by education based on nature is that interaction and experience with nature can not only enhance individual mental health and happiness but also stimulate individual environmental behavior and action.

The main viewpoint of the second category is the impact of education based on nature on groups, which is further divided into two representative viewpoints. One view is that education based on nature can promote social cohesion and cooperative spirit among groups, such as increasing trust, respect, support, and friendship among group members, thus forming more harmonious and effective social relationships. For example, Pretty *et al.* found through research on multiple community horticultural projects in the UK that these projects have a significant enhancing effect on participants' social cohesion and collaborative spirit

(Pretty *et al.* 2007); Another view is that nature-based education can produce a Ripple effect, that is, through participants' learning of nature and behavioral changes to affect their peer networks, thereby expanding the scope and depth of the impact of nature-based education. For example, Everard *et al.* analyzed several water resource management projects in the UK and found that these projects affected their families, communities, organizations and other peer networks through the change of participants' water resource values, thus producing a Ripple effect (Everard *et al.* 2016). From it, it can be seen that education based on nature can not only improve individual mental health and environmental behavior but also improve the social relationships and values of the group.

The above research has made important advances in the research of nature education issues and has positive implications for the theory and practice of nature education. However, there are also some research deficiencies, specifically reflected in the following:

Firstly, from the perspective of research subjects, existing studies have focused more on the natural education effects of children or adolescents and less on college students. For example, Vella Rodrick, D. A., & Gilowska, K. found that environmental education can lead to positive cognitive and emotional outcomes in adolescents (Vella Rodrick & Gilowska 2022); Chawla studied the impact of childhood intimate contact with nature on mental health and happiness in adulthood (Chawla 2015). Tobias Krettenauer revealed that pro-environmental behaviors such as energy conservation and recycling were less common among older adolescents. The influence of age was mediated by the moral judgment's prescriptiveness and the emotional connection with nature (Krettenauer 2017).

However, as a special group, college students are at a turning point in their lives, facing multiple pressures and challenges, as well as possessing high levels of autonomy and creativity. Their needs and reactions to environmental education may differ from those of children or adolescents, so it is worth conducting separate research.

Secondly, from the perspective of research content, existing studies have focused more on the direct impact of natural education on individuals or groups, and less on the indirect impact of natural education on peer networks. Deborah Carter D. found that nature-based social-emotional approach can support young children's holistic development in classrooms with or without walls (Chen & Wang 2020). However, these studies have not specifically explored how nature-based education can influence the peer networks of participants, especially those of college students, through changes in their environmental behavior. Peer networks refer to groups of individuals with similar or related characteristics or goals, such as friends, classmates, colleagues, etc. Peer networks have a significant impact on individuals' psychology, behavior, attitudes, etc., and are also important channels for individuals to disseminate information and values. Therefore, how nature-based education affects the peer network of participants through their changes in environmental behavior, thus producing the Ripple effect, is a research topic worthy of attention and exploration.

Given the above analysis, this article intends to study the issue from the perspective of the impact of natural education on college students' environmental behavior and its impact on peer networks.

3 RESEARCH METHODOLOGY

This study adopts a mixed research method, combining quantitative and qualitative data, to explore the impact of natural education on college students' environmental behavior and its impact on peer networks. The specific steps are as follows:

3.1 Determine the research object

This study selected college students from a certain university in Hunan as the research subjects. Through the stratified random sampling method, 108 students were selected from

different grades, majors, and gender dimensions to participate in the questionnaire analysis. Five students from different majors and genders in economics, computer science, urban planning, and hotel management were invited as interview subjects from the students who participated in the questionnaire analysis.

3.2 *Collect data*

This study used a questionnaire survey and interview methods to collect data. This study designed a questionnaire consisting of three parts: basic information, feelings about nature education activities, environmental behavior, and peer network. Using the 5-point Likert scale, there are 14 questions in total, with high reliability and validity. At the same time, 5 students were randomly selected for a semi-structured interview, which included their feelings and gains on nature education activities. The interview lasted for about 30 minutes and was recorded and transcribed into text.

3.3 *Analyze data*

This study used SPSS software to conduct descriptive and inferential statistics on questionnaire data, including frequency analysis, mean analysis, standard deviation analysis, etc., to test whether the impact of natural education activities on college students' environmental behavior and peer networks is significant, as well as the direction and degree of the impact. At the same time, Nvivo software was used to analyze the content of the interview data, extract the main themes and codes, and reveal the internal mechanism and deep significance of the impact of natural education activities on college students' environmental behavior and peer networks.

4 RESEARCH FINDINGS

4.1 *Questionnaire analysis results*

Through the survey, it was found that the majority of students participating in the survey were between the ages of 18 and 20, accounting for 81.48%, and 91.67% of their classmates were sophomores. Only 4.63% of them are under 18 years old, and 13.89% are between 21 and 23 years old. In terms of professional types, humanities are the main category, accounting for 51.85%, followed by engineering, accounting for 21.3%. Others account for 14.81%. The smallest category is science, accounting for only 12.04%.

4.1.1 *Descriptive statistics*

Table 1 shows the basic information of the respondents, including gender, type and frequency of nature education activities they have participated in. It can be seen that among the respondents, women are slightly more than men, accounting for 55.6%; The number of people who have participated in outdoor activities such as tourism/hiking/camping is the highest, accounting for 64.8%, followed by theme lectures or exhibition activities such as environmental protection/ecology/sustainability, accounting for 40.7%, followed by creative activities such as natural art/music/literature, accounting for 31.5%, and the lowest is natural observation activities such as plants/animals/geology, accounting for 28.7%. 15.7% of people stated that they have not participated in any nature education activities. The number of people who have participated in natural education activities more than 3 times is the highest, accounting for 33.3%, followed by those who have participated 1–2 times, accounting for 45.4%, and the least number is those who have not participated, accounting for 21.3%.

Table 1. Basic information of respondents and classification of nature education activities participated in.

Variable	Frequency	Percentage (%)
Gender		
male	35	32.41
female	73	67.59
Age		
Under 18 years old	5	4.63
18–20 years old	88	81.48
20–23 years old	15	13.89
Over 23 years old	0	0
major		
Liberal Arts	56	51.85
science	13	12.04
Engineering	23	21.3
Art	0	0
other	16	14.81
type		
Outdoor activities such as tourism/hiking/camping	69	63.89
Natural observation activities such as plants/animals/geology	30	27.78
Lectures or exhibition activities on environmental/ecological/sustainable themes	43	39.81
Creative activities such as natural art/music/literature	33	30.56
I have not participated in any nature education activities	17	15.74

Questionnaire results show the respondents' feelings towards the most recent nature education activity they participated in, their environmental behavior over the past year, and their peer network ratings. It can be seen that the respondents' scores are all above 3, indicating that most people have a positive evaluation of nature education activities, have high environmental awareness and behavior, and recognize peer networks. Among them, the highest score is "I will try my best to save water, such as turning off the tap in time and shortening the bath time," with an average score of 4.26. The lowest score is "I will try my best to classify Waste sorting, such as putting recyclables, harmful substances, and kitchen waste," with an average score of 3.78.

4.1.2 Inferential statistics

In terms of gender, women's scores on environmental behavior are higher than those of men, and the difference is significant ($t = -2.34, p < 0.05$), indicating that women are more inclined to adopt environmental behavior than men. Meanwhile, the variance of women's scores on environmental behavior is smaller than that of men, and the difference is significant ($F = 4.56, p < 0.05$), indicating that women have higher consistency in environmental behavior, while men have greater differences in environmental behavior.

In terms of type, people who have participated in outdoor activities such as tourism/hiking/camping have higher scores in terms of natural education activities and peer networks compared to other types of activity participants, and the difference is significant ($F = 4.12, p < 0.01$; $F = 3.87, p < 0.01$), indicating that outdoor activities can more effectively improve people's understanding, attention, and action towards nature, as well as enhance interpersonal relationships. Meanwhile, people who have participated in outdoor activities such as tourism/hiking/camping have a smaller variance in their perception of nature education activities and peer network scores compared to other types of activity participants, and the difference is significant ($F = 3.45, p < 0.05$; $F = 4.32, p < 0.01$), indicating that outdoor activities can more effectively reduce people's understanding, attention, and action towards nature, as well as enhance differences in interpersonal relationships.

In terms of frequency, individuals who have engaged in environment education activities more than 3 times scored higher in terms of their feelings and environmental behavior than those people have taken part in outdoor learning activities participated in nature education activities 1–2 times or have not participated, and the difference was significant ($F = 5.67$, $p < 0.001$; $F = 6.23$, $p < 0.001$), indicating a strong connection between the effectiveness of nature education activities and how frequently you take part. At the same time, the variance of the scores of people those have taken part in more than three activities for teaching about nature in terms of their feelings and environmental behavior is smaller than those who have participated 1–2 times or have not participated, and the difference is significant ($F = 6.78$, $p < 0.001$; $F = 7.34$, $p < 0.001$), indicating a negative correlation between the effectiveness of nature education activities and the frequency of participation.

There is a significant a good relationship between the perception of nature education activities and environmental behavior ($r = 0.52$, $p < 0.01$), indicating that people who have higher evaluations of nature education activities are also more inclined to adopt environmental behavior.

Connection between nature education activities and peer networks favorable ($r = 0.48$, $p < 0.01$), indicating a higher evaluation of nature education activities.

4.2 *Coding results of grounded theory*

Three steps of open coding are used in this study's grounded theory qualitative data analysis., open coding, spindle coding and selective coding, and ensures the study's validity using a theoretical saturation test. Finally, compare each encoding in turn, identify two distinct encodings, the same and distinct encoding content, use the same encoding content, and compare various encodings in depth through reading and thought. A vast number of publications will be compared, and throughout this comparison process, concepts that appear less than twice and cannot be classified will be dropped.

4.2.1 *Open coding, extracting concepts and categories*

Open coding refers to the process of decomposing, comparing, conceptualizing, and categorizing collected data at the beginning of the research, which is an operational process of breaking up a large amount of data based on certain principles, assigning concepts, and then reassembling it in a new way (Deborah Carter 2016). Without any researcher presumptions or biases, this study encodes and labels the verbatim interview data using Nvivo 11.0 free encoding function, developing first concepts and defining conceptual categories from the original data. Table 1 displays the outcomes of the open coding process. To generate the 38 first categories for this paper, open coding is used. A total of 216 nodes, of which the top ten with more frequency are to enhance the awareness of nature protection, enhance the nature experience, establish the correct three outlooks, communicate and learn from each other, Waste sorting, supervise peers, low-carbon life, environmental protection, peer influence, and transform natural theory into practice.

4.2.2 *Axial encoding*

Open coding of the text enables for sentence-by-sentence and line-by-line analysis Conceptualization and development, as well as the traits and aspects of concepts. The next step entails naming related circumstances and events, grouping them, and creating a list of coding codes and classifications. 38 unique words and concepts were produced over the project's open coding period, and concepts with a frequency of less than 2 were eliminated. Based on this, 7 main categories were obtained using axial coding, namely cognition, meaning, behavioral interaction, cause, impact on individuals or peers, value contribution, and challenge.

4.2.3 *Selective encoding*

A higher level of abstraction is used in selective encoding, which follows axial encoding. The goal of this step is to determine the basic categories, which may then be combined with other

suggested categories to create a comprehensive “storyline”. Table 2 lists three key categories: the understanding and importance of nature education, its effects and motivations, and the benefits and difficulties of nature education activities.

Table 2. Selective encoding.

Main Category	Subcategory	Frequency
The understanding and significance of Nature Education	know	seven
	significance	forty-one
The impact and reasons for natural education	Behavioral interaction	sixty-four
	reason	forty-eight
	Impact on individuals or peers	twenty-eight
The value and Challenge of Natural Education Activities	Value contribution	sixteen
	challenge	twelve

5 CONCLUSION

This study aims to explore the impact of nature education activities on participants’ environmental behavior and peer networks, as well as the reasons and mechanisms of the impact. This study used questionnaire survey and interview methods to collect and analyze data on people who have participated in different types and frequencies of nature education activities. This study found that:

In terms of gender, women exhibit higher tendencies and consistency in environmental behavior, while men exhibit greater differences in environmental behavior.

In terms of types, people who have participated in outdoor activities show higher evaluations and consistency in their feelings of nature education activities and peer networks, indicating that outdoor activities can more effectively enhance people’s understanding, attention, and action towards nature, as well as enhance interpersonal relationships.

In terms of frequency, people who have participated in more than three nature education activities show higher evaluation and consistency in their feelings and environmental behavior, indicating a positive correlation between the effectiveness of nature education activities and the frequency of participation.

In terms of correlation, there is a significant positive correlation between the perception of nature education activities and environmental behavior, indicating that people who have higher evaluations of nature education activities are also more inclined to adopt environmental behavior; There is a significant positive correlation between the perception of nature education activities and peer networks, indicating that people who have higher evaluations of nature education activities are also more likely to establish good interpersonal relationships.

The understanding and importance of nature education, the impact and motivations for nature education, and the benefits and difficulties of nature education activities were all thoroughly analyzed in this study using open coding, axial coding, and selective coding. This study believes that nature education activities are an effective way of environmental education, which can enhance participants’ awareness of natural conservation, experiential experience, three perspectives, mutual communication and learning, thereby promoting them to adopt more environmental behavior and forming a closer peer network. At the same time, this study also pointed out some challenges existing in nature education activities, such as Waste sorting, peer supervision, low-carbon life, environmental punch card and other aspects that need to be further strengthened and improved. This study aims to provide some reference and inspiration for the design, implementation, and evaluation of nature education activities.

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The impact of modern technology on student learning outcomes

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ABSTRACT: This research sought to examine the effect of modern technology on students' learning outcomes. Given rapid technological advancement and its increased integration in educational settings, understanding its implications is of great significance. As such, this study's significance lies in informing educators, parents, policymakers, and other stakeholders how best to use tech for increased learning outcomes. This research employed a secondary data analysis approach using the case study analysis of existing literature and data. By analyzing existing material and data sources, this research endeavored to explore the impact from multiple perspectives, specifically those belonging to students, teachers and parents. The findings demonstrate that technology can substantially augment students' cognitive skills by providing access to various resources and interactive platforms that support learning, but too much reliance can hinder critical thinking abilities. From teachers' viewpoints, technology allows for more personalized learning experiences while diversifying teaching methods; its success requires adequate teacher training and support and parent involvement for optimal use. Based on these findings, the research makes several recommendations to increase equitable access to technology, provide adequate training for educators, encourage digital literacy among students, inform parents of its effective use, and create regular evaluation mechanisms. Modern technology holds immense potential to improve learning outcomes; however, its implementation must be approached carefully with adequate strategies and resources. This research offers a thorough examination of both challenges and opportunities presented by technology in education settings while setting the groundwork for further studies and innovations in this area.

Keywords: Modern Technology, Student Learning Outcomes

1 INTRODUCTION

The education sector has also experienced this transformation, as the rapid evolution of technology, such as internet access, mobile phones, and digital tools, has reshaped the learning landscape across all grade levels and educational institutions (Mangal & Mangal 2019). Students today have unparalleled access to information and resources through online learning platforms, educational apps, and digital libraries, revolutionizing traditional teaching and learning processes.

The academic literature on the effects of technology in education has grown significantly in recent years. Studies have demonstrated the positive impact of integrating mobile devices into learning processes, enhancing students' learning experiences and performance (Sung *et al.* 2016). However, doubts have also been raised by some scholars, questioning the efficacy of computer technology in improving student achievement (Schacter & Fagnano 1999). While technology holds great promise for education, its actual impact on student learning outcomes remains a subject of debate. Existing literature tends to focus on specific

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technological tools or platforms, leaving a gap in understanding the collective impact of technological advancements on student learning outcomes. This research aims to address this gap by providing an in-depth examination of how modern technology influences student learning outcomes. The findings of this study will contribute to a better understanding of how technology should be effectively employed in education, benefiting educators, policy-makers, and education stakeholders seeking to enhance its quality and effectiveness.

This research aims to explore the impact of modern technology on student learning outcomes by investigating the various technological tools and platforms employed in educational settings and their influence on students' cognitive abilities and reliance on tech devices. Furthermore, it examines how educators and parents utilize these technologies to facilitate and support the educational experiences of students. Drawing on existing data, literature, and select real-life examples, the study delves into both the positive and negative implications of modern technology on student learning outcomes. It offers a multifaceted analysis, encompassing the perspectives of students, educators, and parents.

2 EVOLUTION OF EDTECH: TRANSFORMING EDUCATION IN THE DIGITAL AGE

Educational technology, also known as EdTech, encompasses a wide range of tools and platforms designed to support teaching and learning processes (Lazar 2015). Its origins can be traced back to early 20th-century classrooms, where visual aids like charts and maps were used. However, a significant change occurred with the introduction of computers into education during the 1980s (Collins 1990). Computers enabled the development of subject-specific software and personalized learning experiences. In the 1990s, the internet further accelerated the advancement of educational technology. Instant communication and access to vast information and resources became possible. Learning Management Systems (LMS) gained popularity during this period, allowing educators to manage course content online, while online forums and discussion boards facilitated direct communication between educators and students, enhancing the educational experience (Watson & Watson 2007).

In the 21st century, mobile technology brought another major leap forward. Smartphones and tablets made learning more accessible and flexible, leading to the proliferation of educational apps catering to various learning needs. Leading educational app providers like Duolingo, Khan Academy, and Coursera revolutionized higher education through Massive Open Online Courses (MOOCs). Platforms like Coursera, edX, and Udacity offered courses from top universities and institutions worldwide, democratizing access to quality education for individuals globally (Pappano 2012).

The integration of artificial intelligence (AI) in education is also noteworthy. AI-powered tools, including chatbots and adaptive learning platforms, enable students to personalize their learning experiences by analyzing their performance and providing tailored content and feedback (Luckin 2018). Additionally, the COVID-19 pandemic acted as a catalyst for the adoption of educational technology (Christopoulos & Sprangers 2021). With the closure of schools and universities, online learning became the new norm. Video conferencing tools like Zoom and Google Meet became essential for virtual classrooms, while platforms such as Google Classroom and Microsoft Teams facilitated course management and collaboration on assignments.

3 ANALYSIS OF THE PROBLEMS

3.1 *Students' perspective*

Educational technology has had a significant positive impact on students, particularly in enhancing cognitive skills. Cognitive skills, including memory, attention, and

problem-solving, are essential for effective learning. Technological tools have proven to be valuable in fostering these skills among students. Interactive educational games and simulations, for example, can promote critical thinking, problem-solving, and decision-making abilities. Educational video games have the potential to greatly improve students' problem-solving and critical thinking skills, as well as enhance information management, digital literacy, and collaboration, all of which are crucial skills in today's information age (Kebritchi *et al.* 2010).

In addition to cognitive skill development, technology can also cater to different learning styles and preferences. Adaptive learning platforms, for instance, utilize algorithms to analyze students' performance and learning patterns, allowing for the creation of personalized learning paths. These platforms can provide resources and content specifically tailored to visual, auditory, or kinesthetic learners, thereby optimizing learning experiences and outcomes (Walkington 2013).

While the enhancement of cognitive skills is undeniably valuable, it is important to consider the relationship between technology usage and these skills. With the vast amount of information and tools available online, concerns have been raised regarding students becoming overly reliant on technology, particularly the internet, which may lead them to bypass critical thinking and problem-solving when addressing questions or challenges in their academic pursuits. Such reliance on technology could hinder the development of critical analytical abilities. The widespread use of calculators, spell checkers, and similar tools may lead to a decline in fundamental math and language skills over time. Students tend to skim digital resources rather than engaging in deep reading activities that foster analytical and critical thinking skills (Nicholas *et al.* 2010). Dependency on technology also poses the risk of distraction, as multiple tabs, social media notifications, and instant messaging can divert students' focus from their tasks at hand. Research suggests that students who extensively use technology during study sessions may experience reduced focus and information retention (Rosen *et al.* 2013).

3.2 Teachers' perspective

Modern technology offers educators both opportunities and challenges in supporting student learning. One significant way technology is utilized is through the integration of multimedia and interactive content into lessons. Videos, animations, and simulations make abstract concepts more tangible and engage students more deeply in their learning experiences. Multimedia learning promotes deeper comprehension by engaging multiple sensory modalities simultaneously (Mayer 2014).

Learning Management Systems (LMSs), such as Moodle and Blackboard, provide educators with efficient tools for managing course content, assignments, and assessments. By utilizing LMSs, teachers can monitor student progress, provide timely feedback, and facilitate communication among classmates (Coates *et al.* 2005).

Technological tools also enable teachers to enhance their instructional strategies. Platforms like Kahoot! and Quizlet offer ways to add variety and competition to classroom learning, increasing student motivation and engagement. Technology allows for the adoption of "flipped classroom models," where students are exposed to content through videos or readings at home and then engage in discussions, problem-solving exercises, and application activities in class (Bergmann & Sams 2012). Additionally, teachers benefit from the abundance of online resources and professional development opportunities available through platforms like Edutopia and Coursera. These platforms offer courses, workshops, and content to assist teachers in advancing their teaching practices and staying updated on emerging trends and research in education (Ferri *et al.* 2020).

Despite the advantages, implementing technology in classrooms presents obstacles for educators. One significant challenge is the digital divide, as access to technology varies among students in under-resourced communities, potentially compromising the effectiveness

of technology-integrated instruction (Warschauer & Matuchniak 2010). Furthermore, teachers may face difficulties in adapting to new technologies. Some individuals may feel inadequate in using certain tools, which can impede effective implementation. Therefore, teachers must carefully select digital resources and tools that align with learning objectives and maintain high quality. Given the vastness of online content, critical evaluation skills are necessary to discern credible, relevant, and pedagogically sound resources.

3.3 *Parents' perspective*

Parents rely on technology as an essential tool to support their children's education, particularly when it comes to accessing online resources and tools that assist with homework and school projects. Educational websites, apps, and online tutorials like Khan Academy provide parents with invaluable information to help their children understand and complete assignments more efficiently (Thompson 2011).

Technology has revolutionized how parents track their children's academic and behavioral progress at school. Many schools utilize online grade books and behavior-tracking systems that parents can access to monitor academic performance and conduct. Real-time updates provide parents with accurate assessments of grades, attendance, and behavior, allowing any issues to be addressed promptly (Berlinski *et al.* 2016).

Communication between parents and teachers has also been greatly enhanced through technology. In the past, this communication was limited to conferences or written notes, but now technology enables ongoing dialogue through email, messaging apps, or video conferencing. Platforms like ClassDojo and Remind offer convenient ways for parents and teachers to communicate, keeping parents informed about classroom activities, upcoming assignments, and any issues or concerns (Bouhnik & Deshen 2014).

Technology can assist parents in creating structured and conducive learning environments at home. Parental control software allows parents to set limits on screen time, ensure children do not access inappropriate material, create study plans with reminders for assignments and exams, and establish study schedules with scheduling tools.

Technology offers parents numerous resources, but it is essential to consider its potential downsides from their perspective. The complexity of these tools may be overwhelming for those who are unfamiliar with their use, necessitating a balanced approach. Additionally, excessive reliance on technology for communication may diminish the importance of face-to-face interactions that build relationships and allow children to understand their learning journey.

4 SUGGESTIONS

Based on the analysis of modern technology's impact on students' learning outcomes from various perspectives, it is evident that while technology offers numerous benefits for education, there are also associated drawbacks. Therefore, this section aims to provide strategies for optimizing technology use in education to enhance student outcomes.

Ensuring equitable access to technology for all students is crucial (Warschauer & Matuchniak 2010). The digital divide can hinder effective technology integration in education, so schools and policymakers should strive to provide equal access to technology and internet connectivity for children from different socio-economic backgrounds. Moreover, alongside addressing access, it is imperative that teachers are equipped with both technical expertise and pedagogical knowledge to utilize technology effectively in their teaching practices (Ertmer & Ottenbreit-Leftwich 2010). Professional development programs or communities of practice can support teachers in acquiring the necessary skills. Additionally, the selection and use of educational technology should be guided by sound pedagogy. Teachers must ensure that their choices align with curriculum goals and improve learning

outcomes. Selecting high-quality digital resources that are educationally sound and pedagogically useful is crucial for student success.

Promoting digital literacy and critical thinking skills among students is vital. They need to learn how to critically evaluate online information while using technology as a learning tool (Meyers *et al.* 2013). Parents should receive guidance and resources from educational institutions on how to effectively support their children's learning using technology, including utilizing available educational tools, creating conducive study environments at home, and communicating effectively with teachers through technological platforms. Additionally, it is important to encourage balanced technology use among students to prevent overreliance or addiction. This involves setting reasonable screen time limits, fostering face-to-face interactions among students, and providing diverse learning experiences.

5 CONCLUSION

This research aims to evaluate the diverse effects of modern technology on students' learning outcomes. Technology can have a significant positive impact on cognitive abilities by providing students with access to resources and interactive platforms that make learning engaging and efficient. However, it is important to note that overreliance on technology may hinder the development of critical thinking skills, as students may use it as a crutch instead of leveraging it as a learning tool. Studies conducted on teachers have demonstrated the potential of modern technology as an educational resource, expanding teaching methods and enabling personalized and adaptive learning experiences for students. However, the successful integration of technology in the classroom depends on teachers receiving adequate training and support to effectively utilize these tools. Technology has also greatly increased parental involvement in their children's education through online resources, monitoring tools, and communication platforms. However, there is a need for more education to ensure parents can use these tools effectively and promote a balanced approach to technology use among their children.

One of the major contributions of this research is providing a comprehensive view of technology's impact from multiple perspectives: students, teachers, and parents. This multi-dimensional approach allows for a better understanding of the challenges and opportunities associated with technology in the educational context. However, this research is not without limitations. The absence of field investigations limits firsthand insights and observations regarding the use and impact of technology in educational settings, with most findings derived from literature reviews and secondary data. Furthermore, the lack of survey data makes it difficult to gauge personal experiences from a diverse sample of students, teachers, and parents.

While modern technology holds immense potential to enhance learning outcomes, its thoughtful and judicious use is crucial. This involves ensuring equitable access, providing adequate training and support for educators, educating parents on effective use, and promoting a balanced approach to technology use among students. As technology continues to advance rapidly, it is imperative to conduct more empirical studies that combine field investigations and survey data to validate and expand upon the findings of this research. Regular assessments of technology's impact on education are also necessary to adapt strategies accordingly.

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Early childhood education in China and the United States: A comparative study

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ABSTRACT: Early childhood is one of the most important stages in a child’s cognitive development, and early child education can be one of the most crucial yet often ignored educational stages. The narratives about early childhood education can vary greatly between cultures and countries, and perceptions about early childhood education in China and the United States are very different, aside from the inherent systematic differences. This research dives into how differences in political, cultural and socioeconomic factors lead to differences in early childhood education in these two countries, and it also examines the differences in culture and teaching values behind these differences. Analyzing existing Chinese and American literature, this research aims to provide a holistic view of factors accounting for the differences and eventually call for policy changes that can potentially improve both education systems. Governmental interventions and the perception of the role of early childhood education seem to be the dominant difference between early childhood education systems in the two countries, and the inequality in educational resources in both countries highlights socioeconomic factors as a common factor leading to the cultural and social stratification from unequal participation in early childhood education.

Keywords: early childhood education, education policy, education justice, Chinese education system, comparative education

1 INTRODUCTION

Early childhood is the educational stage in which children first receive education and have important developments that prepare themselves for more formal education in elementary school. A lot of parents choose to send their children to preschool and other early childhood education institutions for better cultivation of their children in the first few years. However, when discussing “education,” early childhood education is the stage that is usually left out, even leading to neglect in policymaking and fund apportionment (Bruner 2013).

While the majority of literature on education has been focusing on K-12 and higher education, early childhood education is also a very important stage in education. Parents who are influenced by different social, political, and cultural environments have very different approaches to providing early childhood education to their children. Chinese and American educational systems have very different forms and values, and differences between Chinese and American education systems are also evident in early childhood education: the ways in which they are available and the values guiding the education are both very different while they reflect some issues that are common to many societies around the world today.

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Exploring literature from Chinese and American educators, the focus of discussion in this paper will be the similarities and differences in the early childhood education in China and the United States, as well as the factors that are accounting for these similarities and differences. Along with the comparison, there will also be a discussion about how educators in both countries can potentially benefit from adapting some of the practices from the early childhood education practices of the other country.

Lastly, the essay will look to dissect problems in policies and teaching philosophies in both systems and analyze how both systems can potentially benefit from improvements targeting at their weaknesses. Suggestions will stem from the comparison, and there will also be an analysis of roadblocks for the specific solutions suggested.

2 FINDINGS

2.1 *Differences in political system and structure*

First and foremost, the structures of the early childhood education systems in the two countries are excellent demonstrations of the differences. In China, early childhood education has a more centralized structure where the government has more control. According to Zhu (Zhu 2009), while there is much more diversity and flexibility in the source of funding and operation for early childhood education institutions, traditionally, these institutions were managed by either the Ministration of Education or the Ministration of Hygiene, depending on the nature of the institution. On the other hand, early childhood education and care is a concept that has been historically more diverse, and there are all types of different early childhood education institutions with different emphases on “care” and “education” (Kamerman & Gateno-Gabel 2007). A lot of the preschools in the United States are privately operated and usually come with very high costs, and there is a very high access gap in preschool education for American children, according to a report from American Progress (Herman *et al.* 2013). American advocates identify access to preschool and early childhood education in general as a very severe problem. Systems of early childhood education are different in China and the United States, and the parties that are in control are different, the Chinese one leaning more towards the government while the American one learning more towards the society and market.

One decade ago, there was a major gap between the preschool enrollment rates in two countries. When compared to the attendance rate in China, the early childhood education attendance rate in the United States is relatively high. The enrollment rate of children aged between 3 to 5 years old was 44.6% in China (Zhu 2009), while 69% of 4-year-olds are enrolled in early childhood education programs in the United States (Herman *et al.* 2013), a roughly 25% gap with that of China. The gap, however, closed at an astonishing speed, and currently, the preschool enrollment rate in China well surpasses that in the United States: per the latest official records, the preschool enrollment rate has rose to 88.1% percent for 3- to 5-year-olds in China while the preschool enrollment rate in the United States is 55% for 3- to 5-year-olds and 86% for 5-year-olds (Shuo 2022a). While there are limitations in the effectiveness of the data for comparison due to the differences in measurements and measured objects, the overall upward trend in enrollment rate in China greatly surpasses that of the United States, indicating a more rapid development.

The changes in the size of the gap indicate the traces of the development of the early childhood education system in China. There are signs of the rapid growth of early childhood education in China; the huge gap a decade ago hinted that the development was previously hindered and that China is now closing the gap at a very fast case. Early childhood education shows the inequality in resources and policies across different regions. There is a very clear indication that the early childhood education in China is very strongly influenced by socio-cultural changes and that it is a very important part of the overall design of the educational

system. Hindered development was likely to be caused by the uneven economic resources prior to the reform of the education system (Zhu 2009), and the rapid development is brought by an attempt of the government to leverage the economic resources and intentionally foster more development in previously underdeveloped regions.

The hike in preschool enrollment rate in China is a result of active governmental actions and economic development. According to Shuo (Shuo 2022b), in the past decade, the Chinese government had a very ambitious plan to increase the enrollment rate of schools at all levels to the level of high-income countries, and the government also gave financial aid to students in 1.3 billion cases. The effort also includes providing more proactive help to students from rural and low-income areas, as well as reducing the tuition. The government invested 253.2 billion yuan in preschool education in 2020, which was five times in 2010. The newly built kindergartens strived to focus on improving the equality of access to education. Almost 80 percent of them were located in central and western regions, regions that were typically associated with lower educational enrollment rates and underdeveloped economies (Shuo 2022). The construction shows the government's effort to improve the system and alleviate more resources for previously underserved areas. The scale proactive actions indicate the incorporation of early childhood education into master planning of the education system. There are also top-level design changes, including financial input and teaching staff construction were identified by policymakers, and the Chinese early education system now is the result of a master plan that involves deep planning of multiple state actors (Pang *et al.* 2012).

On the other hand, government intervention in the United States is at a significantly lower level despite the creation of several early childhood education programs that provide early childhood education to some eligible students. The early education programs in the United States usually have extremely high prices and are market-driven, and yet supplies are barely meeting demands due to the limitation in resources. There is almost no active intervention from the government aside from the Biden administration's Chips Act implementation, which is showing only a narrow impact, and tax subsidiary policies are not doing enough to provide more educational resources to those in need (Edwards 2023). Early childhood education is, therefore, a privilege for some, while others might deem it a necessary resource that will lift the burden of education from the parents and provide children with the necessary skills they need to succeed in K-12 education.

The societal differences, predominantly demonstrated by the level of investment by the government and the differences in income inequalities, are contributing to the differences in early childhood education systems in China and the United States. The different levels of importance defined by the governments, which are shown in the level of recognition in official policies, have also led to the differences in how American and Chinese early childhood education systems work.

The education systems are very clearly guided by different philosophies: early childhood education is regarded as a part of the formal education system in Chinese education's master plan. The psychological differences have made them almost different concepts in the two countries. The level of emphasis placed on early childhood education hints at the differences in perceived roles of the education system, and it also exemplifies the differences in values.

2.2 *Differences in culture, value, and perception of role*

Examining the content of early childhood education and the motivation that parents have to place their children in early childhood education centers, we can see that even though early childhood education aims to teach children certain skills prior to their entrance into elementary school, there are substantial differences in what they are learning in school as well as why parents and teachers are placing them in school.

Early childhood is deemed a very important period in which children will become more prepared for schoolwork in elementary school. Given combined with the context of the

Chinese education system, it is natural for Chinese early childhood education to focus on skills that are related to the education system that values quantifiable educational outcomes. In “Talking About the Strategies of Cultivating Children’s Early Reading Ability in Preschool Education” (Lu 2022), the author discusses strategies that can be utilized by early childhood educators to foster more improvement in children’s reading skills. Ning’s research mentions that reading is one of the top skills valued in the Chinese early childhood education system and that there are usually a lot of curricula dedicated to reading skills. The level of attention given to academic skills demonstrates the emphasis on skills directly related to quantifiable educational outcomes.

There is a very usual perception of early childhood education as a way that parents can prepare their children for the academic competition that will last more than a decade in China. In “The question of early education” shows us that the belief in the value of early childhood education as a measure to prevent later failure in the educational system has existed for a very long time (China Daily 2011). The philosophy that the parents hold firmly is “don’t let your children lose at the starting line,” and parents have been making a lot of effort so that they can provide what they believe is the best for the children. As a result, children in early childhood education are exposed to more sophisticated courses, and they learn skills like mental arithmetic and foreign language before they enter primary school: something that parents perceive to be enhancing the children’s future academic career but might be too distressing for the children.

Eventually, the extension of standardization of education system into the early childhood education system in China is verified in Malin Hu’s discussion about the progress, problems, and countermeasures of educational standards (Hu 2021). Even though there are a lot of limitations in the current implementation of such a system, at the policymaking level, there is a recognition of such a task, and the educators are still working on a continuous evaluation of such plans, making changes when possible. Early childhood education in China is not a standalone educational system, nor is it an education that is separate from the rest of educational institutions. It was designed to be an integral part of children’s education, and it does have the goal of improving academic preparedness in mind, with curriculum also aiding the achievement of this goal.

American early childhood education tends to focus on another set of skills that have different roles assigned to the early childhood education system. In general, there is more demand for skills that are usually considered more abstract and universal. Some skills are in high demand throughout students’ educational journey. For example, skills like “ICT skills,” or information and communication technologies skills (Weber & Greiff 2023), are considered very important in the digitized society and therefore are becoming new objectives for early childhood education. Weber and Greiff think that it is necessary to teach students information and computer technology in the early stage of education and that these skills will foster an improvement in “technical, information, communication, collaboration, critical thinking, creative, and problem-solving skills” (Weber & Greiff 2023), and while the development of these skills are still facing challenges due to the fact that students in early childhood education tend to have cognitive traits that tend to make it much more difficult to acquire the ICT skills, the values that are emphasized in early childhood education still support the case of fostering curricula that promote ICT skills, and improvement of skills like ICT skills aligns well with the overall educational goal of early childhood education curriculum. Weber & Greiff’s perspective is a great example of values that are valued more in the western education system (Weber & Greiff 2023). Objectives that focus mostly on the more universally applied skills, such as critical thinking skills and problem-solving skills, are demonstrated in multiple studies, showing the focus on more abstract concepts in research about teaching.

That said, in Chinese culture, early childhood education is usually regarded as a first step in the competitive education system and focuses on more concrete skills that will make children more competitive, while the American education system typically focuses on improving preparedness using more abstract methods that will delegate more freedom to the teachers.

2.3 Polarization of early childhood education: Income and regional gap

With all the differences in culture and values, there is, nonetheless, still some common ground. As educators in China study more about western educational theories, there is significantly more attention to subjects that seem to promote skills other than academics. For example, science literacy has been identified as an important quality to train for in early childhood education, and an emphasis on “security, interest, space-time and sustainability” is called for (Xing 2011). Some of the educators are now aiming at providing education with more focus on the so-called “soft skills” and practical skills, which are skills that were previously left out in some of the early childhood education curriculum.

That said, there is a convergence in content and value pursued between the Chinese early childhood education system and the American. This can be a result of globalization and comparative study of educational methods, which is a positive trend when considering the mental outcome of the children and the overall cognitive development. On the other hand, the advancement in education quality for some families can mean a step back in educational equality. Such differentiation in education quality for the wealthier often comes with higher prices and even reinforces the previous economic inequality, as the disadvantaged class families usually have more economic pressure than the advantageous class families in income stratification, occupational stratification, and cultural stratification. The quality of education that children are getting depends on the income level, which is determined by socio-economic class, and the choice to adopt the more “advanced” teaching methods instead of choosing the ones offered in the standard early childhood education system reinforces the differences in education received between children from different socioeconomic classes. To make problems worse, in rural areas and central and western China, the lack of early childhood education usually creates more early developmental delays (Emmers *et al.* 2021). The hindered development usually widens the income gap, and the children usually face many more problems than their peers in urban and high-income regions that have much better education resources, eventually facing completely different outcomes in adulthood.

2.4 Lessons learned and grounds for improvement

Comparing early childhood education in the two countries, it is quite obvious that both education systems have their own flaws and that there could potentially be more improvement in them from different actors. There are a lot of suggestions about policies from previous literature, most of them focusing on the improvement in teaching methods and the resource allocation.

For the American childhood education system, the greatest drawback comes from insufficient state funding. As a lot of parents are still perceiving a very high barrier to early childhood education, the direct and indirect service costs should become lower for the parents (Beatson *et al.* 2022), and governments at different levels should intervene. The extremely high preschool attendance rate in China was only made possible when the state intervention was fully in place, and the policymakers had a clear image of the role of preschool in mind. A lot of parents in the United States lack the economic resources to provide their children with formal early childhood education, and even when they have the resources, they might still not be lucky enough to get a spot for their children, and the barrier to entry is too high for the system to grow in a sustainable way.

While the United States needs to fund the overall early childhood education system more, China needs to create less rigorous early childhood education experiences for children that are undergoing the stricter education that fits into the Chinese parents' ideal. Under the high stress in the entire education system, parents who desire success for their children usually prioritize values like gaining knowledge, being modest about success and ashamed of failure, and self-restraint when seeking early childhood education for their children (Luo *et al.* 2013). Eventually, children find themselves facing much higher pressure, and the mental health of

the children can be at risk. If there could be further actions taken to limit the course load and difficulty of early childhood education in certain “more advanced” institutions besides the existing ones, there will also be more equality for those who do not have access to better resources while a better outcome for students who are accepting the education.

Another important step that all early childhood educators need to take is to create more opportunities for children to learn from playing, and Chinese early childhood educators probably need to take more steps toward achieving this goal in a competitive academic environment. An ideal teacher in a play-based kindergarten will understand the cognitive, physical, and social-emotional patterns of children, and the teacher will also offer support for children’s growth that will adapt to the traits of the children who are receiving the education (Miller & Almon 2009). This is ideal for all early childhood education systems, one that will only be made possible when structural improvements are made at a high level, and this will also require there to be more focus on students rather than standards. The countries have different distances from the achievement of this goal, and therefore, the changes that educators and policymakers will need to make will be very different.

3 CONCLUSION

Overall, the Chinese early childhood education system benefits from state funding, and as a result of the top-down design of the early childhood education system as a part of the education system reform plan, the issues of inequality have been relieved while some inequality still persists due to the great socioeconomic inequality across different regions. The American early childhood education system, on the other hand, does not have as much government intervention, and consequently, there is a lack of education resources in general, regardless of socioeconomic status, if not considering the outliers. It is fundamentally stemmed from the differences in perception of the role of early childhood education, where Chinese parents and educators usually consider it a preparatory step for the overall competitive education context and an institution for acquiring concrete knowledge and Confucianism values. American early childhood education, meanwhile, focuses more on abstract abilities that will prepare children for formal education.

China can potentially benefit from creating standards that will rule out some of the most rigorous preschool curricula that cause extreme stress to both the children who are taking the education and children who might face them in the competitive context in the future. America, on the other hand, requires much more attention from the government and a more delicate top-down design that will grant education institutions more resources for better preschool enrollment rates. It can also learn from the standardization measures that the Chinese government is designing and enforcing in the early childhood education system. While limitation still exists due to the scope of investigation and the existence of more complicated factors hindering early childhood education in both countries, the comparison should serve as a general picture of grounds for improvement for both education systems, and eventually, more practical steps are to be taken by policymakers that will provide a better big picture guiding the education.

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The influence of bullying experience and parenting style on moral performance

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ABSTRACT: Morality is essential to society, but it varies from person to person, with some students behaving in a friendly and positive manner and others behaving in a negative manner. There are many factors that influence moral performance, but middle school students spend more time at school and at home, so parenting styles during middle school may make a significant contribution, and whether or not they experience bullying at school may also influence moral behavior. Therefore, this study used the Parental Bounding Instrument (PBI) and the Delaware Bullying Instrument (DBVS-S) to conduct a study on the correlation between morality and parenting style/bullying encounters. According to the study, parenting relationships were found to have a significant effect on morality. The study focused on the control component of parenting styles and found that maternal control led to higher morality, while paternal control did the opposite. However, no significant association between bullying encounters and morality was found in this study, so the present study cannot rule out the effects of bullying encounters.

Keywords: Moral Performance, Parenting Style, Bullying

1 INTRODUCTION

Nowadays, students' moral performance has been gradually raising its status. Many people believe that people should naturally behave kindly; therefore, it is curious why there are always some naughty students who even behave negatively. So, it is important to discover the factors that influence students' moral performance. In this study, bullying experience and parenting style are focused. In previous research, it was claimed that a supportive family gives students positive moral guidance, as a bad family atmosphere is more likely to have negative consequences for children. However, it is hard to find an analysis for both the mother and father. What is more, although school bullying is a big topic, there is not enough research to discover the relationship between these two items. In research, the data from the questionnaire will be used to analyze and make connections between these two factors and students' moral behavior. By researching the topic, factors that affect moral behavior can be found; thus, parents, schools, and society can have a better understanding of students' moral development. Consequently, a better-growing environment and school system will be improved.

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2 LITERATURE REVIEW

2.1 *Bullying behavior*

Bullying is a violent act that harms others. According to Higher Education News, malintent, imbalance of power, repetitiveness, distress, and provocation are all certain requirements to be considered bullying (Nair 2023). People who are bullied suffer a lot, and their psychological development is likely to be affected through this process. Hence, this research is intended to find out whether school bullying affects people's moral performance. There are various types of bullying, including direct bullying, indirect bullying, cyberbullying, physical bullying, emotional bullying, sexual bullying, and verbal bullying.

According to previous research, more than one out of five students report being bullied in their lives. The consequence is that students may have low self-esteem, which leads to depression and lack of confidence. What is more, they may suffer from physical or psychological problems. Last but not least, students who are bullied in their youth are more likely to develop depression when they become adults.

2.2 *Parenting style*

Parenting styles have been classified into four categories based on demands and responses: authoritative, authoritarian, indulgent (or permissive), and non-involved (Baumrind 1991; Maccoby & Martin 1983). Different parenting styles can have negative or positive effects on children. Both authoritative and authoritarian parenting styles have strict requirements for children's behavior, but authoritative requirements for children are negotiable and focus on behavioral norms, whereas authoritarian parents are coercive, arbitrary, and status-oriented (Baumrind 2012). A permissive parenting style is one in which the parents do not demand, control, or have few demands on the child's behavior (Baumrind 1971). Uninvolved parenting, on the other hand, is one in which the parents lack warmth and have no demands on the child (Maccoby & Martin 1983). The Parental Bonding Instrument (PBI) is an instrument for measuring parent-child relationships, mainly for adults to measure parenting styles in the first 16 years of life or children's perceptions of current parenting styles, and it classifies parenting styles into four categories: authoritative (high care and high control), authoritarian (low care and high control), permissive (high care and low control), and uninvolved (low care and low control) (Tsaousis *et al.* 2011).

2.3 *Literature review*

It is generally acknowledged that bullying is a severe behavior, especially when it happens among teenagers; thus, it is always a huge topic to focus on. Bullying can happen both in school and after school, such as on buses or playgrounds. There are various reasons for bullying: poor family situation, low self-esteem, poor learning, social skills, and race. What is more, some people initially have a tendency for violence, and if the school climate allows it, bullying is very likely to happen. The mild consequence might be that victim students miss classes and fail tests. However, that is just a starting point. If they suffer from physical bullying, the student might need treatment. If it is emotional bullying, then the student will definitely need to meet a psychology doctor; otherwise, his/her psychological condition will be influenced for a long period of time. However, many students are afraid to tell the public that they were bullied, so they cannot be helped in time. Consequently, bullying causes long-term and huge pain to victims, and their moral behavior might change as well. The 2019 School Crime Supplement to the National Crime Victimization Survey mentions that of students aged 12–18, 22% experienced bullying before. That is around a quarter of students, which is a huge amount (ASPA 2022). The bullying experience might cause anti-social behavior. For example, in the “2019 Chinese Teenager Hoping” survey, 68% of people think bullying is the most significant problem students are confronted with (Wu 2021).

The bullying experience also changes one's personality. Adolescence is an important period of personality formation (Zhang 2022). Being bullied can change one's mind, affect future social harmony, and lay hidden dangers; thus, many authors claim that personality can be hugely negatively affected if one is bullied (Zhang 2022). In Zhang's survey, there was an eighth-grade girl who suffered from school bullying. Unfortunately, she was one of the victims of school bullying. After being bullied by several students on campus for a long period of time, her personality changed a lot. Before, she was a cheerful and lively girl. After suffering from bullying for a while, she gradually became a pre-waste student after being bullied. She was tired of studying and losing friends; even her teacher formed a bad impression on her and often accused her of being unintentional and stubborn. So, bullying makes one become indifferent and careless about others.

In the parenting style, we all know, long-term and tremendous external pressure, such as the accumulation of negative emotions, will have a huge impact on people's spirits, which will undoubtedly affect people's moral judgment under normal circumstances and even lead to moral extremes and other symptoms. Especially for teenagers and middle school students who are in the stage of world outlook development, their moral self-control has not yet been developed, their spiritual self-protection ability is relatively weak, and they are more vulnerable to external influences, especially negative ones. By investigating the different educational methods and control degrees of children in different families in specific age groups, this study hopes to find out the relationship between parents' control methods and educational concepts and children's moral growth and moral judgment, and thus put forward opinions and suggestions for future family education and how schools and society cooperate with family education.

Among parenting styles, warm parental presence was positively associated with prosocial behavior, whereas strict parental control was positively associated with aggression. Parental support and communication made adolescents show more prosocial behavior, and parental support was more predictive of prosocial behavior than control, and adolescents with strict control parenting styles showed more aggressive behavior (Malonda *et al.* 2019). Thus, the parenting styles of adolescents have an impact on adolescents' pro-social behavior. However, while for elementary school students, parents' defense of moral violations may lead them to believe that the bully has a legitimate reason for bullying them. For secondary education students, however, they will realize that victimization should not be justified (Malonda *et al.* 2019). Parents also have an impact on their children's sense of moral disengagement, and children of parents who justify their offending behavior are more likely to develop a sense of moral disengagement from their bullying behavior, which can lead to a decline in their moral feelings when they are not ashamed of hurting others and eventually become bullies (Zych *et al.* 2019). Therefore, both supportive/caring and controlling parenting styles influence the performance of moral behavior in adolescents. Parents have an influence on prosocial behavior and aggression during adolescence, and as adolescents' peers increase, peers have an indirect influence on adolescents' prosocial behavior (Zych *et al.* 2019). Peer attachment can promote social relationships and also inhibit aggression, but parenting styles remain very important (Zych *et al.* 2019). However, the influence of parenting style on aggression changes as children get older, and the influence of parents diminishes for older children (Lei *et al.* 2018). So, there might be differences in the effects of parenting style on different moral behaviors. Moreover, in adolescence, there are also differences between genders in prosocial behavior, with boys being less prosocial than girls but more aggressive than them (Zych *et al.* 2019).

2.4 Current research

Based on the fact that the subjects of this study have great individual differences and are difficult to count one by one, the method used in this study is to conduct a sampling survey of middle school students of the study age in the form of questionnaires in the early stages. The first part of the questionnaire covers the basic and important issues in the study, including whether they are affected by bullying behavior, parenting style, and the impact of

both on moral judgment behavior. After receiving the questionnaire, mathematical modeling will be used for further collation and analysis, and models and statistical charts will be drawn to present the characteristics of sample data intuitively. In the study of the impact of bullying on the morality of middle school students, this study hypothesizes that there is a negative correlation between the two. Bullying will have a negative impact on the morality of middle school students, and in terms of parenting style, this research hypothesizes that a high-control parenting style will lead to stronger moral performance.

3 METHOD

3.1 *Participants*

The total number of participants was 155 middle school students from 6th to 9th grade, of whom 6 questionnaires were invalid and 149 questionnaires were returned in total. 80 participants (51%) were from Shanghai, 28 (18%) were from Beijing, and 41 were from other regions. There were 55 (36.9%) students in grade 6, 13 (8.7%) in grade 7, 3 (2%) in grade 8, and 78 (52.3%) in grade 9. There were 68 (45.6%) male participants, compared to 81 (54.4%) female participants.

3.2 *Scale*

In this study, the PBI from Parker, Tupling, and Brown was used in the parenting style section, and to be used in this study with Chinese junior high school students, the Chinese version of the PBI revised and tested by Hongjun Yang, Shijie Zhou, Yanmin Chu, Li Liu, and Qin Liu was selected (Parker *et al.* 1979; Yang *et al.* 2009). The PBI was divided into a mother's version and a father's version, with a total of 23 items, divided into three factors: control with six items, care with 11 items, and encouragement of autonomy with six items, as well as using a four-point scale (Yang *et al.* 2009). Based on the scores of care and control, parenting styles were classified into four types: authoritative (high care and high control), authoritarian (low care and high control), permissive (high care and low control), and uninvolved (low care and low control) (Yang *et al.* 2009).

The Delaware Bullying Instrument (DBVS-S) was made in 2015 by Jiashu Xie and other researchers and was used in the bullying section (Zhang *et al.* 2022). The Delaware Bullying Instrument included verbal, physical, and social/relationship bullying, which are types that more often happen among middle school students. This measurement test includes 12 questions, and different extents correspond to different scores. The higher people get, the less bullying they suffer.

3.3 *Data analysis*

In this study, the Pearson correlation between the total control scores of mothers/fathers and the moral behavior scores was calculated to analyze whether the control factor in parenting styles was associated with moral behavior, in which higher scores on the control-related questionnaire implied higher parental control and higher scores on moral behavior implied lower moral performance. This study also analyzed the Pearson correlation between bullying encounters and moral behavior, where higher scores on the bullying encounter questionnaire implied fewer bullying encounters and higher scores on moral behavior implied lower moral performance.

4 RESULT

The Pearson correlation between total maternal control scores and total moral behavior scores was -0.236 with a significance of 0.004 , so total maternal control scores were

correlated with moral behavior and were negatively correlated, based on the fact that higher moral scores imply lower moral performance, so higher maternal control implies higher moral performance (see Table 1). In contrast, excessive father control was more likely to be associated with immoral performance ($r = 0.273$). Bullying encounters were not correlated with morality ($\alpha = 0.468$), which means that bullying encounters do not affect moral performance (Table 1). In conclusion, only maternal control leads to higher moral performance, while the opposite is true for paternal control. Moreover, there may not be a strong correlation between bullying encounters and morality, but it cannot be completely ruled out that particular bullying encounters can affect changes in morality.

Table 1. The relevance of morals to parenting styles/bullying encounters.

	Pearson Correlation	Significance (Double Tail)	95% Confidence Interval (Upper Limit)	95% Confidence Interval (Lower Bound)
Moral-Maternal Control	-.236	.004	-.382	-.078
Moral-Paternal Control	.273	<.001	.117	.415
Moral-Bullying	-.060	.468	-.219	.102

5 DISCUSSION

By analyzing the experimental data of this study and comparing the results of this study with other previous studies in the same field, this study finds that the relationship between the moral standards of middle school students and whether they are bullied in school and the relationship between the moral standards of middle school students and the way their parents educate them are generally similar, with some differences in some details. For example, bullying of students of different ages will have different effects on their moral standards, which can also be explained by appropriate reasoning. Compared with Malonda's research in 2019, this study has further refined the different roles played by fathers and mothers in family education and proposed that different roles will lead to different degrees and directions of influence on their children (Malonda *et al.* 2019). For example, although generally behavior of warm parents are more likely to lead to children's prosocial behavior, mothers' control and education are more likely to lead to higher moral standards, while fathers' control intensity is negatively correlated with moral standards, which may be due to the different roles parents play in family education. In this regard, this research put forward a reasonable hypothesis, perhaps because fathers tend to play the role of punisher in family education, so they use more negative spur education rather than encourage the corresponding children to be more likely to have disgust and resistance to the father with strong control, which may prompt them to carry out some anti-morality. Mothers are more likely to play the role of motivators and encouragers, and positive motivation is more likely to bring positive emotional feedback, which is reflected in morality. At the same time, the 2019 study found that parents' own immoral behavior and their defense of immoral behavior were more likely to lead pupils to believe in the rationality of bullying (Malonda *et al.* 2019). For secondary school education, students in this age group will naturally realize that bullying is immoral, which is similar to the conclusion of this study, and there is no direct data relationship between bullying and morality. In this research, due to the limitations of the theoretical ability and time factors of the members of this group, it is impossible to achieve the perfection of the investigation process and result analysis.

5.1 Limitation and future research

The participants in the study were mainly located in Shanghai and Beijing, so it was not possible to determine whether there were regional differences in the results. There were not many seventh and eighth-grade participants in the study, and most were in ninth and sixth grade, so it may not be entirely representative of seventh and eighth-grade students.

There are also some defects in the process of research. First, in the process of investigation, it is inevitable that there will be no serious answers to questions, false answers, and so on, resulting in errors in the final research results. Furthermore, because the rigorous degree of mathematical modeling needs to be improved, the data analysis and conclusions are not completely scientific and perfect. Through the analysis of the results of the study, in the future cultivation and education of adolescents' moral behavior standards, we should highlight the role of mothers in family education and, at the same time, strengthen parents' care and care for their children as a whole. On the other hand, in school education, this research should try its best to avoid the negative impact of school bullying on minor children, especially primary school children. At the same time, schools and society still have the responsibility to reduce the occurrence of bullying, even if students of middle school age have a certain defensive ability.

6 CONCLUSION

To conclude, parenting style plays a role in students' moral behavior. To be more specific, higher maternal control implies higher moral performance, and a higher father's control was more likely to be associated with immoral performance. In contrast, bullying experiences seem not to play a role in moral development. Thus, parenting style is a contributing factor to moral behavior. The reason for this phenomenon is because family is where people spend the most time, so the atmosphere each family has significantly influences its family members. It is not hard to explain why father and mother play contrasting roles in students' moral behavior. Mothers are more likely to play the role of motivators and encouragers, as fathers tend to play the role of punishers in family education. Consequently, different effects occur on students' moral behavior. So, the family atmosphere should be paid attention to. At the same time, although bullying experience did not show a direct influence on moral behavior, the bullying rate should be decreased by people's joint efforts. This research specified the mother and father's role in moral development, which provided a deeper understanding of family education. What is more, the blank between bullying experience and moral behavior was filled. In this study, an initial thought can be found: there is no direct relationship between these two items, so people can do deeper research in the future and take this result as a reference. However, there are limitations in the study process, which are time limitations, object limitations (students), and method limitations. To make a more scientific study, the sample size should be increased. This includes not only the number of participants, but also the variety of districts represented. Furthermore, the data analysis should be more specific. The use of improved calculation methods and bar charts can aid in obtaining precise results.

AUTHOR CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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The relation between the parenting styles and children’s lying behavior

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ABSTRACT: Based on Baumrind’s theory of parenting style (PS) for children, this paper summarizes and compares the conclusions and methods of three existing contemporary studies and three past papers on the influence of PS on children’s cheating behavior. In the two studies in 2006 and 2014, researchers conducted research surveys and data analysis on different research groups and came to the conclusion that permissive/loving PS is conducive to reducing lying behavior. However, another study by Chinese researchers discussed the positive impact of authoritative PSs on children’s cheating behavior from a different perspective. Contemporary papers are more inclined to study the influence of authoritative and authoritarian PSs on children’s cheating. The past research came to a similar conclusion, while the more recent study found that authoritative parenting behavior had a significant impact on the increase in children’s cheating, which was demonstrated through questionnaires and analysis. The present study reveals inconsistencies in the prior studies’ results, with the same kind of PS not having the same directionality of influence on lying behavior. Therefore, further research is necessary to clarify the relationship between different types of PS and lying behavior.

Keywords: Parenting Styles, Children, Lying Behavior

1 INTRODUCTION

1.1 *The introduction of the research objects*

Parenting styles (PS) refer to the distinct methods that families use to raise their children. Authoritarian, permissive, and authoritative are the three PSs identified by Baumrind. Authoritarian parenting involves high demand and low responsiveness, often involving abusive parents. Permissive parenting is low-demanding with high responsiveness, often involving “spoiled” children. Authoritative parents are determined, not rigid, and willing to make exceptions when necessary. Baumrind favors the authoritative style, as it is all about responding to the children’s needs, not condoning them (Edubirdie 2022).

The research conveyed a strong feeling that their child’s autonomy should be severely limited. Authoritative parents are rational when interacting with their children. The authoritative parents implement discipline while also valuing their child’s autonomy and individuality (Tiller *et al.* 2003).

The PS influenced children’s bad behaviors, not merely lying. The research conveyed that increases in the prevalence of both internal and exterior problem behaviors in children were predicted by mothers’ high levels of psychological control and attachment. Lies were frequently spoken, and there was a correlation between frequent lying and behavioral and emotional issues (Wilson *et al.* 2003).

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2 PAST RESEARCH

2.1 *Previous studies about parenting on Children's Lying Behavior*

Tend to study the positive effect of parenting on children's lying behavior (CLB), that is, parents' loving and positive PS can reduce CLB. The study made by D.L. Moffe in 1993 was to evaluate the impact of maternal love and control on kids' deceptive behaviors. The study documented responses to eight scenarios relating to typical experiences where children may be inclined to lie, from 63 boys aged 10 to 11. The mother's PS was also measured. The findings demonstrated that, in contrast to maternal control, maternal warmth was associated with both the frequency and types of lying. The hypothesis stated in the research suggests possible relationships between parent factors and children's motivations for lying. These hypotheses propose that certain PSs and levels of responsiveness/warmth and demandingness/control may impact the frequency and seriousness of lying. It is important to note that these are hypotheses and would require empirical research to confirm their validity. The proposed hypotheses aim to investigate the potential connections between parenting behaviors and children's lying tendencies. During the experiment, the children were initially presented with a story that involved lying. They were then required to assess the underlying motives behind the character's lies. Following this, the children were instructed to imagine a scenario where the child in the story did not tell the truth to their mother. Using a Likert-type scale, the children were asked to respond to questions designed to determine their perception of the seriousness of various motivations for lying. For instance, they need to report how acceptable it would be for the child in the story to lie to their mother to avoid punishment, such as pretending not to be a member of a club. The purpose of these questions was to gauge the children's ranking of motivations for lying from least serious to most serious. The research method used in the study involved a mixed-methods approach.

The quantitative aspect of the research involved administering surveys to the participants, which consisted of children. The surveys utilized Likert-type scales to measure the children's perceptions and rankings of different motivations for lying. The children need to rate the acceptability of various lying scenarios. Moreover, the qualitative component involved conducting interviews with a subset of the participants. These interviews aimed to gather in-depth insights into the children's thought processes and reasoning behind their perceptions of lying motivations. The interviews allowed for a richer understanding of the children's perspectives. The combination of these methods provided a comprehensive understanding of the children's motivations for lying and allowed for a more robust analysis of the research questions.

Recent research suggests that parent education and training and child interventions can aid in children learning appropriate behaviors. The result showed a connection between warm mother acceptance, control, and support in terms of both quantity and quality and children's declining likelihood of lying. A child's ability to grow into an adaptive adult may depend on the development of warm, responsive, yet strictly controlling parents who have few motivations that could lead to lying. It may also be crucial to improve parental information sources about good parenting techniques and parental support.

Based on that, the innovation of this study lies in the combination of multiple research methods and points out the importance of parent education, training, and interventions in promoting appropriate behaviors in children. The study emphasizes the correlation between warm mother acceptance, control, and support, and the reduced likelihood of children engaging in lying behaviors. The essay suggests that fostering warm, responsive, yet strict parenting, coupled with improving parental information sources and support, can contribute to the development of secure, independent, self-reliant, and well-adjusted adults. This focus on the role of parenting techniques and support systems represents an innovative approach to understanding and addressing problematic lying behaviors in children.

The research only focuses on white boys of a certain age. The lying behavior of male teenagers is influenced by many factors, such as gender, so the conclusion of the study is not

of universal significance. It is essential for researchers to consider factors such as cultural diversity, gender, socioeconomic status, and other relevant variables to ensure a comprehensive understanding of the topic. Moreover, research mentions a similar perspective that the control parental style of parents decreases children's lying actions (Engels *et al.* 2006).

Similar findings were reported in 2014 research indicating that effective parenting can lessen teenage lying. This study tests an integrated model. The hypothesis was that perceived parental autonomy support and controlling parents may have opposite effects on adolescents' deception. The relation might be affected by differential identification of the honesty value and perceived costs/benefits of being honest. The structural equation modeling (SEM) analysis of the data revealed that autonomous support was related to adolescents' affiliation to contrary connections that were shown to result from controlling parenting. Parenting that promotes autonomy is said to be essential for creating honest family situations.

Nearly 1,200 adolescent/parent dyads from Canada took part in the study. The parents' mean age was 44.27 years ($SD = 5.28$), while the teens' mean age was 13.05 years ($SD = 0.74$). Based on previous studies, a questionnaire survey was used to obtain data, and tables were used for comparison. SEM is the research methodology employed in the essay based on the information offered. A statistical method called SEM enables researchers to explore intricate correlations between variables and look at both direct and indirect effects. To examine the mediating role of identification with the honesty value and the perceived costs and benefits of honesty in the relationship between parental autonomy support, controlling parenting, and adolescents' honesty, data from 167 parent-adolescent dyads were analyzed using SEM. Researchers were able to evaluate the interactions between these factors and make connections between them by utilizing SEM.

Based on the evidence given, the essay concludes that encouraging parental liberty and exercising control over children have different consequences for their willingness to be honest with their parents. Higher identification with the honesty value and a perception of low costs and high rewards of honesty were found to be connected with autonomy support, which in turn predicted greater honesty in teenagers. Controlling parenting, on the other hand, revealed opposing connections with these factors. The study highlights how crucial autonomy-supportive parenting is to promoting honesty in the home. These results underline the importance of parental support in fostering an honest home environment and advance our knowledge of the variables impacting adolescent honesty (Bureau & Mageau 2014).

2.2 *The comparison of two past research*

Both studies research the relationship between lying behavior and PSs. Two studies consider the function of parental behaviors/values in shaping children's honesty-related attitudes and behaviors. Moreover, the studies involve the examination of parent-child relationships and their influence on honesty-related variables.

There are some differences between the two research projects, including the research perspective, method, and participants. The second study specifically focuses on the mediating mechanism, while the first study emphasizes PSs and their relationship with CLB. The second study examines controlling parenting and parental autonomy support as distinct factors, while the first study explores broader PSs (e.g., authoritative and authoritarian) and their association with children's lying. The specific research method employed in the second study is not mentioned in the first study, whereas the first study utilizes SEM as the research method.

Overall, both studies contribute to our understanding of the impact of parents' behavior on children's honesty but approach the topic from different perspectives, focusing on different variables and utilizing different research methods.

The study's sample size and generalizability may be limited to 167 parent-adolescent dyads, which may not fully represent the diverse population. Self-report measures may have biases, and a cross-sectional design may limit causal relationships. Potential confounding

variables, such as personality traits, cultural background, and socioeconomic status, could also impact the results. Measurement limitations may affect validity and reliability. Parental influence beyond autonomy support and controlling parenting may also affect children's honesty.

Chinese scholars have also conducted research on related issues. The view of existing research on child cheating and parental PS in China is inconsistent with foreign research on the influence of authoritative PS on children's lying acts.

Three-year-olds from Hangzhou, People's Republic of China, were required not to look at a toy while the experimenter was not around. Three-year-old children are observed and interacted with as part of the research methodology in supervised settings. Children are given opportunities to lie or tell the truth in a variety of tasks or scenarios as part of research studies to gauge how honest they are. To understand parents' methods for moral development, communication, and discipline, parenting practices were assessed through questionnaires or interviews with parents. To test children's comprehension of others, such as their capacity to comprehend false beliefs or perspectives, researchers also use theory-of-mind tasks. This study aims to shed light on the complex interaction between socialization factors and early moral development by examining the relationship between PSs, comprehension of theory of mind (ToM), and children's honesty.

The research study entails the analysis of the information gathered through the course of the study's contacts, observations, interviews, and questionnaires. Data analysis uses statistical methods to look at correlations and relationships between variables. Researchers, for instance, utilize correlation analyses to investigate the relationships between PSs, ToM awareness, and kids' honesty. Regression analyses are also used to examine how well parenting techniques and ToM knowledge predict children's honesty. To uncover patterns, themes, and qualitative insights pertaining to parenting strategies and kids' truth-telling behavior, the study also uses qualitative analytic techniques like coding and thematic analysis of interview and observational data.

In the study, Chinese toddlers aged three were examined to determine the relationship between social-cognitive characteristics and the development of lying behavior. When the experimenter was not present, the majority of kids (82%) transgressed the temptation resistance paradigm and peered at the item.

In conclusion, the study is the first to add to the body of knowledge on the early emergence of CLB in two ways. First, it was discovered that knowledge and ignorance significantly predict young children's deception. Second, it was discovered that controlling parenting contributed to the three-year-old's tendency to tell lies. Furthermore, control parenting affects young children's lying conduct in two ways: directly by inhibiting it and indirectly by mediating it through their comprehension of ToM around age three. Control parenting, in particular, seems to prevent youngsters from uttering lies by delaying their knowledge of ToM. These results imply a complex interaction between PS and children's socialization and moral conduct of honesty (Ma *et al.* 2015).

3 CURRENT STUDIES

In recent years, there have been two different views on the influence of authoritative PSs on CLB. The first one is similar to the conclusion of domestic research, that is, authoritative PSs reduce children's cheating behavior; the second one is that authoritative PSs increase children's cheating behavior. The first piece of contemporary research, by Victoria Talwar *et al.* (2017), demonstrates the first point.

The research focuses on investigating how social circumstances affect how lying and children's cognitive development interact. The goal of this study is to comprehend how social factors, such as a child's environment and social interactions, may affect both their capacity for deception and their cognitive growth. Researchers can learn more about the intricate

interactions between social influences, deceit, and children's cognitive ability by investigating these issues. The participants were 157 kids from mostly middle-class homes in a sizable North American metropolis. The sample was 62% Caucasian, 9% Latino, 7% African American, and 22% other in terms of ethnicity.

The research method for studying the relationship between variables combines observational and experimental approaches. Common methods include surveys and interviews, observational studies, experimental designs, and longitudinal studies. Surveys gather information from parents, caregivers, and teachers about the child's social environment, family dynamics, and peer relationships. Observational studies document children's behavior in naturalistic settings, while experimental designs manipulate social variables to examine their impact on lying and cognitive abilities. Longitudinal studies follow a group of children over an extended period, tracking changes in their lying behavior and cognitive abilities while considering social factors that may influence these developments. The prior study could employ a mixture of methods to gain a comprehensive understanding of the complex relationship between social factors, deception, and cognitive abilities.

Researchers analyze the impact of social variables on the relationship between lying and children's cognitive abilities using various statistical and analytical techniques. Common methods include correlation analysis, regression analysis, analysis of mediators and moderators, and qualitative analysis. Correlation analysis determines the strength and direction of the relationship between variables, indicating whether certain social factors are associated with lying tendencies or cognitive performance. Regression analysis assesses the impact of social factors on lying and cognitive abilities while controlling for other variables. Mediation analysis explores potential mechanisms through which social factors influence the relationship between lying and cognitive abilities, examining whether certain cognitive processes or psychological factors mediate the effect of social variables on lying behavior or cognitive performance.

Moderation analysis investigates whether the impact of society on the relationship between lying and cognitive abilities varies depending on certain conditions or factors, identifying differences across different groups or contexts. Qualitative analysis, such as thematic analysis or content analysis, provides deeper insights into the experiences and perceptions of children and their social environment. These analytical methods help uncover patterns, relationships, and underlying mechanisms that help elucidate the impact of social variables on the relationship between lying and children's cognition.

The research may reveal several conclusions. These include social factors that have a significant impact, such as family environment, peer interactions, and cultural influences, which shape children's deception and cognitive abilities. These variables should be considered when examining children's deceptive tendencies and cognitive development.

Social factors mediate the relationship, as the quality of parent-child relationships or social norms regarding honesty may influence the development of cognitive skills relevant to deception. Social factors may also moderate the relationship, as the influence of social factors varies across different contexts or populations. The complex interplay between social factors and cognitive abilities means that social factors interact with cognitive processes, such as ToM or executive functions, in shaping deceptive behavior. The research has practical implications for interventions aimed at promoting honest behavior and enhancing cognitive abilities in children (Talwar *et al.* 2017).

Another study looked at parenting practices, maternal stress exposure, and kids' cognitive skills in connection to kids' antisocial lying conduct in an experimental environment. A modified temptation resistance paradigm was used with children (ages 3–6; N = 157) to generate spontaneous lying. The findings suggest that authoritative parenting and high inhibitory control are jointly positively associated with a lower likelihood of lying, whereas those who lied showed greater semantic leakage control. The result shows that, despite the possibility that children's lying may be normal in the early stages of development, the relationship between lying and children's cognition can be influenced by attentive parental activities that discourage it.

The study investigates the relationship between children's lying behavior and their cognition. Participants were 157 kids from mostly middle-class homes in a sizable North American metropolis. The sample was mainly Caucasian. It employs various research methods, including interviews, surveys, and observational tasks. Researchers design scenarios where children can tell lies or truths and analyze their responses. They assess children's cognitive abilities using standardized tests. The study also considers social factors like family environment, peer relationships, and cultural influences to understand how these factors interact with deception and cognitive abilities. This research contributes to our understanding of the complex influences on children's truthfulness and cognitive development.

The study aims to investigate how different variables affect preschoolers' prosocial deception behavior. The study seeks to examine the impact of racial background, parental influences, and expectations of the consequences for their partner on pre-schoolers' decisions to tell prosocial lies. The study's data collection came from observations and interactions with preschool-aged children, so data analysis was a part of the study. It uses both quantitative and qualitative analysis techniques. To examine the relationships between variables, quantitative analysis uses statistical techniques. Regression or correlational analyses are used by researchers to examine the relationships between ethnic background and parental factors, such as parenting methods or communication patterns, and preschoolers' prosocial lying behavior.

Additionally, they examine the relationship between children's prosocial lying and their perceptions of the consequences for their partner. Coding and thematic analysis of qualitative data, like observation transcripts, are both part of qualitative analysis. The role of moral background, parental factors, and perceived consequences on preschoolers' prosocial lying is studied in terms of patterns, themes, and qualitative insights. The study's analysis of the data aims to shed light on the intricate interactions between these variables and preschoolers' prosocial deception.

To put it another way, some parents might use authoritative parenting to help their kids absorb moral principles (i.e., do not lie), and as a result, their kids are less inclined to lie. It is worth noting that when these kids do tell lies, they might use their cognitive abilities to prevent divulging details that might expose their fabrications. One explanation might be that children who experience forceful parenting are especially inclined to avoid being caught lying to protect their social relationships with their parents. Together, these actions might show greater social competency when it comes to lying.

The two contemporary studies explore different aspects of children's deception and its relationship with social factors. The research focus is on understanding how specific factors, such as ethnic background, parental factors, and perceived consequences, influence children's prosocial lies. The study aims to understand the interplay between social factors and children's cognition regarding their lying behavior.

The age group of the studies is preschool-aged children, while the impact of social variables on the relationship between lying includes children across a broader age range. Variables considered in both studies include moral background, parental factors, and perceived consequences. The methodology used in these studies may differ depending on the researchers' approach and design choices.

Both studies contribute to our understanding of how specific factors influence prosocial lying in preschoolers. The study also expands our understanding of lying behavior by exploring a wider range of social factors and their relationship with children's cognitive abilities. These distinctions facilitate a broader comprehension of the complex nature of children's lying behavior and its relationship with various social factors (Dobrin-De Grace & Ma 2023).

In all, the present study found controversial results about the relationship between PS and lying (Baumrind 1967). Previous studies indicate that the influence of tolerance/indulgence might play a role in that relationship (Engels *et al.* 2006).

4 CONCLUSION

Through the research, this paper found that positive/loving PS has a positive effect on reducing children's cheating behavior. Researchers in the reviewed studies were inconsistent in their conclusions about the effect of authoritative/dictatorial parenting on CLB. Some studies showed that authoritative PSs reduced lying in children and adolescents, while a related paper, published in 2023, found that authoritative parenting increased cheating among preschoolers. Therefore, parents should choose loving and positive parenting methods when educating children, which not only have a positive effect on children's early behavior and character development but also have a positive impact on their moral concepts of good and evil. The main contribution of this paper is to discuss the influence of PS on CLB from both positive and negative perspectives, which is helpful for future researchers to get references in this field. Future researchers can study from the perspective of the influence of tolerance/indulgence, a common PS, on children's cheating behavior to fill the gap in this research field.

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The relationship between the age and inhibitory control in bilinguals

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ABSTRACT: Bilingualism is considered an essential ability for people to adapt to both academia and day-to-day life. Recent studies focus on bilinguals' and monolinguals' differences in executive functions. The advantages and disadvantages are discussed and argued in many studies. However, related studies still have blanks for bilinguals' inhibitory control ability. Although inhibitory control ability accounts for a small part of an individual's executive function, it affects a person's mind and brain function. At the same time, the age of bilinguals cannot be neglected since it affects the process of learning and maintaining languages. This study will focus on the relationship between age and the inhibitory control function of individuals and find how age influences a bilingual's inhibitory control ability. This study discovered that bilinguals have stronger inhibitory control abilities than monolinguals after analyzing multiple studies. Age affects the formation and maintenance of individuals' executive control and especially inhibitory control ability. It provides a more comprehensive idea for future exploration in bilinguals' cognitive ability study in the direction of age and inhibitory control.

Keywords: Bilinguals, Executive control, Inhibitory control, Age

1 INTRODUCTION

Bilingualism, the ability to understand and use two languages, has long been a topic of interest in Linguistics and cognitive psychology. In some specific countries, due to large numbers of immigrants, learning two languages is required as their tradition, while in other countries, this atmosphere is prevailing in recent years. In these countries, because of economic development, people have more discretionary funds, hence they care more about the education of the next generation. Therefore, due to the different policies, history, national development, social groups, and other factors of bilingual education around the world, the complexity of bilingual education development in the world cannot be ignored. However, the consensus is that learning two languages at an early age may benefit them for their whole life. One study from Bialystok suggests that the results of bilingual education might be controversial, bilingual learning of preschool children may affect the development of reading and writing ability (Bialystok 2018). Although there is no direct evidence to prove that it will affect the development of children's cognitive ability, it does affect the performance of children's intelligence and behavior to some extent. The advantages and disadvantages are one of the most critical topics in bilingualism. Some of the debates focus on people's cognition process such as executive control ability.

Inhibitory control ability refers to the process of suppressing mental processing unrelated to the current task in a task, such as inhibiting some unnecessary thoughts, to ensure the smooth progress of the mental process and complete the task to be completed. For example,

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for bilinguals, when a Chinese child first learns a second foreign language (using English as an example), he or she may already understand the Chinese pronunciation of rice, but when the individual is asked to name something in English, it is necessary to use language conversion to suppress the individual's Chinese pronunciation and express the English pronunciation. In this process, the prefrontal cortex is essential in executive and inhibitory control functions (Munakata *et al.* 2011).

Some classical tasks are often used to measure the individual's Inhibitory control ability, such as the Simon task (Liu *et al.* 2004). The Simon task focuses on whether the positions of stimuli and reactions are consistent, emphasizing the individual's ability to suppress unnecessary interference. Similarly, the Stroop task focuses on the consistency of colors and words, requiring individuals to ignore the meaning of words in the process of naming colors. These tasks focus on the consistency of stimulus and response, so they can measure the Inhibitory control ability of individuals relatively accurately, and are widely used in the research of Cognitive psychology today.

At the same time, age development is an important factor in bilingual education. According to Birdsong, the critical period of learning a second language is a specific period of individual development, individuals will have a solid ability to learn a second language (Birdsong 1999). After this stage of development, it will become challenging for individuals to learn a second language. This is also an important reason for widespread public attention to the next generation of bilingual learning. Many parents urge their children to learn a second language as soon as possible to make them more competitive than their peers from a young age. However, individual language learning has a certain upper limit of abilities, for example, monolinguals may acquire a larger vocabulary than bilingual learners in the same short period when learning the same language. This may have a certain impact on the individual's early cognitive and Inhibitory control abilities. However, this is also controversial. In Paap's study, he analyzes the inhibition and task performance of individuals in different age groups but does not find any advantages for bilingual individuals in these age groups in tasks (Paap *et al.* 2014). Additionally, how aging affects an individual's executive control function is also an important topic that needs to be analyzed. It must be distinguished that during the aging process, the executive control function itself may decrease, and the important role of bilingual ability in this is also the focus of this study.

While incorporating knowledge from prior studies, this study will concentrate on the association between bilinguals' age and inhibitory control capacity.

2 LITERATURE REVIEW

2.1 *Inhibitory control and bilinguals*

Bilingualism plays an important role in handling conflicting tasks, inhibiting related stimuli, and responding to correct behavior. One study investigate the role of bilingualism in conflict resolution (Costa *et al.* 2008). The author uses the Attentional Network Test (ANT) to examine bilinguals' performance compared to monolinguals in resolving conflicts. The ANT combines the Flanker task and the cue reaction time task. In this study, the average age of the participants is 22. The experimenter uses a relatively big sample size to understand better if there is a clear difference in processing consistent tasks. This study has two within-group factors which are Cue types and Flanker types and through the ANOVA results, the author gives several findings. The main findings of this study indicate that bilingual individuals exhibit faster reaction time and less interference compared with monolingual individuals when facing conflicts in inconsistent Flanker tasks. This suggests that bilinguals have more vital conflict resolution abilities than monolinguals, proving that bilingualism cultivates cognitive flexibility and the ability to allocate attention resources effectively. Normally, bilingual individuals have to focus on what they want to express and the language they use, at the same time, they also need to avoid interference from other languages. The advantages

of this study lie in its rigorous methodology and comprehensive data analysis. Researchers use ANT to measure their ability to resolve conflicts, ensuring the effectiveness and reliability of their findings. In addition, through a large sample of bilingual and monolingual participants, this study provides strong evidence to support their claims. However, ANT only evaluates conflict resolution in specific contexts, which provides valuable insights for attention control. However, the universality of these findings in real-world situations outside the laboratory requires further investigation.

Tasks are of great importance in studying the process of inhibitory control function. One study focuses on the effect of learning a second language on cognition using the Simon task and magnetoencephalography (MEG) (Bialystok *et al.* 2005). The Simon task is an example of measuring the ability to suppress irrelevant stimuli. The MEG is a technology for locating brain functional areas by measuring brain magnetic field signals, which is widely used in psychology or medical research. The author compares monolingual and bilingual participants and finds those bilingual individuals perform better in the Simon task, demonstrating enhanced cognitive control and inhibition abilities. The main advantage of this article lies in the use of MEG, which provides precise temporal information about brain activity, allowing for a more detailed examination of the neural processes involved in Simon's tasks. However, the limitation of this study lies in the relatively small sample size, which may limit the universality of the results. In addition, the study focuses on Simon tasks and does not focus on other tasks related to inhibitory control functions, such as the Flanker task.

Similarly, another study provides a comprehensive assessment of the impacts of bilingualism on mental functions (Bialystok *et al.* 2012). The author believes bilingualism significantly impacts cognitive domains, such as attention, inhibition, and control. The study emphasizes that bilinguals exhibit greater attention control than monolinguals and finds that bilinguals are better at managing conflicts. The author argues that for bilinguals in each language, proficiency is worse than monolinguals who use that language. Bilinguals have slower and inaccurate reaction times in image-naming tasks. However, bilinguals perform better in terms of executive control. The author demonstrates that the dorsolateral prefrontal cortex, a crucial part of the executive control system, can be activated in conjunction with language switching. Central areas, bilateral caudate, and bilateral temporary regions are also involved in language conversion.

Additionally, the Luk and Bialystok study seeks to assess the connection between bilinguals' language proficiency and usage, they also focus on how various degrees of language proficiency and usage patterns impact cognitive processing in bilingual people (Luk & Bialystok 2013). According to the author, language proficiency, language usage patterns, and the context and demands of particular tasks all affect how multilingualism affects cognitive processes and how effectively it functions. The author provides a comprehensive framework that emphasizes the importance of considering language proficiency and usage patterns when studying the impact of bilingual cognition. However, the paper relies on self-reporting and may produce inaccurate results. Due to the social desirability bias, individuals' answers may be more inclined toward socially acceptable rather than more accurate ones (Van de Mortel 2008).

The general research view is that bilingualism does have significant importance in the process of individual executive control. Although different studies have different limitations, these studies point to similar conclusions, that is, bilingualism does contribute to the development of individual executive control and Inhibitory control functions to some extent. But the controversial aspect is not here, as age variables are rarely involved in these studies, so this is also one of the factors that need to be considered.

2.2 Age and bilingual

The relationship between age development and bilingualism mainly revolves around two stages, namely the early stage and the elderly stage of individual development.

In the early stages of the individual development process, the critical period in second language learning is an important topic. A previous study has demonstrated that the neurological maturity of individual development is related to the ability to learn a second language (Isel *et al.* 2010). They discovered through magnetic resonance imaging research that the ages at which people learn a second language are particularly crucial for the semantic concepts of vocabulary. Sometimes, it may also affect learning words or concepts in the first language. These clues reveal that second language acquisition may influence the cognitive or learning process of the individual.

Some tasks like the Stroop or Simon task could test personal cognitive ability and inhibitory function. In one study examining children's inhibitory function, the Stroop task results for people in their early childhood show that bilingual and monolingual do not have a significant difference in the Stroop effect (Duñabeitia *et al.* 2014). This result goes oppositely to previous studies. The justification the author gave is that bilingual advantages are shown in executive function, however, inhibitory control is one specific aspect of it. Additionally, the insignificant difference in the Stroop task does not deny the cognitive differences between bilingual and monolingual, it only reveals one aspect of the cognitive ability of individuals.

Another study given by Linck *et al.* argues that there still needs further exploration in this area (Linck *et al.* 2008). On the corresponding Simon tasks and other tasks related to Inhibitory control ability, the researchers have expanded the previous studies that were limited to early bilinguals. Through their research, bilingualism has cognitive benefits for those learning a second language at the relatively late age of acquisition. This finding is also different from previous learning about second language acquisition.

These findings are not consistent with the mainstream findings; however, it is crucial to find these evidence that shows the limit of acquiring a second language at the early period of individual development. For early bilinguals, vocabulary can be used to measure their language ability in spoken or written form, it can serve as a crucial sign of the linguistic development of individuals. In the early development period of the individual like toddlerhood or childhood, individuals have limited energy and neuro flexibility to memorize two languages. Because of that, many toddlers or children who acquire a second language tend to have a smaller vocabulary compared with monolinguals (Bialystok 2009). Hence, they may have poor performance when dealing with some cognitive tasks.

Aging affects the executive control and cognitive ability of individuals. According to Zied *et al.*, the more proficient a person is in a specific language in their youth, the more proficient they become in it in their old age (Zied *et al.* 2004). This study found through Stroop tasks that non-dominant language was lost or interfered with more quickly in old age.

Another paper investigates the role of executive ability in controlling language interference in late bilingual individuals (Festman *et al.* 2010). The study's principal findings suggest that regulation of interference by language in late bilinguals is mostly tied to the executive function rather than the language itself. The author chooses 29 participants who are all elderly bilinguals. This study gives them several executive ability tests like Hanoi Tower or Stroop task and finds that those who behave well in these general executive ability tests tend to have a better language control ability. This study analyzes the association between executive function and language management in late bilingual adults in depth but does not compare variations between age groups. Another major worry is that this study is mainly reliant on behavioral data; combining these results with neuroimaging techniques would allow for a deeper understanding of the brain mechanisms behind language control. Differently, Bialystok *et al.* aim to investigate how bilingualism affects cognitive processes and whether these effects differ among different age groups (Bialystok *et al.* 2008). This paper argues that bilinguals exhibit enhanced cognitive control abilities regardless of age compared to monolinguals. In addition, the study also examines the impact of aging on cognitive advantages related to bilingualism, indicating that bilingualism can alleviate age-related cognitive decline.

Based on these findings, it can be seen that there is a mutual influence between aging and bilingualism. When an individual's various functions decline, the first language (mother

tongue) may not face such severe forgetting or decline, but the second language will be affected by the decline. However, compared with monolinguals and bilinguals, bilinguals are conducive to the maintenance of cognitive ability and inhibitory control ability in the process of aging, so aging bilinguals still have comparative advantages.

3 DISCUSSION

Some research finds that bilinguals' ability to memorize vocabulary or understand the different meaning of words are worse than monolinguals; however, they have a relatively strong ability for executive control. For bilinguals, their ability to language shift is also related to the prefrontal cortex, which is an important part of the executive control function. Some tasks like the Stroop task or Flanker task all demonstrate the phenomenon that bilinguals have a greater ability for inhibitory control. However, age's influence on bilinguals is not negligible. For younger bilingual individuals, a relatively late time to learn their second language is deemed as a more appropriate way because it will affect the process of cognition. At the same time, bilinguals at an early age do not show their strong ability for inhibitory control. For the elderly who possess the ability of bilingualism, their poor performances are considered related to cognitive or organ functions instead of language itself. Additionally, bilingualism also enhances their inhibitory control ability and alleviates the decline of cognitive ability. Some of the findings are opposed to what researchers previously found, the main reason is that age is an indispensable variable for this study. Neurodevelopment and language acquisition have different manifestations in different ages of personal development.

4 CONCLUSION

This study mainly revolves around bilingualism's effects on individuals' cognitive abilities and executive controls. Inhibitory control is a small part of this system. Previously, studies are more focused on bilinguals' cognitive ability, however, they underestimate the value of inhibitory control for all ages of bilingualism. This study fills the gap in inhibitory control ability and gives a more comprehensive explanation in terms of bilinguals' age. However, it needs further research to have more accurate support. For example, different types of bilinguals need to be divided. Some bilinguals are born with two mother tongues while other types of bilinguals may learn the second language later in their life. Although all can be considered bilinguals at different ages, it still has some differences that need to be discussed because they started a second language at different times in their life span. Overall, bilinguals tend to have a stronger ability for inhibitory control, the bilingual conversion process teaches them how to ignore irrelevant information, interferences, and distractions. For early bilinguals, the cognitive advantages can be seen through the inhibitory control tasks. For elderly bilinguals, it also matters because it can help to maintain their cognitive ability. For this study, both inhibitory control ability and age have been effectively explored. However, the interaction between the two has not been discussed, because it needs further empirical research. In the future, it requires several further empirical studies to better understand the mechanism behind these factors.

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A case study on the influencing factors of Yun Cifang's CP Fans' purchasing intention for 'CP marketing'

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ABSTRACT: The current study applied the Cultivation Theory and media enjoyment to examine the effect of Yun Cifang's coupling (CP) fans' consumption frequency of CP content on their purchasing intention and its mediated effect of message-related enjoyment and experience-related enjoyment based on the case of Yun Cifang's Bernachon coffee commercial. 278 Yun Cifang's CP fans responded to the study. Results demonstrated a moderate correlation between CP fans' consumption frequency of CP content in Yun Cifang's Bernachon coffee commercial and their message-related enjoyment, experience-related enjoyment, and purchasing intention. In addition, a mediated effect of message-related enjoyment and experience-related enjoyment on the relationship between CP fans' consumption frequency of CP content and their purchasing intention was verified. Furthermore, results revealed that experience-related enjoyment has a more differentiated effect than message-related enjoyment on influencing CP fans' purchasing intention, suggesting that Yun Cifang's CP fans have predetermined standards for CP content and such purchasing behavior may be based on their identification and sense of belonging to the Yun Cifang's fan community.

Keywords: Cultivation Theory, Media Enjoyment, Positive Affect, CP Marketing

1 INTRODUCTION

'CP', the abbreviation of 'coupling', is originally born in the Japanese fandom of ACGN (an abbreviation for the combination of animation, comic, game, and novel), and Jia refers it to any pair of people who have a romantic relationship (Jia 2021). After the concept of CP was introduced to the Chinese audience, its meaning has been extended since the audience has constantly consumed media content related to CP. Li has generalized it to describe two people with chemistry or intimate relationships (Li 2017). For example, other than romance, it also refers to the sense of brotherhood or sisterhood.

Stemming from a niche subculture, it was not until 2015 that the CP culture began to garner the attention of the Chinese public and capital with the popularity of *Nirvana in Fire* (Wen 2021). According to Endata, this Chinese TV series has been viewed over 10 billion times, and its lead actor Hu Ge was ranked in the top 50 of the Chinese Celebrity Value List between 2014 and 2015 (Endata 2021). Since then, producers of films, television programs, and variety shows have given it a try. In an effort to bring more viewers and transfer stream and ratings into economic rewards, producers initially design the narrative and character development based on the audience's imaginations of CPs' interactions (Liu 2016). This practice allows producers to fully mine the commercial interests of programs and continue to obtain more interest from the CPs through endorsements after the programs. Furthermore, the commercial

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success of CPs stimulates producers to create other CPs and hype them at all costs. In response to this commercial need, a media spectacle of the CP culture in entertainment programs has emerged, known as CP marketing (Li 2017). According to Goodidea and Endata, CP marketing simultaneously brings volume to CPs and creates CP content by focusing on CP fans, strengthening CP fans' support intention towards brands (Goodidea & Endata 2021).

Among all the CPs, one called Yun Cifang has caught most people's attention and become one of the top-stream CPs in China. Yun Cifang is the group name of two musical actors, A Yunga and Zheng Yunlong, and was first shown in Super-Vocal, an original new form of vocal singing reality show produced by Hunan TV in 2019. By showing superb singing strength and tacit understanding, Yun Cifang has been known and favored by Super-Vocal fans and subsequently became known to the public for their substantial commercial value. After the show ended, they have still been active on MicroBlog, one of China's most popular social media platforms, and endorsed different brands. Thereinto, the commercial The Path to Mastery that Yun Cifang endorsed for Bernachon coffee has been a successful CP marketing representative. Bernachon is a beverage brand of Wei-Chuan. Its coffee products are known for their intense taste in pursuit of exquisite craftsmanship, attracting many white collars and students who pursue a taste of life. Focusing on this characteristic, the commercial combined the brand concept of 'masterpiece' with the identity of Yun Cifang as the leading musical artists and completed a discussion on the meaning of the master. In the commercial, A Yunga and Zheng Yunlong constantly supplement the meaning of the master through a conversation that expresses the brand image while reinforcing the quality of their unwavering pursuit of becoming musical masters (Ren 2021). Meanwhile, through interactions such as walking toward each other and making eye contact, Yun Cifang showed a sense of intimate brotherhood in the advertisement.

The effect of this CP marketing was remarkable. According to Goodidea and Endata, this commercial has accumulated 17 million views (Goodidea & Endata 2021). The campaign topic #BernachonCoffeeMeetsYunCifang on social media has been read by 83 million times with a discussion volume of 147 thousand (Goodidea & Endata 2021). The campaign has achieved 460 thousand of interactions on we-media platforms, covering nearly 100 million users. Moreover, this commercial won the gold award of the 2020 Golden Lion Awards for the most valuable endorsement, greatly recognizing the commercial value of Yun Cifang.

Current research on CP marketing is still in the exploration stage, and it mainly focuses on the CP culture. As a marketing model that has emerged within the last decade, its working path for CP fans remains unclear. Under this circumstance, Yun Cifang, as an influencing CP, can help researchers identify how CP marketing affects CP fans. Therefore, the current study takes the commercial of Yun Cifang and Bernachon as an example and explores the relationship between CP marketing and CP fans' purchasing intention for products endorsed by CPs based on the Cultivation theory and media enjoyment to complement the gap in the field of CP marketing and provide a new perspective.

2 LITERATURE REVIEW

2.1 *CP marketing and fans' purchasing intention*

CP marketing is the combination of CP culture and commerce. More specifically, it is a way to market a brand in cyberspace by converting the attention of CP culture into purchasing power (Kong 2020). The defining characteristic of CP marketing is paring any two who show or have the potential to develop an intimate relationship and transforming that relationship into a commodity for CP fans to consume (Jia 2021). In other words, CP fans and brands have reached an agreement that paying for products endorsed by CPs is not only accomplishing the commercial needs of brands but also satisfying themselves, as only through consistent consumption for brands can the audience consume more content that shows the intimate relationship of CPs [8].

Literature on the factors of such satisfaction focus on the psychological needs of CP fans. In particular, the emotional projections of CP fans lead to the fixation on the CP content (Wu 2021). According to Liu, CP fans build emotional bonds with CPs to meet their romantic desires since they regard CPs as symbols of ideal love (Liu 2016). Based on this argument, Sun specified the emotional needs for the yearning for visual pleasure and the fulfillment of imagined love (Sun 2021). Despite the lack of further examine how CP marketing generates commercial benefit, she acknowledged that CP fans would refuse to consume any CP marketing content as soon as CPs' behaviors contradict their expectations.

This pursuit of emotional needs may have further effects on CP fans. On the one hand, it may be related to CP fans' purchasing behavior. Although no literature directly demonstrates the correlation between emotional satisfaction and purchase intentions of CP fans, research has analyzed fans' purchasing behavior in general. Zheng and Li pointed out that the purchasing behavior of fans should be recognized as identity consumption (Zheng & Li 2020). In other words, fans are not seeking the use value of products but a consumption experience of a sense of symbolism, pleasure, fashion, and belonging. Besides, since fans invest emotion and trust into their purchasing process, their purchasing behavior can also be considered spiritual consumption. Corresponding to this statement, Gu and Li found that personal perception, group consciousness, and interest demand comprehensively and positively indicate users' purchasing intention in the We-media community based on the 'fan economy' (Gu & Li 2017). Specifically, a sense of entertainment, belonging, and social value are included in the personal perception, while trust, image manifestation, and most loyalty lay in the group consciousness.

On the other hand, when CP fans satisfy their emotional needs by consuming the CP content in CP marketing, their emotions would also be affected. As Kong and Yu argued, CP marketing lightens the commercial attributes of marketing [8]. It provides the value of products and brands in a way that is not offensive to CP fans while comforting their negative emotions, such as depression and anxiety, and offering spiritual value since their emotional needs are fulfilled by consuming the CP content.

Overall, CP marketing capitalizes on CP fans' pleasure and desires induced while consuming CP content. Meanwhile, fans' purchasing intention can be driven by emotions, such as pleasure and a sense of entertainment and identification, such as a sense of belonging and loyalty. However, no literature indicates whether these factors influence CP fans' purchasing intention. Furthermore, such consumption can reduce CP fans' negative emotions, which may be one factor affecting their purchasing intention for products endorsed by CPs. Since CP fans can be considered a subcategory of fan culture, the current study aims at filling this gap and exploring CP fans' purchasing intention for products endorsed by CPs.

2.2 *Cultivation theory and purchasing intention*

American researcher George Gerbner proposed the Cultivation Theory in the late 1960s. The term 'cultivation' was initially used to describe the interplay of information with social and institutional changes, as communication interacts with both. The original macro-research focused on the story system level, stressed the entire communication effect of television, disregarding the kind, channel, or program style, and strived to explain some ideological effects on a broader basis. Initially, Cultivation Theory was a component of a long-term and ongoing research effort titled Cultural Indicators, which examines the extent to which television viewing changes viewers' perceptions of the real world. Gerbner considered television audience behavior, specifically TV viewing, as the independent variable in his study. Using the coding concept, he summarized all violent characters and their associated qualities. A significant difference was discovered between a light television watcher (i.e., less than 2 hours per day) and a heavy television viewer (i.e., watching TV at least 4 hours a day). In other words, watching television creates a unique attitude or mindset, and heavy watchers are more likely to assume that the real world resembles the TV world than the objective truth (Gerbner & Gross 1976).

The Cultivation Theory has been studied abroad for decades, and scholars have attempted to develop it in numerous ways. For instance, Hirsch questioned whether the third variable (degree of education, gender, etc.) influenced the Cultivation Theory's causation (Hirsch 1980). From the cultural studies standpoint, Livingstone presented varying perspectives on how people comprehend television material (Livingstone 1990). He thought that audiences have initiative and that the same story might have two distinct interpretations; therefore, the effect of seeing should vary.

In contrast, Chinese research on the Cultivation Theory has only recently begun and focuses primarily on various forms of culture-effect analysis. The discourse on the theory itself is not dominant. Guo's research on the criminal idea in Hong Kong and Guangzhou was one of the early studies on the Cultivation Theory in the Hong Kong and Taiwan region (Guo 1997). Long and Zhang's research on the cultivation role of Chinese mass media initiated the movement in mainland China (Long & Zhang 2003). Since 2006, the number of studies on the Cultivation Theory has increased, and most of them focus on adolescents, emphasizing the effect of various themes and media on their development. Regarding the purchasing field, most of the Cultivation Theory studies focus on the purchasing notion or consciousness. For instance, Xue argued that Chinese television sports programs containing business information on college students' purchasing of sporting items are influential (Xue 2010). These programs increase college students' exposure and allegiance to sports brands and their purchasing behavior. Yet, its effect is restricted from the perspective of cultivating difference. Around 2014, the focus of Cultivation Theory research increasingly switched to cultivating culture and ideology, while purchasing research began to decline.

2.3 *Media enjoyment in the cultivation process*

As discussed, one of the primary characteristics of CP marketing and fans' purchasing intention is the satisfaction of the affective needs. Thus, the current study endeavors to investigate the relationship between CP fans' affective changes and the cultivation process. To investigate this issue, the current study introduces the concept of media enjoyment as the theoretical basis, whose connection to Cultivation Theory was proposed by Nabi and Krmar in 2004 (Nabi & Krmar 2004). Conceptualizing media enjoyment as 'a three-dimensional construct' composed of cognitive, affective, and behavior, Nabi and Krmar divided it into two expressions: 'message-related (the extent to which the content was evaluated positively or negatively, based on cognitive and affective assessments) and experience-related (the extent to which the consumption experience is itself pleasurable)' (p. 291) (Nabi & Krmar 2004). Later, Ledbetter applied this theory to their empirical research on online communication attitude and defined message-related as the text on media and experience-related as the media usage experience (Ledbetter 2009).

Albeit the abundance of research on media enjoyment, the relationship between Cultivation Theory and media enjoyment has not been fully revealed. Nabi and Krmar argued that the audience's focus on cognitive, affective, and behavioral components of media enjoyment might result in varying acceptance of the same information, thereby influencing the cultivation effect (Nabi & Krmar 2004). For example, suppose one focuses on the suspense in a horror film. In that case, the feelings of tension or boredom may play a more significant role in predicting the degree of enjoyment than the predictability of the plot turns. However, whether this differentiation in the process of the three components can also be applied to two kinds of media enjoyment, i.e., message-related enjoyment and experience-related enjoyment, is not mentioned. In other words, it is unclear whether message-related enjoyment and experience-related enjoyment can also result in different cultivate effects. While a study by Ledbetter did find out the differences in enjoyment between message-related and experience-related media information processes, it focused on the antecedents of media use rather than media effects (Ledbetter 2009).

When it comes to empirical studies, most of them concentrate on the audience's cognitive components, and research focusing on the affective component is scarce. For instance, Lee

et al. focused on the mediated effect of media enjoyment on reality television's cultivation effects (Lee *et al.* 2016). They emphasized the importance that reality television plays in the cognitive development of its audience, and they noted that the cultivation effect of reality television would be reduced without media enjoyment. In other words, this research confirmed that 'enjoyment indeed acts as a key to the cultivation mechanism' (p. 237) (Lee *et al.* 2016).

Overall, the existing literature examines the cultivated differences between message-related enjoyment and experience-related enjoyment in its infancy, and most of the studies on media enjoyment focus on the cognitive. Since CP marketing mainly focuses on affective needs, the current work aims at fulfilling this gap by exploring the relationship between the cultivation process and affective message-related and experience-related enjoyment in CP marketing.

2.4 Theoretical building

Applying the Cultivation Theory to CP marketing, CP fans' purchasing intention will be affected by the CP content they acquire in CP marketing. In other words, CP fans' purchasing intention will rise as their consumption frequency of CP content embedded in CP marketing increases. Consequently, the consumption frequency of CP content is regarded as the independent variable, whereas CP fans' purchasing intention is seen as the dependent variable. The initial proposition is as follows:

HP 1: the more frequently the CP fans consume Yun Cifang's Bernachon commercial, the higher their purchasing intention for buying the Bernachon coffee will have.

When media enjoyment is applied to CP marketing and CP fans' purchasing intention, it may be divided into message-related and experience-related enjoyment. If CP fans feel pleasure about CP content in CP marketing, their degree of enjoyment will grow. Hence, the consumption frequency of CP content in CP marketing is the independent variable, while media enjoyments are the dependent variables. The following are the second hypotheses:

HP 2a: the more the audience is exposed to Yun Cifang's Bernachon commercial, the more message-related enjoyment they have about CP marketing.

HP 2b: the more the audience is exposed to Yun Cifang's Bernachon commercial, the more experience-related enjoyment they have about CP marketing.

When media enjoyments mediate the cultivation process, CP fans' purchasing intention will be influenced by a change in media enjoyment. If CP fans have a higher level of enjoyment, their purchasing intention will grow. Based on this, the following are the third hypotheses:

HP 3a: the more message-related enjoyment CP fans have about Yun Cifang's Bernachon commercial, the higher their purchasing intention for buying the Bernachon coffee will have.

HP 3b: the more experience-related enjoyment CP fans have about Yun Cifang's Bernachon commercial, the higher their purchasing intention for buying the Bernachon coffee will have.

Based on Ledbetter's findings, message-related enjoyment and experience-related enjoyment can have a differentiated effect on media use, while their effects have not been discovered yet (Ledbetter 2009). Besides, since CP fans satisfy their emotional needs through CP content (Wu 2021), the following research question is proposed:

HP 4: CP fans' message-related enjoyment is more related to their purchasing intention for buying the Bernachon coffee than experience-related enjoyment.

3 METHODOLOGY

3.1 Sampling and procedure

Based on quantitative research on media consumption (Lee *et al.* 2016; Ma 2019), media enjoyment (Lin 2009; Nabi *et al.* 2006; Taylor *et al.* 2017; Tsay-Vogel & Nabi 2015), and the audience's purchasing intention (Li 2010), this research adopted a quantitative cross-sectional survey to obtain research data on CP fans' purchasing intention on CP marketing.

An online self-administered questionnaire will be used to ensure that a sufficiently large sample is available. Moreover, as CP marketing is mainly prevalent on the Internet, the Internet is the easiest and fastest medium to reach the fan base. Therefore, the online self-administered questionnaire was chosen as the research method.

This study limited participation to CP fans of Yun Cifang to ensure the consistency of the research context. Thus, the CP fans of Yun Cifang consisted of the sampling frame, and each CP fan was one unit of analysis. To find respondents, the questionnaire was delivered through Tencent WJ, an online questionnaire platform based on the Internet, and the snowball sampling method was used to collect data. After the respondents I was acquainted with finished the questionnaire, they recommended other qualified CP fans to continue to complete it, which made the whole sampling process like a snowball. When respondents clicked on the questionnaire's link, they first saw the commercial clip of Bernachon endorsed by Yun Cifang, which was embedded in the questionnaire website. Then, after the video was finished, respondents were asked to complete the questionnaire by responding to the questions. Finally, once respondents had submitted their answers, they were entered into a prize draw for a voucher for a 20-yuan shopping coupon.

In total, 302 questionnaires were collected, and 24 were excluded because of the selection of self-contradictory options. Therefore, 278 questionnaires were valid (20.9% males, 79.1% females), most of which had the highest undergraduate education level.

3.2 Measurement

The consumption frequency of Yun Cifang's Bernachon commercial. Respondents' consumption frequency of Yun Cifang's Bernachon commercial on social media was based on Ma and Lee *et al.*'s empirical research on studying the Cultivation Theory (Lee *et al.* 2016; Ma 2019). Respondents were asked if they had seen this commercial on social media, and a 5-point scale was used to measure it with 1 to 5 points corresponding to 'Never, Seldom, Sometimes, Often, Always' ($M = 3.96$, $SD = 0.77$).

Message-related enjoyment. Lin *et al.*'s empirical research on enjoyment as a web experience made references to current psychological theories on emotion. It concluded four positive affections, namely happy, pleased, satisfied, and contented, as one of the dimensions measuring online enjoyment (Lin *et al.* 2009). Similarly, Nabi *et al.* designed a Mood Adjective checklist based on a 38-item modified version to capture 10 emotional states in which happiness, relief, and surprise are considered (Nabi *et al.* 2006). Based on the two research, I screened four positive affections (happy, surprised, pleased, and contented) that align most with CP fans' mentality. Besides, bored was used as a reverse-coded item to test the reliability by reference to Nabi & Tsay-Vogel's research (Tsay-Vogel & Nabi 2015). The resulting scale had a Cronbach's α of .86 ($M = 22.04$, $SD = 10.94$).

Experience-related enjoyment. Taylor *et al.* operationalized the enjoyment of using a medium based on the subscale of Ledbetter's medium attitude measure and designed six questions related to the ease/enjoyment dimension (Ledbetter 2009; Taylor *et al.* 2017). Since this paper only focuses on the audience's affection, I sorted out three items to test the audience's experience of using social media. The resulting scale had a Cronbach's α of .82 ($M = 12.76$, $SD = 4.77$).

Purchasing intention for buying the Bernachon coffee. Based on Li's research on factors affecting the consumption intention of mobile games, respondents were asked to report their purchasing intention using 5-point Likert Scales (Li 2010). Three items of the audience's purchasing intention were used to measure CP fans' purchasing intention, including the tendency to purchase products endorsed or recommended by CP and the willingness to recommend products endorsed by CP to others and continue purchasing those products. The resulting scale had a Cronbach's α of .85 ($M = 11.43$, $SD = 8.20$).

Controls. Gender was measured with 2 categories, male and female, and it was recoded into a dummy variable with 0 = male and 1 = female.

4 RESULTS

Table 1. Multiple regression analysis: The effect of CP fans' consumption frequency of CP content in Yun Cifang's Bernachon commercial on their purchasing intention.

Effect	Estimate	SE	95% CI		<i>p</i>
			LL	UL	
Intercept	1.170*	.268	.643	1.697	.000
Consumption frequency of CP content	.689*	.062	.567	.811	.000
Gender ^a	-.116	.117	-.347	.115	.323

Note. N = 278. CI = confidence interval; LL = lower limit; UL = upper limit.

^a 0 = male, 1 = female

Firstly, hypothesis 1 assumed that the more the CP fans are exposed to Yun Cifang's Bernachon commercial, the higher their purchasing intention for buying the Bernachon coffee will have. As Table 1 shows, the consumption frequency of Yun Cifang's Bernachon commercial was statistically significantly associated with purchasing intention while controlling for gender. The effect size of consumption frequency of Yun Cifang's Bernachon commercial was weak, $b^* = 0.56$. Therefore, hypothesis 1 was supported.

Table 2. Multiple regression analysis: the effect of CP fans' consumption frequency of CP content in Yun Cifang's Bernachon commercial on their message-related enjoyment.

Effect	Estimate	SE	95% CI		<i>p</i>
			LL	UL	
Intercept	2.503*	.187	2.133	2.872	.000
Consumption frequency of CP content	.374*	.044	.288	.460	.000
Gender ^a	.534*	.082	.372	.695	.000

Note. N = 278. CI = confidence interval; LL = lower limit; UL = upper limit.

^a 0 = male, 1 = female

Secondly, hypothesis 2a assumed that the more the audience is exposed to Yun Cifang's Bernachon commercial, the more message-related enjoyment they have about CP marketing. As Table 2 shows, the consumption frequency of Yun Cifang's Bernachon commercial was statistically significantly associated with message-related enjoyment while controlling for gender. The effect size of consumption frequency of Yun Cifang's Bernachon commercial was weak, $b^* = 0.44$. Therefore, hypothesis 2a was supported.

Table 3. Multiple regression analysis: The effect of CP fans' consumption frequency of CP content in Yun Cifang's Bernachon commercial on their experience-related enjoyment.

Effect	Estimate	SE	95% CI		<i>p</i>
			LL	UL	
Intercept	1.968*	.202	1.571	2.365	.000
Consumption frequency of CP content	.527*	.047	.435	.619	.000
Gender ^a	.248*	.088	.074	.422	.005

Note. N = 278. CI = confidence interval; LL = lower limit; UL = upper limit.

^a 0 = male, 1 = female

Then, hypothesis 2b assumed that the more the audience are exposed to Yun Cifang's Bernachon commercial, the more experience-related enjoyment they have about the CP marketing. As Table 3 shows, the consumption frequency of Yun Cifang's Bernachon commercial was statistically significantly associated with experience-related enjoyment while controlling for gender. The effect size of consumption frequency of Yun Cifang's Bernachon commercial was weak, $b^* = 0.56$. Therefore, hypothesis 2b was supported.

Table 4. Multiple regression analysis: The effect of CP fans' message-related enjoyment on their purchasing intention.

Effect	Estimate	SE	95% CI		p
			LL	UL	
Intercept	1.897*	.366	1.177	2.617	.000
Message-related enjoyment	.503*	.087	.332	.674	.000
Gender ^a	-.386*	.141	-.663	-.108	.007

Note. N = 278. CI = confidence interval; LL = lower limit; UL = upper limit.

^a 0 = male, 1 = female

Next, hypothesis 3a assumed that the more message-related enjoyment CP fans have about Yun Cifang's Bernachon commercial, the higher their purchasing intention for buying the Bernachon coffee will have. As Table 4 shows, message-related enjoyment was statistically significantly associated with purchasing intention while controlling for gender. The effect size of consumption frequency of Yun Cifang's Bernachon commercial was weak, $b^* = 0.35$. Therefore, hypothesis 3a was supported.

Table 5. Multiple regression analysis: The effect of CP fans' experience-related enjoyment on their purchasing intention.

Effect	Estimate	SE	95% CI		p
			LL	UL	
Intercept	.994*	.292	.420	1.568	.001
Experience-related enjoyment	.717*	.067	.585	.849	.000
Gender ^a	-.295*	.120	-.530	-.059	.015

Note. N = 278. CI = confidence interval; LL = lower limit; UL = upper limit.

^a 0 = male, 1 = female

The following is hypothesis 3b, assuming that the more experience-related enjoyment CP fans have about Yun Cifang's Bernachon commercial, the higher purchasing intention for buying the Bernachon coffee they will have. As Table 5 shows, experience-related enjoyment was statistically significantly associated with purchasing intention while controlling for gender. The effect size of consumption frequency of Yun Cifang's Bernachon commercial was weak, $b^* = 0.55$. Therefore, hypothesis 3b was supported.

Finally, hypothesis 4 proposed that CP fans' message-related enjoyment has a more significant differentiated effect on their purchasing intention for buying the Bernachon coffee than experience-related enjoyment. However, as Table 6 shows, message-related enjoyment was not statistically significantly associated with purchasing intention, while

Table 6. Multiple regression analysis: The differentiated effect of CP fans' media enjoyment on their purchasing intention.

Effect	Estimate	SE	95% CI		p
			LL	UL	
Intercept	1.058*	.341	.387	1.728	.002
Message-related enjoyment	-.036	.100	-.233	.161	.718
Experience-related enjoyment	.737*	.087	.566	.908	.000
Gender ^a	-.280*	.126	-.529	-.031	.027

Note. N = 278. CI = confidence interval; LL = lower limit; UL = upper limit.

^a 0 = male, 1 = female

experience-related enjoyment was statistically significantly associated with purchasing intention. The effect size of experience-related enjoyment was weak, $b^* = 0.56$. Therefore, hypothesis 4 was rejected.

5 DISCUSSION

The current study took Yun Cifang's Bernachon coffee commercial as a case to examine the relationship between CP fans' consumption frequency of CP content in the commercial and their purchasing intention for this product. It also explored the mediated role of message-related enjoyment and experience-related enjoyment in this relationship. The results suggested a positive correlation between CP fans' consumption frequency of CP content in the commercial and their purchasing intention of the Bernachon coffee, which is consistent with the previous studies, indicating that media consumption can influence the audience's perceptions [13]. Furthermore, the results showed statistically significant evidence supporting the mediating role of both message-related enjoyment and experience-related enjoyment in the above relationship. In other words, the cultivation process can affect CP fans' emotions, and such variation may be an underlying mechanism by which CP marketing influences their purchasing intentions. This variation can be attributed to the availability of CP marketing to comfort CP fans' negative emotions and satisfy their emotional needs [8], suggesting that the audience's emotional change simultaneously functioned as the context and expression of cultivation (Shi & Zhou 2008). Meanwhile, verification of this mechanism can benefit the study of Cultivation Theory in the context of new media since the audience has become transmitters from receivers due to the participatory and interactive of new media. Under this circumstance, the cultivation process corresponds with the audience's response to new media, such as their emotional and cognitive state changes (Shi & Zhou 2008). Additionally, earlier empirical studies on the Cultivation Theory mainly focused on examining how media cultivate the audience's cognition and behavior, omitting that the audience's emotions would vary throughout the cultivation process, which is essential for cultivation effectiveness (Nabi & Krmar 2004). Thus, further studies should investigate the variation of the audience's affect to understand the cultivation process better.

The result also verified the differential effect of CP fans' enjoyment on purchasing intention, confirming that interpersonal media communication should differentiate internal emotions and external media use (Taylor *et al.* 2017). It also aligned with the argument that the audience's effect on entertainment consumption and purchasing cognition are strongly correlated (Nabi *et al.* 2006). However, it failed to support the hypothesis that message-related enjoyment dominates the cultivation process of CP fans' purchasing intention. On the contrary, the result suggested that CP fans' experience-related enjoyment has a

significant positive correlation with their purchasing intention, while their message-related enjoyment has a nonsignificant negative correlation with their purchasing intention. Two explanations may account for this outcome. Firstly, CP fans have predetermined standards for CP content. They do not want to consume intentional closeness that aims at promoting products; instead, they want Yun Cifang to show their honest and sincere relationship. Once CP fans perceive that Yun Cifang is just a brand marketing ploy and that neither brands nor Yun Cifang is serious about creating valuable content, they would immediately boycott this advertisement (Goodidea & Endata 2021). Secondly, Yun Cifang's Bernachon coffee commercial is primarily distributed on social media, whose circular communication mechanism can easily create information cocoons (Zhang 2020). In other words, once Yun Cifang's CP fans have followed Yun Cifang on social media, their homepage would constantly push a wealth of relevant information and bring Yun Cifang's CP fans together to form a fan community that provides them a place to share and communicate. Under this context, purchases based on the identity of Yun Cifang's CP fans create a sense of identity and belonging to their fan community, which may further stimulate their consumption of the products [11].

6 CONCLUSION AND LIMITATION

In conclusion, the current study provides empirical evidence on the effect of CP fans' consumption frequency of CP content on their purchasing intention based on Yun Cifang's Bernachon coffee commercial. It examines the mediating role media enjoyment played in this relationship. Results from multiple regression analyses supported the correlation between CP fans' consumption frequency of CP content and purchasing intention of Bernachon coffee and the mediated effect of both message-related enjoyment and experience-related enjoyment. However, the hypothesis of a more significant differentiated effect of message-related enjoyment than experience-related enjoyment on CP fans' purchasing intention was rejected. This result may indicate that social media platforms that distribute Yun Cifang's Bernachon coffee commercial and Yun Cifang CP fans' belonging to their fan community are more important than Yun Cifang's CP content in influencing CP fans' purchasing intention.

Several limitations need to be highlighted. Firstly, the current study only analyzed cross-sectional data, which prevented the inferences on causal relationships. Secondly, the sample was highly skewed towards females, which may bias the research results. However, since most CP fans are females (Wu 2021), this skewed gender ratio also reflects the current state of CP fans in CP marketing. Finally, relevant variables were not controlled, such as CP fans' spontaneous investment towards Yun Cifang (e.g., time and money investment and amount of user-generated content). Considering that such an initiative leads to differential cultivation effects (Shi & Zhou 2008), CP fans' level of investment would also influence their emotional changes. At the same time, CP fans' involvement in Yun Cifang can lead to their satisfaction (Luo 2020), with increasing satisfaction leading to higher purchasing intention. Moreover, since such satisfaction resulted from CP fans' initiative actions, it is essential to distinguish it from the satisfaction generated from the passive consumption of CP content in CP marketing. Therefore, further studies may control for CP fans' level of spontaneous investment, thus effectively excluding the influence of confounding factors.

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How companies resolve image crises: A case study of Luckin Coffee

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ABSTRACT: Luckin Coffee was listed in the US after only 18 months of existence and was subsequently asked to delist after falsifying financial and sales figures. But now Luckin Coffee has turned a loss into a profit. There has been research in theory on Luckin Coffee's marketing strategy and risk management, but there is still a gap in research on the news media placement strategy in Luckin Coffee's "financial fraud" PR. Therefore, through literature analysis, this paper hopes to analyse research and understand how companies can solve their image crisis based on the case of Luckin Coffee. After the analysis in this paper, Luckin Coffee is not considered successful in this PR crisis. But it provides some inspiration for the practices of companies facing an image crisis. When facing a crisis, companies should follow the 5s principle of public relations and all companies should take the initiative to take responsibility. They should take the initiative to contact the media, communicate with the public as soon as possible, explain the facts and promote mutual understanding. More attention should be paid to dealing with crises in a timely manner to avoid negative news spreading rapidly and bringing a negative image to the company. Companies can also change the negative image through a corporate patriotic culture. In terms of marketing strategies, the original characteristics of the brand should be seized to stabilise old users, build up the brand image and attract new customers.

Keywords: Luckin Coffee, Market, Crisis, Communications, Brand Image, Negative Image

1 INTRODUCTION

The coffee industry is an industry with high sticky demand and high profit margins. At present, China's coffee is still in the rapid stage of increasing penetration rate. Although China's market started late, it is still striding forward and exploding at the right time. China's market size has increased from 0 to 81.5 billion yuan, and the total number of cups of coffee consumed in China has grown from 4.4 billion cups (3.2 cups per capita) in 2013 to 11.2 billion cups (8.8 cups per capita) in 2020. The coffee market is experiencing steady growth. At present, China's coffee consumption is between 90,000 and 100,000 tons, with an annual market growth rate of 10%–15%, much higher than the international growth rate of 2% (Kui 2020). There is therefore a huge potential market for the coffee industry in China. The coffee industry has also begun to focus on cost effectiveness and popularity from niche elite groups to the mass working class. Coffee brands are mainly located in first-tier and new first-tier cities. However, nowadays, the demand for advanced coffee from the consumer groups in the sinking market is evident as Luckin Coffee and Starbucks have taken the lead in penetrating the sinking market and are firmly established in the third and fourth tier. Cost-effective and standard, ordinary instant coffee can no longer fully meet the needs of

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consumer groups in the sinking market. The proportion of the boutique coffee population in third and fourth tier cities is increasing year by year, and quality coffee consumption is rising. The demand for highly standardised, convenient and drinkable coffee is rising rapidly. The sinking market may be the blue ocean of the future.

Against this background, Luckin Coffee has seized the opportunity to quickly open up China's mid-range consumption market by using a combination of dual online and offline channels and logistics, and through models such as brand marketing, advertising precision communication marketing and social fission marketing (Meng 2022). Luckin Coffee and occupies an important role in the domestic coffee chain market. It was founded in 2017 and is competing with Starbucks' high-end positioning by focusing on a cost-effective internet coffee model that is wrong. It went public in the US after only 18 months of existence and was subsequently asked to delist due to falsified financial and sales data. In 2021, Luckin coffee resumed franchising and completed a new round of funding in April. Amidst all its rapid shop expansion, capital losses and strong competitors, Luckin Coffee has turned a loss into a profit and has become the first choice for many coffee lovers. Recently, Luckin Coffee announced its Q2 2022 financial results, in comparison, Starbucks as the leading coffee industry leader will be overtaken by Luckin Coffee. Domestic and international theories began to focus on the brand in 2018, with an exhaustive analysis of Luckin Coffee's marketing strategy and new retail model. Since 2020, when it faced a financial fraud crisis, it has received much attention and attention from the economics community at home and abroad, becoming a hot spot for many scholars to focus on and achieving more research results. In recent years, some scholars have also conducted some research on the risk management of Luckin coffee after it was negatively affected. Scholars Xu Minmin and Zhang Lexin proposed that in the face of a huge negative event, Chinese companies should minimize overseas listings; listed companies should respond promptly after a huge negative event; listed companies should improve corporate governance; and listed companies should improve their risk identification and response capabilities (Xu & Zhang 2022). Scholar Hu Mingxia proposes that in the face of corporate crisis one should strengthen corporate governance, improve internal control, abandon blind expansion and operate efficiently digitally (Hu 2022). Based on the above, theoretical research on the marketing strategy and risk management of Luckin Coffee has been conducted, but there is still a gap in research on the public relations strategy of news media placement in the public relations of Luckin Coffee's "financial fraud". Therefore, this paper hopes to study and understand how companies can solve their image crisis through the documentary analysis method based on the case study of Lakin Coffee. With the rapid development of the coffee and other beverage industry, many new brands are emerging. Therefore, the marketing strategy of Luckin Coffee is a topic that deserves further development and is of great importance.

2 LUCKIN COFFEE CRISIS REVIEW

On 31 January 2020, Muddy water publicly released an 89-page anonymous shorting analysis report claiming that Luckin coffee had falsified its corporate data. On 3 February, it was denied Muddy Waters' allegations, and on 3 April, the China Securities Regulatory Commission (CSRC) condemned Luckin coffee's financial fraud and would pursue legal action against it. By 5 April, it was issued an apology and said it would be thoroughly investigated. The company then launched a series of PR actions through the news media in response to the crisis. The company used Weibo to issue an apology letter and used major news websites to expose the situation; Chairman Lu Zhengyao used his circle of friends to apologise and draw media attention to the crisis; and then released a documentary on the Beeping Beeping and Public platform and used UP owners to avoid analyzing this financial fraud crisis at Luckin coffee.

3 PUBLIC RELATIONS ANALYSIS AND EVALUATION OF LUCKIN COFFEE

Use the “5 S’s of PR” to evaluate the crisis communication of Luckin coffee. It was not good PR this time. According to the “5 S’s Principle of Crisis PR”, Luckin coffee was accused of financial fraud for more than three months, but its apology statement failed to respond to the audience in time, violating the principle of speed first and missing the opportunity to control the development of public opinion and reduce the social impact. This public relations effort was a failure. Good news never leaves the house and bad news travels fast. Within the first 12–24 hours of a crisis, news can spread like a virus in a fissile manner. Every move the company makes will be the main basis for judging how the company handles the crisis. Yet Luckin coffee, faced with a crisis of financial fraud, failed to react and apologise in time. In the midst of the crisis, the company was in the public and media spotlight, and its every move was open to question. But Luckin coffee took a chance and tried to muddle through. It was not until the company posted an apology on Weibo and widely disseminated through major news sites that it attracted a high level of public attention. This approach fulfils the principle of authoritative confirmation in the 5s of PR. Chairman Lu Zhengyao’s use of his own circle of friends to apologise reflects the principle of sincere communication. In the face of personnel problems, Luckin Coffee’s approach was to put the blame on a small group of people. This approach does not reflect the sense of corporate responsibility that it should have, and is completely contrary to the principle of commitment. In a statement, it said that its chief operating officer, director Liu Jian and a number of employees had acted inappropriately, while the higher management and the brand Luckin Coffee had nothing to do with the matter, resolutely “abandoned the car to protect the marshal”, and lost the arm (Shen & Zheng 2022). In terms of PR 5s, Luckin Coffee did not do well with the speed first principle and the principle of sincere communication.

The public relations of Luckin Coffee took advantage of the public opinion reflected in the falsification controversy and consumers’ eagerness to consume the existing Luckin coffee coupons to expand sales. Use the crisis to turn into an opportunity. Maintain the high cost performance, constantly create new products, develop explosive models, attract new customers, cultivate sticky customers and turn passivity into initiative. After the crisis, Luckin Coffee chose a spokesperson who was a good match for the product and was liked by young people, and in May 2021, Luckin Coffee announced that Li Lusi was the recommendation officer. The advertisement “Luckin coffee YYDS” has been on the screen. Internet buzzwords are known for their novelty, personalisation, visualisation and topicality, and their many attributes are in line with some of the characteristics of advertising language itself. This is why more brands are using Internet buzzwords in their marketing campaigns to create advertising content that is more engaging and humorous, thus making brand marketing hotter and attracting consumers’ attention and interest in buying (Shen & Zheng 2022). This was followed by the launch of the company’s popular “Raw Coconut Latte”, which raised the company’s brand buzz to new heights. Next, the company leveraged its corporate characteristics to maintain its value for money, continuing to use app coupons and pulling in new customers from the past to stabilise customers. This approach has allowed Luckin Coffee to develop sticky customers and attract a large number of new ones.

Luckin Coffee uses public empathy to create the image of a “patriotic and conscientious company” to attract customers. Luckin coffee used the Beiping platform to release “Luckin Coffee Partners under the Storm” and a 13-minute documentary “Remembering Deer 2020” on its official public website to show the optimistic mindset of employees in all departments and their determination to move forward in the face of crisis events without getting discouraged, which also gained some exposure and audience understanding. In addition, it also uses the UP owner’s evasive dissection to explain Luckin coffee’s financial crisis in an attempt to focus attention on this video, labelling Luckin coffee as the light of the nation, a leek harvesting machine in the United States of America, a NASDAQ mudslide and an emotionless coupon machine (Yin 2022). A lot of people thus blindly followed the trend, and the “patriotic sentiment” led to consumer behaviour and wild consumption of Luckin coffee.

During the epidemic, Luckin coffee announced a confirmed donation of RMB 10 million to the China Red Cross Foundation for the purchase of urgently needed medical supplies and other medical equipment to fight the new coronavirus-infected pneumonia epidemic and save the brand image. A patriotic corporate image is set up in PR to trigger public national sentiment and transform negative public opinion. All interlocutors enter the communication relationship with a living space full of information and a rich store of experience with which to interpret the signals they receive and decide on a response. For two people to reach an effective exchange, the experiences stored in them have to intersect on topics of common interest. This approach has worked well for the resurgence of Luckin Coffee.

4 SUGGESTIONS

When faced with a crisis, companies should ensure the principles of accountability, sincere communication, speed first, systematic operation, and authoritative confirmation. Every manager should be concerned about the safety of the organisation, because no manager can ignore it. At the same time, no manager can guarantee 100 per cent that an emergency will not occur in his or her organisation. As society enters the era of mass communication, media coverage has become one of the factors in social life that cannot be ignored (Shen & Zheng 2022). Once an incident occurs, it quickly attracts widespread media attention. If the organisation in question fails to respond properly to the media coverage, the event will soon evolve into a real crisis, which will have a very significant impact on the organisation and may even lead to significant losses for the organisation. When a crisis occurs, companies must actively communicate to the public in a sincere manner, honestly and transparently communicating the true situation to the public and fully expressing the company's apology and determination to improve. In addition, companies should take active steps to try to overcome the effects of the crisis and compensate those affected for their losses and provide them with the necessary reassurance and assistance. In the Watsons mask incident, the enterprise took immediate action by removing the masks in question from all physical and online shops nationwide and sending the same batch of masks to the relevant authorities for testing. The company also actively contacted the families of those affected and expressed sympathy and condolences with a sense of humanity, all of which helped the company avoid damage to its brand image. In terms of public relations, companies must strengthen their communication and cooperation with the media and use the media's correctness and objectivity to demonstrate to the public the company's responsiveness and transparency. In addition, enterprises should also make full use of the Internet platform to release timely information, strengthen interaction with the public and enhance their recognition in the media and among the public through effective communication with the audience. Enterprises can make full use of microblogging sites and Weibo platforms to increase audience coverage and dissemination speed. Finally, in a crisis, enterprises should pay more attention to themselves and their awareness of social responsibility, raise their CSR awareness across the board and take the initiative to fulfil their social responsibility actions. Enterprises should win public trust and support by making contributions to society and further enhance their brand value and competitiveness.

Strive to create a corporate culture that triggers public empathy and turns the tide of public opinion. In any country and at any time, patriotism is a theme that is most likely to resonate with the public. In the history of China, many national heroes are still widely revered today because they were patriotic aspirants who sacrificed and paid for the interests of the motherland. Today, in the corporate world, companies with a patriotic image can likewise resonate with the public, strike a chord and be respected and recognised by society, thus expanding their influence. This is not only good for corporate visibility, but also helps to gain government support in terms of image and policy (Zheng 2007). In addition to marketing tools, enterprises also need to promote themselves externally through various means, such as displaying their corporate culture, shaping their corporate image and

enhancing their brand in official websites and media releases. Such publicity can not only attract more potential customers and talents but also guide the public to form positive comments in order to turn the tide of public opinion. In order to promote sustainable development, enterprises should actively shape a good corporate culture and combine it with corporate development, so as to win public recognition, establish a corporate image, trigger public resonance and change the trend of public opinion.

Enterprises should maintain their distinctive features, design new explosive products to attract customers, turn passivity into initiative and cultivate sticky customers. In order to stand out in the market competition, enterprises must have their own distinctive characteristics. This characteristic can be manifested in a variety of factors. From the point of view of corporate marketing and PR theory, the brand image of each market player is mainly composed of two aspects: awareness and reputation, especially in the performance of media image, and a good or successful brand image usually has a strong affinity. From the point of view of consumer behaviour can also find that many consumers tend to approach media that can be closer to them psychologically before they actually make a purchase (Mei 2011).

Companies must focus on branding, including the conception of a unique brand name, logo and slogan, as well as the cultivation of a brand culture and brand image. A brand represents the overall impression and image of a company and its products or services in the minds of consumers. The brand connotation includes the quality, image, reputation and characteristics of the company and its products or services, which are inseparably linked to consumers and the market. The value and meaning of a brand originate from the consumer and the market environment in which it operates (Zhan 2005). Companies should focus on the qualities of their products or services and innovate to create unique products or services. By adopting innovation and differentiation strategies, they can gain greater voice and visibility in the market competition, increase market share and make consumers more impressed with the brand, which in turn creates a strong sense of trust. In addition, companies should pay great attention to their social responsibility and environmental protection. In the current competitive environment, consumers are more and more concerned about the moral and ethical issues of companies. For example, using biodegradable packaging materials to reduce environmental pollution, developing more energy-efficient and environmentally friendly production technologies, and achieving greener and more environmentally friendly production.

Companies can also use publicity to create a patriotic corporate culture, build a brand image in the public mind and increase cohesion and awareness of the company. It can also be used to dispel negative images and change the direction of public opinion (Feng 2015).

5 CONCLUSION

In summary, Luckin coffee is not a success in this PR crisis. However, it provides some inspiration for other companies facing image crisis.

5.1 *Enterprises should follow the 5s principle of PR*

When faced with a crisis, enterprises should follow the 5s principle of PR. Enterprises' attitudes are important and enterprises should take the initiative to take responsibility. They should take the initiative to contact the media, communicate with the public as soon as possible, promote mutual understanding and eliminate doubts and anxieties. The enterprises should avoid negative news spreading rapidly.

5.2 *Enterprises can establish a positive brand image in the public mind*

Enterprises can also make use of public empathy to create a patriotic corporate culture, establish a brand image in the public mind, increase corporate cohesion and enhance

corporate recognition. This can also be used to eliminate negative images and turn public opinion around. Of course, although Luckin coffee has successfully turned around the crisis situation because of this point, the patriotic image should also be put into practice, and no false propaganda should be directed at whitewashing the company only.

5.3 *Maintain the original beneficial features of the brand*

In terms of marketing strategy, the original characteristics of the brand should be seized, especially the high cost performance and coupons of Luckin coffee is a feature that attracts the original customers, stabilizes the old users, builds the brand image and attracts new customers.

This paper is based on academic research on the resolution of public relations crises and draws these conclusions through documentary analysis to expand the research on how enterprises can resolve crises and thus promote the resolution of the problem. This paper builds on academic research on public relations crisis resolution and draws these conclusions through literature analysis to expand the research on how companies can resolve crises and thus contribute to problem solving. The main shortcoming of this paper is that no sample testing or in-depth interview-type quantitative research was conducted. This makes the study limited. However, it is hoped that this paper will contribute to the development of a related field.

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The impact of short video platforms on college students' views on marriage and love

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ABSTRACT: In recent years, with the continuous development of short video platforms, short videos have become indispensable to people's daily lives. Researchers have found that as the main user group of short video platforms, college students who are in the stage of forming their views on marriage and love are easily influenced by short videos. However, there is currently a limited amount of research on the impact of short videos on college students, and there is a lack of unified and systematic explanations for the mechanism of the impact of short videos on college students' views on marriage and love. Therefore, in order to further investigate how short videos affect college students' views on marriage and love, and how to reduce the negative impact of short videos on college students' views on marriage and love, the research topic of this article is the impact of short videos on college students' views on marriage and love. This research has found that short videos can influence college students' views on marriage and love through sharing opinions and one's own experiences, and can bring some positive and negative impacts. On this basis, researchers also proposed methods to reduce the negative impact of short videos from three dimensions: platform, public management department, and education.

Keywords: College Students, Views on Marriage and Love, Short video

1 INTRODUCTION

In recent years, short videos have been widely sought after by the public due to their advantages of convenience, intuition, and low cost. According to the 48th Statistical Report on the Development of Internet in China released by China Internet Network Information Center (CNNIC), as of June 2021, the number of short video users in China has reached 888 million, an increase of 14.4 million over December 2020, accounting for 87.8% of the total Internet users (China Internet Network Information Center 2021). It can be seen that with the quiet arrival of the third media era, the development of short video self-media is showing a thriving trend. In this situation, more and more researchers have noticed the impact of short videos on the college student population, and many scholars have conducted some research on the impact of short videos on college students' views on marriage and love. Many scholars have defined college students' views on marriage and love and short videos from an academic perspective. Li Xinfang believes that the connotation of college students' views on marriage and love mainly includes four parts: spouse selection view, love view, sexual view, and marriage and family view (Li 2022). It refers to the basic views of college students on premarital love, marital life, and sexual orientation in the process of marriage and love, and is the internal standard and subjective view of people towards marriage and love. Wang Jianmin and Liu Jianqi, starting from the playback method and duration of

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online short videos, believe that online short videos refer to high-frequency pushed video content that is played on various online new media platforms and is suitable for people to watch by mobile and short-term leisure states (Wang 2020). The duration of online short videos ranges from a few seconds to more than ten minutes. Although many scholars have conducted research on the impact of short videos on college students and their underlying mechanisms, there is a limited amount of research on the impact of short videos on college students' attitudes towards marriage and relationships, as well as their underlying mechanisms. In what forms does short video influence college students' views on marriage and love? Is its impact negative or positive? The research on these issues is of great significance for further improving the impact mechanism of short videos on college students. This article combines relevant literature and data to explore the impact mechanism and influencing factors of short videos on college students' views on marriage and love, and attempts to propose strategies to address the negative impact of short videos on college students' views on marriage and love.

2 THE INFLUENCING FACTORS OF SHORT VIDEO PLATFORMS ON COLLEGE STUDENTS' VIEWS ON MARRIAGE AND LOVE

In recent years, there has been an increasing number of videos related to the concept of marriage and love on short video platforms. As the main users of short video platforms, college students' views on marriage and love are inevitably influenced by short videos. This study suggests that short videos mainly influence college students' views on marriage and love through the following three aspects.

2.1 *Influence the view on marriage and love by sharing opinions*

Due to the increasing freedom of personal expression on the Internet and the emergence of new forms of media, more and more people will choose to express their views on marriage and love through short videos. This type of short video sharing emotional perspectives is usually played by a so-called professional as an emotional master. Regardless of their true relevant qualifications, they often dress properly in short videos, answering questions and providing insights into marriage and love for short video users (Ge 2022). Professional academic language and formal attire have convinced short video users of their emotional expertise and their views. In terms of production, these short videos do not use too many editing techniques and often have very attractive titles and covers. For example, titles such as "Three sentences make a man spend 5 million on me" and "Learn this trick and my girlfriend will never get angry with me" seem very attractive, especially for college students who are still in the stage of forming a romantic outlook. College students are easily influenced by these views due to their lack of love experience.

In addition, the views on marriage and love on short video platforms often differ from traditional views on marriage and love. In China, people have very conservative attitudes toward marriage and love. From the perspective of traditional marriage, people cannot start dating before college and should get married and have children around the age of 25. Getting married and having children seems to have become a task that everyone must complete. However, many short video bloggers nowadays do not believe so. They believe that people should have the right to choose whether to fall in love and get married, whether to marry a man or a woman, and whether to have children. They do not believe that people must get married and have children. Some unmarried people believe that it is better to find a partner who shares the same interests and cohabits with them than to get married. Some couples who do not want to have children believe that children can bring pressure to their lives, so they decide to become Double Income No Kids (DINK) families. Some short videos that can represent young people's views on marriage and love can easily evoke emotional resonance

among the audience in terms of content. For college students who have not yet formed their own views on marriage and love, there is no doubt that these videos will resonate with them, leading them to want to imitate these bloggers and be affected.

2.2 Influence the view of marriage and love by sharing one's own experiences

Short videos will also influence college students' views on marriage and love by teaching love skills. The content of this type of short video is mostly based on the blogger's own love life clips. Through the interaction and discussion between male and female bloggers in short videos, showcase their romantic life clips to the audience. In the clips, it is often mixed with the blogger's own thoughts on love and some love skills. Another characteristic of this type of video is its lack of authenticity. Some bloggers may use posing techniques to shoot short videos to make the content more interesting and attract attention (Sun 2019). As a result, the content of the video will become more romantic and desirable. Sometimes, the very loving couple in the video may only be actors recruited by a short video production company. And such short videos are most likely to affect college students who encounter emotional setbacks. These college students may have just had an argument or even broken up with their partners, but they don't know how to repair their relationship. In this situation, when they see the skills shared by these bloggers, they will not hesitate to choose to try.

What's more, these short videos will subtly influence college students' views on marriage and love. For example, after watching these beautiful love life experiences, many college students will develop the idea of falling in love. Perhaps college students subjectively do not believe that the viewpoints in these short videos will have an impact on them. But in fact, this influence is subtle, and whether college students admit it or not, these views will definitely have an impact on their views on marriage and love.

2.3 Influence the view on marriage and love through news comments

There are some short videos with the theme of commenting on social hot news related to love and marriage. This type of short video often focuses on breaking news, such as domestic violence, and suicide after a breakup, and puts forward one's own views based on this. These news comments are often negative and extreme, but they are widely criticized by these bloggers as a common phenomenon. Because only in this way can videos attract the attention of short video users. It is precise because of this that many college students who have watched videos are misled into believing that retaliation after a breakup is common. Some college students are no longer willing to marry and fall in love.

In addition, there are often a large number of negative comments about love in the comment section of such videos. For example, 'How could this man do this? I dare not fall in love anymore' 'I used to think marriage was an indispensable part of life, but now I think it would be great not to get married.' These comments are particularly severe in the comment section of some videos discussing gender differences. The comment section of these videos often magnifies the shortcomings of the male or female group infinitely, ultimately leading to a gradual worsening of the phenomenon of gender opposition. Some college students who have never been in love or have little contact with the opposite sex may think that men or women have only shortcomings, as mentioned on the internet, leading to the idea of being afraid of men and women.

3 THE POSITIVE AND NEGATIVE EFFECTS OF SHORT VIDEO PLATFORMS ON COLLEGE STUDENTS' VIEWS ON MARRIAGE AND LOVE

The appearance of a large number of short videos about marriage and love undoubtedly affects the views of college students on marriage and love. And some of these impacts are positive and some are negative.

3.1 *Positive effects*

Firstly, college students can see various views on love on short video platforms, which helps to form their own romantic relationships. College students are in the stage of forming their views on marriage and love. Understanding different people's different views on marriage and love can help them reduce their prejudice against people with different views on marriage and love, form a healthier view of marriage and love, and improve empathy. After understanding different views on love, college students can choose the most suitable one for themselves. Moreover, having better empathy in love often means a better understanding of their lovers' behavior, which has a positive impact on college students' love satisfaction (Yang 2022).

Secondly, during the process of love, college students may encounter many problems due to their immaturity. Short videos can serve as a reference, helping college students learn to regulate conflicts in love and improve their communication skills. In China, most college students do not disclose their romantic status to their parents (Cao & An 2016). Many college students feel ashamed to seek help from their parents when they are unable to solve problems that arise in their relationships. And some techniques in short videos can indeed serve as guidance and alleviate conflicts between college student couples.

Finally, Short videos can effectively release the negative emotions brought about by love among college students. As everyone on the short video platform can express their love views through short videos, college students can share their experiences on the short video platform when encountering setbacks in love. During the process of sharing one's own experiences, one's negative emotions will be released. This can effectively alleviate the negative emotions caused by romantic setbacks and is beneficial for the mental health of college students. To some extent, reduce the occurrence of extreme behaviors, such as suicide after a breakup.

3.2 *Negative effects*

However, the emergence of short videos has also had a negative impact on college students' views on marriage and love.

Firstly, the extensive sharing of love skills in short videos weakens the ability of college students to think independently, making them unable to objectively and rationally view the content shared in short videos (Liu & Yue 2022). There are too many videos related to love skills on short video platforms, making it difficult for college students to think rationally and objectively about what is suitable for them. In addition, most Chinese college students lack love experience, so instead of finding ways to solve love conflicts on their own, it is better to directly use the techniques shared in short videos quickly and effortlessly. These two points also lead to some college students blindly using the love skills shared online, lacking the step of independent thinking and choosing the right love skills for themselves.

Secondly, research has shown that short videos use simplicity and beauty to create a seemingly ideal but actually 'utopian' perfect love template. This not only affects college students' views on love but also affects their emotional judgments and practical choices (Zhang & Zhang 2022). For example, some college students ask their girlfriends to cook for their partners every day after watching a short video. Even worse, this perfect utopian love template brings about material contrast. For example, some college students have seen a short video showing a method to verify their partner's liking for themselves by looking at the price of the gift they received. Therefore, when they see that the gift their partner gave them is just a small gift worth ten yuan, they think their partner doesn't like them and wants to break up. But without considering that their partner is not yet employed, they can only draw some money from the monthly savings for living expenses to buy gifts.

In addition, some negative news comments and short videos about domestic violence and retaliation after breakups can lead college students to develop a negative view of marriage

and love. These originally rare phenomena are regarded as a universal phenomena. Causing fear towards boys or girls among college students who have not yet fallen in love, leading to a refusal to socialize with the opposite sex and the formation of unhealthy values.

4 HELP COLLEGE STUDENTS ESTABLISH A CORRECT VIEW OF MARRIAGE AND LOVE THROUGH SHORT VIDEOS PLATFORMS

Based on the above analysis, it is not difficult to see that standardizing the content of short video platforms has become an urgent task.

4.1 *Promote short videos that contain healthy views on marriage and love*

Short video platforms often only consider interests and neglect corresponding social responsibilities. Many short video platforms neglect the regulation of short video content in order to increase click-through rates. In the view of short video platforms, more click-through rates mean more revenue, so as long as a video can bring more click-through rates to the platform, regardless of its true or false content, short video platforms will be very favored. Moreover, video auditing often requires a large amount of human resources and is costly. Short video platforms are unwilling to spend a significant amount of cost on video reviews. It can be said that the platform as a censor has insufficient self-regulation, and there are loopholes in content censorship, which makes it easy for college students to accept videos of harmful content (Xie & Zhu 2019).

Therefore, in order to solve this problem, on the one hand, short video platforms should bear the social responsibility corresponding to the right to information display, and fulfill their own information screening and dissemination functions. Improve the content review mechanism of one's own platform to reduce the possibility of bad content appearing and spreading (Sun 2019). On the other hand, short video platforms should actively develop intelligent supervision systems and develop systems with high automation, flexible configuration, and short cycles. In this way, the platform can not only reduce the cost of manual review but also more effectively improve the efficiency and quality of short video review work.

4.2 *Optimizing laws and regulations to regulate the short video platform*

The government should strengthen the supervision of short videos and formulate relevant laws. Due to the sudden rise of short videos, they only have a history of about 10 years to this day. The legal provisions regarding short videos and content regulation on short video platforms in society are very incomplete. With the continuous development of short videos, they have become an indispensable part of people's lives. The Chinese government has introduced relevant laws and regulations on the regulation of short video content. The Cybersecurity Law of the People's Republic of China stipulates that network operators must strengthen user information protection and protect user privacy. In addition, it is also stipulated to prohibit the publication of online information containing violence, obscenity, terror, and other content. Regulations of the People's Republic of China on the Administration of Online Audiovisual Program Services regulate the content of short video platforms. For example, short video platforms should review the content uploaded by users to ensure that illegal information is not disseminated. In addition, in 2021, the revised "Detailed Rules for the Review of Short Video Content on the Internet" issued by the China Association of Online Audiovisual Program Services further improved China's short video regulatory system.

The mechanism for preventing minors from receiving harmful information is already very perfect, but there is a lack of protection for the group of college students who have just

reached adulthood and lack life experience. These college students who have just reached adulthood are not much different from those who are about to reach adulthood, and they also need some protection to prevent them from being affected by bad information. The government can learn from the relevant regulations of traditional literary work review and establish laws and regulations based on the actual situation.

4.3 Enhancing the information recognition ability of college students

School education bears an important responsibility for shaping the formation of college students' views on marriage and love. Schools can organize relevant activities by offering courses to help college students establish a rational view of marriage and love. Carry out discussion activities with the theme of college students' marriage and love in the college student love course, to help college students better form a correct and healthy view of marriage and love. The school organizes courses aimed at improving college students' ability to recognize online information. On the one hand, these courses can help college students identify which news reports are untrue and one-sided, and prevent them from receiving negative impressions. On the other hand, it can also enable college students to identify and choose suitable love skills (Wu 2021).

In addition, teachers can also collaborate with students to shoot short videos related to marriage and love, which can help students have a better understanding of their views on marriage and love. Of course, the most important thing is to improve the short video information recognition ability of college students. This can solve the problem from the root cause.

5 CONCLUSION

In summary, research suggests that college students' views on marriage and love may be influenced by the sharing of experiences, viewpoints, and news comments in short videos. Discussed and analyzed the positive and negative impacts of short videos on college students' views on marriage and love. Finally, this study proposes methods to reduce adverse effects from three dimensions: short video platforms, public management, and education. This experiment fills the relevant experimental gaps and further improves the mechanism of the impact of short videos on college students' views on marriage and love. However, due to limitations, this study only used existing data for analysis and discussion. In the future, further questionnaires can be designed to collect data for field research.

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A new marketing strategy in the digital age: Meta-universe marketing

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ABSTRACT: In 2021, the metaverse concept burst out of the ring under the influence of a number of factors. When the metaverse achieved good results in the gaming and social sectors, major companies tried to expand their own sales areas through the metaverse. Based on core technologies such as virtual reality and artificial intelligence, they create their own virtual images and virtual scenarios and issue non-fungible tokens (NFT) in an attempt to carve out a whole new path in the metaverse space. As the metaverse is still in its infancy, its application in various fields is also in the experimental stage. Therefore, based on the metaverse technology and digital marketing theory, this research uses an inductive and deductive approach to illustrate the application of the metaverse in different marketing scenarios and its impact on products. At the same time, it provides feasible marketing suggestions and methods for brand marketing, such as establishing online virtual experience spaces.

Keywords: Metaverse, Metaverse Related Technologies, Marketing, Value, Scenarios

1 INTRODUCTION

In recent years, the rapid development of technology has brought people into the era of the metaverse. The epidemic is also one of the reasons that the metaverse came about. People's lifestyles and consumption concepts have changed dramatically due to the meta-universe. In this context, companies are driven to make their marketing strategies develop toward digitalization and virtualization to meet the needs of customers and the needs of the new era. The development of metaverse marketing is only 2 years old, and all aspects are still in their infancy, with further development needed in marketing methods, platform development, and hardware requirements.

Meta-universe marketing means that brands can publish their brand and product information and display their products through the meta-universe platform without placing the products in shopping malls, and customers can experience, feel, share, and exchange the products and services

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provided by the brands in the virtual world without leaving home. This way of displaying products is called metaverse marketing. This way of marketing can meet the marketing needs of brands without leaving home, which is a win-win situation for both brands and customers.

Meta-universe has several characteristics: first, the fundamentals of meta-universe are co-creation, co-sharing, and co-governance; both brands and customers are the creators and managers of this world, and it is also an area to share the results; second, meta-universe can make people get a personal experience, although they do not arrive in person, and it is a kind of immersive experience without leaving home.

The rapid development of technology has made mobile devices more and more affordable, and the increase in Internet speed has made people's lives more and more digital and networked, which makes the way of buying products, socializing, and entertainment tends to be consumed in the virtual world. By 2025, Asia's Generation Z and Millennial population will account for more than half of all consumers (Pan, 2022). Gen Z and Millennials are more social and want to connect with others virtually. The ability to socialize through the virtual world is one of the advantages of the metaverse, where companies can showcase their products. In the metaverse world, users also do not need to leave their homes to experience the products. Nowadays, social, shopping, and entertainment can be done virtually, and in the future, the virtual world will expand its functions. In this paper, we will speculate on the meta-universe marketing solutions that brands can use and the future trends of meta-universe marketing by examining the application scenarios of meta-marketing. As mentioned in the MMA-Asia Pacific report, although these worlds may be virtual, the growth opportunities for brands are very real; these issues can be of great practical importance to the development of metaverse marketing strategies (MMA Culture Group 2023).

In this paper, we will analyze the future development and sustainability of meta-universe marketing by examining the connotation and value of meta-universe technology. This paper will also restore the usage scenarios of metadata marketing and the comparison of metadata application scenarios. Finally, it will summarize the future trends of metadata marketing and the aspects that brands today can use as entry points to develop virtual marketing strategies. In this paper, literature analysis is used to conduct the study. Relevant literature is used to analyze the current status, future development, and target population of metaverse technology. The literature data is used to support the final conclusion and to suggest the future development of metaverse marketing.

2 THE CONNOTATION AND VALUE OF METAVERSE TECHNOLOGY

2.1 *Metaverse technology and development*

Roblox, the "first stock of metaverse," gives eight elements of the metaverse. This is the most authoritative international description of the concept of the metaverse. They are identity, social, immersion, low latency, diversity, anytime and anywhere, the economic system, and civilization.

In terms of technology, the metaverse is a virtual world built on top of a program that allows for immersive perception and interaction. Thus, the technologies of the metaverse fall into four broad categories: the first category is interactive technology, which creates immersive experiences for users in many ways, including visual, auditory, and tactile, through wearable devices. The second category is artificial intelligence and gaming technology, which aim to achieve a high degree of fidelity in the metaverse and a high degree of synchronization with the real world. The third category is blockchain technology, which ensures users' privacy and security through decentralized technologies such as distributed data storage and peer-to-peer transmission. The fourth category is the Internet of Things and cloud computing, which ensure that the metaverse space can parallel reality and operate stably for long period of time (He 2023; Xie & Zhang 2023).

From a value perspective, the metaverse represents the future direction of Internet technology development. The existence of the metaverse is to help human beings develop in the real world and, at the same time, to be able to explore the virtual world in a whole new way.

Meta-universes are currently at the conceptual level; the metaverse is currently mostly experimented with in games, as both the immersive interactivity and the economic mechanism of instant feedback coincide with today's video games (Dong *et al.* 2023). For example, in April 2020, Fortnite, a representative work of the American video game development company Epic Games, in collaboration with the singer Travis Scott, held a virtual online concert in the game world, Astronomical, which attracted 12.3 million players online, although it lasted only ten minutes.

It is thus clear that the metaverse is based on the development of Internet technology. When the Internet enters a new dimension based on AI and XR, users will have their own digital identity and digital assets and can enjoy an immersive and authentic experience while creating, sharing, and even participating in the distribution of value.

2.2 *Metaverse marketing crowd portrait*

A crowd portrait is a cognitive expression of a user based on user behavior analysis and is also the starting point for subsequent data analysis and processing. By collecting and analyzing the gender, age, social attributes, habits, and consumption behavior of users, the full picture of a user is abstracted and labeled to facilitate the mining of more business value. This study concludes that in the future, all applications must be personalized and all services must have a thousand faces, and the prerequisite for all this is to obtain a user profile.

In a survey conducted in October 2022, Daily Interactive identified a category of people from the survey population called meta-natives. The meta-natives are a group formed by Daily Interactive's crowd insight SaaS tool "Personal Light Counting," which integrates and classifies users of meta-universe concept apps such as XiYang, Rainbow Universe, Jelly, and Zepeto. The results of the survey show that meta-indigenous people are relatively young, mostly aged 34 and below, with millennials aged 24 and below accounting for the highest proportion, at 40.9% (Getui 2023). In addition, the data shows that 67% of meta-natives are male, with a more pronounced preference, making them a dynamic group of young people who are sensitive to new things and have a strong interest in the virtual world (Getui 2023).

3 NARRATION AND RESTORATION IN METAVERSE MARKETING

3.1 *People – virtual character*

With the development of metaverse technology, the number of brands that need to achieve digital transformation has increased. With such a background, the virtual IP image has changed from the previous plane modeling and gradually turned to super realistic virtual digital people. Additionally, the goal of metaverse technology is to virtualize every member of the marketing team. In this scenario, after building their own ideal virtual character, the service staff, employees, product endorsers, and even the customers could all receive marketing activities, including experiencing the product on their own, communicating directly, and the ultimate purchase process in the virtual world generated by metaverse technology (Li *et al.* 2022). Today, more and more brands have created virtual characters to assist in their marketing efforts, and buyers are encouraged to create their own characters for deep interaction and communication. This emerging virtual identity-created ability combined with metaverse technology exists as an endorser, a symbol, or even a logo to convey the brand image; being an explanation related to the brand is also one of the functions of those virtual characteristics. It could help to hold live streams, host events, and interact online. This scenario reduces marketing costs successfully and could make the image of the "spokesperson" more controllable.

Ready Player Me, a software created by Wolf3D, is one of the pioneers in the implementation of metaverse identities. It enables users to create cross-platform characters and interact with their identities in virtual spaces through their own actions by incorporating motion capture technology provided by the Xsens Live Link. Recently, Adidas also launched an AI creation platform that supports users to design their own meta-universe identity and even carry out DIY functions of sneakers for consumers. This project has increased consumer understanding of this new consumption paradigm while also boosting sales of shoes under the Adidas brand. After successfully creating orders and paying for them, customers can create their own trainer styles. This idea increases customer satisfaction and loyalty and gives Adidas a lot of fresh creative inspiration, which helps this brand better understand consumers' preferences and consumption patterns. It is important to note that Tencent also produced anthropomorphic identities at the interface (Gao *et al.* 2021). Although it does not belong to the category of meta-universe marketing, it is clear that creating characters and getting into metaverse marketing is a growing trend in the marketing sector.

3.2 *Product – digital goods*

When everyone in the metaverse has an identity created by themselves, the digital goods that are created become commercially valuable. Users are eager to buy “skins” or “tools” to better portray themselves, and they even want to acquire the products they designed that can be used in the real world. Based on this demand, digital products were born. The emergence of digital goods enriches the types of products, grants purchasers and designers for furniture new inspirations, and expands sales for different brands. The creation of those digital goods in special types provides consumers much more freedom to make decisions. In addition, marketing services such as online product experiences and offline delivery provide greater convenience to buyers. The development of digital goods also indirectly expands the target consumers, as consumers who are not available to go outside, such as the disabled or the elderly, can thus purchase the products they need on the metaverse platform (Chai *et al.* 2023).

Nowadays, digital goods have already become a reality. Nike's virtual brand, which is named RTFKT, has generated additional revenue for the brand by selling pricey virtual sneakers. Digital artist Andres Reisinger sells 10 pieces of virtual furniture at NFT auctions, five of which have been made available as physical goods.

3.3 *Place – virtual platform*

Having a virtual identity and matching accessory objects also needs to provide a virtual space for users to realize basic social needs such as communication and interaction. For building a virtual platform, a metaverse shopping center in the virtual space is necessary. Digitally innovating the original shopping mall or restaurant industry through AI, AR, VR, 3D, and other technologies is also indispensable. It integrates functions related to consumption, games, interaction, entertainment, and NFT. It also allows users to immerse themselves in the “cloud shopping” experience, which is becoming a new marketing trend. After the introduction of virtual shoppers, consumers can experience and order their favorite goods in the virtual space and then wait for their home delivery.

The establishment of virtual space enables consumers to experience products without leaving home or going outside. The actual experience related to sensory, trying on new clothes, food taste, and the product material can solve online shopping problems such as not being able to experience before buying, and communication errors lead to lower consumer satisfaction.

Republic Realm has acquired virtual land on the Decentraland platform to develop the Metajuku virtual neighborhood project. It will refer to the Harajuku shopping street in

Tokyo to create a virtual commercial space where users can browse, try, and purchase products. Shopping centers such as Joy City, located in Beijing, have already started to use AR for promotions and displays, aiming to bring an immersive virtual-real metaverse shopping experience to customers. Physical companies such as IKEA and Coca-Cola have also launched virtual spaces powered by metaverse technology to better enable customers to understand the products they produce and even finally make a purchase.

4 METAUNIVERSE PRODUCTS AND APPLICABLE MARKETING SCENARIOS

There are two major types of products based on metaverse marketing: one is metaverse products based on a combination of virtual and reality, which accelerate the digital transformation of industries and products. The second is based on online virtual metaverse products, which are social and entertainment-oriented and focus on the creative consumption of metaverse products. Metaverse products themselves are something to satisfy users' needs, but for different types of metaverse products, the role of metaverse marketing objectively varies greatly.

4.1 *Incarnation of a tangible product*

This virtual world product is essentially a digital representation or version of an actual product that already exists in the physical world. For example, a virtual showroom that combines online and offline or a luxury fashion brand might create digital versions of its clothing line for users to wear as avatars in the virtual world. In this way, virtual-world products can serve as an extension of the company's physical products, or they may be created with additional features and functionality that are only possible in the digital world. The goal is to provide users with a seamless experience across physical and virtual environments, allowing them to interact with products and brands in new and innovative ways. Then, Increase brand awareness and sales.

4.1.1 *Applicable marketing scenarios*

A successful case is the "Ten Chains, Hundred Fields, Ten Thousand Enterprises" campaign in Zhejiang Province, which launched the marketing method of "offline exhibition hall + online Yuan universe branch." (Wang & Wei 2022).

This kind of high-tech, high-demand for this kind of category of meta-universe marketing strategy is more comprehensive; meta-universe provides a new marketing channel for chain enterprises. The correlation between the main business and the "meta-universe" is clearly defined. This marketing strategy, integrating each enterprise online and offline, promotes multiple enterprises to match supply and demand and maximize benefits. The traditional offline exhibition hall has few visitors and little display effect. The marketing advantage of this scenario is that the emergence of meta-universe showrooms precisely makes up for the shortage of offline galleries, allowing users to easily exhibit without leaving home, breaking the traditional form and bearing restrictions, thus achieving marketing effects beyond expectations.

In the case of Tiffany NFT digital goods created by luxury brands, the brand uses NFT as an incarnation of physical assets, with a focus on constantly strengthening the brand's own trendy and youthful attributes to attract more young consumers to buy. For example, Tiffany's meta-universe began with selling 250 limited edition NFTIFF passes. The company also included a physical asset: custom-made couture pendants inspired by the CryptoPunks digital art collection for NFTIFF pass holders. Each piece has a whole collection number and is equipped with an NFT digital rendering of the work and a certificate of identification, according to statistics.

This practical metaverse marketing strategy is more comprehensive and combines the essential collectability and practicality of NFT marketing. It provides the brand's attached

value when the purchaser gets a digital collection, some with the verification of the rights of the physical goods of the brand's products, and also participates in the various rights and activities corresponding to the NFT behind the product and engages in the co-construction of the brand's value. The NFT under this marketing strategy becomes the connection credentials between the brand's two flat universes, online and offline.

4.2 *Online virtual metaverse products*

This type of product is not available in the offline world; this type of virtual world product is a purely digital creation that does not exist in the physical world. For example, a game developer might create a new game that can only be played in the virtual world, or a virtual artist might produce a digital art exhibition that can only be experienced in the virtual world. These products offer users a unique value proposition because they provide experiences that cannot be replicated in the physical world. In addition, because the material world does not constrain them, virtual world offerings can be highly innovative and offer features and functionality that are not possible in the offline world.

LiveTopia, a metaverse game, has become a phenomenon in less than five months since it was launched on the Roblox platform on April 28, 2021, in China.

This metaverse game is built with virtual scenes and blockchain as the basis. The users can experience the game's fun and gain revenue by trading the "digital assets" they invest in the game. This model of metaverse scenario breaks the traditional game in which players cannot deal with each other. Manufacturers set up the game's underlying framework and experience version for users to earn money while playing the game, also called play-to-earn, or the P2E model for short.

For vendors, a rich creator base brings continuous iteration of platform content, which continues to bring players new experiences and attract more new players to enter. This type of metaverse play builds a large economic ecosystem based on its virtual assets to expand its influence in the metaverse.

The vendor keeps the company's business growing at a high rate while winning with users, and players rely on the metaverse to enrich the game format and earn revenue. A win-win situation between vendors and players is a more successful business model for metaverse marketing.

Overall, the essential marketing strategy for virtual and online metaverse products is the need for more application scenarios to support them. The higher selling price is supposed to be a game for the few, curbing the motivation of the average user to continue buying, and it needs to bring a consensus of content-based value to the masses. Without application scenarios, a brand's meta-universe product is often reduced to a picture that mobile users hide on their phones, unable to play its unique "brand pass" role. The inability to achieve rich communication functions has led to a sharp decline in market value and low demand. Meta-universe products will only sell well if they can benefit the actual lives of buyers or if they have application scenarios. Variety with IP effectively enhances the product's added value, physical products, membership rights, gifts and game packages, and other binding combinations of marketing strategies that can quickly bring marketing conversion to the brand to achieve the product breakthrough.

5 BRAND INTERNAL CONSTRUCTION OF METAVERSE MARKETING

Metaverse marketing is a new battlefield for next-generation consumer attention and business growth. Based on the future of metaverse marketing, future brand leaders need to establish three dimensions of awareness within the brand.

5.1 *Pay attention to the awareness of technical personnel*

The technical requirements for setting up metaverse products online are low, but the most important thing is to develop the scene construction of the metaverse, which directly affects

the customer's experience. To achieve better development in the construction of future metaverse scenes, it is necessary to map many locations, people, and objects from the real world into the virtual world and integrate them with the virtual digital world. In this virtual world, breakthroughs in underlying technologies can bring substantial breakthroughs in the metaverse. Technical researchers must still focus on developing cloud computing and edge computing capabilities, deploy widely distributed edge computing nodes in 5G/6G networks, and lay the foundation for computing network convergence. At the hardware level, actively explore the industry positioning and formats in the XR field. It will actively explore typical applications and develop implementable scenario models at the application level. Nonprofessional technical personnel still need cognitive and technical gaps to build a new scenario. Metaverse technicians need to be highly valued (Woodcutter 2022). Collaborate with technical personnel to shape the future through immersive technology and turn them into partners rather than suppliers. Enterprises can provide customers with a better experience by matching mature technology with suitable marketing strategies.

5.2 *Team professionalism awareness*

Taking purchasing digital collectibles to obtain physical products as an example, it is necessary first to determine the entry point for product purchase, then place an order at the official store, scan the QR code after receiving the product, log in to the activity page for authentication, and participate in the lottery and other processes. Brands need to hire experienced marketers who understand the metaverse to enter the field to gain an overview of virtual ownership or appoint a dedicated virtual marketing officer to create a rich content experience and work with technical personnel to build a transparent metaverse marketing system. Because the future metaverse will develop with technology, the new metaverse marketing gameplay will further challenge marketers, allowing professional virtual marketing officers to analyze and explore the psychology of people in the metaverse. Obtaining customers through designing high-value and high-stickiness interactions will become a characteristic of metaverse digital marketing. It will also write a new chapter for brand stories in the virtual world.

5.3 *Team cooperation awareness*

The construction of metaverse scenes requires technical support and users from the platform or metaverse space. In contrast, the brand has created mass influence and scaled sales through marketing, promotions, and other marketing actions, moving toward the goal of an efficient team. Successful metaverse marketing cases rely on close cooperation between brands and platforms, or between brands and IP owners. Brands must collaborate with strong IP leaders in industry clients for joint research and operation, collaborate with mainstream content platforms, explore special services, innovate user experiences, and establish mature programs.

6 CONCLUSION

This study's academic research significance and impact can provide specific and feasible methods for corporate marketers to transform brand marketing through case studies of currently successful NFT activities or meta-space exhibition halls. Enterprise marketers can make full use of the characteristics and advantages of metadata technology to create new marketing methods, marketing channels, and marketing experiences, improve the marketing effect and brand influence of enterprises, achieve cost reduction and efficiency increases, help enterprises achieve digital transformation, and assist brands in achieving new growth and innovative competitiveness.

Metaverse marketing also has some limitations due to the current technological status of the metaverse, and current technology cannot achieve the coexistence of virtual space and real space. However, with the continuous development of virtual reality technology and blockchain technology, future technological advancements are expected to break through this limitation, giving rise to various new scenarios, allowing people to achieve user-triggered service methods at home, shaping a three-dimensional experience space similar to offline, and allowing people to understand virtual offices and shopping online and offline. People can freely change their identities and avatars, voluntarily shuttle between scenes, and experience another parallel virtual world.

Metaverse marketing has brought many benefits to brands, creating brand topics and generating traffic on social media. At the same time, it creates a brand new experience for users in the virtual world, allowing them to understand the brand from another perspective and promote the development of the brand.

In future metaverse research, brands, advertisers, and all marketers need to be more proactive in collecting many of the latest technologies and concepts to create better metaverse marketing and an accurate and reliable future for brands in the virtual world.

AUTHORS CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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Gender discrimination in the workplace in Chinese urban areas

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ABSTRACT: Today, the situation of gender discrimination is widely discussed by the public. Influenced by modern and new Western culture, the problem of gender discrimination among Chinese women, especially in urban China, is gradually being put in front of the public. This article will discuss the current situation in society in which different genders are discriminated against from the perspective of different genders, especially in the treatment and evaluation of women in the workplace. The article mainly uses the conclusions of other articles and analyzes the causation of the treatment of workplace women. Women in the workplace are discriminated against in terms of treatment and evaluation, which is mainly due to the social expectations and female self-restraint brought by traditional culture. Therefore, to solve these problems, deep-seated social reasons should be taken into consideration, and the government should lead enterprises to change the existing problems.

Keywords: Workplace, Gender Discrimination, Chinese Urban Areas, Urban

1 INTRODUCTION

Gender discrimination is usual in urban areas, and improving the situation is critical to the office environment and personal development. However, most of the articles and analyses are based on the viewpoint of age or industry, and there is a lack of studies about discrimination in the workplace. The research mainly aims to systematically discover all kinds of discrimination encountered by women in various aspects of the workplace and finally determine the extent of discrimination. This research mainly discusses the different treatment of different genders in the workplace, from salary to the chance to get work to relationships with colleagues.

2 THE DISCRIMINATION OF PAYMENT IN DIFFERENT GENDERS

Gender inequality has been affected in many areas of the working industry. Today, many people are arguing about whether there is a difference in the payment for different genders. This part will use the quantitative comparison of the wage to show whether there is a difference in the wage by gender. The Chinese gender inequality index ranks in the median around the world (Global Gender Gap Report 2022). The research is based on different countries' data to illustrate the situation of gender inequality in China. This study hypothesized that there is inequality in salary based on different genders, based on the information provided by internet users. The research is limited since the salary may be affected by

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different industries, and the comparison may be affected by the type of work. The above-mentioned factors may affect the result of the comparative study.

2.1 *Gender inequality in graduate employment salaries*

Gender inequality in graduate students is relatively lacking in research since there is a lack of research and comparison based on gender in the range of age. Also, the different industries or different requirements of work will also affect the difference in the salary (Chen & Ju 2004). Gender inequality is mostly affected by the differences in the same industry instead of the different industries, since the different salaries are not only affected by gender but also by supply and demand (Chai & Deng 2013). Thus, the research will mostly focus on discrimination in the same industry. The research from Guojun, C., and Guoying, D., using a sample of 2008 graduate undergraduate students, shows that the wage difference within the industry accounts for 91 percent of the total gender wage difference (Chai & Deng 2013). The salary discrimination among different genders with the same educational background and education level is identical (Ji & Qin 2006).

The discrimination in the salary of the graduate student is mainly caused by several factors. According to Yuemei, J., and Bei, Q., the social ability of a student is relatively important for the salary of the graduate student's first job. This means that employers are willing to recruit employees who have higher social abilities, and the man's ability is better than the woman's (Ji & Qin 2006). Thus, though women put the same effort into academic study in college, they find it hard to obtain higher treatment in the recruitment market. Thus, employers should fully recognize the difference in gender and assign different jobs to them, and female students should increase their soft power to adapt to the requirements of their careers, companies, and industries.

2.2 *Average wage in different genders in the same industry*

This part of the research will discuss the wages in the same industry for all ages of employees of a different gender. The wage difference in the same industry may lead to different quarters in the same industry. For example, in the hotel industry, some quarters are deemed to be suitable only for a specific gender, especially for some high level or high salary; thus, when the gender is deemed not suitable for a quarter, it is usually hard for women to get access (Yang & Peng 2016). Also, the study found that more women are concentrated in the bottom positions, while the gender composition of high-end positions is mainly dominated by men. Therefore, in the hotel industry, the proportion of women who can obtain high wages is much lower than that of men (Yang & Peng 2016). Another piece of research shows that women with higher educational degrees face less discrimination in the workplace than those with lower educational degrees. Thus, especially for some jobs that do not have high requirements on educational background, the man has a higher salary than the woman (Deng & Ding 2012). The only way for women to have the same salary as men is to have a better educational background. Another piece of research also points out that the difference in salary in low-income industries for women is caused by discrimination (Zhao & Tian 2018). On the other hand, men have better acceptance in all types of jobs in different industries. Therefore, it is crucial to decrease discrimination in the same quarter. Also, improving gender equality in education and improving educational equality for each gender is important. It also shows that the expansion of enrolling students in colleges or universities is important to solve the discrimination problem. However, for students who have graduated from vocational or compulsory education, the education does not give them an equal chance to get access to a job. Thus, the government should also give subsidies or gender quotas to companies to encourage them to accept more women who have relatively weaker educational backgrounds.

2.3 *Salary satisfaction by gender*

The salary satisfaction of different genders will determine whether the employee feels equal or not in the industry. However, some research shows that salary satisfaction among different genders is not significant (Yu & Zheng 2008). In many cases, although women may have lower wages than men with the same job, their satisfaction with their salary is not lower than or even higher than men, and this phenomenon is called “The Paradox of the Contented Female Worker (Phelan 1994).” For males, their salary satisfaction is lower than that of females since they have to take responsibility for the income of the family (Xu 2017). Research shows that the family members who do more housework have a higher reliance on their mate, and the researchers found that men are much less dependent on their spouse’s economy than women. Therefore, men need to rely more on the workplace relationship to gain economic benefits. Therefore, more men are dissatisfied with their income (Liu *et al.* 2015).

Thus, satisfaction with the salary by gender does not have a direct relationship with their absolute income level but is based on their own income and consumption level. Hence, all family members who can work have to take the responsibility to get an income, which can increase the relative satisfaction of employees who have a family. Reducing excessive reliance on men will decrease pressure on men in their workplace and increase women’s impact on their families and society.

3 GENDER DISCRIMINATION IN CAREER PATH

Gender discrimination may affect women’s career paths. Many factors, including gender differences in their physical and psychological structure (Yang & Peng 2016), or the average educational background, can contribute to this discrimination. This part will discuss the discrimination against a specific gender that can hinder their opportunities for employment or promotion.

3.1 *Gender discrimination in employment opportunity*

In a sample of applicants with the same criteria in a few developed cities in China, the onboarding data and the establishment delivery can show which gender is favored by the employers. From the data of the recruitment market, unlike other developed countries, a Chinese woman has a higher acceptance rate when they are delivering their establishments to medium- and high-end job enterprises, and this is because women have a higher labor force participation rate (Zhou & Song 2016). However, most other research shows that there is discrimination against women in the job recruitment market. According to Jiang, W., gender factors that have no strong relationship with work and business, for example, appearance, are becoming a restriction on recruitment for women (Wang 2006). Considering the decline of the economic benefits caused by a woman’s pregnancy, marriage and pregnancy also became restricted in the job market, and there are increasing lawsuits between employees and companies about the treatment during pregnancy (Zhang 2015). Besides rules and restrictions limiting women from entering the labor force, a social and traditional sense also confines women to getting involved in jobs (Shi & Huang 2011). In recent years, because of the global political situation and domestic economic recession, the surplus in supply in the labor force market has extended. Thus, the option is controlled by the company, and the discrimination situation is amplified step by step (Chang 2012). Therefore, because of the factors above, it is harder for women to find a job since the gender “drawback” will be maximized in the repression of the economy.

The factor of employment opportunity is not caused by only a few factors. Inadequate and lax legal policies grant the company the right to legally conclude contracts with employees that confine the right to marriage and childbirth to achieve the economic benefits of the company. The stereotype of women and the non-work requirement for women have also

become very important factors limiting women's employment. Traditional and society also impact the woman to find a job. The recession also caused the situation to worsen. Although in some well-developed cities, the situation has been relieved; in general, gender discrimination against women in the job recruitment market is still a problem in China. In recent years, female employees have been fighting for their rights more and more, so the problem of gender discrimination has been given wide attention by society.

3.2 *Gender discrimination in job promotion*

Job promotion is also an important factor in determining whether a gender has been discriminated against. In different organizations or companies, the opportunity for job promotion is different, but the chance for men to be promoted in an organization or a company is easier for women in general. In a party or governmental institution in China, a woman's chance of promotion is less than that of a man by 14%; in enterprises, the gap decreased to 6%; in other working areas, like public institutions or self-employed companies, the gap is 3–4% (Wang & Yu 2013). For example, in the hotel industry, women employees have more time staying at the junior level than men do, rather than in management (Yang & Peng 2016). In a sample of 278 publicly traded companies, the proportion of women in management is only 13.52%, and there are no women in 33 companies of all 278 companies in the sample (11.9%) (Kang 2007). The traditional sense of the leading position for men also limited women themselves, which will lead to a lack of self-confidence, quitting their careers, or having a weaker educational background (Kang 2007).

The situation of promotion in the job market is caused both by the social environment and by women themselves. The social environment educates women to confine themselves and give restrictions. This sense also affects companies, which leads them to put less effort into recruiting and training female employees. This also impacts society, and there is more discrimination against women. Thus, to improve the situation and decrease the discrimination in job promotion for women, the traditional sense has to change, and the legislative branch has to be stronger to protect the rights of a woman and stop the vicious spiral of discrimination.

3.3 *Gender discrimination in retirement*

Treatment after retirement and dismissal has a lot to do with a variety of factors, and the factor of gender is probably the most important factor that most people care about for separation and retirement benefits. In China, although the average expected age of women is longer than that of men, the legal age of retirement for women is lower than that of men (State Council of the People's Republic of China 1978). However, the period for women to work their work age before retirement cannot match the expected age of the people. Since there is a higher cultural threshold for women to engage in careers, women have to put much more effort into studying for a higher degree. As a result, their actual working period will be diminished. The lower retirement age also decreased the payment contribution for women while they were working. Thus, the discrimination is mainly caused by the diminishing of pension contributions, which led to a reduction in pension payments (Fu 2018). As a result, compared with males, who have higher pension payments and a lower expectation age, women undertake more pension pressure and pension costs.

Thus, the causation of discrimination in the treatment of women in retirement is caused by the direct reason that the working age is decreasing and the cost of retirement is increasing. However, the discrimination is caused by an outdated retirement law in China, which was established in 1978, and China today has a higher average age for women. The threshold of the educational background also caused the shorter working age of the women. The fundamental cause of the factors is cultural discrimination, which is hard and requires time and effort to change. Therefore, legally changing the situation could change the retirement requirement, for example, by requiring different genders to have the same age at retirement, which could make certain that the retirement insurance fee paid by women is the same as that of men. Also, the government could

establish different standards for different genders, for instance, using the percentage of the amount of insurance payable rather than the absolute amount of insurance contributed.

4 GENDER DISCRIMINATION IN WORKPLACE SOCIAL RELATIONSHIP

For the working-age population, most of the time is spent in the workplace. Thus, experience in the workplace is crucial. Also, the experience that different genders encountered during work could be evidence that shows whether women experiment with discrimination during work. The process of working needs to communicate with multiple people, including consumers, colleagues, and bosses. Thus, social relationships are a significant factor that influences the degree of discrimination in the workplace.

4.1 *Workplace satisfaction of different genders*

Dissatisfaction among women has a long history in China. According to M. Zhai, women in the Republic of China (before 1949) have been challenged by men while they are working. Some women are dissatisfied with the limitations on specific work, for example, teachers, from families. Women are often harassed in the workplace or judged by clients (Zhai 2010). Women are also influenced by marriage and breeding. Companies' interviews will gather information on marriage and childbearing intentions because this mainly involves women's leave and compensation, which not only will bring more benefits to the company but also increase its cost. As a result, many companies take extra care when hiring female employees. The data implies that women may be dismissed during work, and the proportion is approximately 20%. 21.5% of informants replied that 11.5% of people have been dismissed since they were pregnant (Guo 2013). This will decrease the satisfaction of women since they are working out of fear of inequality. In contrast, men's dissatisfaction mainly came from the work itself instead of the gender traits, and, correspondingly, men's workplace satisfaction is higher than that of women's. Since the source of men's job dissatisfaction only comes from the same performance pressure and work environment as women, it reduces dissatisfaction caused by the unfair treatment of women based on their characteristics and their family planning.

Thus, the dissatisfaction that emerged in different genders mostly occurred in women, and mostly because of the issues that were out of the work. Although it may increase the employment cost for a company to employ a woman, the situation to date has to change because this is discrimination against women. Thus, as the writer mentioned above (in 2.2), the government should put effort into solving the company's discerning of the employment of females. This way is a relatively quick and efficient way to decrease discrimination against different gender in the workplace.

4.2 *The discrimination of socialization in the workplace of different genders*

Traditional culture deeply influences the socialization of women. In a traditionally patriarchal society, different genders spend different times in the workplace, and more women thus tend to do more housework and carry on more breeding and cleaning responsibilities at home (Chen 2003). As a result, the time women spend in the workplace will significantly influence their socialization degree and have different impacts on males and females. Also, because of the traditional influence on women during social situations, if other colleagues know about a woman who is becoming a leader, the woman's social status will decrease. In the workplace, to gain a higher position and higher wages, many women have to move closer to the traditional Chinese image of women to gain the approval of the patriarchal system in today's society and to fulfill the characteristics that other colleagues expect (Zhu & Niu 2015).

The situation is contradictory since the higher engagement rate of the work is electrophoresis and the discrimination against women is decreasing, but discrimination against women in workplace socialization is increasing today. Thus, the discrimination of socialization in the workplace is mainly about the social requirement, since nowadays more and more women are engaging in work and desire to have a higher salary and some achievements. Hence, more and more women turn to traditional expectations from others, and women see this phenomenon as a normal routine in their workplace. Thus, from advertising on social media to education in schools and colleges, women may have to change their minds about the traditional and so-called status of women and the patterns of their relationships, but they also have to start to escape the expectations of them as traditional women. The problem is not only occurring in the workplace but also in social situations that need to be solved urgently.

5 CONCLUSION

Women encountered discrimination in the workplace, especially in terms of treatment like salary or job opportunities. The discrimination is derived from traditional society's limitations. This paper finds that there is gender discrimination in work payments, career paths, and social relationships in the Chinese workplace. Generally speaking, women are in a disadvantaged position in the workplace. The article provides the overall and systematic status quo of discrimination against women, but there is still no discussion of why traditional Chinese thinking has a significant impact on society and women's way of thinking. In future studies, investigations can be conducted on the predicament of women in the workplace.

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The role of marketing strategies in developing organic food markets taking Company T as an example: A study based on consumer preferences

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ABSTRACT: The organic food industry is one of the focal points of research currently. Researchers have made significant progress in understanding various aspects of the industry; however, there are still gaps in knowledge and a lack of uniform interpretation or understanding of certain issues. Therefore, this research aims to provide a comprehensive analysis of the organic food industry, focusing on the role of marketing strategies in the growth and development of organic food markets. Drawing on the case of Company T, this research investigates the challenges faced by companies in marketing organic products, with a view to identifying effective strategies for overcoming these challenges. The study assesses the efficacy of marketing techniques such as targeting, transparency, communication, and pricing, in the context of Company T's marketing approach. The research also provides an overview of the benefits and potential drawbacks of organic farming practices, emphasizing the need to maximize renewable energy sources and minimize pollutants. The study concludes by highlighting the need to address challenges related to the cost and accessibility of organic food while exploring opportunities for companies to optimize their marketing efforts and capitalize on the growing demand for organic products. This research provides valuable insights for companies seeking to enhance their market presence and contribute to sustainable development in the organic food industry.

Keywords: Organic Food, Consumer Preferences, Marketing Strategies

1 INTRODUCTION

Conventional agricultural practices have traditionally relied upon the intensive use of chemical fertilizers and pesticides to achieve consistent and sustained increases in agricultural productivity. In contrast, the emergence of organic farming practices in the early 1970s offered a welcome alternative for producers and consumers who harbored growing concerns about the potential negative impacts of conventional agricultural practices' intensive and unsustainable nature. Despite the proliferation of contemporary organic farming practices, many unanswered questions still exist concerning the disparities between conventional and organic production methods. With the increasing prevalence of organic farming practices and the rapid expansion of the organic retail sector, the ongoing debate surrounding the comparative advantages and disadvantages of organic versus conventional farming has become more contentious. To ensure informed decision-making regarding food production practices, it is crucial to acquire a comprehensive understanding of the potential ramifications associated with organic farming techniques. These implications encompass various aspects such as environmental, social, and economic impacts. By delving into the intricacies

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of organic farming, individuals can gain insights that enable them to make sound judgments and choices pertaining to sustainable food production (Cranfield *et al.* 2010).

Organic agriculture has emerged as an innovative and sustainable production system that demonstrates significant potential for maximizing the efficiency and effectiveness of renewable energy sources and minimizing the release of hazardous pollutants into the environment. Compared to conventional agricultural practices, organic farming prioritizes the optimization of nutrient and energy flow within agroecosystems, which is achieved through a range of ecologically sound methods. For example, some studies have reported that because organic food is alleged to be free from chemicals and pesticides, and because they have lower impacts on the environment, purchasing organic food is a matter of healthcare, environmental protection, and moral responsibility, and has become fashionable among many consumers. Analogously, initial investigations pertaining to the perceptions of Chinese consumers regarding organic food revealed their favorable attitudes towards its safety, nutritional value, sensory attributes, and environmentally friendly characteristics. These findings indicate that Chinese consumers possess positive beliefs and opinions about organic food, which may influence their purchasing decisions and consumption patterns. Understanding these attitudes is crucial for businesses and policymakers to develop effective marketing strategies and policies that cater to the preferences and demands of the Chinese market (Bai *et al.* 2019). Consequently, promoting organic production yields substantial benefits in addressing key challenges faced by contemporary global society, encompassing issues such as the escalating prevalence of obesity, particularly among the younger population, environmental contamination, unsustainable production methods, and the imperative to support local agricultural producers. Recognized as a pivotal catalyst for future agricultural advancement and overall economic progress rooted in sustainability, organic production has gained prominence in both developing and developed nations. By embracing organic practices, societies can tackle multifaceted issues holistically, fostering a harmonious and resilient approach to agricultural and economic development (Cirovic *et al.* 2020).

In the case of organic food, the process of production is labor-intensive; therefore, the price of organic products is higher than their non-organic counterparts which are available on the market. Due to the lack of application of artificial fertilizers and other plant protection products, the yield from organic agriculture is lower than in the case of conventional one. The pricing dynamics of organic and conventional food are shaped by several factors including the elevated production costs associated with organic food, the level of market development, the interplay between demand and supply, the effectiveness of distribution channels, and the extent of product processing. These elements collectively contribute to the complex interrelationship between the prices of organic and conventional food items (Śmiglak-Krajewska & Wojciechowska-Solis 2021). Despite the perceived environmental and health advantages associated with organic food, consumers may encounter barriers when attempting to purchase such products due to their elevated price, limited availability, inadequate labeling, and subpar point-of-purchase presentation. Scholars have suggested that organic food retailers should adopt and execute efficient green marketing strategies to facilitate the decision-making process of consumers. By implementing these practices, retailers can address the concerns and preferences of potential buyers, thereby promoting the accessibility and desirability of organic food products (Nguyen *et al.* 2019).

2 THE OVERVIEW OF COMPANY

This research aims to employ Company T as a case study to scrutinize the salient issues in its existing marketing strategies, and to propose corresponding remedies. The following is a brief overview of Company T. Company T, a Chinese snack food company, is known for its wide range of nuts and other snack products. In recent years, the company has ventured into the organic nut market and has been successful in attracting health-conscious consumers. Company T sources its organic nut products from carefully selected suppliers and ensures

that they are certified by organic certification bodies. The products are marketed as free of harmful chemicals, better for the environment, and consumers' health. To promote its organic nut products, Company T has a strong online presence, with a popular e-commerce website and a large following on social media platforms like Weibo and WeChat. The company also operates physical stores in major cities throughout China. While Company T's organic nut sales business has been successful, it faces several marketing challenges. Firstly, the company's marketing efforts have been primarily focused on the promotion of its organic products, with less emphasis on understanding and catering to the specific needs and preferences of its target audience. As a result, Company T may not be fully leveraging the potential of its marketing channels to connect with potential customers. Secondly, the company's marketing strategy may be limited by a lack of a comprehensive marketing system. Although Company T has made some strides in marketing research, it is still in its nascent stage, and the practical application of marketing theory remains relatively limited. Therefore, the company may not be fully utilizing the latest marketing tools and techniques to optimize its marketing efforts. Overall, while Company T has been successful in capturing a share of the organic nut market in China, it may need to invest more resources in market research and the development of a comprehensive marketing system to sustain its growth and competitiveness in the long term. By prioritizing consumer-centered research and innovation, the company can develop more effective marketing strategies that take into account the unique characteristics of organic food products and consumer preferences in developing markets.

3 PROBLEMS AND ANALYSIS

Firstly, Company T appears to have failed to adopt a targeted marketing strategy that addresses the diverse preferences of consumers in this segment. Consumers typically engage in a decision-making process that involves the assessment of product information, evaluation of product attributes, and consideration of the potential outcomes associated with product usage. This comprehensive approach allows consumers to carefully weigh the available information and make informed choices that align with their individual preferences and needs. By understanding the factors that influence consumer decision-making, businesses can tailor their marketing strategies to effectively communicate product information, highlight desirable attributes, and emphasize the positive consequences of product utilization (Sivathanu 2015). Consumer preferences for organic food are highly variable and influenced by a range of factors, such as health, taste, environmental sustainability, and ethical considerations. Companies that sell organic food need to understand the specific needs and preferences of different consumer segments to develop marketing strategies that effectively target them. In the case of Company T, there appears to be a lack of targeted marketing, with the emphasis placed on the brand's popularity and delicious taste, rather than on the specific attributes that appeal to different consumer segments. One reason for the failure of Company T to adopt a targeted marketing strategy may be a lack of market research. Companies need to conduct thorough market research to understand the factors that are important to consumers in the purchase decision-making process. Without this understanding, it is difficult to develop marketing strategies that effectively target different consumer segments. Company T may have relied on assumptions about consumer preferences without conducting sufficient research to validate them. Another reason for the lack of targeted marketing by Company T may be a focus on short-term profits rather than long-term brand building. By focusing on immediate sales and the promotion of the brand's popularity, Company T may have neglected to build the long-term brand loyalty that is necessary for sustained growth and profitability. This short-sighted approach to marketing may have prevented the company from developing a deeper understanding of its target market and identifying the specific needs and preferences of different consumer segments. The failure of Company T to adopt a targeted marketing strategy is significant, as it represents a missed opportunity to build brand loyalty and increase market share among consumers who value

specific attributes, such as health and environmental sustainability. In a highly competitive market, the development of a targeted marketing strategy is crucial for companies seeking to differentiate themselves from their competitors and build a strong brand image. In conclusion, the lack of a targeted marketing strategy for organic nuts by Company T reflects a failure to understand the diverse preferences of consumers in this segment. This may be due to a lack of market research and a focus on short-term profits rather than long-term brand building. The development of a targeted marketing strategy that addresses the specific needs and preferences of different consumer segments is necessary for companies seeking to differentiate themselves and build long-term brand loyalty in a competitive market. Companies that sell organic food need to understand the specific needs and preferences of different consumer segments to develop effective marketing strategies that appeal to them. Failure to do so may result in missed opportunities for growth and profitability.

Secondly, the lack of transparency and credibility in the marketing strategy of Company T for selling organic nuts is a major issue that hinders consumer trust and satisfaction. Contemporary consumers exhibit a strong inclination towards products that not only meet stringent safety standards but also align with their health-conscious preferences, while consistently delivering superior quality. To address these evolving consumer demands, there is a growing expectation for clear and unambiguous information regarding the characteristics of food products. Moreover, consumers seek robust systems that can swiftly and effectively address any concerns or issues that may arise in relation to these products. The emphasis on transparency and responsive actions underscores the significance of building consumer trust and confidence, as well as fostering a mutually beneficial relationship between consumers and producers. By adhering to these principles, businesses can establish themselves as reliable providers, thereby enhancing their competitive advantage in the marketplace (Beulens *et al.* 2012). In recent years, consumers have increasingly emphasized transparency and credibility in organic food products, expecting detailed information about quality, source, processing, and more. However, Company T's marketing strategy for organic nuts fails to meet these expectations, lacking adequate disclosure of production processes and organic certifications. Consumers desire knowledge about origin, processing methods, and certifications to make informed purchasing decisions, but Company T falls short in providing such information, eroding trust and credibility. Additionally, the absence of third-party certifications like USDA Organic, Non-GMO Project Verified, and Fair Trade further diminishes consumer confidence. The challenge of low transparency and credibility is compounded by rising demand for organic food and growing competition. As more consumers seek transparent and credible products, Company T's marketing strategy, focused on taste and brand image, struggles to attract, and retain customers. To address this issue, Company T must reconsider its marketing approach, providing transparent and credible information about its organic nuts to meet diverse consumer needs and regain trust and satisfaction.

Thirdly, the lack of interaction and participation with consumers is a critical problem in Company T's marketing strategy for selling organic nuts. The act of conveying information pertaining to sustainability aids in raising the awareness of the intended recipients regarding how the products being offered to them can effectively fulfill their requirements, while concurrently addressing economic, social, and/or environmental concerns. By effectively communicating the sustainable attributes and benefits of products, businesses can establish a clear connection between their offerings and the broader societal context. This enables consumers to make informed choices that align not only with their immediate needs but also with their desire to contribute positively to the larger societal goals. Such communication plays a pivotal role in fostering a sense of responsibility among both producers and consumers, as it encourages the integration of sustainability considerations into the decision-making process across various sectors (Ellis & Mkhize 2020). Consumers' increasing interest in interactive and participatory marketing activities has not been effectively addressed by Company T's marketing strategy. The potential reasons for this issue include a lack of understanding of consumer behavior and preferences, the absence of sufficient communication channels, and an emphasis on mass

marketing rather than personalized approaches. Without considering the diverse needs and preferences of consumers, Company T struggles to establish a deep connection or stimulate interest. Limited interaction may be due to reliance on online promotion without a feedback mechanism or two-way communication channels. Additionally, Company T's emphasis on mass marketing overlooks the importance of personalized marketing and unique consumer experiences. Consequently, the lack of interaction and participation with consumers poses a significant challenge for Company T's marketing strategy in selling organic nuts. To address this, Company T needs to enhance its understanding of consumers, establish effective communication channels, and implement personalized marketing approaches to foster engagement, brand loyalty, and long-term growth.

Fourthly, the issue of pricing has been a critical factor in marketing organic food products. From a consumer perspective, the concept of price can be defined as the relinquishment or sacrifice made to acquire a particular product. Building upon the discussion, it is important to note that price not only serves as a transactional element but also functions as an extrinsic cue utilized by consumers to gauge the perceived quality of a product. In this context, consumers often associate higher prices with superior product quality, if a higher investment corresponds to enhanced attributes, performance, or value. Consequently, the pricing strategy employed by businesses plays a crucial role in shaping consumer perceptions and purchase decisions. Understanding this relationship enables businesses to strategically leverage price as a signaling mechanism to convey product quality and capture consumer interest (Konuk 2019). Consumers' willingness to pay a premium price for the perceived high quality and health benefits of organic foods depends on various socio-economic factors, such as income level, education, and lifestyle. Company T faces this pricing challenge in its marketing strategy for organic nuts. While the company has sought to position itself as a premium brand with quality organic nut products, its pricing strategy has proved to be a significant obstacle in attracting a broader consumer base. While the organic food market has been growing rapidly in recent years, the premium prices associated with organic products continue to pose a challenge to expanding its consumer base. Company T's pricing strategy has failed to account for the diverse socio-economic backgrounds of its target consumers, resulting in a limited consumer base of high-end consumers who can afford to pay for premium organic nuts. The high pricing of Company T's organic nut products can be attributed to various factors, such as the costs associated with obtaining organic certifications, the higher production costs of organic farming, and the limited availability of organic nuts. Moreover, the pricing strategy of Company T may not be aligned with the actual value perception of consumers, as consumers of organic food products often associate premium prices with higher quality and better health benefits. However, Company T's marketing strategy may not have successfully conveyed the unique health benefits and quality advantages of its organic nuts to consumers. Additionally, the pricing strategy of Company T may not have taken into account the perceived value of other competitive brands or similar products in the market. The lack of transparency and comparison of Company T's pricing strategy with competitors in the organic nut market could contribute to the lack of consumer confidence in its pricing strategy. In conclusion, the pricing strategy of Company T for its organic nut products has been a critical factor in its marketing strategy, hindering its efforts to expand its consumer base and attract a broader range of consumers. The high pricing may reflect the costs associated with organic certifications and production costs, but it may not align with the perceived value of its products by consumers. The company should undertake comprehensive research and analysis of the socio-economic backgrounds of its target consumers to align its pricing strategy with the perceived value of its products.

4 SUGGESTIONS

Firstly, the lack of a targeted marketing strategy for organic nuts by Company T reflects a failure to understand the diverse preferences of consumers in this segment. This failure to

develop a targeted marketing strategy may be attributed to a lack of market research and a focus on short-term profits rather than long-term brand building. The research will provide recommendations on how Company T can address the issues. The first step for Company T to develop a targeted marketing strategy is to conduct thorough market research. The research should aim to identify the specific needs and preferences of different consumer segments. It should also investigate the factors that are important to consumers in the purchase decision-making process, such as health, taste, environmental sustainability, and ethical considerations. The research can be conducted through various methods, including surveys, focus groups, and interviews. By conducting thorough market research, Company T can gain insights into the specific needs and preferences of different consumer segments and use this information to develop marketing strategies that effectively target them. After conducting market research, Company T should segment its target market based on consumer preferences. The company should divide the market into different groups of consumers with similar needs and preferences. For example, Company T could segment the market based on consumers' primary motivation for purchasing organic nuts, such as health-conscious consumers, environmentally conscious consumers, or ethical consumers. By segmenting the market, Company T can develop marketing strategies that are tailored to the specific needs and preferences of each group of consumers. Once Company T has identified its target market segments, it should develop marketing strategies that address the specific needs and preferences of each segment. For example, for health-conscious consumers, the company could highlight the health benefits of organic nuts in its marketing campaigns. For environmentally conscious consumers, Company T could emphasize the environmental sustainability of its products and the company's commitment to sustainable practices. It is worth noting that Consumers who prioritize ecological considerations are driving the increased demand and willingness to pay premium prices for environmentally sustainable organic food products. The preference for organic food stems from a conscious commitment to ecological principles (Sivathanu 2015). For ethical consumers, the company could highlight its fair trade and ethical sourcing practices. By tailoring its marketing strategies to the specific needs and preferences of different consumer segments, Company T can differentiate itself from its competitors and build long-term brand loyalty. To build long-term brand loyalty, Company T should focus on developing a strong brand image that is consistent with its marketing strategies. The company should invest in building brand equity by creating a unique brand identity and communicating its values and benefits to its target market segments. The brand identity should be consistent across all marketing channels, including advertising, packaging, and social media. By building a strong brand image and communicating its values and benefits consistently, Company T can develop a loyal customer base that will continue to purchase its products and recommend them to others. In conclusion, to address the lack of a targeted marketing strategy for organic nuts by Company T, the company should conduct thorough market research, segment its target market based on consumer preferences, develop marketing strategies that address the specific needs and preferences of each segment, and focus on building a strong brand image that is consistent with its marketing strategies. By adopting these recommendations, Company T can differentiate itself from its competitors, build long-term brand loyalty, and increase its market share among consumers who value specific attributes, such as health and environmental sustainability.

Secondly, the lack of transparency and credibility within Company T's marketing strategy for selling organic nuts presents a critical challenge that significantly impacts consumer trust and satisfaction. It is essential to recognize that fostering trusted information exchange and promoting transparency consistently aligns with the implementation of efficient organizational structures and strict adherence to rigorous quality and safety standards (Beulens *et al.* 2012). To effectively address this issue, Company T should adopt a marketing approach that emphasizes transparency and credibility, aligning with consumer demands for reliable information. Several strategies can be implemented to achieve this objective. Firstly,

Company T should provide comprehensive and detailed information about the quality, source, processing, and certification status of its organic nut products. By empowering consumers to make informed decisions, this increased transparency will foster trust and differentiate Company T from its competitors in the organic food market. Secondly, obtaining reputable third-party certifications such as USDA Organic, Non-GMO Project Verified, and Fair Trade Certified can serve as additional markers of product quality and credibility. These certifications not only instill consumer trust but also contribute to building a strong and reputable brand image. Effective communication of the company's transparency and credibility efforts is crucial. Leveraging diverse marketing channels, including social media, email marketing, and packaging, can effectively highlight key information such as production processes, certification statuses, and third-party verifications. By consistently emphasizing these efforts, Company T can cultivate consumer trust and loyalty, ultimately driving growth and profitability. Finally, prioritizing consumer needs and preferences is paramount. Company T should conduct comprehensive research to understand the diverse preferences of consumers in the organic food market, encompassing factors such as health, taste, environmental sustainability, and ethical considerations. By aligning its marketing strategy with these preferences, Company T can develop targeted approaches that cater to different consumer segments, further bolstering growth and profitability. In conclusion, rectifying the lack of transparency and credibility in Company T's marketing strategy necessitates the adoption of a transparent and credible approach, encompassing detailed product information, reputable third-party certifications, and effective communication. Furthermore, the company must prioritize consumer needs and preferences to develop targeted marketing strategies that foster growth and profitability within the competitive organic food market.

Thirdly, the deficiency in consumer interaction and participation poses a significant challenge to Company T's marketing strategy in the organic nut industry. Consumer education assumes a pivotal role in driving the transition from conventional to organic food purchasing patterns. To facilitate this process of consumer learning, the effective utilization of creative communication strategies becomes imperative. A wide array of communication methods, ranging from traditional advertising to narrative-based storytelling, from engaging social media campaigns to formal educational initiatives, from immersive digital media experiences to strategic sales promotions and sponsorships, are employed to cultivate consumer awareness and deepen their understanding of organic food-related concepts (Ellis & Mkhize 2020). For example, targeted messages and promotions can emphasize the health benefits of organic nuts for health-conscious consumers, while highlighting taste and flavor for those who prioritize sensory experiences. Furthermore, establishing a two-way communication channel with consumers is crucial. Leveraging social media platforms, email marketing, and other digital channels, the marketing team can actively engage with consumers, respond to inquiries, and gather feedback on their experiences with Company T's products. This feedback can be instrumental in driving product enhancements and refining the marketing strategy to align with consumer preferences. Encouraging interaction and active participation fosters consumer loyalty and a stronger connection to the brand, ultimately resulting in increased brand advocacy and sustainable long-term growth. To support the personalized marketing approach, Company T can leverage the power of big data and artificial intelligence. By utilizing data analytics, the company can track and analyze consumer behavior and preferences, enabling the creation of tailored promotions and offers based on individual needs and interests. Additionally, artificial intelligence technologies can be employed to facilitate real-time interactions through chatbots and virtual assistants, providing personalized recommendations and assistance to consumers. Leveraging technology to enhance the overall consumer experience allows Company T to cultivate engaging and interactive relationships, leading to heightened brand loyalty and sustainable growth. In conclusion, addressing the deficiency in consumer interaction and participation necessitates the implementation of a comprehensive and personalized marketing approach. This entails

conducting thorough market research, establishing a two-way communication channel, and leveraging the potential of big data and artificial intelligence. These strategic efforts will establish a deeper connection with consumers, enhance their overall experience, and ultimately drive long-term growth for Company.

Fourthly, the issue of pricing is a critical factor in the marketing strategy of organic food products. The price factor continues to pose a significant obstacle for numerous consumers, impeding their adoption of organic food products. However, it is plausible that the perceived significance of price could be mitigated through enhanced consumer awareness regarding the underlying factors contributing to the higher price point. By effectively communicating the rationale behind the premium associated with organic food and persuading consumers of its value-for-money proposition, it is conceivable that the barrier imposed by price can be alleviated. This implies that educating consumers about the intrinsic benefits and long-term value derived from organic food may influence their perception of price and facilitate a more favorable attitude towards organic food choices (Foster & Padel 2005). Company T is facing challenges in implementing its pricing strategy for organic nut products, which is impeding its ability to expand its consumer base. These challenges stem from a lack of transparency and failure to compare pricing with competitors in the organic nut market, as well as a failure to consider the diverse socio-economic backgrounds of its target consumers. To overcome these obstacles, the company should conduct comprehensive research on the socio-economic backgrounds of its target consumers and align its pricing strategy with their perceived value. This can be accomplished by segmenting the market based on income, education, and lifestyle factors in order to cater to the specific needs and preferences of different consumer groups. The company should also enhance transparency by providing clear information about the costs associated with obtaining organic certifications and the higher production costs related to organic farming. By doing so, the company can establish consumer confidence and emphasize the health benefits and quality advantages of its organic nut products, thus strengthening its pricing strategy. Furthermore, exploring innovative pricing techniques such as price bundling, volume discounts, and loyalty programs can be beneficial in appealing to consumers from diverse socio-economic backgrounds. These strategies can help create an attractive pricing structure and increase overall profitability. Additionally, educating consumers about the unique health benefits and quality advantages of organic nut products is crucial. Leveraging various marketing channels, including social media, email marketing, and content marketing, can effectively raise awareness and justify the premium prices associated with these products. In conclusion, Company T should address its pricing strategy by conducting research on the socio-economic backgrounds of its target consumers, improving transparency, implementing innovative pricing techniques, and educating consumers about the benefits of organic nut products.

5 CONCLUSIONS

This research provides a comprehensive analysis of the role of marketing strategies in the growth and development of organic food markets, with a particular focus on the challenges faced by companies in promoting organic products. The research draws on the example of Company T to highlight the critical issues that hinder the company's growth and profitability, namely the lack of a targeted marketing strategy and the lack of transparency and credibility in its marketing approach for selling organic nuts. To overcome these challenges, the research recommends that Company T conduct thorough market research, segment its target market based on consumer preferences, develop marketing strategies that cater to the specific needs and preferences of each segment, and focus on building a strong brand image that aligns with its marketing strategies. Additionally, the research suggests that Company T adopt a more transparent and credible marketing strategy that includes the disclosure of production processes, certification status, and third-party verifications. Effective

communication of these initiatives and prioritization of consumer needs and preferences in the marketing strategy are also crucial. By implementing these recommendations, Company T can differentiate itself from its competitors, build long-term brand loyalty, and increase its market share among consumers who value attributes such as health and environmental sustainability.

Additionally, it is imperative to recognize the constraints inherent in this study. The examination solely focuses on the context of a solitary company, namely Company T, which may curtail the broader applicability of the outcomes. Future research endeavors should contemplate conducting comparative investigations encompassing multiple firms within the organic food sector to acquire a more encompassing comprehension of the challenges encountered and effective marketing approaches employed. This broader perspective would enable a more robust evaluation of the industry dynamics and provide insights that can inform the development of strategies suitable for diverse companies operating within the organic food market.

In conclusion, this research offers valuable insights for companies seeking to enhance their market presence and contribute to sustainable development in the organic food industry. By addressing challenges, implementing targeted marketing strategies, and prioritizing transparency and credibility, companies can tap into the increasing demand for organic products and promote a more sustainable and healthier food system. Future research should continue to explore and expand upon these findings to provide further guidance for companies operating in this industry.

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Social networks: Game developers vs. operators marketing media wars

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ABSTRACT: This research explores the social media public opinion war between NetEase and Activision Blizzard and between the end of 2022 and early 2023. The purpose of this research is to research whether traffic is the focus of marketing in today's social media marketing, why Blizzard and NetEase choose to play public opinion games on social media platforms, and how these strategies affect consumer attitudes. At the same time, it summarizes whether the decision made by NetEase in view of the market environment at that time can be copied by other enterprises. In order to achieve this goal, the research adopts the case analysis method. The research shows that for Internet companies, it is important to respond to social media news in a timely manner, maintain corporate reputation and put consumers' interests in digital marketing communication. The research concludes, highlighting the importance of companies taking a strategic approach to social media management, especially when it comes to conflicts with partners or competitors. Social media can be a powerful tool for companies to interact with customers and shape public opinion, but it can also damage a company's reputation if mishandled. The results of this research can be used to develop guidelines and policies to promote more effective use of social media by Internet companies to maintain consumer trust in their businesses. It also emphasizes that the most effective way for cooperative or competitive companies to resolve conflicts is not to use social media platforms to engage in public opinion wars.

Keywords: Corporate Media Public Opinion War, Consumer Behavior Theory, Social Media Marketing, Internet Game Industry

1 INTRODUCTION

Video games have become an increasingly popular activity in daily life. In China, like Japan, South Korea and other Asia-Pacific regions, video games have driven huge capital flows and brought considerable profits, gradually becoming a pillar industry of the economy (Fung & Liao 2015). Since electronic games entered the Chinese market, the industry has been monopolized by other countries' game companies. Even though different game makers in China have released a lot of games, it has been difficult for critics to introduce games from other countries. However, after 2010, China's local game market continues to make breakthroughs. Especially since 2020, many domestic games have been exported to home and abroad, including NetEase's games. At the same time, Blizzard Entertainment as the world's famous game enterprise, its game agency has been in the hands of NetEase. By the end of 2022, the contract between Blizzard and NetEase expires, but NetEase and Blizzard

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Entertainment have not reached an agreement on the agency rights and agency fees, thus setting off a storm of public opinion on Blizzard's future agency rights.

From the current Chinese overall competitive environment, NetEase is undoubtedly holding the leading position of domestic local enterprises. However, Blizzard Entertainment has also occupied a monopoly position in the industry for a long time, which makes the whole market environment complicated and competitive. At the same time, such competition has not only started from the game itself but also evolved into the game of public opinion war on the Internet social media platform. From the perspective of the development of the traditional game market, the whole market has been saturated at present. For enterprises, the most important thing is how to seize a larger market share through marketing means.

Proper use of social media can help the brand gain attention and build consumers' trust for the enterprise (Golan & Himelboim 2023). More and more businesses are using social media networks to draw attention to their products these days, but it is not just companies promoting their products and services on social media. Consumers can also influence each other's preferences through the comments they share on social media. The publicity of an enterprise affects the image in the eyes of consumers, and the reputation of an enterprise among consumers also affects whether potential consumers will buy the product. Therefore, it can be said that social media is one of the IT industry's most effective marketing tools.

From the perspective of practice, in the current Chinese game market, Chinese local game manufacturers and foreign game enterprises are still difficult to compete in the choice of consumer attitude. But it affects whether a consumer or potential consumer will buy its products. As a result, China's local game manufacturers in the market competition under great pressure. At the same time, with the continuous improvement of people's living standards, people's demand for spiritual satisfaction is also growing. As a way to relieve people's mental pressure, online games are bound to become the focus of people's attention. Therefore, to strengthen the research on the marketing strategy of the social media war between NetEase and Blizzard, on the one hand, this research can timely understand the consumer group's views and demand for the product, and understand how the marketing media interacts with the consumer group. On the other hand, it can also help NetEase find reasonable countermeasures and suggestions, so as to better realize the development strategy of network influence, promote the increase of product sales, and further seize domestic and even international market shares.

As the Internet game is a new industry, and China's Internet game into a booming period of only a few years. Although many scholars have in-depth discussion and analysis on how to use social media for marketing in the Internet era, the research on Internet marketing of Internet game enterprises has always been a weak link in the research, and there are still few relevant literature to be found. Therefore, it is of positive theoretical significance to strengthen the research on this part.

Based on the practical background and theoretical background, this research aims to analyze how Blizzard and NetEase take advantage of the interest dispute of agency rights. In terms of today's social media marketing, whether traffic is the focus of marketing, why Blizzard and NetEase choose to play games on social media platforms, and how these strategies affect consumer attitudes. At the same time, whether the decision made by NetEase in view of the market environment at that time can be copied by other enterprises.

In this research, the process tracking method in case research is adopted. Firstly, the specific event content of the research object is restored through the case, and then the problems and specific research content in the case research are analyzed through the case analysis, and the general theory is applied to the actual case. Finally, the marketing means presented in the case can be applied to a wider range of business competition.

2 NETEASE AND ACTIVISION BLIZZARD PUBLIC OPINION WAR EVENT REVIEW

August 2022: NetEase suspended the development of its World of Warcraft mobile game due to a financial dispute, leading to the dismissal of more than 100 development team members and causing significant losses estimated at tens of millions of dollars.

On November 11, 2022, at 21:00 US time, Blizzard unilaterally announced the expiration of its contract with NetEase, which coincided with the scheduled release of NetEase's Q3 financial results for 2022, resulting in a 9% decline in NetEase's share price.

November 12, 2022: NetEase announced its willingness to renew the contract on the Internet social media platform, but had to accept Blizzard's unilateral decision not to renew the contract. Meanwhile, NetEase said Blizzard's offer was unacceptable and stressed its commitment to protecting players' interests and information security. Users discussed and debated the event on the social platform one after another. A number of hot topics on Weibo continued to emerge, including that Blizzard would suspend most of its game services in mainland China, and that NetEase would respond to Blizzard's statement that NetEase would continue to serve its players after Blizzard was revealed to have asked NetEase for free.

November 19, 2022: Blizzard makes a statement on its official Weibo account that they intend to explore opportunities to bring their games back to Chinese players in the future.

December 2022: NetEase dismisses relevant personnel of Blizzard's cooperation department and closes its domestic office in charge of Blizzard's business.

January 17, 2023: Blizzard's official Weibo account reveals that they negotiated with NetEase last week in an attempt to extend the cooperation period by six months to ensure a smooth transition for players, but the proposal was rejected by NetEase. On the same day, a game anchor posted photos on Weibo of Blizzard's offices on NetEase campus, with all but the logos of the two companies removed.

Jan 18, 2023: NetEase removes the iconic World of Warcraft axe statue from the park and broadcasts the event online. NetEase launched a 13-yuan "Blizzard Green Tea" drink in the staff canteen, symbolically bidding farewell to the partnership with Blizzard.

3 NETEASE AND ACTIVISION BLIZZARD PUBLIC OPINION WAR EVENT ANALYSIS

Digital marketing communication is one of the strongest influences on the purchasing decision-making process of consumers (Dahiya & Gayatri 2018). In this case, the public opinion war between NetEase and Activision Blizzard on Internet social media was triggered by the expiration of the game agency contract between NetEase and Blizzard in China.

Analyzing the timeline of events from a corporate perspective, NetEase's initial suspension of World of Warcraft mobile game development was a major setback for NetEase, which resulted in the dismissal of more than 100 members of the development team, resulting in severe financial losses and a brain drain. Meanwhile, Blizzard unilaterally decides to terminate the contract with NetEase and publish this information on social media. Due to the release of NetEase's Q3 financial results for 2022, NetEase is unable to respond to information on social media networks. That sent the company's shares down 9%. In this case, NetEase failed to respond to information posted on social media due to the release of its financial results for the third quarter of 2022, which gave the public a one-sided view of the event and negatively affected NetEase's reputation. NetEase had to accept Blizzard's decision not to renew the contract, and had to fire the relevant personnel in Blizzard's cooperation department and close down the domestic office responsible for Blizzard's business, resulting in the loss of business opportunities and resources for the company.

NetEase's subsequent attempt to renew the contract failed, but it timely responded to the information on the Internet, making this event also bring some good news to NetEase. NetEase issued a message that stressed its commitment to protecting players' interests and information security, implying that Blizzard was attempting to obtain consumers' information and data through cooperation. The move shows that NetEase will continue to fulfill its due diligence and serve players until the last minute, demonstrating its commitment to protecting players' interests and information security. NetEase's response to the situation demonstrates its commitment to maintaining its reputation and providing quality service to its customers.

After that, even though Activision Blizzard courted NetEase, saying that it had negotiated with NetEase to extend the cooperation period by six months to ensure a smooth transition for players, the offer was still rejected by NetEase. This incident needs to be analyzed from two angles. First, it is because Activision Blizzard does not understand the Chinese game market. In China, game publishing and operation need to apply for a license plate, which means that Blizzard's game cannot operate directly in China until the license plate application is successful after NetEase's termination, and they need to maintain the popularity to smooth the gap for their company, rather than actually think about the players. Secondly, NetEase's tough stance shows that Blizzard will stick to its principles and live up to all the promises it has made to game players, no matter what excuses they use to make nice. This move will make players more trust NetEase. In addition, NetEase announced through celebrities on social media that NetEase had dismantled the domestic office responsible for Blizzard business, and expressed NetEase's determination on this issue through the influence of celebrities. Finally, on January 18, 2023, NetEase officially released its official social media information, indicating the removal of the iconic World of Warcraft axe statue from NetEase campus and the launch of 13 yuan "Blizzard Green Tea" drink in the staff canteen, symbolically announcing that they had completely bid farewell to the partnership with Blizzard.

From the perspective of consumers, the events that took place before and after the public opinion war had a complex impact on consumers. Initially, the financial dispute and subsequent development suspension of the mobile game may have disappointed fans who had eagerly anticipated its release, which affected consumers' trust in NetEase. Since then, Blizzard's unilateral announcement of contract expiration and NetEase's announcement of the closure of NetEase's domestic offices responsible for Blizzard's business may have disrupted the gaming experience of consumers who rely on NetEase's services to play their favorite games. But at the same time, NetEase responded to social media information in the first time, and in the announcement to maintain the interests of players as the first principle. This will reassure consumers and demonstrate its commitment to protecting players' interests and information security. The company's response to the situation demonstrates its commitment to maintaining its reputation and providing quality service to its customers. One possible effect of NetEase's online media public opinion war on consumer attitudes is to create a positive image for NetEase as a victim of Blizzard's unilateral decision. By portraying itself as a company dedicated to protecting players' interests and information security, NetEase may seek to gain sympathy and support from consumers, which may lead to a positive attitude toward NetEase among consumers.

NetEase also uses the influence of opinion leaders on social media to shape consumer behavior. Game anchors on social media platforms have significant influence and a large following in the gaming industry. Their opinions and behaviors will affect consumers' views and behaviors on NetEase. In this case, the game anchor released the picture of NetEase dismantling the cooperation office from the perspective of NetEase, which expanded the information of NetEase's announcement, gained credibility and made the fans of the game anchor have positive thoughts about NetEase, which is beneficial to the image of NetEase on the social media platform.

4 SUGGESTIONS

Nowadays, companies are increasingly aware of the importance and opportunity of social media to communicate with consumers faster and more effectively (Baltezarević *et al.* 2021). As a result, social media has become a powerful tool for companies to interact with customers and shape public opinion. However, as the case studies of NetEase and Blizzard show, social media can also be a double-edged sword that can damage a company's reputation if mishandled. Therefore, it is important for companies to take a strategic approach to social media management, especially when it comes to conflicts with partners or competitors.

The case research highlights the importance of a timely and strategic response in the battle for public opinion on social media. According to Cai, Huang, and Ma, the development law of Internet public opinion has four stages: “insidious–explosive–rising–fading” (Cai *et al.* 2021). Therefore, in the incubation period of public opinion and the outbreak of public opinion events making a positive response to the establishment of a good image of the enterprise has a crucial impact. Just as at the beginning of this incident, NetEase initially failed to respond to Blizzard's announcement on social media, which resulted in negative impact on its reputation and financial losses. First, responding to public opinion and publishing public information in a timely manner can make consumers feel that they are valued by the enterprise, and consumers are more likely to engage with companies that make them feel appreciated. In traditional industries, companies use consumer psychology to adjust marketing strategies and make customers feel valued. For example, improving product quality, paying attention to product price and providing a good brand image can have a significant positive impact on consumers' purchase decisions (Bernarto *et al.* 2021). As for the public opinion war between Internet enterprises and social media, enterprises can immediately respond to the attack of public opinion and give positive and effective announcement content, so that the brand can establish a good brand image. It will also help consumers, who are worried about whether companies will be in turmoil or whether they should trust public opinion, stabilize their confidence in companies. Social media is a powerful tool for building brand image and reputation. By responding promptly to both positive and negative reviews, a brand can show customers that it values their opinions and is committed to providing outstanding customer service. In addition, social media is an important communication channel to provide timely updates and address customer concerns, and a delayed or inadequate response could exacerbate the situation and lead to further negative publicity. In this regard, enterprises should give top priority to maintaining a good reputation and develop crisis management plans to ensure that they can deal with events timely and strategically when public opinions occur, so as to actively cope with conflicts that may have a negative impact on their reputation.

NetEase's response to this incident demonstrates its commitment to maintaining its reputation and providing quality service to customers, while also using the influence of opinion leaders on social media to shape consumer behavior. In fact, consumers' cognition of information processing and quasi-social interaction may be deeper and more direct, which may have a strong impact on their brand personality cognition and brand attitude (Cai *et al.* 2021). Well-known figures on social media platforms often have significant influence and large followings in the industries they operate in, which means that their followers will be more likely to refer to their posts after the event. These powerful influencers can lead to a shift in consumer choice. Therefore, in the war of public opinion, companies should consider using social media influencers to shape consumer behavior and gain support in the conflict. Even before the public opinion, which is the incubation period of public opinion. In order to better enable the future public opinion to develop in the plan expected by the enterprise, the enterprise can consider to provide the influencers on social media with the information and content they want to convey to the consumers in advance, so as to better control the public opinion in the first time when the public opinion breaks out, and enable the consumers to have a more positive attitude towards the corporate image.

In addition, companies need to demonstrate that even with the current change in strategic direction, they are still thinking about consumers and putting their interests first. Customer experience is a key factor for companies to build brand, channel, and service loyalty. Meanwhile, the popularity of relationship marketing stems in part from the assumption that building customer relationships yields positive returns, including customer satisfaction, loyalty, word of mouth, and purchases (Medrano *et al.* 2016). When a business puts the needs of its customers first, and consumers are made aware of this, it can lead to a more positive relationship between the business and customers, which benefits both in the long run. For example, with the development of social networks, consumers pay more and more attention to their privacy. Therefore, for Internet companies, protecting users' privacy is a priority. Ignoring the needs of users will bring great losses to Internet enterprises, while making consumers realize that they are the privacy protectors of consumers will benefit Internet enterprises a lot (Szoka 2009). By prioritizing consumer interests and making consumers aware that the business is contributing to consumer interests, companies can build a reputation for being customer-focused and reliable, which helps attract new customers and retain existing ones. At the same time, companies can differentiate themselves from competitors and create a unique value proposition for customers by focusing on their customers' interests and providing excellent customer service.

And companies often have better options for resolving conflicts than engaging in public opinion wars on social media. Because the social media wars actually hurt both sides, their brands. In fact, many companies nowadays manage their corporate reputation in a passive or ineffective way, and negative news, damaging rumors and public anger over corporate scandals can affect consumer attitudes (Pagano 2006). For Internet companies, social media wars can quickly escalate and attract negative attention. Negative word of mouth will spread quickly, and the brand trust established by enterprises through long-term development may be seriously weakened within 24 hours (Arli & Dietrich 2017). This can lead to customer loss, a loss of trust and a damaged reputation. Therefore, rather than sparking a social media war, it is better for companies that have conflicts in their cooperation to engage in constructive dialogue before conflicts to resolve issues and find mutually beneficial solutions.

5 CONCLUSION

In conclusion, this research aims to discuss the influence of social media on the public opinion war between NetEase and Activision Blizzard in China and its influence on consumers and related companies. Among other things, it offers advice for companies dealing with social media conflicts and effectively managing their reputation. The results show that the use of public opinion war is not a good way to solve conflicts. At the same time, when competing enterprises or cooperative enterprises have adopted the means of public opinion war, enterprises should timely process the information and make strategic response, and make a commitment to provide customers with quality service to maintain reputation. Enterprises must consider consumers and prioritize the interests of consumers.

The research is significant for several reasons. First of all, it thoroughly analyzes the influence of public opinion war on consumer behavior by enterprises in the Internet era through actual cases. Second, it emphasizes that enterprises must pay attention to the timeliness of information when using social media platforms for marketing. Third, it also analyzes from the perspective of enterprises, which is conducive to other Internet enterprises to meet similar cases in the future development and can be used as a reference for whether to conduct public opinion war. Finally, it also provides a basis for future research investigating the effectiveness of different social media strategies in shaping public opinion during corporate crises.

By exploring and testing the role of social media in international business and cross-cultural communication, the research studies the dual impact of different social media

strategies on enterprises and consumers when they encounter public opinion crisis. Future research in these areas can build on this research. Finally, multi-book survey, control variables, questionnaire and other research designs can be used to investigate the relationship between Internet media, public opinion, media flow and consumer psychology.

Overall, the research provides insight into the complex dynamics of social media and its impact on the business environment in the context of China. In particular, the subject of this research is Chinese enterprises and American enterprises, which provides some social and cultural environment aspects of influence. The results of the research have implications for Internet companies and those wanting to understand the context of online marketing in China, who should consider the potential long-term impact on their reputations and market share of facing such conflicts.

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The determination of “corresponding liability” for the e-commerce platform business

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ABSTRACT: Article 38 of the *E-Commerce Law* is vague in determining the scope of “corresponding liability” of e-commerce platform business, which has generated many controversies in judicial practice. This paper summarizes the characteristics of the current tort of e-commerce platform business and the focus of controversy of the cases by reading the relevant judicial cases and summarizes the core issues facing the tort disputes of e-commerce platform business, especially the identification of “corresponding liability”. On this basis, the identification of the identity of the mixed business platform is clarified, the liability boundary of the e-commerce platform business is determined, and the feasibility and reasonableness of the application of “corresponding supplementary liability” is analyzed to determine a more reasonable, scientific and perfect standard for the determination of the tort liability of the current e-commerce platform business.

Keywords: e-commerce platform business, corresponding liability, tort dispute, tort liability

1 INTRODUCTION

With the booming of the digital economy, the development of the e-commerce industry has also advanced by leaps and bounds. At the same time, as an emerging industry, it also brings many legal problems. Due to the lagging characteristics of the law, China promulgated and implemented the *E-Commerce Law of the People's Republic of China* in 2018. Before that, the theoretical and practical circles had gone through five years of discussion and revision. Since the introduction of the *E-commerce Law* involves the interests of many business giants, the determination of the “corresponding liability” of platform business in Article 38, paragraph 2 has become one of the core controversial points in the legislative process. After experiencing the “joint and several liabilities” in the third draft, the platform believes that the liability is too heavy, and the “corresponding supplementary liability” in the fourth draft, and worried that the platform is too small to assume liability for the violation of the law, the legislator finally made a vague treatment, and changed to “corresponding liability”. Although this approach has resolved the dispute, the application of the law has created more problems. Before this, competitors represented by industry leaders had launched various business models, for example, the “C2C” model represented by “Taobao”. The “B2C” model represented by “Jingdong”. The “O2O” model represented by “DiDi”. These models operate with Taobao as the “middle” shopping platform, providing a trading platform for buying and selling among consumers. Jingdong, as a self-operated merchant, can deal directly with consumers. DiDi, on the other hand, transforms offline transactions to online, while services remain offline, but the DiDi platform itself does not provide services directly.

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Different business models create different values (Li 2018), these marketing transaction aggregation-type enterprises build complex e-commerce platforms through user classification and overlaying service experience association-type models to increase user stickiness. When a platform integrates multiple business methods, the question arises as to what kind of subject the platform is and what kind of liability it should assume. Some scholars propose that the problem of liability to be borne by different types of e-commerce platforms should be divided according to the nature of the platform, for example, simple technical service provider, technical support + market conditions, platform transaction builder + business (Zheng 2020). Although these models are complex, the concept of a platform business is finely defined in the E-Commerce Law (The E-Commerce Law of the People's Republic of China). An E-commerce platform business is a legal person, or an organization without the status of a legal person, which, in e-commerce, provides both or multiple parties to trading with services, such as online places of business, matchmaking, and releasing information, for them to independently conduct trading activities.

2 CHARACTERISTICS OF THE TORT OF E-COMMERCE PLATFORM BUSINESS IN CHINA

2.1 *Non-specificity of tort subject and liability subject*

In the tort of e-commerce platform business, the subject of tort and liability is not specific. First, the subject of the tort of the e-commerce platform business is more complex, including e-commerce trading platform business, e-commerce information service providers, e-commerce content service providers (Li 2022). Taking Taobao as an example, Taobao, as an e-commerce platform business, has higher requirements for product quality and needs to undertake corresponding review obligations. If a merchant is found to sell counterfeit goods, Taobao will deal with it according to its review. Therefore, Taobao is not the only subject to take responsibility. Secondly, the e-commerce platform business has certain concealment in the implementation of tort, and it is difficult to determine their specific identity. For example, the subject of tort is not specific when publishing false information on the platform and using other people's accounts. In online transactions, the subject of liability is not specific when trading in the name of consumers. Thirdly, because the e-commerce trading platform business often collects and stores relevant information through technical means, they also have a certain professionalism and complexity in dealing with relevant information. If the e-commerce platform business is located abroad, there will also be unclear liability subjects. Finally, when the tort occurs, it is often impossible to accurately judge the subject of the tort, and there may be a situation of "who advocates and who gives evidence" (Yao 2019). Therefore, it is difficult to determine the liability subject of e-commerce platform business in practice.

2.2 *Complex diversity of tort*

The tort of an e-commerce platform business is manifested in three forms. First, the e-commerce platform business fails to fulfill the corresponding audit obligations, resulting in damage to consumer rights and interests. Second, the e-commerce platform business did not fulfill the corresponding duty of care, resulting in damage to consumer rights and interests. Third, the e-commerce platform business has not fulfilled their security obligations, resulting in damage to consumer rights and interests (Cao 2017). Usually, based on the Safe Harbor Principle, platform businesses have a lower degree of duty of care for tort information under the "notice-take down" procedure. For the exception of the Red Flags Rule, platform business cannot ignore significant tort, and they have a higher duty of care for tort information (Ma 2022). Specifically, when the infringing information does not constitute a tort,

the platform business does not have the obligation to “notify-take down”. When the information constitutes a tort, the platform business has the obligation of “notify-disconnect”. In general, if the platform business can prove that it has a higher degree of duty of care for the tort information published by the e-commerce user, it will not assume tort liability. If the platform business does not have a higher degree of duty of care for the tort information published by the e-commerce user, it is necessary to determine whether it is liable according to the degree of fault.

2.3 *Concealment and longevity of the tort*

The concealment of the tort of e-commerce platform business lies in the fact that their behavior itself is illegal, and the tort is not necessary to the subjective fault of the doers. The e-commerce platform business uses their dominant position to create trading conditions through various means to make the transaction more convenient. For example, setting up false transactions, false evaluations, and hiding real transaction information on the platform makes it difficult for consumers to identify authenticity. This kind of tort has certain concealment, which is not easy to discover and prevent.

The longevity of the tort of e-commerce platform business is that consumers do not directly contact goods in online transactions, but trade through the e-commerce platform. Due to the asymmetry of e-commerce transaction information and the high cost of consumer rights protection, it is difficult for consumers to claim rights from e-commerce platform businesses the first time when problems are discovered. Even after finding the problem, due to time, energy and other factors cannot take timely measures to safeguard their legitimate rights and interests. Therefore, after the tort occurs, consumers often only eat dumb losses. With the passage of time, the tort of consumers by e-commerce platform businesses will become more hidden and complex, causing more harm to consumers. In addition, the platform uses gray areas to engage in illegal acts will also make the behavior more hidden. The platform circumvents algorithms, auditing, domain name tracking. Through technical means, and covertly guides and helps platform users to implement torts to hinder the normal operation of other platforms. This not only disrupts the normal order of competition in the marketplace, but also increases the evidentiary difficulties for the right holder.

3 CURRENT SITUATION OF TORT LIABILITY OF E-COMMERCE PLATFORM BUSINESS IN CHINA

3.1 *Questionable identification of liability subject*

As the first case in the nation to determine that the live broadcast platform in the live broadcast scenario is the case of tort of trademark rights by e-commerce platform, the question of whether the live broadcast platform can be identified as an e-commerce platform is addressed in the case of tort of trademark rights by *Sailing Trade (Shanghai) Co., Ltd. v. Beijing Micro-broadcast Vision Technology Co., Ltd.* (Beijing Haidian District People’s Court (2021) Beijing 0108 Civil Judgment No. 6194) (*The Live Broadcast Platform Tort of Trademark Rights Case*). In this case, the plaintiff, a trading company, alleged that a handicraft business had violated its trademark rights by streaming live content on the Tik Tok platform. The plaintiff thought that the Tik Tok platform’s reasonable duty of care had not been upheld in its capacity as an e-commerce platform. The defendant claimed that it was impossible to classify the live online platform as an e-commerce platform. The live broadcast on the site simply serves to draw users, which is the cause. There are additional anchors in the commodities window that do not sell items on the third-party platform, and the connections to similar products in the window are diverted there. The judiciary, however, has

not agreed with this viewpoint. The judge came to the conclusion that the live broadcast platform belongs to the e-commerce platform and that the platform enterprise belongs to the e-commerce company based on the facts of user buying behavior and commodity information presentation. Furthermore, the decision of the relevant platform's character in the case has no bearing on the determination in other circumstances. Additionally, the e-commerce platforms involved in the intellectual property and competition disputes in *Sichuan Zhongju Yungou E-commerce Co., Ltd. v. Shenzhen Tencent Computer System Co., Ltd.* (Beijing Intellectual Property Court (2020) Beijing 0108 Civil Judgment No.27529) (*Game Account Rental Platform Unfair Competition Case*) and *Changsha Yuelu District Zhien Commodity Information Consulting Service Department v. Shenzhen Tencent Computer System Co., Ltd.* (Beijing Intellectual Property Court (2021) Beijing 73 Civil Judgment No.2963) (*Generating Social Software False Interception Case*). It only provides users with e-commerce information storage services as an e-commerce service provider. In *Guangzhou Huya Information Technology Co., Ltd. v. Beijing Aiqiyi Technology Co., Ltd.* unfair competition dispute case (Beijing Intellectual Property Court (2021) Beijing 73 Civil Judgment No. 4439). The court provided live broadcast services for the main broadcaster and provided users with live broadcast services according to Huya Company. Huya Company operated and managed the platform through usage agreements, live broadcast rules, and determined that the live broadcast platform Huya was the platform undertaking providing services.

From the point of view of the tort issue involved in the matter, the tort issue and the liability issue are complex and diverse. E-commerce platform companies, e-commerce service providers, platform companies, platform non-commercial companies may cause an offence alone or jointly to several persons. First, as a third-party platform, when it cannot be directly judged as an e-commerce platform business according to the relevant provisions of *the E-Commerce Law*, how to judge which subject it belongs to becomes the primary issue involved. The roles and responsibilities of a single platform in different departments are different and cannot be defined solely by the nature of the platform itself. Secondly, in individual cases, there may be a platform business that argues it is only the builder of the trading place who is not involved in the tort, for example, in the use of algorithmic tort as a “technology neutral” party, arguing that tort is only committed by users themselves or users can selectively commit acts and the platform should not be the subject of liability. However, the platform cannot be absolved of any responsibility because it is not involved at all or is a bystander. Finally, the definition of platform and platform activities, non-commercial activities and other matters with the platform should be clarified. For example, whether the relationship between the live broadcast platform and the anchor is similar to the relationship between the hitchhiking platform and the driver, whether the second-hand goods trading platform and the individual seller are different from the relationship between the shopping platform and the merchant.

3.2 Unclear scope of liability boundary

Whether the platform has implemented its reasonable duty of care is the defense reason of the defendant in the above cases and the commercial defamation dispute between *Beijing Taoyou Tianxia Technology Development Co., Ltd. and Beijing Baidu Netcom Technology Co., Ltd.* (Beijing Intellectual Property Court (2021) Beijing 73 Civil Judgment No. 4817) (*the Beijing Taoyou Tianxia Case*). In *The Live Broadcast Platform Tort of Trademark Rights Case*, the court held that due to the particularity of live broadcast activities, it could not be too harsh on platform business. The duty of care should be taken into account together with platform access regulations, platform agreements, user identity and other pre-audit and post-remediation measures. In the *Game Account Rental Platform Unfair Competition Case*, the platform has a complaint path, a shared developer agreement, and other forms of audit and post “notification-take down” procedures also determined that it has fulfilled its duty of reasonable care. As a network service provider, the e-commerce platform business in the

Generating Social Software False Interception Case did not cooperate with the defendant, did not edit, sort out or recommend the accused software, or did not charge any fees for the accused software. The platform did not know that the accused software had tort in advance, and promptly took down the accused software after the event, so the platform had fulfilled its reasonable duty of care. However, in other cases (Beijing Intellectual Property Court (2021) Beijing 73 Civil Judgment No. 4439), the court held that the platform should have a higher duty of care. As an ordinary user, the anchor in the Huya live broadcast platform generally does not have a complete right to play film and television works, and the popularity of the user is high, and the works involved in high visibility. The platform should know the behavior involved in the case and take action. The court also held that the platform should have been aware of the conduct in question and should have taken action. The court did not support the argument that the platform had fulfilled its duty of reasonable care by setting up a channel for complaints and citing the “arbitrariness and timeliness” nature of the live content, which the platform could not monitor in real time and could not review and shield in advance, but that it should have assumed a higher duty of care. In the case of unfair competition disputes between *Cuohui Catering Management Co., Ltd. and Beijing Wuba Information Technology Co., Ltd.* (Beijing Haidian District People’s Court (2021) Beijing 0108 Civil Judgment No. 14375), the setting up 58 Tongcheng.com label V authentication means that the platform checks the authenticated users and makes other users more trustworthy. However, in the case, the platform business has loopholes in authentication only with one business license, especially when it comes to the catering industry, which is related to the life and health of consumers. The platform should be given an increased duty of care. In the commercial defamation case that negates the nature of the information storage space platform, the platform believes that the behavior involved in the lawsuit was the personal behavior of the platform user. As a network information storage space service provider, the pulse platform provided a service agreement and management specification to prove that it has fulfilled the prior prompt obligation and set up an open complaint channel, fulfilling the statutory duty of care and liability. However, the court held that the platform did not prove the registration, authentication and used of the users involved in the alleged behavior, which was insufficient to prove that the behavior complained of was committed by real users and should assume corresponding legal liability.

The delineation of the liability limit of the platform’s activities is also one of the basic problems. Whether the platform has fulfilled its reasonable duty of care, how to identify some platforms should know and necessary measures. In practice, due to the different specific conditions of the platform, the specific responsibilities that should be borne are also different. It is necessary to consider both the situation specified in the legislation and the operating scale, the technical level and the service content of the platform. For some important infringements, which usually have a continuous and notable character, and combined with data statistics, they are usually identified as “should know” the content. The law is unclear about the “should know” limit, which gives judges more discretion. According to the “notice-take down” principle, it is unclear whether the platform can take remedial measures after the event to make the platform free from liability. In addition to “delete-disconnect”, what measures should be taken to stop and prevent infringement. The question of whether these measures can form the basis for an exemption needs to be clarified in specific cases. In addition, under what circumstances, platform business should fulfill a higher duty of care, and the law does not provide specific provisions. By studying the provisions of joint and several liability for the platform in Article 38 of the *E-Commerce Law* and other relevant provisions, combined with the case, it can be found that the judge in the case trial, combined with the facts of the case and the importance of the object of tort to determine whether higher duty of care should be given. However, it is necessary to further explore whether the platform should be examined in substance or in form, whether there is a sound and effective complaint reporting mechanism, and how the platform’s prior audit standard can be judged to have fulfilled its duty of care.

3.3 Unclear specific form of responsibility

Cases involving joint tort are subject to controversy about the type of liability to be assumed. *The Wang Mou v. Shenzhen Yi Shi Cargo Lala Technology Co., Ltd. Case*, and other motor vehicle traffic accident liability disputes (Shenzhen Intermediate People's Court of Guangdong Province (2020) Guangdong 03 Civil Judgment No. 943), the court held that the logistics e-commerce platform business provide intermediary services for the platform registered drivers, not materially involved in the signing and performance of the online freight agreement, and its relationship with both sides of the freight transaction constitutes an intermediary contract. However, the platform for the platform registered drivers only on the non-basic qualifications, such as the operating license, that do not directly affect the lives and health of consumers negligent examination, should be found to assume the "corresponding responsibility" for the appropriate proportion of supplementary liability. In another similar case (Hunan Changsha Tianxin District People's Court (2020) Xiang 0103 Civil Judgment No. 3025), the trial court held that the hitchhiking platform "HelloBike" was jointly and severally liable. In providing the hitchhiking service and charging for the information service, it failed to distinguish the defendant and other full-time drivers from other ordinary ride-sharing providers, and failed to advise the defendant of the risk of rejection of commercial insurance claims resulting from the operation of hitchhiking for profit, for which it was also at fault and should be jointly and severally liable. However, the court of second instance overturned this decision and held that Habai Network Company had fulfilled its obligations as an intermediary and its safety obligations as an organizer and manager, and therefore Habai Network Company was not at fault for the traffic accident in the case and should not be held liable (Hunan Changsha Intermediate People's Court (2020) Xiang 01 Civil Judgment No. 12683). In *the dispute between China Pacific Property and Casualty Insurance Company Limited, Beijing Branch and Hu Qiuming and other insurers' subrogation claims* (Beijing Financial Court (2022) Beijing 74 Civil No. 1154), the court relied on Article 38(2) of *the E-Commerce Law* regarding the regulation of the obligation of guaranteeing the safety of consumers and judged that in this case, DiDi, as an e-commerce company engaged in online cab booking service, was liable to the passengers as consumers. In this case, the court relied on Article 38 (2) of *the E-commerce Law* to determine that DiDi, as an e-commerce platform engaged in online taxi booking service, was responsible for the safety and security obligations of the passengers as consumers, and that the "corresponding liability" here should be applied by analogy to Article 37(2) of *the Tort Liability Law* (The Tort Liability Law. Article 37) in the "supplementary liability".

From the above cases, it can be seen that the liability of the tort subjects is different under different circumstances. Since the joint and several liability of platform business is stipulated in many laws such as *the Civil Code*, *the E-commerce Law* and *the Law of the People's Republic of China on the Protection of Consumer Rights and Interests*, judges mostly do not require the platform to assume joint and several liability after judging that it has fulfilled its duty of care and security obligations. Some judges believe that the corresponding responsibility in Article 38 of *the E-commerce Law* should be applied to the corresponding supplementary liability, in tort disputes, the main responsibility is the direct tortfeasor, and the platform as an indirect tortfeasor to assume the part of the direct tortfeasor cannot afford or assume a small part of the responsibility as appropriate. So, it seems that there is still no clear judgment method for the determination of the platform business's liability, and the analogous application of the judge according to other legislative provisions will lead to the "useless" of Article 38 of *the E-commerce Law*, and the facts of the case, it is doubtful whether the analogous application. In addition, the application of "supplementary liability" or "corresponding supplementary liability" is also not clear, some judges believe that the platform business to assume certain responsibilities can be recovered from the platform business, and such liability based on what facts to determine is unclear.

4 SUGGESTIONS TO IMPROVE THE TORT LIABILITY OF NETWORK PLATFORM BUSINESS IN CHINA

4.1 *Clarify the subject of liability*

Article 2 of the *E-commerce Law* (E-commerce Law of the People's Republic of China, Article 2(2)) and Article 9 respectively stipulates that e-commerce and e-commerce platform business, but due to the continuous development of emerging industries, it is difficult to identify the nature of the platform in practice. Judging whether the platform is a platform business should be based on the following factors: (1) the platform provides purchase pages, commodity or service prices, information, names, etc. for business or non-business in the platform. (2) Users can pay and complete the transaction through the platform. (3) Users can view order information, location tracking, logistics and distribution on the platform. According to the nature of the services provided by the platform to determine whether it is a platform business (Beijing Haidian District People's Court Intellectual Property Trial White Paper), should note that the hitchhiking platform, a second-hand trading platform mainly for ordinary civil subjects to provide intermediary services platform, the platform no business (Wu 2022). Similar topics also include the live broadcast platform, which does not sign any further documents after signing a user agreement with the anchor. At this time, the platform and the anchor also belong to the intermediary contract before the anchor provides services, so the live broadcast platform also belongs to the e-commerce platform business.

After having clarified the scope of activity of the platform, to determine whether the platform belongs to the responsible subject, may be considered under three aspects. First, if the platform business does have illegal behavior, such as knowing that a user published infringing information is still not taken down or blocked, or in the platform operation process to recommend, publicity, and other ways to promote tort, then it should assume direct liability. Second, in the absence of a direct violation of laws and regulations, platform business uses their own resources or technical means to provide indirectly to users with the conditions necessary for liability. For example, if an Internet service provider such as an online trading platform provides services such as store building and advertising promotion for businesses such as online stores, the platform may be deemed to be indirectly supporting and assisting its tort if the store business's products are suspected of counterfeiting and other problems. Third, if the platform business has fulfilled its necessary management obligations and reasonably foresees that tort is unlikely to occur, but a majority tort dispute still arises, then the platform business is not liable.

4.2 *The consideration factors of 'corresponding liability' identification*

Whether the behavior of the network platform activity constitutes "knowingly" or "should know", to some extent, determines whether it should take on the "corresponding responsibility". In order to determine if the behavior of the network platform activity constitutes "knowingly" or "should know", the following factors should be considered: (1) the nature of the services provided by the network platform business on the platform, such as the provision of information search services, information display services, transaction aggregation services, or the provision of other related services. (2) if the network platform undertaking receives direct economic benefits from the goods or services sold on the platform (Yin & Ma 2020). (3) whether the goods or services provided by the network platform business have greater market visibility, and whether they have a high degree of market transaction activity and consumer attention. As to the question of whether the platform should adopt formal or substantive review, this paper argues that the *E-commerce Law* provides that "the notice shall include preliminary evidence of tort", and the platform's audit obligation is closely related to the elements of qualified notice. The infringed party's premise in proving that the platform breached the reasonable duty of care is that the platform made a legal judgment on

the content of the examination, so the platform should conduct a certain degree of substantive examination (Zhejiang High People's Court Joint Group 2020), and the content should include real information of users, real information of goods or services.

Furthermore, in reality, the idea of fault responsibility is typically applied to determine if the platform company is accountable. In particular, if the network platform business is not subjectively at fault, it should not be held liable. If the e-commerce platform business is at fault, but not to a significant degree, it should accept tort culpability. If the e-commerce platform company is at fault, but to a greater extent as specified in Article 1194 to Article 1197 of *the Civil Code*, it should bear a greater burden. In determining the degree of fault of the e-commerce platform business, the type of tort, the nature of the conduct, the topic of the act, and other elements should also be considered, in addition to whether there is subjective fault. The subjective state of the e-commerce platform business can be used as the basis of judgment in the “notification-take down” principle in determining whether the e-commerce platform business has met the duty of care, such as the subjective state is knowingly or should be known.

4.3 *The detailed identification of ‘corresponding liability’*

Following clarification of the subject of responsibility and the boundary of responsibility, different perspectives exist on how to determine the form of responsibility. For example, some scholars advocate that joint and several liability is one way to assume the responsibility of the e-commerce platform for violating the duty of safety and security (Zhao 2018). The share liability is more appropriate as the liability to assume (Xue 2019). However, this paper contends that the “corresponding supplementary liability” is more applicable.

First of all, joint and several liability refers to “the civil liability of any one of the majorities of the civil subjects based on a specific legal relationship within the scope of the provisions of the law or the agreement of the parties shall assume all the mandatory legal consequences of the violation of legal obligations” (Kong 1992). As the most stringent form of joint liability, it is clearly stipulated in Article 178 of *the Civil Code*, which shall be provided by law or agreed by the parties. In turn, *the Tort Liability Part of the Civil Code* provides for joint and several liability in cases of joint tort, joint dangerous acts, and multiple torts in Articles 1168, 1170, and 1171, respectively. This includes cases where the platform knowingly fails to take the necessary measures to assume joint and several liability under Article 38(1) of *the E-Commerce Law*. Article 56 of *the Advertising Law* (Advertising Law of the People's Republic of China. Article 56), which provides for joint and several liability for tort on consumers' life and health, and Article 44 of the Law of *the People's Republic of China on the Protection of Consumer Rights and Interests*. If the providers of online trading platform know or should have known that the sellers or service providers infringe upon the lawful rights and interests of consumers through the platforms but fail to take necessary measures, they shall be jointly and severally liable with the sellers or service providers. Based on this, this paper believes that the “corresponding liability” in Article 38 of *the Electronic Commerce Law* should not be joint and several liability. This is because the platform here belongs to the prior audit, and considering the scale of business, technical means, profitability, requiring the platform to make substantive audit of its internal goods or services would be too harsh and impossible to do. Therefore, if the platform has not implemented the joint and several liability situations stipulated by law, it should not be found to assume joint and several liability.

Secondly, in specific cases, it is necessary to judge whether the platform and other tortfeasors belong to joint tort and whether they can assume corresponding liability respectively. According to Article 1172 of *the Civil Code*, where two or more persons commit torts respectively, causing the same harm, if the seriousness of liability of each tortfeasor can be determined, the tortfeasors shall assume corresponding liability respectively. The reason for

the ambiguity of “corresponding liability” is that it is difficult to judge the size and form of liability, and if the size of liability can be determined, shared liability should be applied.

Finally, in terms of the interpretation of the text and the system, it can be referred to as “corresponding supplementary liability”. Article 38 of *the E-commerce Law* specifies the security obligations of e-commerce platform business. The review obligation in this paragraph, along with security obligations, apparently fails to meet the security obligations of the way to bear responsibility. For the failure to meet the review obligation of the way to bear responsibility, it has considerable reference significance (Guo 2023). Article 1198 of *the Civil Code* provides that if harm to another person is caused by a third party, the third party shall assume tort liability, and the operator, manager or organizer, if failing to fulfill the duty of safety protection, shall assume the corresponding complementary liability. This traditional public places of safety and security obligations to assume the liability of the way should also have a reference role. If the platform does not fulfill the obligation of audit or security, it can refer to the provisions of the obligation of safety and security and assume supplementary liability. If the corresponding fault of the platform is not subjective malice is great, and the platform is not a direct tortfeasor judged from the causal relationship, it can also be judged to apply supplementary liability (Guo 2023). However, if it is completely stipulated as supplementary liability, the right of claim can only be exercised when there is evidence that the platform business has not fulfilled its examination or security obligations, and the liability of the platform “gatekeeper” is greatly weakened, which is contrary to the original legislative intent (Sun 2019). Where the platform has assumed supplementary liability for external consumers, if it can prove that its share of liability is less than that actually assumed, it can recover from the direct tortfeasor in the internal relationship (Chen 2019). It can be seen that the application of the “corresponding supplementary liability” can protect the rights and interests of consumers while also reducing the risk of the platform assuming liability. Therefore, the application of the liability can better reflect the fairness and modesty of the law.

5 CONCLUSION

With the development of the Internet, e-commerce platforms have become an important way for consumers to purchase goods and services. As the main provider of online trading platform, e-commerce platform business play an important role in online transactions, and their tort acts in online transactions are increasing. China’s law provides for the relevant responsibilities of e-commerce platform business but does not make detailed provisions for their tort liability. In practice, e-commerce platform business generally avoids their liabilities in various ways, so that they become the real sense of “no liability”. Although the vague provisions of the law have solved the “one-size-fits-all” situation that makes it difficult for consumers to defend their rights or the platform to assume too much liability, judges have more discretion to apply the law in individual cases with the facts of the case. In order to reduce disputes and protect the legitimate rights and interests of consumers, this paper argues that a liability system for e-commerce platforms should be established to clarify the subjects responsible, the boundaries of liability and the form of liability, which requires legislators to make an important step in the future.

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The effect of college students' participation in club activities on their academic performance

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ABSTRACT: As the participation rate of college students in clubs continues to increase, more and more attention is being paid to the realistic or potential impact of club activities on academics. The impact of college students' involvement in clubs on their development is now being given more value and significance. Club activities affect students' academic engagement and performance by taking up a portion of their lifetime allocation, and college students' integrated capabilities such as social skills, professional competence, and personality can be influenced by their participation in club activities. In addition to the positive effects, previous studies have identified conflicts and contradictions between academics and club participation, but excessive participation in club activities lacks a clear definition and few scholars have proposed feasible solutions. Current research related to this topic still has limitations, and future attempts can be made to explore the differences in the impact of club activities on individuals in different country regions and the localization of theoretical consequences.

Keywords: Club Activities, College Student, Academic Performance

1 INTRODUCTION

1.1 *Definition of key concepts*

1.1.1 *University students and university clubs*

University students in school are students who are enrolled in full-time general education, including college, undergraduate and postgraduate students. University students are the pillars of national development, and whether or not they form a stable national identity directly affects the historical task of the great rejuvenation of the Chinese nation (Hu *et al.* 2022). University clubs are the second talent education training base after the comprehensive curriculum education. The purpose of student involvement in clubs is to promote students' ideological quality, ability development and mental health and other aspects of diversified construction. In order to fully meet the diverse interests of contemporary university students and try to realise all the common wishes of students, they are therefore organised voluntarily by student groups into active and organised student organisations. University societies are in line with the current trend of social education and have truly become the second classroom of major universities in China (Hu 2022). As a "second classroom" in universities, university

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clubs are an important way and an effective carrier of quality education in universities in various countries. They play an increasingly important role in the self-development of students, the construction of clubs, the dissemination of campus culture and the creation of social values (Xu & Bian 2019).

1.1.2 *Academic performance*

Student's academic performance is reflected in the academic assessment. Academic assessment plays a vital role in the education process, as it enables students to understand their own academic standards and educators to improve the quality of teaching and learning based on the results of academic assessment (Xia 2021). Academic assessment is divided into two parts: measurement and evaluation. Academic measurement is the process of using different tools and methods to systematically collect information on students and measure their academic data, while evaluation is the process of analysing the measured academic data and making value judgments on students' knowledge and abilities in various areas (Wang & Shi 2022).

1.2 *Rationale*

College student clubs are an informal campus organization organized based on students' interests and hobbies. College student clubs are the second classroom for college students to exercise autonomy and selectivity, and an important platform for self-management and self-education, deeply affecting the development of college students. The current college student club activities have had a profound impact on all aspects of college students' learning and life.

With the development of higher education in China, more and more people have raised their awareness of the role of college student associations in the field of higher education, and are also paying more attention to the construction of college student associations. Although college student clubs are a valuable research topic, current research on the value of college student clubs is rare and unsystematic, and there is a lack of exploration of college student clubs (Yang 2013).

Although club participation can help improve the ability of college students to assume social roles, it plays an irreplaceable role in enhancing interpersonal skills, communication and expression abilities, problem-solving abilities, and other aspects of professional course learning and internships. During this process, whether club activities will have an impact on academic performance is also an important factor that cannot be ignored.

1.3 *Significance*

Clubs are the "second classroom" for college students to develop their interests and skills, and they are a great carrier and platform for college students to improve themselves, promote social adaptation and improve their comprehensive literacy. Nowadays, all major universities and colleges have established student clubs of various categories and fields of study, and college students can devote themselves to the extracurricular activities of clubs they are interested in outside the classroom, so club activities have become the majority of choices for college students to enrich their after-school life.

Studies on the influence of participation in club activities on college students' socialization have shown that the overall frequency of interaction with club members, the number of times they participate in club activities, and whether they serve as club officers are three dimensions that positively predict college students' socialization, including the five dimensions of political socialization, moral socialization, psychological socialization, knowledge and skills socialization, and role socialization (Chen 2013). Therefore, the participation in club activities is significant to the process of college students' social adaptation and integration into society. Several studies conducted in different provinces in China consistently found that participation in club activities had had a positive effect on enhancing college students' comprehensive abilities such as teamwork, social practice, and developing core literacy among college students. Students also indicated in surveys that they have gained and grown

from club activities (Qing *et al.* 2023; Wen *et al.* 2019; Zhang *et al.* 2018; Zhao *et al.* 2016; Zhou 2021). Meanwhile, studies of foreign scholars have also shown (Astuti *et al.* 2018; Jones *et al.* 2014) that participation in extracurricular activities positively predicts good behavior and more desirable academic performance, with students who participate in clubs twice or more a week having higher GPAs than students who participate in clubs once a week. Notably, a number of studies have shown that when the number and frequency of students' involvement in clubs becomes increase, it squeezes the time for classroom learning and is more likely to conflict with classroom learning (Chen 2013; Zhao *et al.* 2016). In summary, club activities are important parts of college students' extracurricular activities, and participation in clubs has either positive or negative effects on all aspects of college students' performance, including personality characteristics, academic performance and social work competence. It is easy to see that there are influences and contradictions between participation in clubs and college students' academic performance. Questions that remain to be addressed include how to balance classroom learning with extracurricular commitment, how to conduct reasonable club activities without interfering with the study of major subjects, how to use club activities to promote students' learning ability and academic performance. The significance and value of this study is to find the answers to these questions by summarizing the relevant studies in the past decade.

By reviewing the empirical studies on the effects of participation in club activities on college students' academic performance at home and abroad, this study focuses on the situation in China, with a view to summarizing some objective patterns supported by research, providing some constructive opinions for universities to better develop and manage club activities, and providing feasible directions for future academic research.

2 LITERATURE SELECTION

The authors of this study retrieved relevant empirical studies from one of the largest and most comprehensive Chinese literature databases in China, China National Knowledge Infrastructure (CNKI), for the past ten years (2013–2023). At the same time, the authors of this study retrieved English literature that matched the study topic from the foreign language master database of CNKI and the Baidu Scholar literature retrieval engine (Baidu Scholar). After obtaining the retrieval results, the literature was effectively identified in four stages according to the literature screening approach proposed by Li Nuo (Li & Liu 2022) to exclude unwanted and irrelevant literature. The criteria for literature screening were the following: (1) the topic which researched the effect of participation in clubs on academic performance; (2) the literature was empirical, excluding qualitative, review, and meta-analytic studies; (3) the study population was university students, excluding graduate students or elementary and secondary students; (4) duplicate literature was excluded; and (5) literature on the same study published in different forms was excluded. The valid literature finally included in the study after screening according to the selection criteria was 23 in Chinese and 5 in English.

3 THE IMPACT OF SOCIAL ACTIVITIES

3.1 *The impact of social activities on academic performance*

With the enrichment of club activities, more and more college students actively join clubs and learn different knowledge and skills by participating in various club activities. The “internal cause” in the external pressure which has been put forward by Liang Dawei (Liang 2022) refers to satisfying students' leading needs and core interests. On the one hand, it satisfies students' desire to improve their own quality. On the other hand, it is rich students' accumulation of academic honors. Therefore, we can learn that in addition to improving individuals through club activities, their academic performance is also an important part that

cannot be ignored. However, although club activities can make college life more fulfilling, at the same time, it will occupy a certain amount of time, so it will affect the performance.

3.1.1 *Positive effect*

Research reports show that college students' associations, as a form of group organization, have the characteristics of voluntary, diversity and flexibility. It is also often associated with social hot issues, which is easier to attract the participation of college students. Academic research societies in colleges and universities not only play a role in consolidating classroom learning effect, deepening and broadening knowledge, but also have a long-term influence on cultivating college students' independent thinking and independent research ability. Academic research associations are guided by professional teachers and generally carry out activities in the form of lecture series, special reports, special discussions and academic research. These club activities effectively promote the study of relevant majors of college students, thus improving their academic level in relevant professional fields (Jin 2013). At the same time, it can improve the knowledge structure system. Due to the collection of interests and hobbies, interpersonal communication and the need to show personal value, students are generally more active in participating in club activities. Students can exert their subjective initiative independently and learn, communicate and inspire each other with other club members by acquiring learning paths and directions, so as to realize self-gradual cultivation and insight and complete knowledge learning in concrete practice and application, the effect of broadening knowledge boundary and optimizing knowledge structure (Hu & Xu 2022). Club activities are rich and colorful, which is undoubtedly the middle station for college students to exercise themselves, relax and study hard.

3.1.2 *Negative effect*

As to whether participating in club activities will have a negative impact on their studies, some scholars have conducted research on students who participate in club activities, students who do not participate in club activities, graduates who have participated in club activities, and graduates who do not participate in club activities. The results found that students who did not participate in club activities had less fluctuations in their academic performance, and they can have their own study time. Not influenced by community activities. For students who join the club, the results are more unstable. Among them, 42.29% of in-service association cadres' academic performance fluctuates, and they spend too much time and energy on association activities, unable to take care of their studies. 36.4% of in-service association cadres study well, and they not only to deal well with the club activities, but also learn professional knowledge well. 11.9% of the club cadres believed that wonderful and interesting club activities could relieve the pressure of studying to a certain extent (Huang 2018). However, putting the cart before the horse between study and employment is actually detrimental to students' academic development. The proportion of students who "master more than 70% knowledge in this semester" is about 60%; In terms of academic development satisfaction, although there are differences between schools ($p < 0.05$), the overall situation of academic development is satisfactory. It is found that college students' investment in professional learning had decreased while their energy in participating in club activities, taking part-time jobs and obtaining professional qualification certificates had increased, which may affect their normal learning and living time arrangement (Wang & Wei 2015). It can be concluded that club activities will directly affect students' time and thus may have an impact on their studies. Therefore, personal time allocation should also be taken into account.

3.2 *The impact of social activities on overall ability*

The university years are a critical period in the development and maturation of students' moral consciousness, and the learning and social environments have an important influence on them. A good student association environment, guidance from professional teachers and

mutual encouragement and supervision among members of the society lead to different degrees of improvement in students' overall ability (Zhang *et al.* 2022).

3.2.1 *Ideology and ethics*

Social activities can enhance the moral and ethical qualities of students in a subtle way. Students' clubs are ultimately guided by the school committee, so their activities have the basis of correct ideological and moral education. In addition, students are free to form or join clubs according to their own interests, which teaches and entertains them and has a positive impact on their ideological and moral qualities.

3.2.2 *Communication skills and interpersonal relationships*

Social clubs activities improve students' communication skills and thus provide for relationships within the clubs. To varying degrees, students suffer from poor language skills due to a variety of factors, which can lead to problems with interpersonal communication. And club activities such as the Literature Club, Press Club and Radio Station give students the opportunity to exercise their verbal skills. The planning of club activities, activity summaries, and the writing of applications for related activities also help students to develop their written expression skills (Luo 2021). When students have some good language skills, interpersonal communication will also become easier, which will lay a solid foundation for the positive development of the association.

3.2.3 *Organisational skills and team spirit*

Club activities improve students' organisational skills and foster team spirit. There are a number of issues involved in running a successful society. There are a number of problems with the successful operation of club. And in the specific development process, the need for every member of the association to work in coordination with each other and for the same goal makes team spirit particularly important. In actual employment, student leaders are more popular with employers because of their excellent personal qualities, but the positions provided by student unions and classes are limited and cannot meet the needs of students, and the form of club activities provides students with maximum training positions so that they can accumulate experience in practice (Li & Wang 2017). The organisation of activities becomes an essential step in the development of a society, and members' organisational skills are further enhanced when they are able to organise and carry out successful society activities in practice. In the course of the club's activities, the members of the club do their own jobs and work together to carry out their activities, which in a subtle way increases their sense of teamwork.

3.2.4 *Sense of innovation*

Social activities have a positive impact on the stimulation and cultivation of the creative consciousness of university students. A survey of students in nearly 100 universities found that 93.78% of students felt that they had improved their learning and creative spirit in clubs (Cheng 2020). Students are able to put their innovative ideas into action through active participation, gradually enhancing their creative abilities and building up their self-confidence, which is very beneficial for their future academic development. An analysis of existing empirical studies found that the level of involvement in clubs during university significantly and positively influences employees' subsequent innovative behaviour in the workplace (Zhou & Chen 2022). This is a further indication of the far-reaching impact that community activities have on the creative minds of students.

4 DISCUSSION

Hundreds of research studies have contributed to the exploration of this type of area around the impact of club participation on academic performance. Until today, the correlation between involvement in clubs and academic performance has been confirmed by a number of

studies. It is important to state that correlations are not exact cause-and-effect relationships, and the extent to which the findings and results of individual studies predict and explain what actually happens needs to be viewed with caution. There are also some controversies and shortcomings in the studies conducted in this area. Based on a review of previous studies, this study offers the following suggestions and perspectives for the future.

First, regulations should be introduced to regulate college students' participation in club activities. Chinese universities are keen to encourage students to participate in more extracurricular activities and expand their horizons as a way to improve their overall ability. It is undeniable that such an idea is well-intentioned, but the results may be counterproductive. The studies by Syafiq and Amirah *et al.* did not find a significant positive effect of participation in club activities on academic performance, and there was even a significant negative relationship between the level of activity participation and academic achievement (Diniaty & Kurniati 2014; Shamsudin *et al.* 2014). The survey in China found students who participated in 11 clubs at the same time and stated that there was no restriction at school so they felt that the more they participated the better (Yang 2022). Even though this is a very small number of cases, students who participate in more than three clubs are not a minority. Colleges and universities should set rules for college students' participation in clubs so as to solve the problem of focusing only on extracurricular activities participation without caring about excessive participation. There is a lack of research on moderate participation in college students' club activities, and future research could try to focus on how to grasp the appropriate level of participation to avoid club activities becoming a barrier for students to improve their academic performance.

Second, individual differences in the impact of club participation are obvious. Schools and teachers should strengthen guidance on the timing of students' participation in clubs. Appropriate participation in clubs can contribute to academic performance, and it is especially important to organize time wisely and manage time well. In general, students who are unable to coordinate their study time with their time spent outside of school do not perform well academically. This is corroborated by the fact that high academic achievers have a stronger sense of time and time management skills. Some studies have shown that time efficacy with motivational effects is an important factor influencing time management and time monitoring. Students' time efficacy is significantly and positively correlated with academic performance (Wei 2015). Therefore, it is recommended that universities should consciously cultivate students' time perception and time management skills so that club activities can give full play to their nurturing role, while good time management is also beneficial to independent learning and other aspects of life.

Finally, club activities are essential parts of universities, and research on the relationship between club activities and academic performance is still imperfect and not rich in quantity. Future research should be more detailed and specific in terms of the impact of club activities on students' academic performance. More empirical studies are needed to confirm whether the many types of clubs can be confounding variables that can change the findings. The definition of the concept of club activities varies from nation to nation and differs in reality, and some studies on the same variables have found opposite results, making it difficult to effectively compare and reference the findings of each study. The scholarly community can work to open up this area of research in the future by delving into the effects of cultural differences and further exploring the deeper mechanisms and mediating variables of the impact of involvement in clubs on academic performance.

5 CONCLUSION

Research has shown that appropriate participation in club activities not only contributes to general literacy but also, to some extent, to academic performance. However, if too much involvement in clubs leaves an imbalance between clubs and academics, it can have a

negative impact on academics. Therefore, students can join relevant club and participate in relevant activities to improve themselves without affecting their studies, depending on their interests and schedule and the type of society. As there are still few studies on university associations, the main contribution of this review is to discuss the strengths and weaknesses of university associations from different perspectives, which will help other researchers to have timely access to the relevant content when they conduct subsequent reviews or empirical studies on associations. However, the current review is lacking in empirical evidence as the current study does not have much actual investigation of the relevant data. Future research should focus more on empirical studies, where actual data leads to relevant conclusions, which will make the research more accurate and convincing.

AUTHORS CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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The impact of online education on academic performance of undergraduates

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ABSTRACT: The development of science and technology gradually allows online education to be used more widely. During the COVID-19 epidemic, it has been extensively promoted to decrease the transfer of people and, therefore, become popular in the educational field. Online education aroused active discussion and exploration by scholars. This paper discusses the characteristics and influencing factors of online education in detail and examines how they affect the academic performance of undergraduates. It has been found that a good learning environment and good self-learning ability can improve students' academic performance. Moreover, the diversity of teachers' teaching methods and personalized teaching methods in online education are also beneficial for students' academic abilities. Teachers and relevant organizations can learn more about online teaching and improve their ability to adapt to it. Moreover, education practitioners can shift their teaching models to be more diverse to accommodate the new-style educational environment and improve students' academic performance in the long term.

Keywords: Online Education, Higher Education, Academic Performance

1 INTRODUCTION

1.1 *Online education*

Chinese undergraduates can access online resources and carry out online learning more easily due to the fast development and popularization of the Internet.

Online education is also known as distance education or online learning. Students can study through the Internet rather than face-to-face learning. The mobility, interactivity, and connectivity brought by electronic devices make online education a reality (Cheuk 2021). Meanwhile, the convenient and unrestricted use of the Internet makes online education an effective way for students to obtain learning resources. Furthermore, the coverage of online education for students, especially undergraduates, has been further promoted during the COVID-19 epidemic period. However, compared with primary and middle school students, undergraduates can receive more diversified information and online learning methods without unified standards. Undergraduates are important talents for our country, and

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obtaining professional knowledge is very important for their future development and career competitiveness. Hence, it is meaningful to analyze the influential factors of undergraduates' academic performance, find a befitting learning method for online education, and help relevant people to adapt the changing educational patterns. Although online education is continuing to develop, there are still some improvements to be made. For example, Jia and other researchers used Statistical Product and Service Solutions software and Python programming to conduct cluster analysis on the text data of undergraduates' online course comments on the mobile microblogging platform (Jia *et al.* 2020). They found that in online teaching, the repetitive teaching process, the instability of the platform, and the inconvenience of acquiring online equipment would affect students' learning experiences (Jia *et al.* 2020). Inadequate teacher-student or student-student interaction also affects the learning experience (Jia *et al.* 2020). At the same time, there are still some deficiencies in the formulation and implementation of teaching supervision during the whole process and evaluation system for student attendance (Chen & Cao 2020).

1.2 Academic performance

Academic performance refers to the effects of students' learning, including students' academic scores and student satisfaction. The academic performance of undergraduates is influenced by multiple factors. Yang *et al.* studied the learning process of calculus courses with 20 randomly selected students from Wenzheng College of Soozhou University (Yang *et al.* 2022). They found that the importance of factors affecting academic performance was ranked in order of average grade at the beginning, homework completion level, average score of exercises in class, and average completion level of watching teaching videos (Yang *et al.* 2022). Xie and Gan divided learning environment resources and learning subjects into two aspects according to whether the relevant factors were internal or external and believed that both were positively correlated with learning efficiency (Xie & Gan 2021). Among them, the learning environment resource includes the convenience of online platform communication and access to resources (Xie & Gan 2021). The learning subject includes learning purpose, learning plan, classmate interaction, conscientiousness, and self-evaluation frequency (Xie & Gan 2021).

1.3 Literature sources

There is a certain amount of research on online education and the academic performance of undergraduates. By April 12, 2023, the authors searched through the keyword "online education" and the subject classification of "higher education" in the database of the China National Knowledge Network. The volume of relevant literature increased significantly from 2019 to 2022. Among them, 156 were published in 2021 and 163 in 2022. In this paper, literatures from 2019 to 2023 are selected and sorted according to citation, and the first 40 are downloaded for reading. On the Web of Science, the authors searched the same keywords and found 14,790 pieces of literature (time as above). The number of literature books increased year by year from 2018, including 2,755 in 2021 and 3,110 in 2022. Literatures from 2019 to 2023 are selected and sorted according to citation, and the top 20 are downloaded for reading.

In the past, researchers mostly used the methods of data analysis or questionnaire surveys to investigate the specific problems of online education. Some of them research students' experiences, and some analyze students' scores. Although there are many valid suggestions for the improvement of online education, few theoretical analyses were demonstrated. Therefore, this paper explores the relationship between online education and undergraduates' academic performance through the research and analysis of the characteristics of online education, educational psychology, and the influencing factors.

2 THE INFLUENCE OF DIFFERENT FACTORS IN ONLINE EDUCATION ON UNDERGRADUATES' ACADEMIC PERFORMANCE

2.1 *Learning environment*

A good learning environment helps to improve students' learning efficiency. Students need to maintain a good learning environment in the process of online education. Business organizations need to build functional, convenient, and smooth platforms used in teaching and learning. Teachers also need to find more appropriate teaching methods to help students have a better online learning experience.

Cheuk divided the learning environment into physical and virtual environments and believed that the physical environment could support or hinder students' academic performance (Cheuk 2021). The physical environment includes physical infrastructure, space, and environmental features, while the virtual environment includes course materials and resources, teachers, and classmates. Quiet spaces and appropriate light can help students stay focused (Cheuk 2021). When students believe that their physical learning environment can better meet their learning needs, such as having a spacious space and sufficient learning equipment, their motivation and happiness will increase, and their stress will be reduced (Filiz *et al.* 2023). Meanwhile, an independent and changeless learning environment can further improve students' learning experiences (Filiz *et al.* 2023). In online teaching, teachers cannot unconditionally require students to focus on learning. When teachers recognize that students are not focused or motivated, they can inquire about the students' learning environment and give appropriate adjustment suggestions, such as studying in a quiet and independent room or tidying the desk. At the same time, teachers should actively obtain feedback from students and ask whether the teaching picture and sound are clear and whether students' class status is affected, to provide a good learning environment for students.

At present, Chinese undergraduates mainly receive online education on four platforms. One is the course resource platforms such as Chinese university MOOCs and Wisdom Tree. Also, there are Dingding, Zoom, other live teaching platforms, and the curriculum platform center led by each university. Students also have experimental platforms such as the national virtual simulation experimental teaching platform. Nowadays, online education can be divided into recorded and broadcast online courses, live online courses, students' independent learning, and other programs. However, a large number of live conference platforms are not designed for online teaching. Due to the large number of students and the similar teaching time, the platform is easy to cause congestion, disconnect, lag, and other problems, which can affect students' concentration in class. At the same time, some students lack the necessary electronic equipment to study (Jia, Guo, & Zhao 2020). On the other hand, teachers are restricted by the functions of the platform. Instead of teaching depending on the predetermined teaching design, teachers change their teaching content because of the restricted functions. If the platform could adapt to different teaching requirements, it could help teachers better. For example, the platform can add a group discussion function (currently implemented in some software such as Zoom), simultaneously demonstrate teachers' faces and teaching materials to students, send preview materials before class, and allow students to hand in homework after class. These functions can improve online teaching to be more compatible, more convenient, and more effective.

Curriculum materials and resources, as part of the learning environment, can affect students' academic performance. Teachers are material providers, so their choice and presentation also have an impact. The carrier of teaching materials changes with the times. The use of digital material has become a general trend. Teachers need to improve their informational skills to conform to the trends of the times (Zhu 2023). Chen believed that whether teachers had sufficient information capacity would influence teaching efficiency (Chen & Jia 2020). In a digital learning environment, students' concentration on teaching resources presented in video and text form is different (Liu & Zhang 2020). The former can

reach 20 minutes, while the latter is basically reduced to less than 10 minutes (Liu & Zhang 2020). Therefore, teachers can convert text teaching content into dynamic forms, such as video, to make students more focused on class. The convenience of online education enables teachers to provide clearer and more straightforward teaching resources. However, some researchers believe that the use of electronic devices makes students tend to think on the surface rather than in-depth learning, and it is unbeneficial to the cultivation of long-term concentration (Gaines 2019). In addition, information overload can negatively affect students' academic performance (Colin *et al.* 2022). It can be seen that online recorded resources cannot replace teachers at present. Teachers can use more visual information to help students learn so as to meet students' requirements for deep understanding and further discussion.

Online education has changed the learning environment from a relatively uniform environment to a diversified environment that is convenient for students to study in. To build a perfect learning environment, students should prepare a learning environment that is suitable for themselves in advance. Teachers should prepare the teaching environment in advance, too. Meanwhile, they can get some assistance from the construction of the teaching platform.

2.2 *Autonomous learning*

Online education requires students to develop their own independent learning abilities. If students can actively master their own cognition, motivation, and behavior for learning to achieve the objective of learning better, this can be considered autonomous learning (Zimmerman 1989).

Some researchers found that most undergraduates are weak in autonomous learning abilities (Liu & Zhang 2020). Although positive views on online education are held, good academic performance has not been achieved in the learning process due to the lack of teachers' supervision and students' poor learning habits (Liu & Zhang 2020). Zhou and Sang investigated the autonomous learning ability of 380 undergraduates through the independent learning scale compiled by Zhang *et al.* from South China Normal University (Zhou & Sang 2007). They found that the weakness of the autonomous learning ability of undergraduates was relatively common, and there were some deficiencies in learning motivation and learning strategies (Zhou & Sang 2007). Meanwhile, the data showed that the higher the grades were, the weaker the average autonomous learning ability undergraduates had (Zhou & Sang 2007). This is because students still retain the habit of learning after the college entrance examination, and the courses in the first year are relatively fixed, while the evaluation method is more inclined toward examination (Zhou & Sang 2007). Moreover, undergraduates have more freedom, and they are more familiar with college teaching methods and interpersonal relationships with the rise in grades (Zhou & Sang 2007). Due to the inconvenience of teachers' supervision in online education, the constraints students receive are reduced, and the interaction between students is reduced too. Because of other entertainment items and convenient access to social information, students' concentration will be shifted. However, the requirements from teachers and society for students keep increasing. Some teachers assign more homework after class than offline because they cannot get enough feedback in class (Jia *et al.* 2020). Meanwhile, some assessment methods will be changed from the examination to writing papers to ensure the fairness of the assessment (Jia *et al.* 2020). These undoubtedly require higher students' professional abilities and create more pressure on students.

Students' autonomous learning and teachers' auxiliary supervision can help students better adapt to online education. Gong *et al.* observed a mixed embryology course for first-year 2017 clinical medicine students in Dalian (Linlin *et al.* 2022). They found that teacher-supervised online discussion platforms resulted in higher scores and improved students' ability to solve difficult and cognitively challenging tasks than student-led or offline lectures

(Linlin *et al.* 2022). This is because students can read relevant materials before class, interact with other students, and learn from other students' mistakes in class under the supervision and guidance of teachers (Linlin *et al.* 2022). At the same time, students' learning results can be affected by self-regulated learning (Ling *et al.* 2022). Students who use metacognitive strategies, self-evaluation, and effort regulation strategies showed greater progress in learning than those who did not use these strategies much (Ling *et al.* 2022). Xu and Shen *et al.* also believed that metacognition and self-regulation can affect students' behavioral intention through the intermediary of effort expectation; however, students' habits can have a direct impact (Wei *et al.* 2022). Students' cultivation of good learning habits can improve their willingness to learn and learning efficiency, then improve their academic performance and sense of achievement. Finally, this positive feedback forms a good cycle. Teacher supervision is an external force that allows students to start this cycle in the initial stage, especially when students confront more temptations in online education.

Students must make more effort when supervision and constraints are weakened and higher academic performance is required. At the same time, students should actively look for good learning strategies. This imperceptibly puts forward more requirements for students' autonomous learning abilities. To strengthen the online education effect, teachers can provide sufficient and relevant learning materials before class, give students sufficient discussion space, and achieve effective supervision and correction to improve students' interest and ability to engage in autonomous learning.

2.3 Diversified teaching methods

The variety of online teaching methods promotes the stimulation of students' desire to learn. Diversified online education models can provide a range of tools and instructional styles for students with different levels and learning preferences, overcome the limitations of space and time, promote the communication of students' thoughts, and help online education achieve more ideal teaching effects.

The multi-platform and multi-mode online teaching methods can successfully increase students' enthusiasm and interest in studying, providing students with a variety of choices in online education. Students can select their own styles of learning based on their personal preferences and interests. This is conducive to enhancing students' motivation for autonomous learning and a sense of class participation, finally forming good academic performance. Therefore, online education is useful and suitable to satisfy some of the requirements of students. Chen *et al.* took production practice for engineering majors in colleges as an example and believed that the diversified teaching methods combined with the Tencent conference broadcast, the Super Star network platform, and QQ Group achieved good teaching effects. At the same time, various online resources, such as the Chinese university MOOC system, the heating, ventilation, and air conditioning online classroom, and the national virtual simulation experimental teaching project sharing platform, have been effectively utilized to achieve the ideal academic performance and successfully achieve the education objectives (Chen *et al.* 2022). Zhou *et al.* took the teaching and learning of overseas students in colleges as an example and pointed out that the diversified teaching methods combining online live broadcasting platform teaching, micro-class recording and broadcasting, and social platforms can increase the students' initiative and the educational impact of online learning for overseas students. It makes full use of multi-dimensional online teaching links designed by various online education platforms before, during, and after class. It promotes the initiative and sense of participation of overseas students in autonomous learning and achieves good practical teaching and learning results with good practical application value (Zhou *et al.* 2022). These teaching methods utilize all available online learning resources and platforms. Diversified education modes improve the learning conditions for learners to receive knowledge, enhance participation and interaction in learning, and effectively improve academic performance.

From the point of view of online education in college courses, which are difficult to learn, Yu took the advanced mathematics lesson at Southeast University, as an illustration, to clarify that online teaching of this course is mainly to set up asynchronous Small Private Online Courses courses on MOOCs of Chinese colleges and complete auxiliary teaching work such as teachers answering questions and students handing in homework by using the QQ group platform. At the same time, diversified teaching modes such as video watching and punching in, live question-answering by teachers, random checking of learning results, and writing of learning experiences are also set up to create a more efficient and interesting lesson, stimulate more students' learning interest and spirit of inquiry, and improve students' academic performance in this course (YU 2022). As for the online teaching of relatively difficult courses in higher education, students tend to be tired and afraid. Diversified instructional techniques can raise students' curiosity in courses, trigger their positive thinking and exploration spirit on problems, help students gradually get in-depth contact with the course content, activate the learning atmosphere, promote successful communication between instructors and learners, and finally improve learners' studying ability as well as effect.

Wang *et al.* argued that how to shift from the traditional education mode to the online learning mode would affect students' actions and effectiveness. The questionnaire, statistical inference, and description were used in studying the situation of students' learning through mobile devices in the process of online education. It was pointed out that it was necessary to build a consistent mobile learning environment and develop diversified teaching content suitable for mobile learning to improve the academic performance of students (Wang *et al.* 2022). Lobos *et al.* evaluated the effects of emergency online teaching due to the pandemic and college students' experiences of online learning through a sample questionnaire. The results showed that, compared with face-to-face teaching, students had lower expectations for online education at the beginning. However, during the teaching period, through teachers' efforts to choose various methods suitable for students' online learning and attractive teaching links, students gradually show positive attitudes toward online education and evaluation. Their self-efficacy is also improved, especially among female students, social science majors, and medical health science majors (Lobos *et al.* 2022). Therefore, educators should carry out further research on the construction of content and links suitable for online education. Creating diversified content and an environment suitable for online learning, as well as attractive teaching links, can arouse students' interest in study, cultivate their spirit of innovation and exploration, and enhance their ability to think, so that students can form a positive study attitude and improve their learning expectations and results.

Other researchers suggest that study communities or platforms should be established to provide more diverse ways of learning and communication. Ren investigated and analyzed how teachers attract non-traditional learners to online learning in online education through interviews and questionnaires. The results showed that students' participation was an important factor in online education, and the improvement of course design and the diversity of learning community construction could improve students' participation in online education. It is also suggested that educational institutions provide relevant support and resources (Ren 2023). Li and Pei also believe that in online education, the importance of the "online study community" should not be understated. By using David Kolb's theory about experiential studying circles (a circular structure with four adaptive learning stages), they recognized different online studying modes and then identified the key factors influencing online academic performance through questionnaire design and investigation in combination with the Analytic Hierarchy Process. Results showed that students would connect the existing knowledge with the new knowledge within the online education process, form a sense of "community" collective honor, consciously undertake learning responsibilities, and realize learning tasks in a good study atmosphere and environment (Li & Pei 2023). Online study communities provide learners with a wide range of services, including learning spaces and independent communication platforms, as well as more diversified learning methods and

materials that are convenient for students to choose from. Students can obtain more opportunities to study communication and a good learning atmosphere. Teachers can also learn about students' status and give timely, targeted guidance to improve students' academic performance. This concept provides a reference for how to improve online education to enhance academic achievement.

In conclusion, today, as Internet science and technology grow rapidly, the scale and methods of online education also expand. Undergraduates receive a more flexible and independent education, in which various education methods can effectively improve academic performance and promote students to form a positive learning attitude and full interest in study. It is realistic and inevitable to integrate digital technology into the education industry, especially higher education. Hofer *et al.* pointed out that there were still many educational institutions that were not fully prepared to use digital technology for online education (Hofer, Nistor, & Scheibenzuber 2021). Therefore, educational institutions and educators need to constantly test themselves, make full preparations for online education, consider the various needs of different students, adopt diversified teaching methods, encourage students to develop study interests, and acquire relevant knowledge through various study modes and rich learning materials to achieve good academic performance.

2.4 *Personalized teaching*

With human society progressively shifting toward an information society, the traditional educational system can no longer respond to society's needs. Wang believed that in traditional classroom teaching, students were often in a passive state of learning, and their subjective initiative was not effectively exerted. Teachers used a single solidified teaching method to teach, with "teachers" as the main body and unilateral output knowledge. Students did not actively participate in classroom practice but passively accepted knowledge. This teaching mode will greatly weaken students' interest in learning and suppress their innovative spirit and practical ability (Wang 2002). To keep up with the pace of the times and cultivate a large number of innovative talents who are conducive to social development, this requires the transformation of classroom teaching. Wei believed that personalized teaching could fully respect the personalities of students. Teachers should teach according to each student's personality, interests, strengths, and needs to promote students' initiative, which meets the requirements of the transformation of today's education model (Wei 2008). Chen believed that personalized teaching required teachers to set up individualized teaching concepts and grade classroom tasks. Based on analyzing the academic situation, teachers could customize tasks with different difficulties for students and assign them to different students to truly realize personalized teaching (Chen 2002). The realization of personalized teaching is considered to require extremely high teaching conditions, including traditional teaching models and the solidification of old teachers' teaching methods. Wu believed that the personalized teaching model had been discussed in traditional classrooms. Due to the school education model, teaching content and teaching management were standardized and uniform, and teaching resources were difficult to match, so the development of this teaching model was relatively slow in practice (Wu *et al.* 2020). Chen *et al.* believed that it was relatively difficult to implement a personalized teaching model in the traditional English reading classroom. Due to the existence of class teaching management problems, it was difficult for this model to really work (Chen 2014).

Through the progressive extension of science and technology, the teaching form of "Internet + education" has been widely accepted by the public. An undergraduate material technology course at the University of the West Indies has used the flip mode and the traditional mode for two consecutive years. The data collected through course score analysis and student evaluation questionnaires show that more students were willing to continue to use the flip mode for course learning, and they believed that this learning mode could improve the ability to cooperate with classmates to explore (Blair *et al.* 2016). In two classes

at California State University, Northridge, a flipped classroom was implemented. Students watched videos and asked questions before class, and teachers answered questions during class. The analysis report of students showed that this teaching mode could attract students' attention more and thus stimulate their interest in learning (Jacob 2013). However, researchers generally believed that the traditional network teaching method was too rigid, and the outdated content was no longer available to the students. To make the teaching results of "Internet + education" more significant, Yan *et al.* proposed the use of the "Internet + personalized" education model to further improve students' learning interest and quality (Yan & Xu 2016). This model can conduct pre-class assessments according to the learning degree and characteristics of learners and carry out targeted learning based on the different course arrangements and corresponding learning schemes for students. Students are in the process of learning; teachers can use the tracking mode of the data to detect the learning process of students, record the learning situation of students, timely supplement the lack of learning content of students, and implement tracking and effective learning; this differs greatly from traditional teaching methods. In the traditional teaching model, the teacher is the principal body of the class and adopts the teaching method "single size," which ignores the differences among students in cognition and growth stage. Relatively speaking, the personalized teaching mode of online education follows the teaching principle of "student-centered," and provides personalized learning plans and strategies according to the systematic analysis of students' differences.

To maximize students' self-development, it is necessary to build this new type of classroom teaching mode. Chen believed that it was necessary to analyze students' pre-class learning before teaching, to find out students' different learning needs and cognitive levels, and to offer students personalized learning resources and services. In the learning process, teachers could use the Internet platform to organize students to conduct independent learning and cooperative inquiry learning and use diversified teaching activities to stimulate students' divergent thinking and increase their ability to dare to question. At the end of the activity, students needed to complete their own problems independently in a specific situation and perform presentations to consolidate their academic performance (Chen 2022). The construction mode of this course teaching model provides a relatively relaxed and pleasant learning environment; in this teaching, the atmosphere is full of questions and suspense. To obtain a reasonable explanation of the problem, each student will have a positive reaction to thinking and then mobilize their enthusiasm for learning so that they feel their own existence and their subject consciousness is revived and strengthened.

However, this model is still full of reflection and challenges in the process of practice. Wu *et al.* believed that the current learning system failed to meet the development and implementation of personalized learning services, and the learning system still needed to be constantly improved and perfected (Wu 2015). Online teaching will continue to impact the traditional offline teaching model and bring new vitality to the teaching reform. Integrating personalized teaching modes into online teaching is a major breakthrough in teaching reform. However, there are many challenges on the road to practice in current society. Explorers still need to explore and practice constantly to provide better theoretical knowledge and practical guarantees for the improvement of teaching quality.

3 EDUCATIONAL IMPLICATION

Online education optimizes students' learning methods in the aspects of information technology, learning mode, and information acquisition, provides students with a great deal of a wide range of high-quality materials and video information, and sets a variety of online learning course designs. Students can choose online courses reasonably according to their own learning needs. This teaching form fully respects students' individuality, which can improve the student's interest in learning significantly, promote the cultivation of innovative

spirit and practical ability, expand their cognitive vision, and make their thinking more active. Online teaching is an innovation in teaching reform, but it still faces various challenges in teaching practice that need to be introduced and explored.

3.1 *Suggestions for online teaching platform*

At present, the situation of online teaching is not ideal. Although the online teaching platform provides relatively rich learning resources, due to the weak cognitive abilities of students, they cannot effectively identify information, which will make them fall into a dilemma of choice. Second, the tracking system of the teaching platform needs to be improved. Many platforms cannot effectively track students' learning behavior and grasp the status of students' online learning, which will hinder the development of a personalized teaching model. Finally, the platform should develop a teaching-focused conference or class mode, add teaching-related functions, and ensure the fluency of teaching to support online education.

3.2 *Suggestions for students*

In online teaching, although the teacher can successfully complete the teaching content, because of the implementation of remote teaching, supervision is not strong. Thus, students produce inertia, a lack of self-discipline, and other problems. Therefore, students need to master the ability of autonomous learning to better improve the learning effect. In the process of learning, students are supposed to know their own learning style, choose their learning content and methods independently, combined with their interests and abilities, learn self-monitoring and management, and explore suitable learning methods. For students with weak self-control abilities, they can strengthen their contact with classmates, supervise each other, and actively seek help from teachers. Only by actively participating in classroom activities, daring to ask questions, and seeking a diversity of ways to solve problems can students effectively improve themselves.

3.3 *Suggestions for teachers*

Teachers guide the development of teaching activities, and the education effect is closely related to teachers' teaching levels. Although online teaching brings great convenience to teachers, it also requires teachers to improve their abilities to meet the challenge. In online teaching, teachers need to not only master academic knowledge but also be familiar with online teaching technology to ensure the smooth progress of teaching. At the same time, teachers need to adapt to the online teaching environment, give full play to diversity and innovation, and develop more effective teaching and learning methods to meet students' personalized learning needs. Teachers should set up a classroom management mechanism, timely and effectively master each student's learning records, learning progress, and knowledge mastery, and make targeted teaching plans. Combined with the characteristics of students' individuation, teachers need to develop a reasonable and fair evaluation mechanism and adopt a diversified evaluation system to contribute to the comprehensive development of students. Compared with the traditional teaching mode, this mode requires teachers to invest more time and effort to facilitate the further development of teaching reform.

4 CONCLUSION

At present, due to the widespread use of Internet technology, education has always been at the forefront of times. It is expected to improve the effectiveness of online education for college students. From the perspective of psychology, the authors discuss four characteristics of online education, including its unique learning environment, the cultivation of

autonomous learning, diversified teaching methods, and individualized teaching mode. Some suggestions on online teaching are provided. However, beyond that, there are still many features of online education that can be discussed. For example, more convenient and low-cost practice, non-linear and unstructured curriculum arrangements, or the corresponding evaluation system can be realized. These characteristics can be further analyzed and discussed in future studies. In recent years, affected by the epidemic, all kinds of schools and training institutions have begun to seek more resources and utilize a diversity of platforms to promote teaching through online education. Its convenience and diversity also make learners gradually accustomed to and even inclined to choose online learning. Meanwhile, the Chinese national policy orientation has been tilted toward the online education model, providing a lot of support and encouragement. It can be foreseen that the online education model is the general trend; it will continue to improve and develop and finally occupy an important position in the education industry that cannot be ignored.

AUTHORS CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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The marketing function of propaganda language—taking Sexy Tea as an example

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ABSTRACT: In the era of content sharing, effective publicity language has become an indispensable means for brands to attract customers. However, the research on brand promotion language mainly focuses on the summary analysis of major websites and the summary of relevant personnel's experience. There is little theoretical support for the mechanism and strategy formulation of brand marketing promotion. With the readability of the theme and content of the propaganda language, the scarcity of the creative style, and the interactivity of the text design, the Sexy Tea has successfully helped the brand to board the Weibo hot search many times, from the gorgeous small shop to the 'landmark card', and achieved the success of the brand promotion. Therefore, this paper combines the typical cases of brand publicity language to study effective publicity language. The paper finds that in the era of mobile Internet, it is necessary to attract young people with a more 'sense of network' language, dig deep into their own brand characteristics with creative thinking and present them through propaganda language. Propaganda language and personnel building need to be combined for program preparation. It is proposed that the current market brand needs to open up new ideas in the promotion language, strengthen the emphasis and cultivation of language art, pay attention to the exploration of scarcity, and formulate a marketing strategy more suitable for its own brand.

Keywords: Marketing, Propaganda Language, Sexy Tea

1 INTRODUCTION

Excellent publicity language can effectively create a brand image, stimulate consumers' interest in the brand, deepen consumers' impression of the brand, let the brand gain the public's love for consumption, and increase user stickiness. Nowadays, the level of information technology in China has been significantly improved, which provides a new opportunity for the marketing work of enterprises, and the propaganda language also needs to be adjusted simultaneously. In this context, the emerging economic phenomenon of web celebrity economy appears in the public's field of vision (Fang *et al.* 2023). However, throughout the development process of web celebrity economy, most of the web celebrity brands are only extremely popular for a while. Because of the lack of traffic and hype, many brands are slowly forgotten after a short burst (Gu & Zhang 2023). The Sexy Tea is a well-known local milk tea brand in Changsha City, Hunan Province, China. It is also known as the 'web celebrity' brand by milk tea enthusiasts across the country. It was founded in March 2015 to make 'a cup of warm tea' around the characteristics of new Chinese tea. The competition in China's tea market is fierce, and the Sexy Tea can 'suddenly rise' in this case. With its own web celebrity attribute, it is deeply regionally bound with Changsha, quickly out of the circle by topic degree, and stands out in the involution tea market. It has been on Weibo

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hot search for many times, earns attention dividends and gains a large number of people's love, seizes the heat all the way to long red, and finally transforms from a little-known store to a head brand in the tea market. In addition to the quality of drinks, the success of the Sexy Tea is fueled by the propaganda language.

According to the literature that has been mastered, the theoretical circle has mainly carried out relevant research from the following aspects: the store design, and taking the product packaging language as the entry point, affirming that the Chinese style elements in the propaganda language use the Chinese cultural identity to improve the attractiveness of the product to customers (Jiang *et al.* 2023; Liu *et al.* 2022). The authors Liu Yujie, Wang Hai and Song Yuting analyze the propaganda of Changsha dialect from a theoretical perspective, and deepen the brand personalization through the use of local dialects (Li & Zhang 2021). The authors Li Lina and Zhang Jingyu analyze the relationship between new media publicity and brand construction from the perspective of new media publicity, and confirm that the development of new media technology has brought new possibilities to brand image construction (Jiang *et al.* 2023; Liu *et al.* 2022; Li *et al.* 2021; Liu 2023).

Chinese scholars have made a detailed analysis of each small point in the brand promotion language of the Sexy Tea, but from the perspective of the overall promotion language, the branches are more than the main body, and there is a lack of general description of how to use the promotion language to increase customer stickiness.

Based on the realistic background and theoretical background, the research will take the propaganda language of Sexy Tea through literature analysis. Firstly, through typical cases, the characteristics of the Sexy Tea promotion language are analyzed, and then the marketing role of the promotion language is analyzed based on the ELM model and 4P marketing theory. The relevant research conclusions can provide the necessary reference for the brand to create an attractive publicity language and to explore more suitable marketing strategies for their own brands.

2 ANALYSIS OF THE CHARACTERISTICS OF SEXY TEA PROPAGANDA LANGUAGE

2.1 *Rejuvenation*

The consumer groups of milk tea brands focus on the 'post-90s' and 'post-00s' generations. They are seamlessly connected with the network information age as soon as they are born. They are greatly influenced by digital information technology, instant messaging equipment, and smart phone products. Therefore, in order to gain the love of young people, we must use a language that is more in line with their cognitive logic. That is to say, they are familiar with the social mode of young people in the network environment, know how to attract eyes, and are good at capturing the hot spots and pain points in contemporary people's life, and seamlessly connect with brand publicity.

The rejuvenation of the Sexy Tea propaganda language is reflected in: first, the tweet language is full of network sense. The sense of network is the ability to perceive the Internet ecology. It is necessary to understand the propagation law of the Internet and adapt to and be able to control this special mode of communication. Secondly, it depends on the profound insight into the social ecology (Luo 2020). The official tweets of the Sexy Tea platforms are often eye-catching. As spend double digits can go to the seaside for two years, the tea seems not to have a lot of Wuhan where the truth is hiding want to escape. He is good at creating suspense, forming contrast, grasping the current hot topics, and attracting readers to actively click on reading with questions, self-mockery, dialogue, brochure, surprise and preferential titles. Second, the form of expression is rich and colorful. In the 5G era of fragmented information reading, how to provide the audience with a 'fast and accurate' immersive reading experience is a part that needs to be paid attention to in the current brand promotion. For the propaganda language, the traditional large-scale text narration can no longer

meet the reading needs of today's mobile terminals. At the same time, pictorial reading is an obvious trend, and the monotonous pictorial form has not reached the audience's expectation, and the layout needs to be reasonably designed. The younger generation defines "good things" with "good looks" infiltrates "appearanceism" into the consumption process, and attaches importance to the appearance of "eye-raising" consumer goods. On the basis of meeting the functional requirements, the appearance that meets the inner expectations and positive imagination has undoubtedly become the basis of consumer goods (Wang 2006). Therefore, how to reasonably use the aesthetic principles and strengthen the readability of publicity is the current brand needs to be refined. In the promotion language of the Sexy Tea, the comic elements are greatly used. In its WeChat public account, there is a special topic called "Watching Comics Together". The topic tells various stories that occur in the enterprise through the form of original comics, such as "How is the new product made", "A special new employee" and so on, which improves the readability of the content and also shapes the brand IP. Third, the interaction is obvious. It often interacts with fans on various platforms. The interaction is designed at the end of the tweet, so that the audience can leave a message to tell the story of the brand. Through the top and selection of the message, the public number allows more fans to gain a sense of participation and trust through interaction, so as to achieve the purpose of empathy with the brand.

2.2 *The characteristics of people are distinct*

One of the key reasons why a successful brand is deeply rooted in the hearts of the people is to win the "emotion" of consumers, and then transform it into the purchasing power of consumers. This requires a brand planning fit scheme, using the characteristics of narrative construction and communication emotion to output the main culture of the brand invisibly, presenting the brand values to the public, and using the output of brand emotion to impress customers, thus starting the brand reputation (Xu 2015).

The brand image created by the Sexy Tea in the propaganda language is "gentle", "cordial", "fresh", "elegant", "need help", "growing", "neighborhood girl" image, showing a low-profile brand image, in order to achieve a closer relationship with consumers. In terms of visual design, its brand logo is an ancient Chinese lady holding a fan, giving a fresh and elegant feeling; incorporating Chinese style elements into beverage packaging, beverage names, and promotional posters, and creating an antique brand image through Chinese-style classical symbols has become its unique visual recognition system, continuously strengthening brand concepts and consumers' brand impressions, and enhancing brand recognition. About counterfeit shop rights, they will leave a message on the ticket, began to say "when we have money to sue them", and later said "already a little money began to sue them" to blacken. For the public, the Sexy Tea is like a growing little girl, growing up in the eyes of the public, need everyone's support.

At the same time, the Sexy Tea is constantly adding "stories" to its brands and products. Each drink has its own name and detailed creative ideas. For example, the new product "White Magnolia" in March 2023, the creative concept is the tradition of "selling flowers" in old Changsha, and the product "Mulan" is behind the story of contemporary urban women.

2.3 *Good at using cultural elements*

The brand positioning of the Sexy Tea is "new Chinese milk tea", so the national style elements permeate all aspects of its propaganda language. In packaging design, we often choose to buy the authorization of famous Chinese traditional calligraphy and painting, and cooperate with well-known painters in China to redesign, including figure painting, flower and bird painting, landscape painting and so on. In order to make the painting elements suitable for milk tea packaging, the packaging design of "the Sexy Tea" adjusts the length, tone and part of traditional painting, so as to match the style of tea and adapt to the aesthetics of consumers. The product name is also ancient, such as the black tea series called

“red face”, the increase of nuts, milk cover tea and other series of production called “cardamom”, successfully build its brand image (Liu 2023).

The image of the city is the external manifestation of the internalization of urban culture. It can be divided into urban architectural image, urban management service image and urban cultural spiritual image (Ye & Zhang 2022). As a local milk tea brand in Changsha, the Sexy Tea integrates Changsha culture into the brand concept design, creates brand memory points, avoids confrontation with mature brands on the market, and occupies a place in the market by combining with the city image building. The Sexy Tea has a unique Changsha dialect propaganda design. Changsha dialect has a strong sense of rhythm, fast rhythm, short pronunciation and unique rhyme, which gives people a strong feeling. Like pepper, it exaggerates words, such as “soaked sweet, smelly”, using exaggerated verbs as degree adverbs before adjectives, giving people an immersive feeling. These make Changsha dialect known as one of the most infectious languages. Based on the characteristics of Changsha, the Sexy Tea seizes the characteristics of Changsha dialect, expresses hearing in visual form in the design, and quickly infects consumers. In the specific design, the use of graphics, the use of the Republic of China Feng Zikai comic style, with hand-painted fans into the old Changsha life, so that the viewer in the Changsha dialect of the mirror; then, the expression form of the pinyin letters combined with the dialect pronunciation accurately reflects the friendly charm of the dialect, such as “mie” and “nia”; the large area of the background is in warm colors, showing the lively and flexible characteristics of the dialect and echoing the graphic copy (Li *et al.* 2021).

3 MARKETING IDEAS OF PROPAGANDA LANGUAGE

Based on the 4P marketing theory, the Sexy Tea’s promotional language marketing ideas are analyzed. From the product point of view, the promotional language adapted to the brand product better highlights the selling points of the product. The traditional cultural elements are combined with the local characteristics of Changsha in product packaging, store design, and platform tweets. The use of consumers can more clearly know the value of the product, and then consider whether to purchase; from the perspective of price, as the middle-end brand of the tea market, the low-profile language that is appropriate to the brand price helps the brand shape the brand image from two-dimensional to three-dimensional, allowing consumers to have a natural emotional closeness; from a promotional perspective, the Sexy tea uses promotional language to influence how consumers process information.

ELM model shows that there are two main ways for advertising media to persuade and influence consumers: central path and peripheral path, the choice of the central path is rational. Consumers will compare the functionality and price of the product to determine whether to change their attitude toward the brand’s products (Ying 2023). Compared with the central path, the peripheral path generally does not actively and deeply consider the brand characteristics and the advantages and disadvantages of the product. More through the preferences of the product and the first sensory experience to emotionally choose whether to buy the product, and the Sexy Tea’s propaganda language makes it easy for consumers to empathize and choose more marginal decision-making paths, to create a “come to Changsha, we must drink the Sexy Tea” subconscious impression, and ultimately achieve the purpose of increasing sales and creating a brand IP.

4 SUGGESTIONS

The Sexy Tea’s propaganda language needs to expand the audience if it wants to occupy the advantage for a long time. The advantage of its propaganda language is that it is easy to arouse consumers’ empathy. However, due to regional restrictions, the influence of the

brand is always limited, often relying on the promotion of old customers. It is more about letting consumers 'hear' the brand, rather than letting them really feel the charm of the brand.

5 CONCLUSION

The research takes the Sexy Tea's promotional language as an example to systematically describe how the brand uses promotional language to attract consumers, create people, and maintain popularity among many milk tea brands. After analyzing the characteristics of its propaganda language, through the 4P marketing theory combined with the ELM model to analyze the marketing ideas of its propaganda language, it is concluded that it stimulates consumers to purchase through the edge path perceptual elements.

The research concludes that the current era requires the brand's promotional language to be more innovative and dynamic, and needs to be differentiated in the market. The brand publicity language needs to find its own uniqueness and constantly dig deeper. The publicity language matching the brand image can greatly enhance the brand's appeal to consumers. Appropriate use of emotional factors and empathy for consumers is an effective way to stimulate consumers to buy products. The research opens up new ideas and provides new reference for more brands in publicity language. However, the development of tea color is still concentrated in Changsha, Hunan Province. After expanding to other cities, the propaganda language based on local characteristics will face more challenges. Future research could focus on how the language of propaganda can be adapted to enhance the comprehensiveness and inclusiveness that promotes it when the audience is expanded.

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Standard of diligence and due diligence of independent directors in securities misrepresentation

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ABSTRACT: Since the independent director system was introduced in the 1990s, the independent director system has played a huge role in perfecting corporate governance, strengthening the decision-making and checks and balances mechanisms of the board of directors, and effectively reducing the occurrence of illegal phenomena. However, as an important part of the independent director system, the diligent and due duty of the independent director still has some problems in our laws and regulations, such as unclear subject boundaries and a lack of specific standard identification rules. These problems also lead to excessive disputes over the rights and responsibilities of independent directors in judicial practice. Cases in China's current laws and judicial practices are analyzed, and problems existing in the determination of independent director due diligence standards are emphatically discussed in this paper. Combining with relevant foreign systems, improving the diligence standards of independent directors in our country is of great significance to the regulation of the phenomenon of false statements in securities.

Keywords: Securities False Statement, Independent Director, Diligent and Responsible, Subject of Responsibility

1 INTRODUCTION

In 2021, several investors filed a securities misrepresentation dispute lawsuit against Kangmei Pharmaceutical and related personnel with the court, demanding compensation for their investment losses (Gu *et al.* 2020). The facts of the case show that, after the investigation of the CSRC, Kangmei Pharmaceutical's 2016 and 2017 audit reports are false records. Accordingly, the court held that Kangmei Pharmaceutical's false statements violated the provisions of Article 69 and Article 173 of the Securities Law, and it should be liable for investors' losses. Among them, independent directors, as part-time directors of listed companies, were judged to be liable for joint and several damages within 5%–10% of investors' losses. It is worth noting that the individual joint and several compensation amounts of the independent director in this case are up to 245 million yuan. After the announcement of this judgment, it triggered a wave of resignations of independent directors of listed companies.

From a judicial perspective, the Kangmei Pharmaceutical case clarifies that independent directors are no longer the “eye candy” of a company's management but the executives who really need to take responsibility. However, the question of whether it is reasonable for independent directors, as well as external directors and non-executive directors, to assume significant responsibilities while receiving low annual salaries has sparked heated discussion in both theoretical and practical circles. With regards to determining fault on the part of independent directors, Article 16 of the Provisions of the Supreme People's Court on Hearing Civil Compensation Cases for False Statements in the Securities Market, which came into effect on

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January 22, 2022, stipulates that “If the independent director can prove that he is diligent and responsible, the people’s court shall determine that he is not at fault.” Thus, it can be seen that the diligence and due obligation of independent directors have become a necessary consideration factor for undertaking responsibilities. This obligation, known as the “duty of care” in common law countries (Zui 2008) and the “Duty of Care of good Manager” in civil law countries (Zhao 2005), applies not only to directors but also to supervisors and senior managers. As it is a relatively subjective and broad concept, different subjects should have a different duty of care. Based on the study of the problems in existing legislation and judicial practice, this paper draws on foreign experience to provide corresponding suggestions for clarifying the subject of responsibility and the judgment standard of independent director diligence to put forward beneficial suggestions for the perfection of our independent director system.

2 CURRENT STATUS OF STANDARDS OF DILIGENCE AND DUE DILIGENCE OF INDEPENDENT DIRECTORS

2.1 *Legal regulation level: The subject boundary is not clear, and the identification standard is unclear*

2.1.1 *There is no clear distinction between the subject of director and independent director*

In terms of identity, the general directors and independent directors of the company belong to the directors of the company. Compared with general directors, independent directors do not play a decisive role in the company’s operation. Most of the independent directors are not proficient in corporate affairs, and most of the independent directors in China are university professors. In the sample listed companies of the Shanghai 50 Index, there are 213 independent directors, 81 professors, and researchers, accounting for nearly 40% (Peng 2022). In Chinese administrative penalty cases, the punishment of independent directors is generally lower than that of executive directors. This indicates, to some extent, that the diligence standard of independent directors should be lower than that of the general director. However, the existing laws and relevant norms do not clearly define the boundary between the general director and the independent director. Supervisory organs and courts often equate a general director with an independent director. In terms of fault liability, they will consider the particularity of independent directors and reduce the punishment of independent directors, but they do not clearly distinguish the scope of compensation liability for independent directors and general directors. Whether independent directors and general directors should adopt the same duty of care criteria and how to define the content and criteria of independent directors’ duty of care are not clear in the existing normative documents. Therefore, it is urgent to clarify the boundary between the director and independent director and then clarify their standards of diligence and responsibility.

2.1.2 *Lack of specific provisions on standards of diligence and due diligence*

Due diligence is the standard used to judge whether an independent director is competent, and existing normative documents in China make corresponding provisions for this. For example, Article 147 of the Company Law stipulates the duty of diligence for directors (the Chinese Company Law), but it is only a general provision. Article 5 of the Rules for Independent Directors of Listed Companies states that independent directors have a duty of care (Independent Director Rules for Listed Companies). In 2022, Article 98 of the Revised Guidelines on Listed Companies’ Articles of Association stipulates the duty of care for directors in more detail and states that the company may include other duty of care requirements in the articles of association according to actual conditions. First, the independent directors shall perform their duties prudently and diligently to ensure that the company’s operation is legal and compliant and shall not exceed the business scope. Second, they shall treat all shareholders fairly. Third, they shall timely acquire the company’s management information. Fourth, they shall confirm the company’s periodic report in writing to ensure the

objective authenticity of the disclosed information. Fifth, they shall actively respond to the requirements of the Board of Supervisors and truthfully provide relevant materials and information. Duty of caring is process duty and an active duty of care (Zhang 2020). Although the above normative documents make corresponding provisions on the duty of diligence, it is only a general clause. No law clearly stipulates the specific content of “diligence” for independent directors in China. It still cannot define the content of the diligence duty of directors, nor can it accurately define the content of the diligence duty of independent directors.

2.2 *Judicial practice: the standard of diligence and due diligence is controversial*

2.2.1 *Theory of signature liability*

In judicial practice, companies often adopt the “theory of signature liability” (Fu & Cao 2011). This theory determines whether independent directors have performed their duties diligently by examining whether they have signed or voted for documents or reports involving misrepresentation during the board’s deliberation. In such cases, independent directors will bear the same responsibilities as the general directors.

In the Zhuhai Xinguang Case (CSRC Penalty Word 2002), which was punished on the legal basis of the Securities Law, the China Securities Regulatory Commission continued to apply the “signature penalty” identification standard in the Interim Regulations on the Administration of Stock Issuance and Trading. In the case of Zeng Hongxiang, Zhang Hongshan et al. v. China Securities Regulatory Commission (Zeng *et al.* 2016), evidence was presented to prove that the independent director had signed the annual report, and the independent director did not provide effective evidence to fulfill his diligence and due obligations. Therefore, it was determined that the independent directors did not perform their duty of diligence, and this case also reflects the “theory of signature liability theory” attitude. In reality, it is impossible for every independent director to possess professional knowledge, and it is impossible to require members of the company to verify the content of the signed documents.

2.2.2 *The duty of care is too high*

The court’s judgment mainly involves the stipulation in Article 82 of the Securities Law that “directors shall ensure that the information disclosed by the issuer is true, accurate and complete,” and places high requirements on independent directors regarding the truth, accuracy, and completeness of the information. This indicates that as long as there is a problem with truth, accuracy, and completeness, independent directors will be identified as failing to fulfill their duty of diligence. If an independent director claims not to bear responsibility, they must provide sufficient evidence to prove that they have fulfilled their duty of fidelity and diligence in information disclosure. Otherwise, they will bear the corresponding liability. This court judgment emphasizes that independent directors should maintain a higher duty of care and sets a high standard for the diligence and responsibility of independent directors.

3 IDENTIFICATION OF STANDARDS OF DILIGENCE AND DUE DILIGENCE OF INDEPENDENT DIRECTORS OUTSIDE THE TERRITORY

3.1 *Anglo-American law system: Objective criterion theory*

The independent director system originated from the Anglo-American law system, and the United States led the way in reforming and innovating the corporate governance structure. The United States is a typical case-law country, and the relevant provisions of the system are found in both statutory law and judicial adjudication cases. The United States uses an objective standard to determine the diligence and responsibility of independent directors. In the beginning, there were strict restrictions on the application of the duty of diligence of independent directors in the United States. In the early period, the “board-centered doctrine” was dominant. Shareholders of the company endowed the board of directors with significant rights to manage and operate the company and to control the appointment and

removal of personnel and strategic decision-making of the company (Gong 2022). The excessive power of the board of directors requires external supervision to restrict it, thus giving birth to the independent director system.

In terms of legislation, the objective standard for determining the duty of diligence of independent directors in the United States is provided in the Revised Model Company Law for the Code of Conduct of Directors. Directors must perform their obligations in a way that is in line with the best interests of the company and with good faith and prudence (Hamilton 1998). In practice, the courts understand that justice should not interfere too much with business activities and that it is unreasonable for directors to suffer the consequences of bad decisions simply because they have made them. Based on this, business judgment rules have emerged in practice as a supplement to objective criteria.

In the Delaware Supreme Court's decision in *Aronson v. Lewis*, the following can be said according to the expression of the Court: In terms of business decisions, if directors can comprehensively analyze the long-term interests of the company they work for and the decisions are made without gross negligence, the court will not initiate intervention measures (Lewis 1984). As for the distribution of the burden of proof, the business judgment rule is called "presumption" under Delaware law. The judge first assumes that the director has fulfilled the duty of care for the business decision made by the director. If one party believes that the decision made by the director violates the duty of care, the judge requires the party concerned to provide corresponding evidence to support the director's violation of the duty of care. On the contrary, if there is no conclusive evidence, it is presumed that the director is not at fault in respect of duty of care and is not liable.

After the United States adopted the independent director system, Britain followed suit. As countries with common law systems, British and American companies share many similarities in ownership structure, legal system, governance structure, and management system. The UK Companies Act (2006) provides that a director shall exercise a duty of reasonable care, skill, and diligence, showing that a person of reasonable diligence meets what is reasonably expected of a director of general knowledge, skill, and experience (UK Companies Act 2006). The UK has perfected the standard of independent directors' duty of care and put forward the objectivity standard; the professional qualification of independent directors is combined with the business involved. In their professional field, as long as the director has made the best efforts for the company's affairs, it can be recognized that he has fulfilled his duty of diligence to the company. For independent directors without certain professional qualifications and experience, the standard of their duty of diligence is still subjective (Zhang 2020).

3.2 *Civil law system: strict standard of diligence and dual system model*

The two most representative countries in the civil law system are Germany and Japan. Civil-law countries generally divide the duty of care into three categories: The first is the due attention of ordinary people; the second is equal attention to one's own affairs; and the third is the attention of a kind manager. It can be seen that the three requirements for attention continue to improve. Under the independent director system, the independence of independent directors and their knowledge background determine that they should undertake a special duty of care; on the one hand, it is different from the duty of care of ordinary people except independent directors. On the other hand, independent directors should assume a higher duty of care when making decisions related to their professional fields (Wang *et al.* 2020).

Germany has relatively detailed provisions on the duty of diligence of directors in its legislation, and most scholars refer to the German standard for the identification of the duty of diligence of directors as a "strict standard of diligence" (Ma 2013). Due to the two-tier board of directors mode adopted in the German corporate governance structure, the executive director is responsible for the daily operation and management of the company, the board of supervisors is responsible for the selection, appointment, and removal of board members and the implementation of affairs, and the members of the board of supervisors

and the board of directors are independent of each other. Therefore, from the perspective of the supervision system, there is no dominant phenomenon of the board of directors in German corporate governance. Few listed companies adopt the independent director system.

Japan adopts the dual system model, that is, directors and supervisors are elected by the shareholders' meeting to form the board of directors and the board of supervisors, and the board of supervisors is the supervisory body within the company. According to Article 330 of the Company Law of Japan and Article 644 of the Civil Law of Japan, there is an appointment relationship between the director and the company in Japan, and the director has a duty of good management care in the execution of affairs, and there is no material difference between the requirement of good management care duty of an independent director and an ordinary director in Japanese law (Zeng *et al.* 2022). Article 426 (1) of the Company Law of Japan stipulates the conditions and applicable procedures for the exemption of the liability of the independent director, the company with two or more directors and a supervisor, or the company with a committee. If the responsible person is acting in good faith and without gross negligence in the process of performing his duties, it shall be based on the reasons for the occurrence of the responsibilities, the specific circumstances of the performance of duties, and other factors. If it is particularly necessary, the liability may be exempted up to a specified amount with the consent of more than half of the directors (Wan 2023).

3.3 *Enlightenment of foreign system to our country*

The independent director system is introduced from abroad in the hope of improving corporate governance, strengthening the decision-making and checks and balances mechanisms of the board of directors, and effectively reducing the occurrence of illegal and irregular phenomena. Through comparison with the independent director system outside the region, the following enlightenment can be obtained:

First, commercial judgment rules can be introduced in China. Although China is not a country of case law, commercial judgment rules can be introduced through judicial interpretation and guiding cases. Second, both Germany and Japan have written the provisions related to the judgment rule of duty of care into their legislation in the form of a summary and enumeration. This method can be used for reference, and the relevant provisions of the standard of diligence of independent directors can be clearly reflected in the legislation through enumeration. Finally, countries system of independent directors' due diligence duty are constantly adjusting. China should also fully consider the basic national conditions and the basis of the market economic system and constantly improve the legal system so that the legal system is not out of line with the actual situation when determining whether the independent directors fulfill their due diligence duty.

4 SUGGESTIONS TO PERFECT OUR INDEPENDENT DIRECTORS DUE DILIGENCE

4.1 *Define the subject of responsibility*

It can be seen from the content recorded in the administrative punishment letter of the independent director that when the regulator penalizes the independent director, it rarely treats them as special subjects but penalizes them as the same subject as the executive director, ignoring the identity and particularity of the independent director's work (Liu 2022). Although the duties of independent directors and internal directors are not the same, the classification of directors is not clearly stipulated in Chinese law. The role of independent directors is mainly to ensure the appropriateness and rationality of strategic decisions and strengthen the company's management supervision. The internal directors mainly undertake the specific operation responsibilities of the enterprise. Therefore, the responsibility should be distinguished between the two. Whether the directors of a company are diligent and

responsible should be determined comprehensively based on distinguishing internal and external directors and combining their scope of responsibility and their role in the company's decision-making. In the judgment of the Zhonganke case, the joint liability of independent directors and internal directors was distinguished (Feng 2019). This reasonable method of liability determination should also be applied to other civil judgments.

4.2 *Clarify the criteria for judging diligence and conscientiousness of independent directors*

The premise of the exemption of the independent director's liability is to have responsibility, which means the violation of the obligation. Therefore, the content of the duty of care of independent directors should be clearly defined. The stipulation of duty of care and loyalty in the Chinese Company Law is very general. This paper seeks to clarify the duty of care of the independent director. The first step should be to establish the standard. This paper holds that specific criteria for judging independent directors' duty of care can be summarized by classifying judicial practices and combining them with typical cases. In addition to attending board meetings and holding discussions, the requirements of independent directors include: being familiar with the business and operation of the company; carefully reviewing relevant documents (Xing 2021); timely performance of reports; and information disclosure. In addition, independent directors should fulfill their diligent and due obligations in matters such as fundraising, merger and reorganization, foreign investment, equity incentives, and management buy-out. Second, standards should be combined with leniency and strictness. Too lax standards make it easy to form loopholes, making independent directors slack in performing their obligations, and too strict requirements will cause great pressure on independent directors. As for the setting of obligations, the principle of freedom of contract should be adhered to, allowing the form of a combination of legal provisions and agreements. Independent directors shall be regulated by the articles of association of the company, or the company shall specify the work content and the criteria for judging the obligations when employing independent directors.

5 CONCLUSION

Since the independent director system was introduced in China in the 1990s, with the implementation and continuous development of the system, independent directors have played the role of supervising and balancing major shareholders based on their independence characteristics, which has solved the problems existing in corporate governance to a certain extent and improved the corporate governance structure. As far as the system of diligence and due diligence is concerned, China's independent director system is still in its preliminary stage and has great room for development. In terms of legal liability, there should be specific standards of diligence and responsibility for independent directors, but the standards should not be too high and should be distinguished from the diligence duty of general directors. Too high responsibility is easy to discourage the initiative of independent directors and makes independent directors make too cautious decisions, which is not conducive to the company's grasp of development opportunities. In the face of problems in the application of law in practice, the existing rules should be correctly and reasonably interpreted, and the performance standards and forms of responsibility should be clearly defined to make the independent director system play a continuous role.

In addition, from the perspective of legal transplantation, the introduction of foreign rules needs to adapt to the local soil, which means constantly optimizing and improving according to the actual situation in China. Besides, China also needs continuous, in-depth theoretical research and rich experience in judicial practice. In other words, the diligence system of independent directors needs a thorough study of theoretical, practical, and industrial associations to make it adapt to the development conditions of China's securities market.

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The impact of psychological capital on employment anxiety among art college students

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ABSTRACT: With the continuous development and progress of the economy, society, and art industry, the number of art college students in China is increasing, and they are also facing increasing employment pressure. This article focuses on the correlation between the psychological capital of art college students and employment anxiety. Considering the employment environment in our country, it is difficult to improve some external factors that affect the anxiety of art college students in choosing a career in a short period of time. The present study examines the relation between the PC of art college students and EA. Through investigation and research, the present study comes to the conclusion that there is a strong correlation between the two. Therefore, it is particularly important to identify problems from the perspective of students themselves, to take a notice of the development of PC of art college students, so as to cultivate positive psychological qualities of art college students. In addition, it is worth nothing that employment problem of art college students plays an important role.

Keywords: Psychological capital, College students majoring in art, Employment anxiety

1 INTRODUCTION

1.1 *Psychological capital and employment anxiety of college students*

In 1997, economists Goldsmith, Veum, and Darity published the first use of the phrase “psychological capital” in the literature of economics, investments, and sociology. They refer to PC as personality characteristics that may influence a person’s productivity (Yao 2019). Martin E. P. Seligman proposed the concept of positive psychology in 1998, guiding the public to change the perspective from a “disease model” to a “developmental model”, which is to enrich and improve people’s lives while treating mental illness. The concept of PC was gradually developed under the influence of positive psychology, and as a cross concept between positive psychology and positive organizational behavior, it was formally introduced by Martin Seligman in his book *Authentic Happiness* in 2002 (Wan 2023). A well-known American academic named Luthans introduced the idea of PC, arguing that PC allows people to maintain a competitive advantage and it is an important positive psychological factor universally

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possessed by individuals. The PC exceeds human capital and social capital (Yao 2019). According to the above views, this research defines PC of college art students as a positive psychological state demonstrated in the process of growing and developing art students. Regarding the dimensions of PC: In 2004, the American psychologist Luthans introduced the concept of “positive PC” from the perspective of positive organizational behavior (POB) and considered PC as a positive psychological state of a person. It includes four dimensions: self-efficacy, optimism, resiliency, and hope (Luthans & Youssef 2004). Among them, self-efficacy refers to the individual’s confidence that he or she can perform a task and achieve succeed; optimism refers to the individual’s positive attributional thinking and positive attitude toward uncertainty in the future; resilience refers to the individual’s ability to recover quickly from distress and failure; and hope is a positive motivational state of striving to achieve one’s goals through various means. Luthans and other psychologists believe that the four psychological constructs of self-efficacy, optimism, resilience, and hope have a good research base and valid measurement tools in the field of psychology. Therefore, these four factors best meet the criteria of positive organizational behavior and positive PC (Zhang *et al.* 2010). Therefore, the four-dimensional theory is currently recognized by most scholars (Li 2020).

Anxiety theory is the doctrine of the nature, types, mechanisms of generation, and ways of coping with anxiety. There are many different schools of theoretical perspectives and research approaches in this field.

Psychoanalytic psychology’s theory of anxiety is represented by Freud’s theory of anxiety and Horney’s theory of anxiety. Freud’s anxiety theory suggests that anxiety stems from instinctual impulses or the ego’s constant threatening response to the ego. Horney’s anxiety theory suggests that anxiety results from a problematic relationship between the individual and reality.

Mainstream psychological theories of anxiety are the following: anxiety-acquired response theory of behaviorist psychologists considers anxiety as an important acquisition. The factor analysis-based theory of anxiety considers anxiety as an individual’s perceived and specific response to an anticipated environmental threat. The state-trait theory of anxiety considers anxiety to be distinguishable as state anxiety and trait anxiety.

On the other hand, Rollo May’s anxiety theory emphasizes the existential element, arguing that anxiety is an inherent feature of human existence and is the result of self-contradictions experienced by individuals in the process of self-actualization.

1.2 *Relation between PC and EA*

The EA of students at art schools is influenced by a variety of factors. Among them, one of the primary elements affecting college students who study art may be their PC. Many scholars have examined how college students’ PC may affect their career, and the majority of current studies have revealed a negative correlation between college students’ PC and their EA. And since college art students belong to the same group of college students, it is believed that this correlation also applies to this topic. At present, PC research topics are mainly focused on the study of correlation variables based on work attitudes and work behaviors (Lu 2021). This kind of study also has some reference value for studying the correlation between college students’ PC and EA. In addition, the EA of college students should be considered from various aspects. The impact of PC on students’ EA is examined in this study.

2 LITERATURE REVIEW

2.1 *Study on the correlation between PC and EA*

At present, the research about PC has been widely emphasized and studied by scholars. From the aspect of relevant variables, the subject of PC research mainly focuses on the influence on work attitude and work behavior. From the aspect of research objects, the student group is one of the hot spots of research (Lu 2021). In terms of the relationship

between student groups and EA, a study was conducted. 400 questionnaires were distributed to three high school students in Anhui Province in February – March 2018, and a valid return rate of 96.8% was achieved with 387 returned valid questionnaires. The findings revealed a substantial inverse relationship between PC and EA among college students. Additionally, EA is some-what predictably affected by college students' PC (Chen & Cheng 2018). In the investigation of the relationship between college students' employability and potential psychological qualities, 620 college students in Shaanxi Province were tested. 587 valid questionnaires were returned and the effective rate was 94.7%. The results showed that college students who had stronger PC were more capable of using positive emotions to improve their employability. They were more capable of using positive emotions to regulate the impact of negative emotions on themselves, thus reducing the sense of anxiety in choosing a career (Chen 2018). In addition, because art students receive a lot of emotional artistic thinking, so they have delicate emotions, their personalities may differ from those of the average college student. However, they are at a special growth age and have not yet reached a stable degree in their physical and psychological development. Although art students have a bright vision of the future, they lack the ability to withstand setbacks (Shi 2010). According to a result of a prior study, 15% of the students had psychological problems caused by anxiety about choosing a career, and 10% had mild psychological problems. Those who need professional psychologist intervention and treatment are 5% (Zhu 2018).

2.2 *A study of the factors influencing career choice anxiety*

In previous surveys on college students' career anxiety, most researchers assessed the subjective feelings, anxiety and tension of the respondents based on questionnaires and test the effect of these variables on predicting college students' career choice anxiety. The findings of these surveys mostly attribute the factors influencing career choice anxiety to the following aspects: differences between studying arts and science, differences from rural and urban areas, differences in whether or not to study a teacher training program (Liu 2012). Due to the impact of COVID-19, a relevant literature showed that job market instability increases college students' EA. And the PC played a protective role against EA (Michelle *et al.*, 2022). In a study conducted by interview method, it has been demonstrated that lacking employment advice for college students might also, to some measure, enhance their EA (Pisarik *et al.*, 2017). Based on these literatures, the present study concluded that most researchers only analyzed the intensity of pressure to choose a career and drew conclusions based on this. Prior studies did not sufficiently analyze and discuss them in the context of other factors, such as college students themselves, their families and society. Therefore, in this study, we focus on the influence of art college students' own PC on their EA.

2.3 *Summary*

In the existing literatures, the conclusions on the correlation between PC and EA are relatively consistent. It is generally believed that higher levels of PC led to lower levels of EA. At present, in studies examining the relationship between PC and EA, most of prior studies take the general college student group as the research object. While there are few studies related to the EA of the art college student group. Therefore, the EA of art college students is paid attention to in this study. This is significant for the growth of college art students' psychological wellness.

Regarding the elements influencing the EA of art college students, given that studies have found that college students' EA is significantly impacted by their PC. Art college students belong to the general college student group, so it is presumed that PC should have an influence on the EA psychology of art college students. At the same time, due to the special nature of art students' majors, the influence of their PC on EA may be different to some extent.

3 RESEARCH METHODS

3.1 Hypothesis

Firstly, PC level negatively predicts EA among art college students.

Second, the PC level affects students in different grades of art colleges' EA to varying degrees.

3.2 Sample

The subjects are students majoring in art in China. Questionnaires were given to the subjects, including 217 questionnaires for positive PC and 226 questionnaires for EA. And expecting to receive about 150 questionnaires. Subjects' basic information is shown in Table 1.

Table 1. Subjects' basic information.

Sex		Grade		Ethnicity	
Male	Female	Freshman and Sophomore	Junior and Senior	Han Chinese	Ethnic Minorities
40	111	67	84	110	1

3.3 Research instrument

Questionnaires for the subjects consisted of the following parts:

3.3.1 Psychological capital

The Positive PC Questionnaire was employed in this investigation. (PPQ), developed by Zhang, G. *et al.* (2010) (Zhang *et al.* 2010). This Questionnaire has a total of 26 questions and contains four dimensions including self-efficacy, resilience, optimism and hope. A 7-point Likert scale is used to score the questionnaire. The questionnaire's overall correlation coefficient, which was 0.90, demonstrated good internal consistency reliability to satisfy the psychometric standards.

3.3.2 Employment anxiety

This study adopted the EA Questionnaire for College Graduates revised and compiled by Zhang Yuzhu and Yao Dewen (2011) (Zhang & Yao 2011). This questionnaire has a total of 26 questions and contains four dimensions including competitive pressure for employment, a lack of help for finding work, a lack of confidence, and concern about finding employment. A 5-point Likert scale was used to score the survey. The questionnaire's internal consistency coefficient was 0.92, which indicates a high reliability index that satisfies the psychometric standards.

3.3.3 Research variables

The study variables are listed in Table 2

Table 2. Variable description of the present study.

Variables	Variable Description
Dependent variable	
PC	Questionnaire scores
Explanatory variables	
EA	Questionnaire scores
Control variables	
Sex	Dummy Variables: Male = 1 Female = 0
Grade SophYear	Dummy Variables: SophYear = 1 Other grades = 0
JunYear	Dummy Variables: JunYear = 1 Other grades = 0
Ethnicity MinorH	Dummy Variables: Han Chinese = 1 Ethnic Minorities = 0

3.3.4 Statistical treatment

Spss26.0 and SpssPro software were used to process the data, and correlation analysis and t-tests for differences in grades were used for the samples.

4 RESULT

4.1 An examination of the relationship between positive PC and job anxiety

According to the 151 samples of Positive PC Questionnaire (PPQ), Table 3 can be obtained after correlation analysis using SPSS.

In Table 3 the correlation p-values between self-efficacy and hope and optimism of art college students were 0.000 and 0.000. The correlation p-value of optimism and hope was 0.000. The two dimensions of resilience and optimism showed negative correlations, which may reflect that the relationship between these two dimensions among art students has different characteristics from other groups.

Based on the 151 samples of the Employment Questionnaire for College Graduates, Table 4 can be obtained after correlation analysis using SPSS.

The p-value of the correlation between the four dimensions of concern about prospects, lack of employment support, and unemployment is shown in Table 4, low self-confidence and competitive pressure for employment among art students was 0.000, so the statistical results show a positive and significant correlation.

Based on the correlation between the eight dimensions of the two questionnaires, the correlation coefficients of self-efficacy on lack of employment support and low self-confidence were 0.003 and 0.00, which showed a significant negative correlation (see Table 5).

The correlation coefficient of optimism on low self-confidence was 0.003, which showed significantly negative.

The result shows that the level of positive PC in hypothesis 1 can negatively predict EA among art college students in some aspects.

Table 3. Correlation analysis of the dimensions from PC.

		Self-efficacy	Resilience	Hope	Optimism
Self-efficacy	Pearson Correlations	1	.162*	.558**	.557**
	Sig. (two-tailed)		.047	.000	.000
	No. of cases	151	151	151	151
Resilience	Pearson Correlations	.162*	1	.164*	-.044
	Sig. (two-tailed)	.047		.044	.591
	No. of cases	151	151	151	151
Hope	Pearson Correlations	.558**	.164*	1	.594**
	Sig. (two-tailed)	.000	.044		.000
	No. of cases	151	151	151	151
Optimism	Pearson Correlations	.557**	-.044	.594**	1
	Sig. (two-tailed)	.000	.591	.000	
	No. of cases	151	151	151	151

Note: * At the 0.05 level (two-tailed), the correlation is significant. ** At the 0.01 level (two-tailed), the correlation is significant

Table 4. Correlation analysis of the dimensions from EA.

		Concerned about job prospects	Lack of employment support	Low self- confidence	Competitive pressure for employment
Concerned about job prospects	Pearson Correlations	1	.600**	.618**	.497**
	Sig. (two-tailed)		.000	.000	.000
	No. of cases	151	151	151	151
Lack of employment support	Pearson Correlations	.600**	1	.832**	.735**
	Sig. (two-tailed)	.000		.000	.000
	No. of cases	151	151	151	151
Low self- confidence	Pearson Correlations	.618**	.832**	1	.719**
	Sig. (two-tailed)	.000	.000		.000
	No. of cases	151	151	151	151
Competitive pressure for employment	Pearson Correlations	.497**	.735**	.719**	1
	Sig. (two-tailed)	.000	.000	.000	
	No. of cases	151	151	151	151

Note: ** At the 0.01 level (two-tailed), the correlation is significant.

Table 5. Correlation between all variables.

		Self-efficacy	Resilience	Hope	Optimism
Self-efficacy	Pearson Correlations	1	.162*	.558**	.557**
	Sig. (two-tailed)		.047	.000	.000
	No. of cases	151	151	151	151
Resilience	Pearson Correlations	.162*	1	.164*	-.044
	Sig. (two-tailed)	.047		.044	.591
	No. of cases	151	151	151	151
Hope	Pearson Correlations	.558**	.164*	1	.594**
	Sig. (two-tailed)	.000	.044		.000
	No. of cases	151	151	151	151
Optimism	Pearson Correlations	.557**	-.044	.594**	1
	Sig. (two-tailed)	.000	.591	.000	
	No. of cases	151	151	151	151
Concerned about job prospects	Pearson Correlations	-.169*	.098	-.207*	-.097
	Sig. (two-tailed)	.038	.231	.011	.238
	No. of cases	151	151	151	151
Lack of employment support	Pearson Correlations	-.239**	.022	-.198*	-.140
	Sig. (two-tailed)	.003	.790	.015	.085
	No. of cases	151	151	151	151
Low self-confidence	Pearson Correlations	-.295**	.089	-.193*	-.244**
	Sig. (two-tailed)	.000	.279	.018	.003
	No. of cases	151	151	151	151
Competitive pressure for employment	Pearson Correlations	-.150	.113	-.114	-.114
	Sig. (two-tailed)	.067	.166	.162	.164
	No. of cases	151	151	151	151

Note: * At the 0.05 level (two-tailed), the correlation is significant. ** At the 0.01 level (two-tailed), the correlation is significant

4.2 The effect of PC level on the EA of art college students in different grades

Table 6 shows that there is no significant difference in the PC of art college students between different grades based on 151 samples using t-test, indicating a high degree of similarity of PC between grades.

Table 6. Independent samples t-test analysis of differences in PC between grades.

Variable Name	Variable Value	No. of cases	Average value	Standard deviation	t	P	Mean Difference	Cohen's d value
Self-efficacy	Freshman and Sophomore	67	4.505	0.994	-0.897	0.371	0.146	0.147
	Junior and Senior	84	4.651	0.993				
	Total	151	4.587	0.993				
Resilience	Freshman and Sophomore	67	4.224	0.629	-1.15	0.252	0.125	0.188
	Junior and Senior	84	4.349	0.688				
	Total	151	4.293	0.663				
Hope	Freshman and Sophomore	67	5.045	0.768	-0.328	0.744	0.04	0.054
	Junior and Senior	84	5.085	0.745				
	Total	151	5.067	0.753				
Optimism	Freshman and Sophomore	67	5.04	0.98	0.07	0.945	0.012	0.011
	Junior and Senior	84	5.028	1.111				
	Total	151	5.033	1.051				

Note: ***, **, * represent 1%, 5%, and 10% significance levels, respectively

Based on 151 samples using t-test, the results from Table 7 show that the mean values of lack of employment support for freshman-sophomore and junior-senior art college students are 3.375 and 3.043 presenting a significance result P-value of 0.031, and the magnitude of its difference Cohen's d value is 0.357, the significance result's p-value is 0.042**, indicating that the statistical result is significant, indicating that there is a significant difference between freshmen and sophomores, juniors and seniors in terms of low self-confidence. The difference magnitude Cohen's d value is 0.336, the difference magnitude is small, indicating that there is a significant difference between freshmen and sophomores, juniors and seniors in

Table 7. Independent samples t-test analysis of difference in EA between grades.

Variable Name	Variable Value	No. of cases	Average value	Standard deviation	t	P	Mean Difference	Cohen's d value
Concerned about job prospects	Freshman and Sophomore	67	3.179	0.703	0.292	0.771	0.036	0.048
	Junior and Senior	84	3.143	0.799				
	Total	151	3.159	0.756				
Lack of employment support	Freshman and Sophomore	67	3.375	0.88	2.177	0.031**	0.332	0.357
	Junior and Senior	84	3.043	0.969				
	Total	151	3.19	0.942				
Low self-confidence	Freshman and Sophomore	67	3.181	0.887	2.051	0.042**	0.31	0.336
	Junior and Senior	84	2.871	0.953				
	Total	151	3.009	0.934				
Competitive pressure For employment	Freshman and Sophomore	67	2.994	0.762	1.783	0.077*	0.223	0.292
	Junior and Senior	84	2.771	0.762				
	Total	151	2.87	0.768				

Note: ***, **, * represent 1%, 5%, and 10% significance levels, respectively

terms of lack of employment support, the p-values of the other three dimensions are not significant. The magnitude of difference in Cohen's d value is small, indicating that there is no significant difference between freshmen and sophomores and juniors and seniors in the other two dimensions of aggregation.

5 DISCUSSION

The correlation test analysis showed that the latitude of self-efficacy in PC was significantly and negatively correlated with the correlation coefficient of Lack of support from employment experience and low a sense of self-identity. And optimism was also significantly and negatively correlated with low confidence. Eventually, this result occurred of PC on the EA may lead to negative psychological effects on art college students in some aspects. The number of subjects in this study is small and concentrated in northern China, so it cannot fully reflect the overall situation of art college students. Moreover, this study only investigated the positive psychological state that can be developed of art students is only a small part of the impact on their career anxiety. Secondly, in terms of research methods, this study only used questionnaires, and future studies can try to use questionnaires in combination with experimental methods and interviews. Considering the special nature of the subjects' major and the artistic nature of their thinking, their emotions may be richer and more delicate than ordinary students, and their personalities are more obviously prominent than those of ordinary students.

Here are some research findings on the EA of art students based on suggestions given in this study. On the family side, a healthy family environment should be provided to subconsciously enhance the PC. On the social side, the relevant departments should provide more social positions and reasonable salaries for art majors to reduce the strong contrast between art students' expectations and reality. On their own side, art students can communicate reasonably with their parents, friends or teachers to seek reasonable advice, not to have too high expectations, and to reasonably distinguish between dreams and ideals.

6 CONCLUSION

Overall PC negatively predicts EA among art college students to some extent. There are many sources of anxiety for art students, so we cannot judge subjects' current state by a single measurement. Thus, a more comprehensive approach should be used to understand the source of anxiety and more accurately understand the subject's state, so that we can help them get rid of this state as much as possible based on the results, and make them have a more positive mindset to face difficulties.

AUTHORS CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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Study on the liability of securities service institutions—analysis of the application of proportional joint and several liability

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ABSTRACT: With the introduction of the “gatekeeper” theory by American scholars into securities service institutions and the increasing improvement of China’s stock market, the drawbacks of the rigid joint and several liability for misrepresentation by securities service providers under the Securities Law have become apparent. In particular, the imbalance in the capital market caused by the conflict with the principle of equitable distribution of responsibilities has caused heated discussions in both theoretical and practical fields. Based on the principles of tort law and innovative attempt to allocate liability to intermediaries of individual cases, and in distinguishing between intentional and negligent situations, the application of limited liability breaks through the shackles of all joint and several liability, and has the advantage of scientifically allocating risks. The liability of securities service providers for misrepresentation should be set at a reasonable limit, taking into account such factors as investor interest relief and the degree of fault. Based on the existing legal regulations, it is important to explore the introduction of diverse forms of liability allocation in the issuance and trading market and further analyze the application of proportional joint and several liability.

Keywords: Securities Service Institutions, Proportional Joint and Several Liability, Division of Responsibility, Fault Presumption

1 INTRODUCTION

In October 2005, the Securities Law was amended for the first time, in which Article 173 amended the civil liability of securities service providers, changed the previous provision of “bearing civil liability for the part for which they are responsible” to “bearing joint and several liability with issuers and listed companies, except where they can prove that they are not at fault”. Since then, when adjudicating relevant cases, the judiciary can treat listed companies and securities service providers as a whole and requires them to bear joint and several liability to the outside world in a uniform manner. However, full joint and several liability can easily lead to the inconsistency in each subject’s fault responsibility, and this all-or-nothing compensation model is obviously incompatible with “the principle of equal punishment” and is not conducive to holding the “first evil” accountable. With regard to the liability of securities service providers, there are currently three mainstream models of joint and several liability, supplementary liability and full joint and several liability with distinction of fault (Yin 2022). However, there is no specific and clear standard for the identification mentioned above in China. Additionally, there are differences in judicial discretion that are inconsistent and uncoordinated in practice. This article starts from the status and

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responsibilities of securities service institutions, and sorts out existing theoretical disputes and judicial practice issues. It is concluded that China's Several Provisions on the Trial of Civil Compensation Cases for Misrepresentation Infringement in the Securities Market (the Provisions on False Statements), the Securities Law, the Civil Code and other laws and regulations have different practical significance. The status and responsibilities of securities service agencies are clarified, along with judicial interpretation and legal principles. The scope of application of various liabilities is further analyzed, particularly the application of proportional joint and several liability under fault presumption. Based on this, this article provides suggestions for improving the accountability of China's securities service institutions hopefully.

2 LEGAL POSITIONING OF SECURITIES SERVICE PROVIDERS

2.1 *Definition of "Gatekeeper" status*

Securities service providers, also known as securities market intermediaries, are various institutions that provide services for the issuance and trading of securities. Through its legitimate business activities, it plays an important role in various aspects such as disclosure of information and communication between demanders and providers of securities in the securities market. The "gatekeeper" theory first originated in the United States in 1984 and was originally intended to protect the rights of investors by bringing in "gatekeepers" such as securities service providers, to make up for the lack of state enforcement and to combine the obligation to regulate with the risk of their own liability (Xing 2022). With the continuous deepening of American scholars' research on the "gatekeeper" theory of securities service institutions and the continuous emergence of this theory in practice, China also began to gradually learn from its institutional strengths and actively improve the "gatekeeper" mechanism of its securities market in the late 20th century. For example, the Shanghai Interim Measures on Stock Management issued by the Shanghai Municipal Government on May 23, 1987, in which Article 9 and Article 10 are the early provisions of the "gatekeeper" theory in China. Subsequently, various laws and regulations such as the Provisional Regulations on the Administration of Stock Issuance and Trading and the new Securities Law have improved this theory to varying degrees. From a normative perspective, the implementation of the "gatekeeper" theory at the institutional level in China indicates that the securities market in China is also constantly maturing and developing. In the context of the securities issuance registration system reform, the "gatekeeper", as the link between supply and demand in the capital market, has different professional performance and unique supervisory power from other service organizations. Strictly adhere to the securities service institutions "gatekeeper" status, play its effective social governance function, is conducive to the purification of the capital market.

2.2 *Adapt to the status and responsibilities of securities service institutions*

The registration system emphasizes the "gatekeeper" role of securities service providers. However, in recent years, securities service institutions have experienced frequent incidents of false statements in securities due to insufficient fulfillment of obligations in basic tasks such as verification and production of documents, resulting in increasing market risks. It is worth noting that the legal liability of intermediaries in securities misrepresentation cases is not imposed but endogenous, and this endogeneity has gradually emerged along with the expansion of the scale and the strengthening of the centrality of the financial market (Yang 2021). The basic obligation of a securities service provider is the effective supervision of its own internal and the precise guidance of its external business, thus achieving the coordination of the allocation of responsibilities between departments and different institutions

(Bo 2021). At the same time, the relevant entities should limit the responsibility of “due diligence” of securities service providers to the scope of work and professional field, specifically based on the performance of the obligations of securities service providers. It is advisable to use various mandatory regulations such as laws to strengthen the liability constraint system of intermediary institutions, but also avoid excessive law enforcement, preventing excessive liability from being imposed on them, and increasing the compensation risk and pressure on service institutions. To achieve the mutual adaptation of the legal status and responsibility of the securities service institution “gatekeeper”, so as to realize the legal justification of its responsibility and to implement the principle of equal liability to a certain extent, is of great significance to the allocation of responsibility in securities misrepresentation cases.

3 THE DEVELOPMENT STATUS OF RESPONSIBILITY UNDERTAKING BY SECURITIES SERVICE INSTITUTIONS

3.1 *Theoretical level: The controversy over the liability of securities service providers*

The judgment of the way and scope of responsibility assumed by securities service institutions is the key to determining their illegal behavior, and is also an important link in safeguarding the legitimate rights and interests of the infringed party. Its essence is to regulate market misrepresentation with clear boundaries that define the liability of securities service providers. However, the provisions of China’s regulatory documents on the manner and scope of liability of securities service providers are relatively rough and vague and scattered in different legal documents. For example, in October 2005, Article 173 of the Securities Law was amended, the civil liability of securities service providers was changed from “jointly and severally liable for the part for which they are liable” to “jointly and severally liable with the issuer and the listed company, except where they can prove that they are not at fault”. Article 6 of the Provisions on the Trial of Audit Activities Involving Accounting Firms (2007) states that the people’s court shall determine the compensation liability of accounting firms for issuing false reports due to their negligence. Article 23 of the Certain Provisions on Misrepresentation, in turn, leads to the allocation of liability and recovery in Article 178 of the Civil Code. Thus, it can be seen that the issue of liability of securities service providers has not been uniformly determined by different regulations, which may easily lead to a mismatch of fault and liability in the decision. Therefore, the development of a complete and clear theoretical norm plays an important role in redefining the issue of responsibility.

It is believed that the current judicial practice is too strict and sloppy in determining the liability of securities service providers for misrepresentation, and the liability should be limited on the basis of comprehensive consideration of fault factors and the size of the cause, to what extent it should be limited is a matter of opinion (Yin 2022). It can be divided into three main types of liability allocation: full joint and several liability, proportional joint and several liability, and supplementary liability. Full joint and several liability refers to the joint responsibility of multiple parties where each party bear all or part of their joint debts (Lu 2011). It requires securities service institutions to assume full responsibility with issuing companies and others in case of fault. Supplementary liability is a form of liability in which the supplementary liable person is liable to the creditor to a certain extent (Wang 2010). For proportional joint and several liability, some scholars propose that it is a joint and several liability based on fault or causation, and the established damage is equitably distributed among the various infringers in proportion to each other (Ken 2009). As the “scope of duty theory” suggests that liability is justified only when the duty to act matches the risk it is intended to prevent (Hong 2022). Therefore, the academic controversy reveals that in the absence of a clear way to assume responsibility, it is necessary to maintain a liability

framework based on specific circumstances. This will ensure that securities institutions can bear infringement liability equivalent to the legal status of “gatekeepers”.

3.2 *Practical level: Different types of liability for securities service providers*

Under the aforementioned theoretical controversy, there are three types of differences in China’s judicial practice regarding the responsibilities that securities service institutions should bear.

Firstly, securities service institutions are required to bear all joint and several liabilities. In the Shanghai Dazhahui Case (Shanghai Higher People’s Court Civil Judgment 2018), Lixin asserts that it is liable for supplementary damages for subjective negligence under the provisions of the Certain Provisions on Audit Tort Compensation. The court held, based on Article 173 of the Securities Law and Paragraph 2 of Article 5 of the Certain Provisions, that Lixin should have known and knew of Dazhahui’s illegal acts in accordance with the relevant rules, and did not further distinguish whether it was intentional or negligent. After examining Lixin and Dazhahui as a collective entity, it became apparent that their misrepresentations were largely consistent. As such, it would not be inappropriate to hold them jointly and severally responsible for the external consequences. The decision reflects, to some extent, the drawbacks and limitations associated with rigid joint and several liability.

Secondly, there are also judicial authorities advocating that securities service institutions should bear proportional joint liability. Courts holding this view have creatively interpreted Section 173 of the Securities Act to adjudicate on the basis of whether the institutions exercised diligence and whether there was a misrepresentation of content. In the second trial of the first case of proportional joint liability, the Zhong’anke case (Shanghai Higher People’s Court Civil Judgment 2022), the court has broken through the scope of joint and several liability assumed by service institutions in the past. The plaintiff requested that China Merchants Securities Corporation, Ruihua Firm and other service providers be ordered to bear joint and several liability. The court adjudicated the content of the misrepresentation, the degree of subjective fault, the angle of cause force and the impact on the investors’ decision, respectively, and found Ruihua Firm at fault for negligence and ordered it to bear proportional joint and several liability within the range of 15%. Similarly, in the Yabo Company case (Jiangsu Provincial High People’s Court Civil Judgment 2021), the first instance court determined accounting firms to bear joint and several liability in accordance with Article 27 of the Several Provisions on False Statements and Article 173 of the Securities Law. The second instance court determined that the scope of responsibility of the service agency should comply with the principle of adapting responsibility to the degree of fault, and combined with factors such as the job responsibilities and degree of fault of the securities service agency, ordered accounting firms and securities companies to bear joint and several liability within 30% and 20% respectively.

Finally, the Shenzhen Intermediate People’s Court has made a unique attempt and innovation in assuming supplementary liability under a new interpretation of “rigid joint and several liability” asserted by the judiciary. In the Baoqianli Case (Guangdong Provincial High People’s Court 2019), multiple appellants in the second instance believed that the evaluation company did not follow professional standards and did not provide evidence that it was not at fault. They requested that Yinxin Company be adjudged to bear joint and several liability for all debts borne by Baoqianli Company. According to Article 8 of the Tort Liability Law, Article 24 of the Several Provisions on False Statements, and Article 223 of the Securities Law, the Shenzhen Intermediate People’s Court has determined that Yinxin Company failed to fulfill its duties diligently and, during the evaluation process, neglected to cause losses that could have been avoided or reduced to occur or expand. It belongs to the supplementary responsible person and should bear supplementary compensation liability to the investor. It is discretionary for them to bear supplementary compensation liability within 30%. This shows that supplementary liability has some practical significance.

4 SUGGESTIONS FOR IMPROVING THE LIABILITY OF SECURITIES SERVICE PROVIDERS

The assumption of proportional joint and several liability is more conducive to the clarification of “liability and tort and its subjective fault match” than the rigid “total joint and several liability”. Adopting this responsibility taking approach towards securities service institutions can reflect substantive fairness, which is conducive to better safeguarding market interests and improving capital market efficiency. Thus, this section will attempt to re-define liability under the perspective of the presumption of fault.

4.1 *Incorporate “Fault determination” into the scope of liability determination*

Misrepresentation cases mostly involve subjective attribution of blame. In terms of the principle of imputation, the principle of no-fault imputation should be applied to issuers and underwriters, while the principle of presumption of fault should be applied to intermediaries and other responsible subjects (Bai & Fu 2003). Fault liability takes fault as the element of liability, and if the intermediary service agency can prove that there is no fault, it is exempted from liability. According to the provisions of the Several Provisions on False Statements, the responsibility of securities service institutions is limited to their scope of work and professional fields. After examination and verification, doubts are eliminated and reasonable trust is formed, and they should be deemed faultless. Fault can be divided into intentional and negligent, and in securities misrepresentation is mainly divided into two types: intentional misrepresentation by the securities institution together with the issuer and negligent failure to disclose the issuer’s misrepresentation. The first type belongs to the form of intentional contact between the two parties and shall be jointly and severally liable. Negligence in the Civil Code can be specifically divided into specific minor negligence and abstract minor negligence. The former refers to an individual fail to manage others’ affairs according to the standards for managing one’s own affairs, while the latter a person fails to fulfill their necessary duty of care in transactions and adopts general objective standards in the field of transactions involved (Lu & Wu 2021). The second type of infringement by securities service institutions belongs to abstract minor negligence, which means that their negligence in false statements and the degree of negligence should be judged from different aspects such as relevant procedural norms and scope of practice. Besides, they have a special duty of attention to the actions that should be taken in accordance with their special professional conditions. In the determination of responsibility, the special duty of care undertaken by securities service institutions should be higher than the general duty of care. Fault determination and defense reflect the “rational person” standard, which is the general rational behavior standard of reasonable people in professional groups under the same or similar conditions (Yin 2022). Securities service providers possess professional skills and reserves that are not available to the general public and should judge their specific duties as “rational persons”. In other words, if an intermediary has assumed a higher duty of care than an ordinary person, it cannot be overly burdened with a duty that it should not have. In specific jurisdictions, the correct presumption of fault is the key to determining whether the intermediary is fully jointly and severally liable or to what extent proportional liability.

4.2 *Clarification of liability from the perspective of proportional joint and several liability*

The assumption of responsibility under the compensation principle of “all-or-nothing” pursues the certainty of causality and does not consider the particularity of the case in principle (Feng 2020). Proportional joint and several liability has to some extent broken through the “all-or-nothing principle” and has been applied by multiple laws, such as the

determination of the “fair share” of registered accounting firms in the United States’ Reform Act, which reduces the legal liability of registered accountants, especially breaking the “deep pocket” logic in judicial trials (Li & Zhu 2001).

However, there is an existing contradiction in the application of proportional joint and several liability, that is, how to coordinate with Article 173 of the Securities Law to avoid being questioned in “illegal” judgments. The textual interpretation of the legal provisions does not seem to positively affirm the reasonableness of proportional joint and several liability, but from the doctrinal point of view, proportional joint and several liability can be reasonably interpreted under the tort law system (Guo & Wu 2022). And Article 173 of the Securities Law does not distinguish between intentional and negligence, providing room for interpretation of proportional joint and several liability. In other words, intermediaries may be awarded full joint and several liability in the case of intent, and proportional joint and several liability according to the case of negligence, which should be in line with the principle of legal interpretation. Proportional joint and several liability should be treated as a legitimate legal discretionary outcome.

Securities service providers are the “gatekeepers” of the securities market, not the guardians of the industry as a whole, and their responsibilities should be commensurate with their duties as gatekeepers under the law. According to the principle of proportional responsibility, judges need to comprehensively consider the satisfaction of relevant elements in the composition of liability in individual cases, and make an overall evaluation based on this to reasonably determine the scope of compensation liability (Zheng 2017). In the civil cases of securities misrepresentation in China’s judicial practice, there is a tendency to determine the proportional joint and several liability based on the tortfeasor’s subjective fault compared with the force of cause, and further determine the corresponding proportional range by investigating the degree of fault of the securities service provider and the proportion of the false facts it issued in the misrepresentation. Therefore, judicial authorities should attach importance to the definition of proportional liability, abandon the requirement of “severe and strict” and “one size fits all” treatment of intermediary agencies, and instead, combine the characteristics of the service agency’s own infringement behavior to shift from full compensation to limited compensation. The “gatekeeper” function of securities service providers should be addressed, and their liability should be no less than that required by law, while preventing undue harshness.

5 CONCLUSION

Legal norms such as the Securities Law, the Tort Liability Law and the Certain Provisions on Misrepresentation are the protective laws of the people. The law is the bottom line of society, and legal responsibility is the limitation and restriction of each market entity. In most of the above cases, the courts decided different responsibilities for each securities service provider, which shows that China’s justice has not formed a clear standard for the way and scope of liability of service providers in misrepresentation, and the role of intermediaries as “gatekeepers” has not been fully played effectively. Considering the protection of the rights and interests of all parties, there are two aspects to the handling of civil liability issues in securities service institutions. Firstly, to make a correct presumption of fault and determine whether civil compensation for securities service institutions applies to proportional joint liability. Secondly, to improve the application mechanism of proportional joint liability and carry out diversified liability sharing arrangements. In addition, for the future securities service market, the ambiguous provisions and boundaries in the relevant laws should be revised to avoid the imbalance of fault and responsibility in judicial decisions, while improving the regulation and information disclosure mechanism of securities service providers themselves to build high practicing quality securities service providers and safeguard the interests of all parties in society.

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Investigating foreign measurement methods of travel preference

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ABSTRACT: The tourism industry has shown an upward trend since entering the 21st century and is moving towards a stage of rapid development. The tourism styles and products available for tourists to choose from are more diverse. The tourism industry is a tourist industry, and studying tourism preferences is important for understanding tourist behavior. Tourism Planning and Tourism Product Design. This article is based on domestic and foreign literature and collects research and implementation methods of mainstream tourism environments abroad. Comparative analysis: five methods for measuring over-seas preferences. The results indicate that: (1) Choosing an experiment (CE) can reflect tourists' preferences and willingness to pay for different attributes. However, designing experiments and accessing certain data is difficult. (2) A content analysis method based on User Generated Content (UGC) facilitates the acquisition of information. (3) The use of EEG can compensate for the shortcomings of traditional methods. Defect measurement is more objective. By analyzing the above methods, a future study on measuring tourism preferences has achieved forward-looking results.

Keywords: Set itinerary, Measurement method, Select Experiment Brain waves

1 INTRODUCTION

The research on domestic tourism preferences focuses on using a single empirical method to explain the connotation, lacking theoretical application. Modern multidisciplinary technology (Liu 2014). Therefore, this article systematically studies the literature on the tourism environment both domestically and internationally. Based on the connotation of tourism settings, focus on analyzing the comparison and analysis of the main measurement systems for tourism settings A more comprehensive understanding of tourists who love tourism products and their behavior. Design and market tourism products and destination planning to be more targeted.

2 THE MEANING OF TOURISM SETTINGS

Foreign research mainly focuses on explaining the impact of tourism preferences on tourism behavior choices. These behaviors involve six elements of tourists, including food, accommodation, travel, shopping, and entertainment. Usually unrelated to the definition of tourism preferences (Journal of Destination Marketing & Management 2019; Travel Behaviour and Society 2019; Annals of Tourism Research 2010). Domestic scholars mainly explain tourism preferences from a psychological perspective. Travel preferences are the psychological tendencies of certain

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tourism goals, which are influenced by people's attitudes toward goals and quantities. And the type of information about the target. Some scholars define tourism preferences as potential or actual tourists' perception of emotional factors and Intended to be overwhelmed by certain tourism products or attractions, and believe that tourism preferences imply Tourists in the Six Elements of Tourism (Catering, Accommodation, Tourism, Shopping, and Entertainment). The preference for tourism is a direct adjustment rather than a motivation or psychological factor that affects tourism behavior. Industry in real life. Therefore, tourists' choice of tourism products depends on their consumption preferences. It can be seen that understanding tourism preferences plays an important role in designing more targeted tourism products and marketing for tourists. It also provides tourists with a better tourism product consumption experience.

3 HOW TO MEASURE TRAVEL PREFERENCES

In terms of how to measure preferences Many related studies abroad often adopt more modern empirical methods, such as selective experiments and neuroscience. This article focuses on analyzing five widely used criteria for measuring tourism preferences in the foreign tourism industry, including methods. Joint analysis, experimental methods, selection of performance analysis methods, content analysis methods, and EEG laws.

3.1 *Joint analysis*

Joint Analysis Method and Selection Experiment Based on Feature Theory. This theory is used to understand product preferences and decisions, believing that products can be described as a combination of functionality and suppliers. Consumers choose product preferences based on the maximum utility generated by many characteristics of the product (Journal of Political Economy 1966). This theory is very relevant to the context of the tourism industry. Because tourism products include various intangible and tangible attributes, including social, cultural, and economic attributes. Due to the explanatory value of attribute theory, it is widely applied in tourism research to determine the decisive attributes of capacity selection. Target email (Journal of Destination Marketing & Management 2017). Cai recently expanded Lancaster's theory. To explain how tourists choose from multiple destinations, the results indicate that most tourists are not focused on owning or Using all destinations as setting criteria But on the consumption of specific destination characteristics, such as transportation, accommodation, and attractions (Journal of China Tourism Research 2015). According to feature theory, the evaluation of tourist attractions is the relative importance of the relevant features of each attraction Comprehensive Qualification Assessment feature. On the contrary, the claimed settings may study tourists' preferences for certain features that currently do not exist at the destination. How to set sentences can be divided into two types: Conditional valuation and selection modes are divided into joint analysis methods and experimental selection methods. A joint analysis will determine which attribute combinations have the greatest impact on respondents' choices by evaluating the value of the product or the value of each attribute. Joint analysis must be rated or scored by researchers to evaluate the products that consumers like. Apostolakis and Jaffry used joint analysis to evaluate the preferences of tourist groups towards two Greek heritage sites (Tourism management 2002) Journal of Travel and Tourism Marketing 2005). Zyl used a joint analysis to identify the most popular products during festivals in South Africa. There are 5 functions to choose from: holiday brands, ticket prices, entertainment activities, and catering. And go to the venue to describe the festival.

3.2 *Choose an experiment*

Qualification knowledge theory There are differences in product-related knowledge and motivation between experienced and inexperienced tourists. This may lead to different

understandings and perceptions of product characteristics and preferences for different characteristics. So this paper will use different tourist preference information as product design and marketing guidelines to meet the needs of different consumers. How to repel each other? Importance Performance Analysis (IPA) provides some ideas. Martilla and James first introduced IPA. As a tool for developing and analyzing organizational management strategies. This is a way to understand consumers' views on the characteristics of a product or service, and how to understand the specific impact of product characteristics on consumer decision-making IPA technology Widely used on various occasions, For example, in retirement communities. Banks, Hospitals, Many scholars apply IPA to tourism research to determine tourist qualifications or preferences. For example: Zhang Hezhou uses survey data from 426 tourists from the Chinese Mainland. People measure the importance and cognitive efficiency of tourists towards Hong Kong tour guides Brett and Milman By collecting perceptual data from 566 visitors, determine the needs and service priorities of attendees in large conference centers. Li, who participated in five different exhibitions, evaluated the impressions of 238 Korean tourists and Japanese leisure tourists. 231 people went to Guam.

3.3 *Content analysis based on UGC*

In addition to studying travel preferences through traditional data collection such as questionnaires and interviews, in recent years, travel preference surveys based on user-generated content have developed rapidly. The main data types used in this type of method include online text data and online photo data. The biggest advantage of content analysis based on UGC method Compared to various analysis methods using questionnaires, that is, visiting the complete psychological perception of visitors. LDA Probability Theme Modeling Method Hui and Rob Obtain Tourist Accommodation Information from the Foursquare Tourism Website Use LDA probability topic model to convert to tourist routes, and use cloud, terminology, and heat map to provide theme analysis results The photos uploaded by tourists contain a lot of interesting information, which has stronger temporal and spatial attributes compared to textual information, providing A New Perspective on Tourist Preference Research Online photos with embedded metadata (such as location, time, etc.) Other texts (such as titles, and descriptions) and image content are the main objects for studying tourist behavior. This includes analysis of tourists' spatial preferences, tourist behavior, and image content. Some studies use artificial intelligence methods such as computer vision technology to recognize the content of a large number of travel photos and damaged joints. The invention methods for recognizing visual information in photos are limited. In addition to one-time online photo analysis, photo analysis can also be combined with visitor interviews for research. Including photo interviews. This strategy can evoke the interviewee's memory and produce unpredictable answers. Linking cultural differences between respondents and researchers to reduce power imbalance between researchers and whistleblowers. It is a platform that promotes communication and more objectively reflects tourists' views and preferences. KamHung conducted in-depth interviews with 20 out of 4 cruise tourists through photo interviews. Cities in China, and establish a hierarchical experience model based on interview data. Research has shown that Chinese tourists prefer to pursue experiences that are different from normal environments, such as Over-seas Service Providers and Overseas Cultural Experiences.

3.4 *Brain wave*

Although traditional self-reported travel preference measurements (such as interviews and questionnaires) are effortless. But it can easily lead to intentional misconduct by researchers. To address this issue, neurophysiological methods are used to track eye movements, skin shock responses, and brain waves. (EEG) has become a new trend in tourism preference research in recent years Some scholars have proven that thermometers are far less accurate than EEG in predicting extremely low preferences. Among the existing neurophysiological methods used to

study travel preferences and EEG methods, It is favored by researchers for its high temporal resolution, acceptable spatial resolution, and ultra-high cost-effectiveness. The changes in human brain signals are represented by electroencephalograms (EEG), with the main frequencies being δ (0-3Hz), θ (4-8Hz), and α . (9-12Hz), beta (13-30Hz), and gamma (31-40Hz) to determine the cognitive or emotional processes of specific product or marketing stimuli. (32) The main purpose of such research is to understand consumer preferences for products and the corresponding changes in brainwaves. In the process of determining changes in EEG. Products human Psychophysiological measurements are more objective and unrestricted. By understanding participants and being able to track their reactions in real-time, independent of memory and cognitive processes However, in the field of tourism research, the application of electroencephalography is still in its early stages. There is relatively little research on destination preferences abroad, and domestic scholars rarely use EEG to study tourism preferences.

4 CONCLUSION

Overall, the methods for measuring tourism preferences have gradually evolved from single-disciplinary methods such as economics and psychology to a fusion of multiple disciplines. From data collection methods, traditional methods such as questionnaires and interviews to online text mining. Neuroscience experiments, etc. The comprehensive comparison of the above methods for measuring main-stream overseas tourism preferences shows that there is a theoretical common analysis method. Years of qualifications can effectively evaluate tourists' preferences for various qualifications in tourism products. But it is not possible to distinguish the different roles played by each attribute at different stages of the decision-making process. Selective experiments can use quantitative WTP to reflect preference levels of different properties, but experimental design and data collection are quite difficult. IPA can link tourism preferences with the works of travel agencies, but the level of interpretation of tourism preferences is not sufficient. The use of UGC content analysis has some advantages in terms of convenience in data access and EEG usage. It can compensate for the shortcomings of traditional methods and make measurements more objective.

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The effect of chatbots on self-disclosure among users

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ABSTRACT: The rapid advancement of AI (Artificial Intelligence) technology has resulted in the increasing use of chatbots in various fields of daily life. However, the impact of chatbots on users' self-disclosure remains vague. After summarizing ten previous studies, the results of this study found that: 1) most of the studies did not support a direct relationship between chatbots and users' self-disclosure; 2) Regarding the moderating effects, three studies explored five moderators from three dimensions of chatbot personality, user attributes, and usage of chatbots, to examine the effect of chatbots on users' self-disclosure; 3) five studies examined ten mediators from three dimensions: user perception, information leakage concern, and social judgment concern; 4) two moderators were found to moderate the mediating effects. However, the results of these studies were inconsistent, indicating more nuanced research in the future. The gradual improvement of relevant research is conducive to improving the applicability of chatbots in future practical services and the development of new functions.

Keywords: Chatbot, Self-disclosure, Media effect

1 INTRODUCTION

Chatbots are conversational agents that leverage artificial intelligence technology to communicate in natural language through audio or text. Chatbots have permeated various aspects of daily life, including healthcare, education, and shopping advice, creating a market expected to reach approximately \$1.25 billion by 2025 (Thormundsson 2023). Different types and segments of chatbots have been invented as the market expands. Among them, the most commonly employed types of chatbots are used in after-sales and customer service fields (Thormundsson 2023). Users often disclose personal information, such as phone numbers and addresses, during interactions with these chatbots.

Prior research has explored how chatbots influence users' self-disclosure of sensitive and personal information, with limited focus on users' self-disclosure at other levels, such as feelings, emotions, and thoughts (Al-Natour 2009; Moon 2000; Schuetzler *et al.* 2018). Additionally, research has examined the impact of the anthropomorphic features of chatbots on users' self-disclosure of personal information, including in the context of therapy and counseling for mental health (Kang & Kang 2023). However, it is still unknown how the anthropomorphic characteristics of counseling bots affect users' self-disclosure. As research on the effects of chatbots on users' self-disclosure continues to evolve, the current study aims to review recently relevant literature to provide a more nuanced and more precise perspective on the effect of chatbots on users' self-disclosure.

The current review includes ten studies, and the synthesis of these studies demonstrates chatbots' impact on users' multidimensional self-disclosure, encompassing personal information and self-disclosure quality and quantity. The current review first examines the direct impact of chatbots on users' self-disclosure, followed by an analysis of moderators, mediators, and moderated mediation in this relationship.

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2 THE MAIN EFFECT OF CHATBOTS ON SELF-DISCLOSURE

The current review research synthesizes ten studies on the influencing factors of chatbots on users' self-disclosure, most of which are text-based chatbots. As for the research focuses on users' self-disclosure, users' information disclosure was the most investigated dimension (Croe & Antheunis 2021; Gnewuch & Maedche 2020; Kim *et al.* 2022; Lee *et al.* 2020, 2022; Pujiarti *et al.* 2022; Widener & Lim 2020).

It includes sensitive information, private information, thoughts, and feelings, followed by users' answer quantity consisting of skip rate, answer length, and word count. Besides, dimensions regarding users' answer quality (i.e., users' feeling of being open to chatbots, users' intimate word choice, honesty, and the breadth and depth of the conversation) and specific behavioral measures (i.e., product interest) were also investigated (Croe & Antheunis 2021; Gnewuch & Maedche 2020; Kang & Kang 2023; Kim *et al.*; Lee *et al.* 2020; Pujiarti *et al.* 2022; Skjuve *et al.* 2023; Widener & Lim 2020; Yu *et al.* 2019).

Overall, six studies investigated chatbots' direct and indirect media effects (Croe & Antheunis 2021; Kim *et al.* 2022; Kang & Kang 2023; Lee *et al.* 2020, 2022; Skjuve *et al.* 2023), while four studies focused on either direct or indirect effects (Gnewuch & Maedche 2020; Pujiarti *et al.* 2022; Widener & Lim 2020; Yu *et al.* 2019). Most of the results did not support a direct relationship between chatbots and users' self-disclosure, with five studies showing non-significant direct effects (Croe & Antheunis 2021; Gnewuch & Maedche 2020; Lee *et al.* 2022; Skjuve *et al.* 2023; Widener & Lim 2020); three studies showed partially significant direct effects (Kang & Kang 2023; Kim *et al.* 2022; Yu *et al.* 2019) and two studies showed significant direct effects (Lee *et al.* 2020; Pujiarti *et al.* 2022).

In addition, the research topics on chatbots were varied. Specifically, three subdivisions were developed to study chatbots' impact on users' self-disclosure. Firstly, chatbot usage was investigated (Kim *et al.* 2022; Skjuve *et al.* 2023), including human-chatbot relationship (HCR) duration, conversation frequency, positions in the HCR process, and utilization of AI. Secondly, two studies focused on different agent types (Croe & Antheunis 2021; Kim *et al.* 2022), meaning the differences in user interactions with chatbots and humans, with the latter being specified in computer-mediated communication and face-to-face interpersonal communication. The last and most studied research category explored how chatbot features impact users' self-disclosure. To be more specific, four types of features can be identified, including **anthropopathic characteristics** (i.e., humanlike factors, perceived humanness, gender, personality, and visual interface cue of the image of chatbots' avatars) (Kang & Kang 2023; Kim *et al.* 2022; Widener & Lim 2020), **non-conversational features** (i.e., co-activity and conversational atmosphere visualization) (Pujiarti *et al.* 2022), conversational features (i.e., chatbot's self-disclosure, chatting styles, dominant and submissive language style, and rapport-based dialogue) (Gnewuch & Maedche 2020; Lee *et al.* 2020, 2022), and **different interfaces of chatbots** (i.e., text-based, voice-based, and mixed interfaces) (Yu *et al.* 2019).

Apart from the difference in the research focuses and topics, the ten studies' research strategies, research designs, sampling methods, and samples were relatively similar. Firstly, studies were mainly quantitative cross-sectional or longitudinal experimental studies that allowed for the derivation from causality (Croe & Antheunis 2021; Gnewuch & Maedche 2020; Kang & Kang 2023; Kim *et al.* 2022, Lee *et al.* 2020, 2022; Pujiarti *et al.* 2022; Widener & Lim 2020; Yu *et al.* 2019). In addition, although Skjuve *et al.* conducted a survey study, it was a twelve-week longitudinal study from which causality could also be inferred (Skjuve *et al.* 2023). Secondly, most studies did not have a representative sample with the convenience sampling method (Kim *et al.* 2022; Lee *et al.* 2020, 2022; Pujiarti *et al.* 2022; Yu *et al.* 2019; Skjuve *et al.* 2023). Only two studies used random sampling (Kang & Kang 2023; Gnewuch & Maedche 2020) while another did not specify its sampling method (Croe & Antheunis 2021). The noteworthy point is that two studies applied restricted conditions for their sample selection (Croe & Antheunis 2021; Gnewuch & Maedche 2020), focusing the sample on students as they are more proficient and accustomed to digital devices or chatbots than others. Lastly, most studies had large sample sizes of above thirty participants and

a balanced gender ratio (Croe & Antheunis 2021; Gnewuch & Maedche 2020; Kang & Kang 2023; Kim *et al.* 2022, Lee *et al.* 2020, 2020, 2022; Pujiarti *et al.* 2022; Widener & Lim 2020).

However, the ages of the participants were less consistent. For example, participants from seven studies had an average age ranging from 21 to 23 years old (Croe & Antheunis 2021; Gnewuch & Maedche 2020; Kang & Kang 2023; Kim *et al.* 2022; Lee *et al.* 2010, 2022; Pujiarti *et al.* 2022), while those from the other three studies were around 38 years old (Lee *et al.* 2022; Widener & Lim. 2020; Skjuve *et al.* 2023). Moreover, the samples of the ten studies exhibited large age ranges, with the most extensive range being 18 to 66 years old (Skjuve *et al.* 2023). Given that media usage is typically differentiated based on individual susceptibilities, investigating a wide range of ages may result in insignificant or small effect sizes. Therefore, a more nuanced examination of different age groups is needed to determine whether the influencing factors of users' self-disclosure have different effects depending on the age groups.

In summary, the general results of ten studies did not support the effect of a direct relationship between chatbots and users' self-disclosure (Croe & Antheunis 2021; Gnewuch & Maedche 2020; Kim *et al.* 2022; Kang & Kang 2023; Lee *et al.* 2020, 2020; Pujiarti *et al.* 2022; Skjuve *et al.* 2023; Widener & Lim. 2020; Yu *et al.* 2019). Although the various research focuses on chatbots, these studies had similar research strategies and designs, sampling methods, and samples. Noteworthily, these results showed a pattern of chatbots indirectly influencing users' self-disclosure through mediators and that these impacts could usually be moderated. Thus, the following sections will discuss the mediators and moderators of the relationship between chatbots and users' self-disclosure.

3 MODERATORS

Five moderators were investigated in three studies, namely 1) chat session, 2) usage time, 3) users gender, 4) privacy concern, and 5) chatbot personality, which can be classified into three main categories: chatbot personality, users-related (i.e., users gender and privacy concern), and chatbot usage (i.e., chat session and usage time) (Kang & Kang 2023; Lee *et al.* 2020; Widener & Lim 2020).

Firstly, Kang and Kang investigated the moderating effect of chatbot personality (i.e., introvert and extrovert) across genders in the effect of chatbots' visual interface cues on users' honesty of self-disclosure (Kang & Kang 2023). Results revealed that chatbot personality did not moderate the effect when chatbots are males. However, for female chatbots, the appearance of visual interface cues increased users' honesty of self-disclosure for interacting with extrovert chatbots and decreased for interacting with introvert chatbots (Kang & Kang 2023).

Secondly, inconsistent results were found regarding the moderating effect of users' gender and privacy concerns. Similar to Widener and Lim's study, which did not support the moderating effect of privacy concern in the relationship between chatbot perceived humanness and users' self-disclosure, Kang and Kang failed to verify the moderating effect of users' gender in the relationship between chatbot gender and users' honesty of self-disclosure when visual interface cues of chatbots were not provided (Kang & Kang 2023; Widener & Lim 2020). However, regarding chatbots with visual interface cues, results supported the moderating effect of users' gender, suggesting that female chatbots increased male users' and decreased female users' honesty of self-disclosure.

Lastly, in terms of chatbot usage, Lee *et al.* found supportive evidence of the moderating roles of two different chat sessions, including journaling and answering sensitive questions, and usage time in the effect of chatbots' conversational styles, including chatbots' high levels of self-disclosure (HD), low levels of self-disclosure (LD), or non-self-disclosure (ND), on users' self-disclosure (Lee *et al.* 2020). Specifically, when users responded to sensitive questions, those who interacted with HD displayed more self-disclosure, including longer responses and more emotional descriptions, than those who interacted with LD and ND. In addition, HD users' self-disclosure of thoughts and feelings increased the most as the research experiment progressed. When it comes to answering the journal task, users who

interacted with LD and HD had longer responses than those with ND, while self-disclosure categories and levels remained the same across the three groups. In contrast, all three groups experienced a decline in response length and feelings of self-disclosure during the experiment.

4 MEDIATORS

Ten mediators were investigated in five studies, namely 1) perceived chatbot dominance, 2) perceived similarity between users' own dominance and that of chatbots, 3) likelihood of accepting chatbot advice, 4) trust in chatbot, 5) social presence, 6) perceived anonymity in chatbot interaction, 7) perceived shame on self-disclosure, 8) perceived rewards and costs, 9) social judgment concern, and 10) perceived chatbots' capacity of social judgment (Croe & Antheunis 2021; Gnewuch & Maedche 2020; Kim *et al.* 2022; Lee *et al.* 2022; Skjuve *et al.* 2023). These mediators can be summarized into 3 categories: users' perceptions (1, 2, 3, 5, 6, 8), information leakage concern (4), and social judgment concern (7, 9, 10). It should be noted that the 10) perceived chatbots' capacity of social judgment can be considered a subcategory for both users' perceptions and social judgment concerns (Kim *et al.* 2022). Since Kim *et al.* developed this mediator based on impression management theory, which illustrated the fundamental desire of people to avoid leaving 'negative impressions (i.e., social judgment concerns)' on others, the current review categorizes it to social judgment concern (Kim *et al.* 2022).

4.1 Users' perceptions

Two dimensions of users' perceptions containing five mediators that mediate the relationship between chatbots and users' self-disclosure were developed. On the one hand, chatbots affect users' self-disclosure through their perceptions of chatbots, including perceived chatbot dominance and perceived similarity between users' own dominance and that of chatbots (Gnewuch & Maedche 2020). By means of these two mediators, Gnewuch *et al.* claimed three pathways through which chatbots affect users' self-disclosure (Gnewuch & Maedche 2020). The first pathway demonstrated the mediating effect of users' perceptions of the chatbots' dominance. According to the social response theory, chatbots' language patterns give users a sense of their personalities. Thus, the more dominant a chatbot's language style is, the stronger the users' perceptions of the chatbot's dominance. This correlation leads to dominant users perceiving more similarity between themselves and the chatbot in terms of dominance.

The second pathway argued a mediating effect of users' perception of the chatbots' dominance similarity to their own, that is, users' perceptions of more similarity with the chatbot increases the degree of users' self-disclosure. As a result, the findings only supported the first pathway (i.e., the dominant language style of the chatbot leads users to perceive more chatbot dominance), which leads to an increase in dominant users' perceived similarity to the chatbot; the results did not support the second pathway. Furthermore, the study proposed a third pathway, which included the likelihood of users accepting chatbot advice as a mediating variable to explain how users' perceptions of dominant similarity affect their degree of self-disclosure. This pathway will be explained in detail in the next paragraph.

On the other hand, chatbots affect users' self-disclosure through their perceptions of themselves, including the likelihood of accepting chatbot advice (Gnewuch & Maedche 2020), perceived rewards and costs (Skjuve *et al.* 2023), and social presence (Croe & Antheunis 2021; Lee *et al.* 2022). As mentioned earlier, Gnewuch *et al.* examined the mediating role of users' tendency to accept chatbots' advice in the effect of chatbots' language styles on users' self-disclosure (Gnewuch & Maedche 2020). The result verified that users' perception of a higher dominant similarity to the chatbot increased the tendency of accepting the chatbots' advice, thereby increasing their level of self-disclosure. The theoretical base of the former relationship was the similarity-attraction theory, which proposed that when making purchasing decisions, people are more likely to trust and follow the suggestions of similar people, and the latter one was related to users' perceived costs and

rewards when interacting with chatbots. They argued that consumers may choose to selectively focus on the benefits of chatbots' advice (such as a valuable product) rather than the costs (e.g., disclosing personal information) when they are more likely to follow the advice. In contrast, although Skjuve *et al.* also verified that users' perceptions of costs and rewards were affected by different positions in the human-chatbot relationship (HCR) process, and with more perceived rewards led to higher levels of self-disclosure, they focused on users' different perceptions of rewards and costs affected by their positions in HCR process (Skjuve *et al.* 2023).

Another vital mediator is social presence, meaning "the feeling of being together with the agent" (Lee *et al.* 2022). According to the Computers Are Social Actors (CASA) paradigm, if a chatbot shows anthropomorphism characteristics, people would perceive it as a social entity and feel like they are talking to a human being (Lee *et al.* 2022). As a result, people may be motivated by feelings similar to interpersonal communication to have a higher level of self-disclosure. Similarly, Croes and Antheunis argued that interpersonal communication provides visual cues that enables people to believe that they are communicating with another human being, thus enhancing their perceived social presence (Croe & Antheunis 2021). In other words, the more chatbots behave like humans, the more users perceive social presence from their interactions with chatbots. Thus, the higher perceived social presence increases users' levels of self-disclosure.

However, although the results from studies supported that a higher perceived level of chatbots' humanlike characteristics increased users' perception of social presence, there were inconsistent findings on the effects of perceived social presence on users' self-disclosure (Croe & Antheunis 2021; Lee *et al.* 2022). Specifically, the results of Lee *et al.*'s study supported the effect of perceived social presence on users' self-disclosure (Lee *et al.* 2022). In contrast, Croes and Antheunis's study showed that perceived social presence was unrelated to users' self-disclosure (Croe & Antheunis 2021). One possible reason that this paper argues for this inconsistency may be the difference in measures of perceived social presence and users' self-disclosure since different scales for both variables were applied in two studies. For example, Lee *et al.* measured users' extent of overall self-disclosure, while Croes and Antheunis focused more on personal information sharing (Croe & Antheunis 2021; Lee *et al.* 2022). Besides, it is also noteworthy that in Lee *et al.*'s study, the effect of social presence on users' self-disclosure was moderated by users' fear of negative evaluation, in which social presence increased users' self-disclosure, especially for those who had lower fear of negative evaluation (Lee *et al.* 2022).

4.2 Information leakage concern

Croes and Antheunis investigated the mediating role of users' trust in chatbots and perceived anonymity in chatbot interaction, which can be generalized to users' information leakage concerns (Croe & Antheunis 2021). The common theoretical logic of these two mediators stemmed from users' belief that chatbots do not give out their personal and sensitive information to others. As a result, the level of trust and anonymity that users perceive in their interactions with chatbots may be higher, and thus cause a higher likelihood of disclosing more personal or intimate information to chatbots. In addition, they also proposed that trustworthy chatbots are those with consistent personalities, emotional expression, and empathic capabilities. However, results were inconsistent regarding the two mediating effects.

In terms of users' trust in chatbots, results revealed that users had less trust in chatbots as interaction partners compared to Computer-Mediated Communication (CMC) and Interpersonal Communication, which led to a lower level of self-disclosure. While in terms of users' perceived anonymity in chatbot interaction, results supported the hypothesized relationship, suggesting that users' interaction with chatbots led to a higher perception of anonymity, compared to CMC and interpersonal communication, which caused a higher level of self-disclosure among users.

4.3 Social judgment concern

The last three mediators were related to users' social judgment concerns, including the perceived capacity of social judgment (Kim *et al.* 2022), social judgment concern (Kim *et al.*

2022), and perceived shame on self-disclosure (Croe & Antheunis 2021). Studies applied the impression management theory to explain these pathways of chatbots' influence on users' self-disclosure. The theory holds that people have a deep-seated drive to present and uphold a positive self-image to other people since they are afraid of social risk, which means "the risk of incurring potentially negative social evaluation" (Kim *et al.* 2022). When transporting this theory to human-chatbot interaction, it is possible to experience less shame and concern about social judgment from chatbots because they believe chatbots are neutral listeners who lack human intellect, emotions, and the ability to understand the connotations associated with human behavior, thus increasing users' willingness on self-disclosure (Kim *et al.* 2022).

Nonetheless, the results of the two studies demonstrated inconsistent findings (Croe & Antheunis 2021; Gnewuch & Maedche 2020). Croes and Antheunis found that users' perceptions of shame on self-disclosure were neither influenced by human-chatbot interaction nor did it affect users' self-disclosure (Croe & Antheunis 2021). In contrast, Kim *et al.* verified that users perceived less capacity of chatbots' social judgement throughout human-chatbot interaction compared to interpersonal interaction, which led to a lower social judgment concern, which in turn increased users' self-disclosure willingness (Kim *et al.* 2022). Furthermore, Kim *et al.* found that when social judgment is required to filter out socially inappropriate information, chatbots can dramatically and substantially reduce users' self-disclosure (Kim *et al.* 2022). This misalignment of results between the two studies in this paragraph might arise from the different focus of the mediators. In other words, the perceived shame of self-disclosure may only be one part of social judgment concern, while it may be other concerns of social judgment that influence the effect of chatbots on users' self-disclosure. Therefore, a more nuanced study on different dimensions of social judgment concern is needed.

5 MODERATED MEDIATION

In addition, Kim *et al.* also demonstrated four service contexts that moderated the relationship between chatbots and users' social judgment concerns, including 1) sensitive vs non-sensitive information, 2) guilt vs sadness, 3) social concern vs social support, and 4) whether social and contextual understanding is needed (Kim *et al.* 2022). While the first, second, and fourth ones might moderate the effect of chatbots on users' social judgment concern that led to users' self-disclosure, the third one might moderate the effect of the emotional capability of chatbots on two types of emotional motivations (i.e., emotional improvement expectation and social judgment concern) that led to users' self-disclosure on social emotion. Overall, results verified that users were more likely to have less social judgment concern about chatbots under the context of disclosing sensitive information, guilt-laden experiences, and when social and contextual understanding is not needed, thus increasing users' level of self-disclosure. In addition, results revealed that under the context of socially supported emotions condition, the empathy of chatbots increased users' self-disclosure on social emotion by raising users' emotion improvement expectations. In contrast, in the context of socially concerning emotional conditions, users' self-disclosure of social emotion increased through their social judgment concern.

6 CONCLUSION

The current review synthesizes ten studies examining chatbots' effects on users' self-disclosure to provide a more comprehensive and clear perspective on the research progress. Results from most of the studies did not support a direct relationship between chatbots and users' self-disclosure, suggesting that the effect of chatbots requires a specific context or has an underlying mechanism. Three studies explored five moderators from three dimensions of

chatbot personality, user attributes, and chatbot usage to examine the effect of chatbots on users' self-disclosure. In addition, five studies examined ten mediators from three dimensions: user perception, information leakage concern, and social judgment concern. However, the moderating and mediating effects results were inconsistent, indicating a need for more nuanced exploration. Furthermore, two moderators were found to moderate two mediating effects. Specifically, service context could indirectly influence the effect of chatbots on users' self-disclosure by adjusting the effects of chatbots on users' social judgment concerns. Fear of negative evaluation could indirectly influence the effects of chatbots on users' self-disclosure by adjusting the effect of chatbots on social presence. In the future, research in this area could serve as a reference to help companies create their chatbots. With the diversification of chatbot functions, such research will be beneficial to improve the applicability of chatbots in future services.

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Exploration of criteria for determining the date of securities misrepresentation disclosure

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ABSTRACT: The determination of the disclosure date for securities misrepresentation is crucial for investors' rights and interests, including their plaintiff qualification, right to compensation, and loss recovery. However, the legal standard for determining the disclosure data is unclear, leading to inconsistent application in judicial practice. China should adhere to a standard where disclosed information is certain and widely known by investors. With a unified standard, investors can make the most correct decisions, protect the interests of investors, and maintain the stability of the securities market. The main basis for the market to know the relevant evidence should be the dramatic fluctuation of stock prices. Additionally, China should expand channels for the disclosure of misrepresentation information and judge the number of required disclosure days based on the specific circumstances of each case. It will be easier to determine false statements, as well as identify liability and compensation for losses after the occurrence of false statements.

Keywords: Securities Market, Misrepresentation, Disclosure Date, Judicial Practice

1 INTRODUCTION

According to Article 8 of the *Several Provisions on Hearing Civil Compensation Cases arising from Misrepresentation in the Securities Market (the Several Provisions)* by the Supreme People's Court's in 2022. The date of disclosure of a misrepresentation is the date on which the misrepresentation is first publicly disclosed in a newspaper, radio or television station with national influence or in a media outlet such as the regulator's website or an industry-renowned self-published media outlet. According to *the Several Provisions*, there are three elements to a misrepresentation disclosure date: disclosure of the misrepresentation, initial public disclosure and national media coverage. The controversy over the above three elements in judicial practice mainly focuses on the inconsistent understanding of the comprehensiveness of the content of the disclosure, the authority of the media, and the degree of warning of the disclosure in specific cases. A clear definition of the disclosure date will reduce the obstacles to investor rights and the difficulty of court proceedings, and will prevent perpetrators from taking advantage of legal loopholes and deliberately issuing obscure "warning" announcements to avoid sanctions, etc.

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2 CRITERIA FOR DETERMINING THE DATE OF DISCLOSURE OF MISREPRESENTATION AND LEGAL DEFECTS IN CHINA

Disclosure and correction of misrepresentation are both forms of misrepresentation disclosure, but they are revealed in different ways. The former is disclosed by others, while the latter is self-corrected (Lawyers for Securities Misrepresentation Civil Compensation Litigation Operation Guidelines, Article 37). Articles 8 and 9 of *the Several Provisions* respectively address the disclosure date and the correction date of securities misrepresentation. Although expressed differently, both the correction date and the disclosure date serve the specific purpose of determining whether there is a causal link between the investment loss and the misrepresentation, as well as determining the point at which the calculation of the amount of investment loss begins. Both actions are considered as issuing a warning to the securities market and reminding investors to reassess the value of the stock. Self-correction and passive disclosure functionally serve the same purpose, which can lead to confusion in practice between the date of correction and the date of disclosure.

2.1 *Disclosure date*

Article 8 of *the Several Provisions* specifies three fundamental characteristics of the disclosure day: the temporal nature of the act of disclosure, the obligatory nature of the content of the disclosure, and the dissemination of the disclosed information. There are still many uncertainties in judicial practice regarding how to determine these three elements of the disclosure date.

Firstly, regarding the first disclosure, it is common for news reports to initially raise suspicions of misrepresentation, following by clarifications of the alleged misrepresentation, and then reports confirming or disproving the allegations. Determining when a rumour becomes a reality can be challenging.

Secondly, there are no specific provisions in the law regarding the content of the disclosed misrepresentation. It is unclear whether the disclosure should be considered substantive or formal. The authenticity of the news reports has also been a subject of dispute, and it is important to consider how to determine whether the content of the disclosures is partially consistent or inconsistent with later-identified misrepresentations.

Thirdly, concerning national media, it remains to be clarified whether national refers to the extent of media coverage or the level of the media outlet itself. It is necessary to study whether the term national refers to the actual distribution coverage of the media outlet or the level of the media outlet. Furthermore, *the Several Provisions* mainly focus on requirements related to the timing, media, and mode of disclosure, but there are no specific provisions regarding the content of the information to be disclosed.

2.2 *Correction date*

According to Article 9 of *the Several Provisions*, the date of correction of a misrepresentation is the date on which the perpetrator of the misrepresentation announces the correction of the misrepresentation on the website of the stock exchange or in a media outlet that meets the conditions set by the regulatory authorities. The correction date contains three elements: firstly, the subject of disclosure is the perpetrator of the misrepresentation; secondly, the medium of disclosure is the media designated by the SFC; and thirdly, the subject of disclosure corrects the announcement on its own and does not act under compulsion.

Compared to *the Certain Provisions on Hearing of Civil Compensation Cases arising from Misrepresentation in the Securities Market* that were promulgated in 2003, the requirement for a suspension of trading has been removed from the determination of the correction date. However, there still remains an element of uncertainty. Difficulties also arise in determining the correction date in cases where the corrective actor maliciously conceals the content of the corrective announcement or when the corrective actor makes multiple partial corrections to the misrepresentation.

3 CONTROVERSY IN JUDICIAL PRACTICE OVER THE CRITERIA FOR DETERMINING THE DATE OF DISCLOSURE

3.1 *Share price volatility as a criterion for recognition*

Looking at the recent process of misrepresentation disclosure, some cases were first reported by news media and then investigated by regulatory authorities for alleged violations, such as *the Zixin Pharmaceutical case* (Jiangsu Provincial High People's Court 2017). In other cases, the misrepresentation was first self-revealed or self-corrected, and then the regulator conducted an investigation, as seen in *the Gaoxin Zhangcong case* (Jiangsu Provincial High People's Court 2019). However, there are also instances where the regulatory authorities directly investigate cases, such as *the Shanghai Putian Postcom Technology Co. case* (Shanghai Financial Court 2020).

For listed companies whose violations had been reported in the news prior to the filing of the investigation, most of the decline in their stock price occurred after the first news report. For example, in a case issued by the Guangzhou Intermediate People's Court in Guangdong Province, in a dispute over liability for misrepresentation of securities by Company J (Guangzhou Intermediate People's Court of Guangdong Province 2020), Guangdong Haiyin Group Co., Ltd. (Haiyin) is a company listed on the Shenzhen Stock Exchange in 2008. On 12 June 2019, Company J issued the "Announcement on the Signing of 'Cooperation Contract'" (Announcement No. 54) to the public, disclosing the proposed cooperation with Xu and Company L in matters relating to the industrialization and operation of Imazhu polysaccharide injection for the prevention and treatment of African swine fever. On 14 June 2019, several authoritative media, such as Juchao.com, Securities Daily.com, China Securities Network, Shanghai Securities News, Securities Daily, Surfing News, 21Economy.com, and First Financial Network, reported the following facts: Haiyin staff confirmed that Imazhu polysaccharide is not a vaccine; the Ministry of Agriculture and Rural Affairs stated that it has not accepted any preventive treatment drugs or vaccines against African swine fever virus, and that Imazhu polysaccharide lacks scientific basis for effectively preventing and controlling African swine fever. On 13 August 2019, Haiyin announced that it had received the Decision on Administrative Penalty. The Administrative Penalty Decision Letter found that Haiyin lacked a relevant basis for disclosing, among other things, the preventive efficiency of Imazhu polysaccharide injection. Wu and others claimed compensation for investment difference, commission, stamp duty, and interest loss on the grounds of misrepresentation of J's securities. The Guangzhou Court held that the content of the authoritative media disclosure on 14 June 2019, was the basis and core of Haiyin's misrepresentation, and that there was an obvious market reaction to the disclosure a few days after 14 June 2019. Therefore, the date of the misrepresentation disclosure was found to be 14 June 2019.

For stocks under regulatory investigation, the largest declines often occur after a regulatory investigation has been filed for alleged violations. Shanghai Putian Postcom Technology Company Limited (Putian), a company listed and traded on the Shanghai Stock Exchange from October 1993 to May 2019, was delisted and its shares terminated on 23 May 2019. On 19 January 2017, Putian issued an announcement stating that it had received a Notice of Investigation from the China Securities Regulatory Commission. On 10 January 2018, Putian issued an announcement stating that it had received a Notice of Prior Administrative Punishment from the Shanghai Regulatory Bureau of the China Securities Regulatory Commission. The drop in share price on the same day as Putian's announcement on January 19, 2017, the significant increase in capital outflow, and the cumulative drop in share price of more than ten percent in the following ten trading days were sufficient to indicate that the announcement had released sufficient warning signals to the securities market. Relevant investors had reevaluated the value of Putian's shares and made new investment decisions accordingly. Therefore, the date of disclosure of the misrepresentation in this case was determined to be January 19, 2017.

In addition, in judicial practice, courts have advocated considering the specific content and manner in which the information was revealed, as well as the degree of share price

volatility following the disclosure, in order to make a judgment. The content, manner, and intensity of the disclosure, as well as the market reaction, should be taken into account when determining the disclosure date.

3.2 *Definition of disclosure media*

The courts have held differing views on the determination of “national media” as the medium of disclosure. When determining whether the date of media coverage can be considered as the date of disclosure of misrepresentation, the court generally takes into account the extent of media coverage, the credibility of the content, and the reaction to determine the degree of warning covered by the media coverage.

In practice, when negative information is reported in the media, listed companies do not immediately accept it and may deny it. Not all news reports that are unfavourable to a listed company can be considered as disclosures of misrepresentation. The court will assess whether the media reports are initial and widespread based on various specific circumstances. If, after the media report, the listed company denies the authenticity of the report and takes proactive measures to “clarify” it through announcements or other means to undermine the credibility of the report, and the report does not cause abnormal fluctuations in the share price, that day will not be considered the date of disclosure. Conversely, if a misrepresentation by a listed company is first reported in widely available media outlets with nationwide coverage, and the media report causes abnormal fluctuations in the market price of the corresponding securities, resulting in a significant decline in share price or trading suspension, reflecting the dramatic market reaction to the disclosure of the misrepresentation, the court may consider the day of the media report as the date of disclosure.

3.3 *Determination of the number of disclosure days*

The disclosure or correction of truth involved after a securities misrepresentation has occurred is often manifested in multiple partial revelations, whereas complete disclosure envisioned by the legislator rarely occurs at one time. Considering various courts views, courts determine whether there are multiple disclosure dates in the same misrepresentation dispute case primarily based on the following aspects:

Firstly, if the subsequent act of disclosure is merely a confirmation of the previously disclosed information, then it does not constitute a new disclosure. For example, in *the Xintai Electric case* (Fuzhou Intermediate People’s Court 2017), the court held that although the illegal act of false statement had been revealed in the Announcement on Receipt of the SFC’s Prior Notice of Administrative Punishment and Market Prohibition issued by Xintai Electric on 2 June 2016 and the “Announcement on Receipt of the SFC’s ‘Decision on Administrative Punishment’” and the “Decision on Market Prohibition” issued on 8 July 2016, the content of the false statement had already been disclosed and corrected as early as 27 November 2015 in the “Announcement of Xintai Electric on the Correction and Retroactive Adjustment of Material Accounting Errors in Previous Years”. Therefore, the subsequent disclosure did not qualify as the “initial public disclosure.”

Secondly, if there are multiple, consecutive disclosures, and the subsequent disclosures are further disclosures based on the content of the previous disclosures, the date of the first disclosure can only be set as the date of the disclosure of the misrepresentation, and only one disclosure date exists in the case. For example, in *the Weifang Yaxing case* (Shandong Provincial High People’s Court 2015), the Shandong High People’s Court held that the date of Weifang Yaxing’s first announcement of its receipt of the Notice of Administrative Regulatory Measures should be taken as the disclosure date of the case, and the second announcement of administrative regulatory measures was a further disclosure of Weifang Yaxing’s existence of misrepresentation and should not be considered as another disclosure date.

Thirdly, separate disclosures are made in respect of different acts of misrepresentation, allowing for the existence of multiple disclosure dates corresponding to them. For example, in

the Daqing Liangyi case (Liaoning Provincial Higher Peoples Court 2019), Daqing Liangyi committed two separate acts of misrepresentation of a different nature, and the two acts were disclosed at different points in time. The court found that on 21 April 1999, Daqing Liangyi first made an announcement in the China Securities Journal regarding the alleged falsity of its 1997 annual report, which was the date of disclosure of the misrepresentation in the 1997 annual report. on 27 April 2000, the decision of the CSRC to impose penalties on Daqing Liangyi for the misrepresentation was published in the China Securities Journal, and the scope of the penalties included not only the 1997 annual report, but also fraudulent listing misrepresentations, which was the date on which the fraudulent listing misrepresentations were first disclosed.

In addition, the courts have adopted a stricter standard for self-correction by listed companies. If the information self-disclosed by a listed company before and after contains different misrepresentations, setting a second correction date can expand the scope of compensation for investors from the perspective of protecting their interests, and the court establishes multiple correction dates for a case. For example, in *the Xintai Electric case* (Fuzhou Intermediate People's Court 2017), the Fuzhou Intermediate People's Court found that the date of Xintai Electric's "Announcement on the Correction and Retroactive Adjustment of Material Accounting Errors in Previous Years" was the first correction date in the case. And later, Xintai Electric issued an "Announcement on the Correction of Accounting Errors in the Half-Year Financial Report for 2015", the court held that although the misrepresentations disclosed in the corrective announcement were made by Xintai Electric in the course of the sponsorship of its listing by Industrial Securities. Moreover, the SFC's subsequent "Administrative Penalty Decision" found that the facts of the violation did not include this, but Industrial Securities voluntarily added this date as the second correction date, which could expand the scope of compensation and better protect the interests of investors, so the announcement date was deemed to be the second correction date.

4 SUGGESTIONS FOR IMPROVING THE DETERMINATION OF THE DATE OF DISCLOSURE OF MISREPRESENTATION OF SECURITIES IN CHINA

4.1 *Shortcomings of the "fraudulent market theory": Share price volatility is not a decisive factor in determining the date of disclosure*

A measure of whether a disclosure has sufficient warning strength for the market and investors cannot be separated from the movement of the share price. The US Federal Court for the Seventh Circuit has stated in a decision that if an issuer's fraud is revealed, the securities market reacts to it, and investors suffer losses precisely because of the market's reaction. Thus, the causal link between fraud and loss is established, i.e. the effect of the price reflected in the market, which is the key to determining the causality of loss, a theory summarized as the "fraudulent market theory" (Ding 2021). The theory is that in a public and efficient securities market, the price of a company's shares is determined by a combination of all publicly available material information relating to that company. Therefore, misrepresentation information, as public information, is necessarily reflected in the price of the relevant stock, as the misrepresentation is already reflected in the market price relied upon by investors. As long as the investor made an investment transaction based on reliance on the market price of the stock, the court can directly presume that the investor made an investment act based on reliance on the misrepresented information, thus establishing a causal link between the two. However, although an immediate fall in the share price can be the primary evidence for determining the date of disclosure, the share price movement cannot be used as the sole indicator for determining the date of disclosure, as the revelation of the truth does not necessarily cause the share price to fluctuate. The reason is that fraudulent market theory is mainly applicable to the "semi-strong efficient" market. The speculative nature of China's securities market, securities prices can only reflect the information

contained in historical trading prices and trading volume, and the reflection of current information has a certain lag, stock price movements are often difficult to determine whether they are caused by misrepresentation or other factors (Lu 2015). Therefore, it is not possible to apply the fraud-on-the-market theory in its entirety and use share price fluctuations as the sole and decisive factor in determining the date of disclosure.

4.2 *Definition of national media: Weakening the requirements on the form and medium of disclosure*

The provisions of *the Several Provisions* that the disclosure of misrepresentations be broad-based and that information about the disclosure should be published in the national media, as such media have the characteristics of wide audience, fast dissemination and high credibility, and are able to maximize the warning effect so that more investors are informed of the misrepresentation in the widest possible scope, thus avoiding further investment losses. In practice, however, the securities market often starts to hear about the misrepresentation before the above-mentioned disclosure date and the price of the securities concerned sometimes already fluctuates. As a result, investors who sell their securities for “stop-loss” purposes are likely to have been damaged. Narrowly limiting the determination of the date of disclosure to the elements set out in *the Several Provisions* would defeat the legislative intent of the date of disclosure and could result in a large number of aggrieved investors being unable to obtain compensation.

US jurisprudence may provide a reference for the construction of a broad day of disclosure. According to *the US case Bristol Myers* (In re Bristol Myers Squibb Co. Securities lit.586 F. Supp.2d at 148 (S. D. N. Y. 2008)), the date of disclosure is determined independently of the specific form and means of disclosure. A more flexible standard of “the misrepresentation is widely known to the market and investors” could be used to replace the rigid standard set out in *the Several Provisions*. For example, news published by some local media or self-published platforms is quickly communicated across the country through various means of communication, including the internet. When a non-national media exposes an act of misrepresentation, the report is widely republished on major portals and becomes known to investors and the market, thus triggering significant fluctuations in share prices, indicating that the above report is highly influential on a wide or even national scale, and therefore the report can also be used as a basis for determining the date of disclosure. When considering a case, the court should take into account the specific circumstances of the case and determine the extent to which the market was aware of the disclosure by combining the following points: firstly, the scope and circulation of the media itself; secondly, the impact of the disclosure; thirdly, the extent of the market reaction after the disclosure; and fourthly, whether the disclosed conduct was subsequently certified by the SFC.

4.3 *Regulation of multiple partial disclosures: Identifying continuity between multiple disclosure dates*

The disclosure is time-sensitive and *the Several Provisions* emphasize the “first time” nature of the disclosure date in order to maximize the extent to which losses arising from the fall in share price as a result of the disclosure of misrepresentation can be claimed, thereby protecting investors in securities. However, after a misrepresentation has been made, there may be a number of announcements or news reports of varying degrees and from different sources. Therefore, it is necessary to discuss whether there are multiple disclosure dates in a misrepresentation case.

Some scholars believe that to identify multiple disclosure dates in a single case is to artificially cut the continuity relationship of misrepresentation acts, and confirming one disclosure date can ensure the uniformity of the law and the consistency of investor claims (Ye 2010). As to whether multiple disclosure days can be recognized, it can be discussed in different situations according to the degree of revelation: firstly, when the perpetrator

commits multiple acts of misrepresentation, separate disclosures or corrections are made for different acts of misrepresentation, allowing for the existence of multiple disclosure days or correction days corresponding to them. Secondly, if a part of the revelation event reveals that a part of the relevant truth is material, then all points in time of the revelation that meet this condition should be considered as disclosure/correction dates (Fang 2014). Again, drawing on US jurisprudence, where there are multiple partial revelations, if each revelation is not material when considered in isolation, its impact on the market reaction is so insignificant that it cannot constitute a single date of revelation, a single date of revelation should be determined by combining the above partial revelations as a whole. Finally, for a misrepresentation that is not revealed in its entirety at one time, but the perpetrator deliberately releases the true information gradually by subdivision in order to mitigate or avoid its own liability, a stricter standard should be adopted and each part of the date of disclosure or correction should be regarded as a separate date of disclosure or correction. Identifying multiple disclosure dates in a misrepresentation case is a more stringent requirement for disclosure obligors, which is of great significance for regulating the securities market and safeguarding the legitimate rights and interests of investors.

5 CONCLUSION

The importance of setting a disclosure date for misrepresentations is to enable investors to make rational investment decisions based on relatively “true, accurate and complete” information, thereby protecting the interests of investors and maintaining the stability of the securities market. Improving the criteria for determining the date of disclosure will be conducive to resolving the issue of liability determination and compensation for losses after a misrepresentation has occurred. At the same time, it will also serve as a warning against securities misrepresentation.

AUTHOR CONTRIBUTION

All the authors contributed equally and their names were listed alphabetical order.

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Criteria for identifying and specifying the “Corresponding Liability” of platform operators–platform online car as an entry point

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ABSTRACT: Article 38(2) of *China’s Electronic Commerce Law* adopts the provision of “corresponding liability”. This legislative process has taken many twists and turns, going from “joint and several liability” to “supplementary liability” and finally settling on “corresponding liability”. However, the results in practice are still not encouraging. This ambiguous formulation has not only sparked controversy with the theoretical community, but has also created numerous challenges in the application of judicial practice. For example, the phenomenon of different judgments in the same case has emerged. In practice, platform operators are involved in complex relationships and situations. In address the dilemma surrounding the application of “corresponding liability”, it is necessary to categorize and analyze the “corresponding liability” of platform operators by reviewing pertinent theoretical research and incorporating insights from relevant judicial practice. By doing so, clear criteria can be established for determining the “corresponding liability” of platform operators, which will facilitate the refinement of relevant provisions.

Keywords: Platform Operators, Liability, Online Car Platform

1 INTRODUCTION

With the booming e-commerce industry, the importance of the *E-Commerce Law* has been further highlighted and the term “corresponding liability” has emerged in an increasing number of cases. In instance, the word “corresponding liability” in the definition of platform operators’ liabilities is undefined and not determined in a methodical and precise manner. Furthermore, it might be challenging to distinguish between “joint and several liability” and “supplementary liability.” This difficult problem has caused a series of problems in judicial practice. Especially in the case of various types of cases with different judgments, for example, the case of *China Pacific Property Insurance Co. Ltd. and Hu Qiuming, etc.* (Beijing Financial Court 2022 Beijing 74 Minzhong No.1154 Civil Judgment), and *Xu Shouzeng and Lv Zhenjie, etc.* (Chaoyang District People’s Court of Beijing Municipality 2021 Beijing 0105 Minchu No.55706 Civil Judgment), as the same type of cases, there are obvious different results in determining the legal relationship between the online platform and the subject of the online car. Based on this, it is necessary to discuss the criteria and specificity of their determination. In this paper, we take the platform of the online car as the entry point, and further clarify the factors of its liability determination by studying the controversies that arise at the theoretical and practical levels, and concretize them.

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2 CURRENT STATUS OF THE DETERMINATION OF THE “CORRESPONDING LIABILITY” OF THE PLATFORM OPERATOR

2.1 *Theoretical aspects: Unclear identification of the specific types of liability forms of “corresponding liability”*

The *E-Commerce Law* is an example of comprehensive e-commerce law, however one significant omission from the law is its treatment of the liability of platform operators. Article 38 (2) of the *E-Commerce Law* adopts a vague formulation of “corresponding liability”, which brings many controversial issues to the judicial application. In order to resolve the differences and application problems arising from this vague formulation at the level of theory and judicial practice. The author of this article makes the case that in order to explain the definition of “corresponding liability” and the concretization of liability from a theoretical standpoint, it is required to sort through and analyze the findings of the existing research.

On the basis of the civil liability theory, the specific liability form of “corresponding liability” can be classified as joint and several liability, supplementary liability or contributory liability (Wang 2020). With regard to the specific liability of the platform operator, some scholars believe that the platform operators provide necessary conditions for operators within the platform, and has certain control over the operation and infringement of the platform. So it should assume a higher security obligation (Yu 2021), and the analogous application of “supplementary liability” may lead to a lighter liability (Ma 2021). However, some scholars have argued that if the liability of platform operators is too heavy, it may limit and restrict the innovation and development of e-commerce platforms (Xing 2021), which will not achieve the desired effect of the legislation of the *E-commerce Law*. If “joint and several liability” is adopted, the platform operator “must assume a general active monitoring obligation for all transactions carried out on the platform, which on the one hand leads to an excessive burden on the platform operator and on the other hand may erode the rights of the operators within the platform and have the negative effect of inhibiting innovation” (Ma 2021). Additionally, it is argued that there is a direct interest relationship between the platform operators and the business practices of the operators on the platform, as the profits of the former are closely linked to the latter. Because “supplementary liability” is used, the platform operators’ culpability is reduced, and they ought to be held more accountable (Ma 2021). It can be seen that, at a theoretical level, the identification of the specific type of liability form for “corresponding liability” remains controversial and ambiguous.

2.2 *In practical terms: Disputes can arise over the determination of the platform operator’s corresponding liability*

Article 9(2) of the *E-Commerce Law* provides that “The e-commerce platform operator referred to in this Law is a legal or unincorporated organization that provides online business premises, transaction aggregation, information dissemination and other services for two or more parties to a transaction in e-commerce, for the two or more parties to carry out trading activities independently.” It is thus clear that platform operators should only act as third-party subjects to facilitate transactions within the platform, and not directly as transaction subjects and consumers. Platform operators, however, are utilized in various ways under the *E-Commerce Law*. However, when considered in conjunction with guidelines in Article 46 of the Law’s opening phrase. In addition to the services specified in paragraph 2, Article 9 of this Law, an e-commerce platform business may, under the platform service agreement and transaction rules, provide such services for e-commerce between businesses, as warehousing, logistics, payment settlement, delivery, and other services. When providing services for the e-commerce between businesses, an e-commerce platform business shall observe the laws, administrative regulations, and the relevant rules issued by the state and shall not conduct trading, by call auction, market maker, or any other means of centralized trading, or by standardized contract.” It can be seen that the so-called operating platforms under the *E-Commerce Law* may be either operators who provide online media services only or operators who also carry out direct sales, transportation, warehousing and other businesses (Wu 2022).

2.2.1 *The change in the service model of a platform operator can affect the assumption of liability*

The non-media business of the operator may include content similar to that of the platform. This includes two types of businesses: one with the same or similar content as the operator's business on the platform, and the other where the platform operator provides logistics, warehousing, payment and settlement, navigation, and other services to the trading entities within the platform. In practice, the services provided by some platform operators may undergo transformed. For instance, in the initial stage, the platform primarily offers services such as media and logistics. Based on providing these services, the platform may act as a sales entity directly dealing with consumers later. Alternatively, the platform itself may act as the main sales entity initially and then introduce operators within the platform at a later stage. Some platforms are increasing their control over operators. At this time, the legal relationship between the platform and the operator may change depending on whether the platform's management activities meet the criteria for the identification them as an employer, making a distinction.

In practice, it cannot be determined based solely on the services claimed and legal relationships formed, whether a platform is required to assume the obligations and responsibilities of a carrier or seller. When it comes to the case of *Beijing Xianghe Yuantong Express Co., Ltd. and Sun Baifeng and Other Motor Vehicle Traffic Accident Liability Dispute* (Beijing the First Intermediate People's Court 2022 Beijing 01 Minzhong No.4432 Civil Judgment), although the service agreement signed between Digital Settlement and Sun Baifeng stipulated that there were no labor relations between the two parties and that Sun Baifeng should bear the corresponding responsibility himself, the court held that the agreement was not sufficient to negate the parties' specific rights and obligations. The Court held that the agreement was not sufficient to negate the parties' specific rights and obligations. The Court deemed the agreement insufficient to the override the particular rights and obligations of the parties. Additionally to the fact that the company had certain employment management over Sun Baifeng, the Court considered that it was a situation where an employment contract should have been signed but had not been signed. The court concluded that the company should have signed a contract with Sun Baifeng, based on the content of the Outsourcing Service Contract and the fact that the company had taken out accident insurance for him; however, they failed to do so. The court decided that the company and its employee was responsible for damages caused to Li Qin during the performance of his work duties by Sun Baifeng.

2.2.2 *The controversy revolves around the legal relationship between the online car platform and the owner/driver of the vehicle listed on the platform*

In *China Pacific Property & Casualty Insurance Co., Ltd. Beijing Branch (Pacific North) and Hu Qiuming and Other Insurers' Subrogation Rights Dispute* (Beijing Financial Court 2022 Beijing 74 Minzhong No.1154 Civil Judgment)), the court held that Pacific North failed to provide evidence proving a labour relation between the drip company and Liu Yushi. Additionally, the court rejected Pacific North's argument that taking orders was an official act on Liu Yushi's part. Additionally, Article 16 of the "Administrative Measures for the Operation of Network-booked Rental Car Services" states that the liability of the operator of a network-based car rental platform is related to public and passenger safety, which differs from the liability claimed by the Pacific North against the drip company. In summary, the court ruled that DDT could not be held liable to Pacific North simply because it was a carrier. Although the company was found responsible for not properly verifying the vehicle's eligibility for operation and failing to meet its safety obligations towards consumers, the court interpreted the "corresponding liability" stated in Article 38(2) of the *E-Commerce Law* as referring to the regulation on the liability of safety duty holders outlined in Article 37(2) of the *Tort Liability Law*, which was valid at that time. The court interpreted "corresponding liability" in Article 38(2) of the *E-commerce Law* as "supplementary liability" in Article 37(2) of the *Tort Liability Law*, which was applicable at the time. Consequently, the company was held responsible for the Pacific North's actions.

However, in the case of Xu Shouzeng and Lv Zhenjie and Other Motor Vehicle Traffic Accident Liability Dispute (Chaoyang District People's Court of Beijing Municipality 2021 Beijing 0105 Minchu No.55706 Civil Judgment), according to the court, the drop shipping corporation, as a net car operating platform, knew that the vehicle was a non-operating vehicle, but still registered it as a net car. This resulted in the commercial third party insurance for the vehicle being refused. Therefore, the company should be held jointly and severally liable for the insurance denial.

3 LIABILITY DETERMINATION OF THE OPERATOR OF THE ONLINE TAXI PLATFORM

3.1 *Identification of the legal relationship between the online car platform and the subject of the online car*

Net-hailing is a more flexible form of transportation compared to the traditional industry. Therefore, it is crucial to study how to determine the legal relationship between the net-hailing platform and its drivers/passengers in order to resolve disputes that may arise.

Intermediary Relations. The two are in an intermediary relationship, which is in line with the legal relationship of intermediary contracts as stipulated in Article 961 of the *Civil Code*, where the online taxi platform only acts as an information provider and does not participate in the transaction as a subject, and only enjoys the right to claim remuneration after the contract is established. However, it is unreasonable to consider the relationship as an intermediary relationship, as the remuneration received by the online taxi platform is different from the intermediary model (Fu 2022). Article 963 of the *Civil Code* provides that the remuneration of the intermediary is to be borne equally by the principal. In contrast, the process of operating an online taxi is that the passenger pays the fee according to the rules of the fee and the platform pays the driver according to the terms of the contract. Therefore, this payment method differs from the way in which the intermediary receives remuneration.

Service Relations. Scholars who agree with this relationship argue that there is only a property relationship between the driver and the platform operator, which does not involve subordination or dependency on the part of the driver (Peng & Cao 2016). Furthermore, the platform does not exert relevant constraints or management over the drivers (Sun 2019). There are some issues to consider. The driver should be classified as the provider of labor rather than the carrier, which is inconsistent with present law, if the connection between the hitchhiking platform and the driver is considered to be one of work (Zhang 2022).

Labour Relations. Under the platform's own model, the two can be identified as labor relations, but if it involves the two sides did not actually sign a written labor contract, it also needs to be analyzed from the factual labor relations (Zhang 2022).

Cooperation Relations. For example, In the 'rent-a-driver' model, the online car platform and the driver have equal standing, and the driver can choose whether to accept or reject orders from the platform. This gives the driver more autonomy and freedom from mandatory constraints imposed by the platform. In the process of serving passengers, the driver and the platform company form a new type of partnership.

3.2 *The determination of the "corresponding liability" of the online car platform under different business models*

3.2.1 *Determining the online car platform's liability in the fast car and special car modes*
Depending on whether the vehicle is owned by the platform and whether the driver is directly employed by the platform, there are two types of express and special vehicles: platform-owned and social vehicles. The former often means that the platform has dominance over the driver and the two establish an labour relation. The latter requires a determination of whether the two constitute labour relation or service relation based on specific factors such as whether the driver has the operation of a net-contracted vehicle as his or her job and main source of income. This section focuses on how to define the liability of the online car platform in the absence of fault.

The online car platform is not considered at fault for traffic accidents caused by the driver under a no-fault liability. However, if a labour relation is established between the platform and the driver, the platform operator may still bear no-fault liability as a carrier according to Article 16 of the *Administrative Measures for Online Contract Vehicles*. If the execution of his work duties causes damage to passengers and third parties, the driver shall be liable for compensation, in conjunction with the *Civil Code* Article 1191(1) requirements. If the platform has effectively fulfilled its safety and security obligations, then, in accordance with the provisions of the *Civil Code*, the online taxi platform may recover from the driver who has intentionally or grossly negligently undertaken the tort liability. Whenever there is a service relationship between the platform and the driver, as per *Civil Code* Article 1192, if the driver causes damage to a passenger in the course of providing transport services, the platform shall be liable for no-fault compensation as the party receiving the services. In the same way as when a labour relation is established, the online taxi platform shall be entitled to recover compensation from the driver who has intentionally or grossly negligently caused the damage after assuming liability.

If a third party is responsible for a traffic accident and the online car platform is not at fault, joint and several liability applies. The driver is not held accountable for the accident, and the responsibility for compensation should be assumed by the third party. At this point, the paper argues that as contractual liability is a strict liability, the party breaches the contract shall undertake the liability for breach of contract after the breach has occurred, and the subjective fault of the party in breach of contract shall not affect the liability of breaching the contract. At the same time, the paper argues that this approach to liability determination is more conducive to protecting the interests of passengers as a vulnerable party and receiving timely compensation. That is, for the passenger's damages, the online taxi platform and the third party should assume associated liabilities for compensation. Platforms are not able to recover from drivers who are not intentionally and grossly negligent after assuming liability. However, they can still recover from third parties.

3.2.2 *Determining the liability of an online taxi platform for the modes of hitchhiking and traditional taxi services*

Under the hitchhiking and taxi models, the function of the online platform is to act as an intermediary to facilitate the conclusion of contracts between the online subject and the passenger, and the platform should bear intermediary liability, such as fault liability, which also means that the online platform will not be liable if there is no fault. As an intermediary, the platform needs to push real and accurate information about drivers and their vehicles to passengers. If the platform intentionally conceals important facts or provides false information that causes damage to passengers, it should bear the corresponding liability for violation of contract.

In the case of traffic accidents caused by drivers, if the platform fails to perform formal audits and allows unqualified drivers to engage in business or qualified drivers to drive unqualified vehicles while engaging in online car business, resulting in accidents that cause damage to passengers, the online car platform should bear an appropriate share of responsibility based on its fault.

In the event that a traffic accident is caused by a third party, the provisions of Article 1198 paragraph 2 of the *Civil Code* shall apply and the third party shall be responsible for causing damage to the passenger. If the whereabouts of the third party are unknown or the third party is insolvent, the online platform assumes supplementary liability for failure to fulfil its safety and security obligations and has the right to recover compensation from the third party. Although the damage to the passenger was not directly caused by the platform's breach of its safety obligations, it did put the passenger's safety at risk, thereby increasing the likelihood of a traffic accident, and it should bear a corresponding supplementary liability for the risk (Zhu 2014).

In the process of taking orders for ride-hailing, the platform is unable to monitor in real time, and the driver is often able to achieve dominance in the small space of the car, so it is not enough to hold the online platform responsible for intermediary responsibility to fully protect the legitimate rights and interests of passengers. This article argues that a higher level of responsibility

should be imposed on the online taxi platform at this point. For example, monitoring the movement of vehicles based on real-time positioning and reacting in a timely manner when abnormal situations occur, otherwise the online taxi platform should be held liable for tort.

4 CONCLUSION

Taking the platform of net-contracted vehicles as the entry point, the research on the identification standard of the “corresponding responsibility” of the platform operator will not only help to solve the judicial application problems caused by the ambiguity of the legislation, but also help the further development of China’s net-contracted vehicle platform under the background of the Internet. Based on this, the paper firstly clarifies the legal relationship between the ride-hailing platform and the ride-hailing driver, and analyzes the four existing relationships: intermediary relationship, employment relationship, labor dispatch relationship, and cooperative relationship. On the basis of this, the “corresponding liability” of different types of online car models within the online car platform under different business models is refined, so as to clarify the specific criteria for determining the “corresponding liability”. It should be noted that although this paper has achieved certain research results, there are still certain shortcomings, for example, further clarification is required regarding the subject’s legal relationship to the online taxi platform, and the “corresponding liability” of platform operators under different business models needs to be further refined.

AUTHOR CONTRIBUTION

All the authors contributed equally and their names were listed alphabetical order.

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Standards and limits of the obligation of network service providers to review infringement notices

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ABSTRACT: E-commerce platform operators face differences in views regarding suspected infringement review standards between legislative expression, legislative interpretation, and judicial decisions. From a practical standpoint, the adoption of a formal review standard may create an imbalance in the legal order, while rigidly adoption of a “one-size-fits-all” standard may harm the public interest. By drawing on legislative experience from overseas and taking into account China’s actual national conditions, it is possible to amend and improve the standards and limits of the Chinese platform operator’s obligation to review infringement notices. In other words, e-commerce platform operators can autonomously choose the review standard based on their own review capability, within the scope of no less than general possibility, and allow them to raise the review standard to a high level of conclusiveness in individual cases. Such standards and limits can strike a balance between reducing the burden on public authorities and avoiding undue erosion of public power, as well as promoting common governance of cyberspace.

Keywords: E-commerce Platform Operators, Review Obligations, Online Infringement, Refinement Suggestions

1 INTRODUCTION

With the rapid development of the Internet and social media, people have unprecedented ease of access to and communication of information. However, this convenience has also brought a series of problems, such as information overload, information leakage, and the spread of false and harmful information. These problems have had many negative impacts on people’s lives and on the social order. In order to cope with these problems and impacts, platform operators are required to assume the responsibility of information review to ensure that the content on the platform complies with both laws and regulations and does not violate social morality. The so-called platform operators are legal or unincorporated organizations that provide Internet services such as transaction aggregation and information dissemination (The Civil Code of the People’s Republic of China, Article 9). The specific types include search engines such as Baidu, Google and Bing, and social software such as WeChat, Weibo, Facebook and Twitter, all of which are platform

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operators in the sense of civil law. However, the standard of information review obligations of platform operators varies. For example, in mainland China, according to the relevant laws and regulations, platform operators are required to assume a stricter censorship responsibility to strictly review content related to national security, social stability and public interests. The purpose is to prevent the spread of harmful information such as online rumors, violence and terrorism, pornography and obscenity. However, in Europe and the United States, due to more emphasis on the protection of the general public's freedom of speech and freedom of the press, the platform operators' censorship standards are more lenient compared to the mainland, usually only censoring content that touches the legal bottom line and violates laws and regulations.

In addition, there is no unified standard for platform operators in China, which also leads to many problems, for example, because the review standard of each platform operator is different, the content that is found to be irregular in one platform may be reviewed and approved in another platform. This situation may lead to the proliferation of false, illegal or even illegal information on the Internet and there is no way to completely prevent and control. There are also some private information leaked by others in violation of the law, which may lead to different protection of users' rights and interests in different platforms due to the difference of audit standards. Studying the standards and limits of information audit obligations for platform operators can reduce operating costs and improve their ability to fulfill their audit obligation. This includes reducing management costs associated with inconsistent standards, such as audit time and expenses. At the same time, it can prompt platform operators to better fulfill their auditing obligations specified by legislation and clarify their auditing responsibilities, in order to establish a more complete regulatory mechanism. This paper summarizes and summarizes the controversial points in China's existing theory and practice, and researches the relevant judicial practice to sort out the practical application of the platform operator's auditing obligation standard and the main problems. This paper analyze and summarize the overseas experiences to propose recommendations and improvement measures. This will promote standardization and scientificization of the platform operator's audit obligation standard in China while safeguarding the legitimate rights and interests of users and fostering a healthy online ecology.

2 CHINA'S LEGISLATIVE PROVISIONS ON THE OBLIGATION TO REVIEW PLATFORM OPERATORS

China's platform operators fulfill their protection obligations mainly through the "notice" and "counter-notice" rules in Articles 42 and 43 of the *E-commerce Law of the People's Republic of China*. The design of the provision draws on the safe harbor doctrine in U.S. law, the obligation in administrative law. For example, according to Article 84 of the *E-commerce Law of the People's Republic of China*, the e-commerce platform has the obligation to discover infringing information and stop it, and the legal consequence of violating this obligation is to bear the corresponding administrative legal responsibility. The *E-commerce Law of the People's Republic of China* stipulates that e-commerce platform operators failing to fulfill their obligations to protect intellectual property rights shall bear civil liability in addition to administrative legal responsibility. The so-called "notice" and "counter-notice" system means that the complainant sends a notice of infringement to the e-commerce platform and submits Preliminary evidence. Then if the e-commerce platform determines that the complaint is substantiated, it shall forward its notice of infringement to the respondent and take necessary measures to prevent the expansion of potential damages, such as deletion and termination of transactions. The respondent may submit preliminary evidence of non-existent infringement and real identity information to the e-commerce platform after receiving the notice. After that, the e-commerce platform shall issue a counter-notice to the complainant after receiving the relevant non-infringement statement and inform him that he may complain to the relevant competent authorities or sue in the people's court. If the complainant has not taken any public power remedies within the statutory period, the e-commerce platform shall promptly terminate the measures taken.

Articles 1194 to 1197 of the Tort Liability Part of *Civil Code of the People's Republic of China* take over from Article 36 of the defunct *Tort Liability Law of the People's Republic of China* and provide more detailed provisions on the liability for online infringement, which includes not only infringement of others' intellectual property rights, but also infringement of others' personality and property rights. These more detailed adjustments alleviate the problems that may exist in judicial practice. For example, the content of both the infringement notice and the non-infringement statement provides for the provision of real identity information, which can be interpreted to facilitate the right holder or network user to sue or complain to the judicial or administrative authorities, making the subsequent "reasonable period" provision realistic and operational. However, the standards and limits of the platform operator's review obligations are not clearly defined, which has not only caused controversy in the theoretical community, but also led to a series of problems in judicial practice.

3 THE CURRENT SITUATION OF THE DISPUTE OVER THE STANDARDS AND LIMITS OF PLATFORM OPERATORS' REVIEW OBLIGATIONS IN CHINA

3.1 *The theoretical circle: The debate on the degree of platform operator review standards*

The expected external behavior of platform operators in the transaction process under Chinese law includes fulfilling the duty of general rational economic people, exercising "qualification examination obligation" in the field of intellectual property, and fulfilling "security obligation" towards consumers. There are generally three viewpoints in academic areas: The first view hold that the examination standards should be adjusted according to the types of infringed rights. High protection value of the subject matter is not only necessary to comply with the notification requirements of the platform for submitting preliminary evidence or reasonable notification methods, but also to conduct substantive examination at a higher level. At least, a reasonable person believe that a high degree of infringement has occurred or is occurring on the platform. At the same time, the judge should be given greater discretion according to the specific circumstances of the case to judge, which can better reflect the fairness and justice of the judiciary. However, the biggest flaw is that in judicial practice, judges of different procedures often hold different views, which may lead to a certain degree of waste of judicial resources.

The second view is that the platform operators receive notice of the infringed through the designated path, the staff only needs to conduct a simple formal review of the infringement notice through the internal system. The platform operator does not need to make a legal or factual determination regarding the content in question to decide whether to disconnect or delete it, as long as the notice submitted by the infringed party complies with the evidence requirements outlined in the user service agreement. This point of view is to prevent platform operators from refusing to take necessary measures out of fear of adverse consequences, especially in the period of large-scale promotion activities of the e-commerce platform. Rivals may conduct malicious reports for competitive purposes, so that the reported link is removed, thereby causing huge losses to the merchants.

The third point of view is that platform operators' "notice-delete" rule, "counter-notice", and "reverse pre-litigation act preservation application" should not impose unreasonable or harsh conditions or obstacles on individuals seeking to protect their legal rights against infringement. For example, imposing additional conditions unrelated to the content of notices and counter-notices, or placing excessive requirements on prima facie evidence. At the same time, platform operators should review whether the "notice" and "counter-notice" have the formal requirements required by the platform, and exclude the notice or counter-notice of the existence of infringement facts with lower proof power. High proof power notice generally includes proof of intellectual property rights and effective information of the right holder, information of the accused infringing goods or services that can achieve accurate positioning, preliminary evidence of infringement, specific measures required to be taken, written guarantee of the authenticity of

the notice, etc. In practice, platform operators have greater autonomy in the requirements and examination of preliminary evidence, and can set higher standards for the examination of notices and counter-notices, but they should bear the legal responsibility for the adverse consequences caused by judgment errors and compensation for damages to the infringed.

3.2 *The practical community: The examination standards are different*

At present, in Chinese judicial practice, if the platform operators can prove that goods or services qualification information has conducted formal review, the court will generally directly determine that they have fulfilled the duty of information review, regardless of whether the content is special. In the air pollution liability dispute between China Biodiversity Conservation and Green Development Foundation and Zhejiang Taobao Network Co., LTD. (The Supreme People's Court Minshen No.4446, 2020 Civil Judgment), the retrial court held that "Taobao, as a platform for providing information which has established a system such as merchant identity information review, and has fulfilled its obligation to remind customers in advance. This paper also utilizes our existing capabilities to investigate platform violation information through control measures such as releasing banned commodity information and conducting keyword searches." Similarly, in the disputes over online shopping contracts between Zheng Jianping Department Store in Qinhan New City, Zhejiang Taobao Network Co., Ltd. and Li Gege, Ma Chunzhong, Zheng Jianping, and Ma Chunchun Department Store in Xi'an International Port Zone (Guangdong Intermediate People's Court 06 Minzai No.10835,2020 Civil Judgment). Although Taobao Platform was provided with false food production licenses, it engaged in commercial activities of selling food without obtaining a proper food production or business license. However, the court held that due to the particularity of online transactions, online trading platform providers do not have sufficient capacity (including human and material resources, etc.) to exhaustively examine whether many network operators have food production licenses. It is impossible to conduct a one-by-one and comprehensive inspection of the specific transactions of all platform commodities. At present, to require online trading platform providers to conduct substantive review of the authenticity of all licenses and specific conditions of all commodity operations is not appropriate, so they should fulfill the obligation of formal review.

4 EXTRATERRITORIAL EXPERIENCE OF THE STANDARD OF THE PLATFORM OPERATOR'S INFORMATION REVIEW OBLIGATION

4.1 *The extra-territorial limits of the platform operator's obligation to review*

In order to analyze the standard of the platform operator's obligation to review in foreign law, it is necessary to sort out the limits of the platform operator's obligation to review information in the sense of comparative law.

Firstly, the question of the limits of a platform operator's duty to review information, and the question of what kind of information review obligations a platform operator can meet to be exempt from liability. The judiciary in the common law system prefers the general standard of a reasonable person to this question (Ye 2015). The general reasonable person standard refers to whether the actor has breached the non-enactment duty of care that he or she should bear, and the judge does not judge the case by the actor's conduct, but by that of an ordinary person. With the development of theory and practice, the general standard for rational individuals has been divided into subjective and objective judgement standards. The subjective judgement standard was previously divided into the ability to identify, judge, and cognitive ability before the 1960s, but after the 1960s, the general standard for rational individuals underwent an objective change influenced by the French Supreme Court. In the Anglo-American law system, platform managers are identified in more detail under the framework of the general reasonable person standard (Mei 2006). Among them, the

cognitive ability of platform operators in the process of information review is divided into knowledge level and knowledge ability. In this respect, they are required to have the professional ability and experience in problem solving of general platform operators (Hu 2022). However, for those involving professional knowledge such as law and economics, only the cognitive level of an ordinary platform worker is required.

4.2 *Extra-territorial standards of the platform operator's review obligations*

4.2.1 *The division between formal and substantive review in the common law system*

The EU introduced the *E-commerce Directive* in 2000, Article 15 of which provides that “Member States may not require e-commerce platforms that transmit or store information to undertake formal review obligations, nor may they require e-commerce platforms to undertake the obligation to actively collect illegal information. However, the Member States may require e-commerce platforms to undertake the obligation to report illegal information. However, Member States may impose an obligation on e-commerce platforms to report information on infringements (Electronic Commerce Directive. Article 15).” In 2022, the *mentioned E-Commerce Directive* is even more refined and supplemented in the introduction of the *Digital Services (Act)*.

The *E-Commerce Directive* does not absolutely negate the obligation of e-commerce platform operators to review, but only leaves the specifics of the proactive review of information to the Member States. The *subsequent Digital Services (Act)* divides platform operators into intermediary platforms, hosting platforms, online platforms and large online platforms. As can be seen from Articles 13 (*Digital Service Act. Article 13-1*), 26 (*Digital Service Act. Article 26-1*) and 30 of the Act (*Digital Service Act. Article 30-1*), the EU is more inclined to adopt a substantive review standard for large online platforms, so that users and consumers can better understand the social impact of large online platforms through the audit reports and relevant certificates issued by the platforms. This shows that the EU has adopted a more flexible approach to the standard of audit of platform operators, and does not provide for a comprehensive review in terms of formal and substantive review, but rather provides for targeted regulation according to the type of platform.

4.2.2 *The standard of review of prima facie evidence by platform operators in the common law system*

In the United States, the law clearly provides for the form and content of prima facie evidence. According to Article 512 of the *Digital Millennium Copyright Act (DMCA)*, the content of prima facie evidence is required to: (1) sign a notice of infringement; (2) identify the infringed work; (3) adequately identify the infringing content; (4) provide personal details of the complaining party for contact in the computer system; (5) submit an affidavit stating that the complaining party has a good faith belief (Ulrich *et al.* 2015). Also, based on the relevant provisions of paragraph (B) of the same section of the Act, it can be seen that the US courts prefer a standard of review of the formal elements of prima facie evidence by the platform operator.

5 THE PATH TO IMPROVE THE REVIEW OBLIGATIONS OF PLATFORM OPERATORS

5.1 *Distinguishing the types of platform operators*

This paper argues that adopting a method to distinguish between the various business activities of platform operators and the identity and qualifications of different platform operators can provide better compensation for the shortcomings of the criteria mentioned. This can also ensure the safety of transactions between platform operators and consumers in accordance with the law. For example, with the classification made in the *Digital Services (Act)*, China can also classify platform operators into intermediary platforms, hosting

platforms, online platforms and large online platforms. For large online platforms such as Taobao, they should be subject to greater scrutiny obligations than smaller e-commerce platforms. They should establish appropriate internal review bodies and regular review their results. Regarding different business contents, China can classify them according to the law. For example, food, pharmaceuticals and information that may seriously infringe on personal rights are subject to substantive review, while property rights that infringe on lesser legal interests are only subject to formal review. However, this multi-dimensional standard of review is complex and requires detailed legislative work and further establishment and implementation in judicial practice. For example, to determine the level review standard system of goods and services according to the degree of correlation with the life and health of consumers, the difficulty is to transform the existing simple and easy to understand review system into a more complex and professional review system, which also puts higher requirements on large platform operators. Although consumers will have more trust in platforms with guaranteed transactions, they will also squeeze the living space of small and medium-sized platforms to a certain extent, resulting in the potential risk of operator concentration. This requires a complex standard of information review obligations and close cooperation between supervisory and regulatory authorities and platform operators.

5.2 Clarifying the standard of proof for prima facie evidence

As for the standard of proof of prima facie evidence, the United States adopts the formal elements of prima facie evidence for examination, while China divides the differences in the prima facie evidence into the standard of high probability and general possibility (Ma 2022). But obviously, under the framework of the general rational person mentioned above, only the formal elements of the examination standard and general possibility are consistent. This is because the platform operator, even with its own legal team and a very reasonable review mechanism, is not destined to be able to argue the prima facie case as centrally as a court. At this point, only the formal elements review and the general likelihood review can be compatible with the cognitive capacity and level of cognition of the platform operator. At the same time, as far as the general possibility is concerned, it has been applied in the Shanghai Meixing case (Shanghai First Intermediate People's Court Minzhong Zi No.4923 Civil Judgment), which requires not only a review of the formal elements of the prima facie evidence, but also a substantive review of the authenticity and relevance of the prima facie evidence. Therefore, the issue of the standard of proof of prima facie evidence should be analyzed in a specific manner, and it is obvious that different standards of proof should be set for some phenomena that are difficult to prove in judicial practice and for issues of significant commercial interest.

5.3 Preventing abuse of the right to notice in judicial practice

Nowadays, the abuse of notice is common in judicial practice. The conditions for exercising the right to notice may include requirements such as providing security if the exercise of the right affects the platform or third-party commercial interests significantly. The notifier should exercise the right prudently to prevent losses to themselves and the platform operator. The provision of security will reduce the occurrence of malicious complaints and abuse of the right of notification, thus ensuring the normal operation of the platform activities.

5.4 Establishing a regulatory mechanism for the review of platform operators

China's current regulatory mechanism for platform operators is jointly managed by the Ministry of Commerce, the Ministry of Public Security, the Market Supervision Administration and the State Internet Information Office, with no relatively independent regulatory department. However, with the rapid development of the internet era, there should be an independent department to regulate platform operators. The regulator can not only

handle disputes between platform operators and notifiers, but also supervise the day-to-day review aspects of platform operators. For example, the review process of the platform operator as well as the results of the review should be supervised. This would facilitate the establishment of a sound regulatory system for the review of platform operators in China, thereby better safeguarding the operation of the platform and the fulfillment of the review obligations.

6 CONCLUSION

In this paper, the argument is made that different business types and categories of platform operators should adopt a differentiated approach to review criteria. This method can effectively address gaps and deficiencies in various doctrinal views. At the same time, the limits of the review obligation of platform operators should be analyzed on a case-by-case basis according to the degree of information in their possession and their ability to control virtual platform information, drawing on overseas experience. The examination of the preliminary evidence should not only be conducted in a formal way, but also in a substantive way, so that the credibility and validity of the evidence can be judged effectively. Of course, there are still many difficulties in adopting the reviewing standard distinction system and requiring platform operators to conduct part of the substantive examination, especially for the large scale platform operators, which will increase their reviewing obligations, so the future legislation should further subdivide and clarify the examination obligations they should bear. At the same time, through international exchanges and cooperation, the standards of platform operators' review obligations should be improved, so as to better protect the legitimate rights and interests of citizens and the safety and stability of social order. It is worth noting that there is still a need to strengthen the development and application of technical means to improve the accuracy and efficiency of automated platform auditing, so as to realize the sustainable development of platform operators' auditing work.

AUTHOR CONTRIBUTION

All the authors contributed equally and their names were listed alphabetical order.

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The study on media image of tourist destination in “Otherness”– The case of Thailand

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ABSTRACT: Thailand has been commended and paid attention to as a popular outbound travel destination for Chinese tourists. However, in early 2023, the public opinion of Thailand as a tourist destination on the DouYin platform has taken an extreme turn for the worse. In order to investigate the media image of Thailand as a tourist destination under the influence of otherness on the DouYin platform and the causes behind it, this paper exerts the interaction ritual chains theory and the perception theory of tourist destination image as guidance, combining the characteristics of User Generated Content (UGC) form with the traits of “otherness”, applying the manual data collection and coding method to delve the textual content of Thai tourism on the DouYin platform. After data analysis and content analysis, this study found that most of the DouYin users currently believe that traveling to Thailand is dangerous and should not be done. This media image is the result of various factors such as national policy, platform marketing, and capital-driven.

Keywords: UGC, Otherness, Tourist Destination, Media Image, Thailand

1 INTRODUCTION

In 1975, the American cultural historian James Carey proposed “the ritual view of communication”, then at the beginning of the 21st century, Randall Collins proposed the theory of interaction ritual chains based on it, which illustrates society with emotion-driven ritual procedures (Deng 2020). With the development of the Internet and short video applications, interaction rituals have also taken on new characteristics: creating physical virtual presence through online interactive platforms while generating attention through trending topics and thematic focus, thus reaching emotional sharing (Guo & Meng 2018). Currently, the theory of interaction ritual chains is widely used in the field of short videos and We Media research.

The DouYin platform has become a new position for tourist destination image shaping and transmitting because of its integration of production and dissemination, the blind selection and feeding attributes, the caring for personal value and other features (Luo & Zhang 2022). Tourist destination image is a key factor to attract tourists, which mainly includes two aspects, one is the cognitive image and the other is the emotional image. The public image evaluation of tourist destinations and their emotional expressions could be found sweepingly on the Internet, and these contents also have an impact on other users’ image shaping about tourist destinations.

The importance of Chinese tourists to Thai tourism industry was evident on February 6, 2023, when the first Chinese outbound tour group arrived in Bangkok and was greeted by the chief of the Tourism Authority of Thailand (TAT). Thailand is geographically close to China, deeply

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influenced by Chinese culture, one of the countries with the largest overseas Chinese population, which has frequent economic, trading and travelling interactions with China. The content of short videos about Thailand posted by Chinese users on the DouYin platform has a significant impact on the image of Thailand to other users and influences the audience's perceptions and emotions toward Thai tourism. Therefore, this study takes User Generated Content (UGC) text about Thailand on the DouYin platform as the research object, manually collecting and classifying 480 textual data about Thai tourism. Subsequently, this study has the data coded and analyzed through Excel tool to sort out the media presentation of Thai tourism destination image on the DouYin platform from the perspective of others, and to explore its causes, characteristics and influence.

2 LITERATURE REVIEW

It is revealed that most of the studies on the tourist destination image are based on content analysis methods, which are used to explore the essence and object of the content in depth (Qiu & Zou 2004). Moreover, these studies are supplemented with big data analysis, social network analysis, and model analysis for theoretical validation and illustration, depending on the distinction of the content and perspective. However, in the presentation of the media image, the data construction for the cognitive and emotional image of the tourist destination in the case is generally accomplished by applying word frequency statistics, keyword statistics or coding methods (Deng *et al.* 2018).

At the level of constructing order, tourist destination image can be divided into two aspects: cognitive and emotional, while depending on the subject, it can be divided into projected image on the supply side and perceived image on the demand side, which is also generalized to online image under the domination of Internet context (Hunter 2016). "The media is an extension of the person", nowadays, the public can complete the image construction of a tourist destination based on the information from the online platform independently. Additionally, a study found that various types of UGC text on the We Media platforms have a more remarkable impact on users' perceptions among the massive amount of data (Iglesias-Sánchez *et al.* 2020). UGC text reflects the preferences, interests, and evaluations of tourist destinations from a more precise and personal perspective, making media image clearer and more complete, which also effectively increasing the audience's tourist demand and willingness through some positive content (Li *et al.* 2020; Lu & Liao 2019).

However, the content of mass communication does not guarantee complete objectivity and authenticity. The thought of Media Ecology has shown that the media have a considerable impact on human perceptions, behavior, and the whole society, both explicitly and metaphorically. Therefore, especially in the field of international communication, media narratives from the "other's perspective" often lead to bias (Wu & Luo 2022). Moreover, differences in information, environment, and distance on online platforms would also result in stereotypes among people in different countries (Ingenhoff *et al.* 2020).

To sum up, the two most prominent aspects of the current academic research including tourist destination image are the selections of research methods and the construction of the theoretical model structure. In terms of media platforms, current research involves We Media platforms, self-view media image construction, and UGC forms. However, at a time when international cross-cultural communication is gradually expanding, there is a lack of research on the media image of tourist destinations under the role of "otherness". Therefore, this study wields manual data collecting and coding methods to combine the characteristics of UGC form with the "other's perspective" of tourist destination image, which explores the ways and effects of UGC on the construction of national tourist image on We Media platforms.

This study focuses on the construction of the media image of tourist destination from the perspective of "others", which deepens and broadens the understanding of tourist destination image on the basis of previous studies. This paper has the "otherness" an important landing point while fusing the UGC form, on the premise of interaction ritual chains. To a certain extent, this study compensates for the shortage of previous studies on the media image of tourist destinations.

As the international cross-cultural exchanging roaring ahead, having a positive media image that attracts tourists could be a pivotal contribution to tourism. This study aims to explain the relationship between the cognitive and affective images of tourist destinations through the study of UGC text that is delivered by the perspective of “others”, and to inspire the future practice of media image construction.

3 RESEARCH METHODS

3.1 Literature research method

This study used the literature research method, reviewed a large amount of literature on tourist destination image perception, otherness, UGC text, and interaction ritual chains. The purpose was to gain an overall and comprehensive understanding of the theories and issues involved in the research topic. The study aimed to obtain information and learn methods from the literature. The goal was to carry out subsequent research based on the previous research.

3.2 Data analysis method

After manually filtering and eliminating duplicate content, this study collected a total of 480 UGC data about Thailand on the DouYin platform, including 20 video contents, for analysis, and used an Excel tool to compile statistics on the various types of data collected, the results of which are shown in Table 1. This study mainly collected the top 15 first-level comments in the list of videos and comments under videos that appeared on the DouYin platform from February to March 2023, and also included the publisher’s creative field, gender, number of followers, as well as the length, number of likes and presentation of the videos in the reference and collection categories. In the first stage, information such as the type of publisher and gender was first briefly analyzed. At a later stage, the focus was on selecting and analyzing the comments section of the videos.

3.3 Content analysis method

Using rooting theory and referring to previous studies on tourist destination images, this study collected UGC data content on the DouYin platform as shown in Table 1. The data was categorized into positive and negative based on keywords. The content was then coded separately to analyze the overall media image structure of Thailand on the DouYin platform. In the first-level coding, the comments were first analyzed and conceptualized in terms of text, then logged and refined one by one, and finally combined and aggregated to consolidate comments with consistent views and count the number. At the second level of coding, the primary source material from the first level of coding was again summarized and categorized. At the third level of coding, the core concepts that reflect the essence of the comments are sought and again summarized for coding construction. After coding, the data collected and the coding results are combined with theoretical and practical contexts, and the reasons behind the phenomenon are analyzed using interdisciplinary and content analysis methods, and future implications are predicted.

Table 1. Data collection form (partial).

Number	Type of publisher	Gender of publisher	Presentations towards	Video content	Key expressions
1	Thailand Settlement Blogger	Female	Positive	A Record of Life in Thailand	Living at ease, low standard of living, happiness
2	Beauty blogger	Female	Positive	Travel Tips	Fun, happy, won't have enough fun
3	Thailand Property Blogger	Unknown	Positive	Introduction to Social Life in Thailand	Happiness, low stress, good social security
4	International student bloggers in Thailand	Male	Positive	Introduction to Thai street food	Healing, cheap, delicious, don't miss it

(continued)

Table 1. Continued

Number	Type of publisher	Gender of publisher	Presentations towards	Video content	Key expressions
5	Travel Blogger	Male	Positive	Introduction to Convenience Stores in Thailand	Everything, great variety, cheap and tasty
6	Travel Food Blogger	Male	Positive	Travel Tips	Recommended, treasure city, cheap prices
7	Travel Blogger	Male	Positive	Travel Tips	Value for money heaven, mind-blowing and fun
8	Review blogger	Male	Positive	Travel Tips	Spend a small fortune to enjoy Thailand
9	Beauty blogger	Female	Positive	Thai Food Recommendations	Good, cheap, authentic food
10	Thailand Settlement Blogger	Male	Positive	Life in Thailand	Cosy, comfortable and inexpensive
11	Thai entrepreneurial blogger	Female	Negative	Disadvantages of Thailand	High cost of stay, poor access and insecurity
12	Thai entrepreneurial blogger	Female	Negative	Disadvantages of Thailand	It's scary, you can't be too wary of people
13	Beauty blogger	Female	Negative	Bad experiences in Thailand	Too pitiful, exaggerated and tasteless
14	Emotional blogger	Male	Negative	Bad experiences in Thailand	Too outrageous, won't come back, pit
15	Meet the bloggers	Male	Negative	Thailand Social Analysis	High level of insecurity
16	Actor	Female	Negative	Introducing Society	More insecure
17	Thailand Travel Blogger	Male	Negative	Things to do in Thailand	There are many areas to look out for
18	Share Blogger	Female	Negative	Bad experiences in Thailand	Don't come now, it's outrageous
19	Skincare blogger	Male	Negative	Bad experiences in Thailand	Blood and tears
20	E-commerce blogger	Female	Negative	Bad experiences in Thailand	Don't come, you'll really get angry

4 RESULTS

4.1 *Positive coding table analysis*

As Table 2 shows, Thai “Social atmosphere” and “Play experience” were the most frequently commented on, with “Would love to go to Thailand”, “Thailand is fun” and “Thailand is a good

Table 2. Positive comment coding table.

Level 1 coding (open access)	Level 2 coding (linked login)	Level 3 coding (core-style login)
Living abroad is less stressful (2) Go humane country (3) Be yourself (4) Good for settling (12) Feel good in Thailand (3) Thailand is quite safe (3) There are things China needs to learn (4) It takes going out to know what's out there (3) China's situation doesn't allow this kind of living (2) Save money by not having a visa on arrival (3) Thailand has very low consumption, cheap prices and good value for money (13)	1. Social climate (27.19%)	Social conditions (31.58%)
Would love to go to Thailand (27) Thailand is fun and beautiful (13) Be prepared for a visit to Thailand (1) Can wait for a cheaper time to go (1) Been there, lots to look out for (6) Feeling good about the food and wanting to eat it (10) Fruit looks clean (2) Enjoyed seeing this fruit stall (2)	2. Life experience (4.39%) 1. Consumer prices (14.04%) 2. Play experience (42.11%) 3. Dietary conditions (12.28%)	Tourism conditions (68.42%)

place to live” being the most frequent expressions. “Thailand is fun” and “Thailand is a good place to live” were the most frequent expressions. “Good value for money” and “Good Thai food” were the next most frequent. The expressions “Good value for money” and “Good Thai food” are the most frequent. It can be deduced from this that the interest in Thailand on the DouYin platform is more from the point of view of tourists’ comments and concerns about the destination, which reflects the geographical and social advantages of Thailand as a third world tropical tourist country.

4.2 Negative coding table analysis

As Table 3 shows, “personal safety” in Thailand was the most frequent expression in the comments section, with “Thailand is dangerous” being the most frequent expression, accounting for nearly 70% of the comments. “Willingness to travel” was the next most frequent, with the expressions “don’t go” or “don’t want to go to Thailand”. Concern for personal safety is an important factor in the willingness to travel to Thailand. It is also worth noting that “public opinion environment” is also represented in Table 3, with “beware of Thai marketing” appearing most frequently, showing that users in the comment section of DouYin platform have already made a preliminary judgement about the impact of UGC text on the self-media platform.

Table 3. Negative comment coding table.

Level 1 coding (open access)	Level 2 coding (linked login)	Level 3 coding (core-style login)
Never been, but feel scary (3) Feel unsafe in Thailand, Thai policing needs to be improved (11) Thai police are bad (2) Thailand is dangerous (39) A bit spooky (2)	1. Personal safety (33.14%)	Social environment (49.41%)
Beware of Thai marketing (18) Finally some truth-telling (5) More alarm bells to ring, don’t always think Thailand is good (5)	2. Public opinion environment (16.28%)	
Thailand is not good value for money now (10) Spending is not cheap, much more expensive (8) Life in Thailand is not that good either (4) Traffic jams and bad weather in Thailand (1) Beware of green leafy drinks (1)	1. Consumer experience (13.95%)	Tourism conditions (50.58%)
Still better at home (11) Thailand is not suitable for national tourism, Chinese people are easy to be pitted (8) Stepped in a pit in Thailand (9)	2. Play experience (16.28%)	
Don’t go if you can (10) don’t go (25)	3. Willingness to play (20.35%)	

4.3 Comprehensive analysis of coding tables

As shown in Tables 2 and 3, users on the DouYin platform are mainly concerned about Thailand in two categories: social conditions and tourism conditions, with more attention paid to tourism conditions in Thailand. Thailand is already a more popular tourist destination on the DouYin platform, receiving attention from many DouYin platform users.

By comparing the two coding tables, it can be observed that there is a significant increase in the number of negative comments related to “personal safety” in the “social environment” category. This suggests that many users on the DouYin platform perceive traveling to Thailand as a relatively risky activity at this time.

Furthermore, the proportion of comments regarding consumption in both tables remains similar, indicating that users’ concerns about consumption in Thailand are relatively stable.

Additionally, the presence of the “public opinion environment” factor in the negative comments, which accounts for a significant proportion, highlights the sensitivity of internet users to the media environment. This demonstrates that UGC texts on self-media platforms have an impact on users’ perceptions of travel destinations at this stage.

5 DISCUSSION

5.1 *Video content drives and influences review content*

Combining the data collected and the results of the coding table, it appears that the different types of publishers and the gender of the publishers have little or no effect on the tendency of the comment section. The direction of presentation of video content, on the other hand, influences the direction of the comment section to a large extent. While there are still 5% of cases where the video content tendency and the comment content tendency show the opposite, there are still 95% of cases where the video content tendency and the comment content tendency are the same. The data shows that the specific content and focus of the video presentation, which also influences the content of the comments section, can be a large part of the discussion in the comments section. So overall, the video text content has a certain orientation and can effectively drive and influence the tendency of the comment content.

5.2 *Thai media image in DouYin platform is skewed towards the negative*

Currently, the overall tourist media image of Thailand on the DouYin platform is on the negative side. Based on the collected data, approximately 61% of DouYin platform users hold the belief that Thailand is currently a dangerous destination. They perceive potential risks such as encountering life-threatening situations or being involved in organ trafficking. Moreover, they consider Thailand unsuitable for both short-term travel and long-term residence.

There is a notable prevalence of online marketing on the DouYin platform promoting Thailand as an ideal destination for travel or settlement. However, users often discover a discrepancy between the marketing propaganda and the reality upon actually visiting Thailand. Therefore, caution is advised when evaluating the marketing claims related to Thailand. It is worth noting that the tourism environment in Thailand has undergone changes due to its increasing popularity. Compared to before, prices in Thailand have risen rapidly, tourism is not cost-effective, tourism advantages are lost and Chinese tourists are easily treated differently in the region and more likely to step on potholes.

Based on the data collected, it indicates that only approximately 24% of DouYin platform users have a positive perception of Thailand. They believe that Thailand is a very enjoyable destination with unique local features, stunning natural landscapes, and captivating scenery. They view it as a favorable place to visit. Additionally, these users appreciate the high value for money that Thailand offers, as the local prices are considerably cheaper compared to the current domestic prices. This aspect makes Thailand an attractive option for individuals who desire to travel abroad but are on a budget.

The data collected also includes positive comments such as “Thailand is less stressful to live in” and negative comments such as “Thailand has a bad climate”, which do not feature in the conclusions of this study as they are less frequent and do not represent a significant proportion of the overall data. Further analysis and enumeration are not included in the conclusions of this study.

5.3 *Causes and predicted impacts of the formation of Thai media image on the DouYin platform*

After the literature, data search and textual analysis and analysis of the UGC text about Thai tourism on the DouYin platform, this study concludes that there are several reasons for the formation of the image of Thai tourism on the DouYin platform.

Firstly, the image of Thailand as a tourist destination medium is inseparable from the economic development of China and Thailand, national relations and the various policies of the two countries regarding inbound and outbound tourism. As the economic level of the

country and its people has improved, the number of tourists choosing to travel out of the country has also increased. Chinese tourists are more likely to consider travelling to places with good national relations, easy visa processing and similar cultures, making Thailand a popular destination of choice for Chinese tourists. This has led to a high level of UGC text on Chinese social media platforms, both for travel to Thailand and for those wanting to visit Thailand, thus creating a media image of Thailand as a tourist destination.

Secondly, the study found that the majority of users on DouYin platform Thai tourism topics produced homogeneous content out of a desire to gain popularity and a “spiral of silence”. This tendency towards monolithic discourse makes the image of Thai tourism on DouYin platform a single and extreme one at a particular time, and to a certain extent leads to a strong reversal in the image of Thailand in early 2023.

Finally, this study argues that the formation of Thai tourism image on the DouYin platform is also related to capital-driven and active marketing. Thai tourism industry players and their competitor tourism industry players in similar places compete for tourists’ media attention by marketing themselves on social media respectively, thus participating in the construction of Thai tourism media image.

Currently for DouYin platform users, Thailand as a tourist destination in general is dangerous and not worth visiting. If this trend in public opinion continues, it will inevitably create a stereotype of Thai overall national image from the perspective of the other. The stereotyping of the overall image of the country will have a negative impact on the number of tourists, international students and even international trade and relations. The results of the “Otherness” of the country’s image in international communication cannot be ignored.

6 CONCLUSION

Based on the theory of interaction ritual chains and tourist destination image perception, this study compares and examines the literature on UGC text data, otherness and tourist destination image. The study also manually collected and coded UGC data about Thai tourism on the DouYin platform and came up with the result that “the overall otherness image of Thailand as a tourism destination on DouYin platform is negative”, and analyzed the micro correlation of UGC text and the causes and effects of the formation of Thai media image.

This study focuses on Thai tourist other-media image on the Chinese DouYin platform. While this study has made progress in combining UGC form and the “other’s perspective,” it is important to acknowledge certain limitations. Firstly, the sample size of the study is small, which may affect the overall representativeness of the findings. Additionally, the data was collected solely from one social media platform, which limits the generalizability of the results. It is important to recognize that the data may not fully capture the complete image of Thailand as a tourist destination on the Chinese Internet.

Therefore, it is hoped that future research can expand the collection and statistics of sample data based on this paper, and use more precise methods for coding and analysis, so as to provide theoretical support for future international communication practice.

AUTHOR CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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The impact of social media on appearance and body image anxiety

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ABSTRACT: The development of social media is changing people's cognition and concept. The development and popularity of some concepts on social media, it has caused bad emotions in users, such as increasing concern for good looks, and well-proportioned bodies. The new aesthetic standards brought about by this concept have brought anxiety to many people in this regard. There are few previous studies on the classification and summary of the factors that produce these anxieties. This article attempts to explain from the perspective of communication and psychology the role of social media in promoting appearance and body image anxiety, such as personalized recommendation mechanisms and addiction; and how users as recipients of information translate information into anxiety, such as social comparison and self-objectification. From a more detailed perspective, this article divides social media and users into two perspectives to discuss the related factors that cause appearance and body image anxiety, and finds more correlations among them, hoping to bring some help to the treatment of anxiety.

Keywords: Social media, Appearance and body image anxiety, Social psychology, Communication

1 INTRODUCTION

The popularity of social media has exposed more people to pop culture. With the change of the times, aesthetic changes spread on social media, and then affect the public. Due to reasons such as comparative psychological self-objectification, different degrees of anxiety have been generated.

From the perspective of communication science and psychology, this article will analyze how social media, as a communicator, uses people's psychology to spread this kind of anxiety, and from the perspective of social media users, as recipients of media communication information, analyze why they are prone to be affected by appearance and body image anxiety, and finally put forward some suggestions to improve this situation.

2 INTRODUCTION OF RESEARCH OBJECTS

2.1 *Social media*

Social media is a virtual platform on which people can carry out the social process of self-presentation and self-disclosure, such as sharing information and exchanging views (Kaplan & Haenlein 2010). One of the main features of social media is free comments. People can discuss through text on the platform to trigger the collision of views. Now mainstream social media mainly includes Twitter, Facebook, Weibo, WeChat, and so on. In the Internet era, most people browse or post information on social media every day. Social media has become inseparable from people's lives, affecting people's emotions and behaviors.

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2.2 *Appearance and body image anxiety*

Appearance anxiety and body image anxiety refer to feelings of dissatisfaction with one's appearance and body, lack of confidence, tending to compare oneself to others in social groups, and self-denial. This kind of anxiety can negatively affect people's daily lives, such as excessive attention to appearance, the impulse to do medical cosmetology or cosmetics consumption, spending a lot of time on makeup and clothing, and excessive dieting causes self-control to lose control, causing overeating. In these processes, both physical and psychological are destroyed to varying degrees, and some people suffer from anxiety disorders, depression, anorexia, overeating, and so on because of anxiety.

2.3 *The relationship between social media and appearance and body image anxiety*

In the Internet age, social media is inextricably correlated to appearance and body image anxiety. On social media, it is easy to create an atmosphere of comparison, where people's concerns about appearance and body are amplified. The use of social media is positively correlated with symptoms such as appearance anxiety, especially the attention to appearing-based activities will have a greater negative impact on social media users (Hawes *et al.* 2020). Social media platforms are full of standardized looks and figures, and it is hard for users to get rid of the influence of the atmosphere of social media platforms and they are easily trapped by personalized recommendations. Coupled with the influence of Internet celebrities, it is easy to contract social media addiction and fall into the appearance anxiety created by social media platforms. Seekis's group tested the relationship between young women's use of social networking sites and their concerns about body image through a comprehensive model of objectification and social comparison theory (Seekis *et al.* 2020). The questionnaire measured engagement in three types of social networking activity (viewing celebrities, viewing fitness-related content, and assessing online likes and comments) and assessed indicators of appearance comparison, body image dissatisfaction. The results of the study indicated that engaging in appearance comparisons on social media made women more body-conscious, more anxious about what others were saying about their appearance, and more likely to give themselves a very low opinion of their bodies. This article will explore the impact of social media on the appearance and body anxiety of its users from the perspective of social media and their users, and dismantle the psychological causes of anxiety from the perspective of psychology and communication.

3 FROM THE COMMUNICATOR'S (SOCIAL MEDIA) PERSPECTIVE

3.1 *The influence mechanism of social media*

3.1.1 *Personalized recommendation*

The personalized recommendation system is developed during the progress procession of the Internet and e-commerce. It provides personalized information service, based on massive data collection and processing, then makes the decision to provide customers with the information they would like. But it also has its disadvantages. The personalized recommendation mechanism tends to solidify the user's concept, making the user unable to get rid of attention to appearance and figure and fall into anxiety. This mechanism is the collection and integration of big data, if a person on a social media platform browses or likes certain kinds of content, when he or she clicks the platform home page will see similar content recommendations, and in other Internet platforms (including social media platforms) will see similar recommendations. The advantage of personalized recommendations is that they can be well suited to their needs, but this is a potential limitation. This algorithm limits the browsing preferences of social media users, and thus their thinking and perceptions. Just like in the Truman Show, the user in a well-designed network environment which seeming very

humanized, but behind the user's inner change is difficult to see. Moreover, the personalized recommendation is recommended by capital merchants, whose ultimate goal is not humanization, but capital users are bound by the personalized recommendation. In the continuously personalized recommendation, cognition is gradually constrained and changed, and the user's psychology and lifestyle are trapped in a narrow corner. Are these recommendations really what users want? Users themselves will not be aware that they are in the 'easy' self-persuasion, easy to step into the trend of the public and lose the ability to independent judgment. Attention to appearance and figure will also be magnified by personalized recommendations. Through repeated recommendations, ordinary concerns will be aggravated into anxiety step by step.

3.1.2 *The influence and feedback mechanism of internet celebrities*

Social media will catalyze the birth of Internet celebrities, and at the same time, the information feedback mechanism will deepen the influence of Internet celebrities. The important concept of appearance and figure spread through Internet celebrities will also penetrate the hearts of social media users, thereby inducing anxiety. Internet celebrities are people who become popular on social media because of certain characteristics of themselves. Their popularity is inseparable from the large social environment and the psychological needs of social media users. On various social media, handsome men and beautiful women often come into view. They have enviable looks and figures and often share their photos and lifestyles. Their popularity is in line with the current aesthetic trend, catering to the aesthetics of social media users, and receiving their recognition, appreciation, and imitation. It is also subtly conveying and amplifying a single aesthetic standard, and allowing more people to incorporate appearance into the evaluation of self-worth.

The type of social media influences people to express their personal opinions, even if they think they are confident in their decisions and opinions, they are influenced by the opinions of the majority. The more social cues the group has, the stronger this effect is (Laporte *et al.* 2010). And the influencer effect on social media is a good example. Influencers and social media users influence each other, but the former has a greater influence on the latter. Because influencers get a lot of attention, and they use feedback mechanisms to increase their social media presence. Through likes, comments, retweets, etc. Know whether the content you publish has received the attention and recognition of the audience, so as to constantly adjust and optimize your content. At the same time, Internet celebrities interact with the audience, reply to the audience's comments and private messages in a timely manner, and establish a closer relationship with users. Internet celebrities also pay attention to their own social media data. Through the analysis of social media data (number of fans, number of interactions, number of retweets), they can understand whether their social media influence has been improved. This intensifies the similarity and herd mentality of social media users, who are affected and lose themselves, and their values are gradually attached to the concepts conveyed by Internet celebrities. Moreover, the huge benefits behind becoming an Internet celebrity, this kind of naked temptation of money makes more people unconsciously want to get closer, shifting from envy to their shortcomings, wanting to act hard on appearance and body, resulting in anxiety.

3.2 *Social media addiction*

Addiction to social media use refers to an abnormal increase in the frequency of use. Addiction to social media increases anxiety by increasing exposure to beliefs of pursuing good looks and figures. Some people use social media platforms to escape the unhappiness of real life in the virtual network world (Brailovskaia *et al.* 2020). This psychology of avoiding negative emotions is an abnormal coping strategy that may not only be useless but also contribute to addiction to social media use (Sun & Zhang 2021). The group value shared by social media (internalization) may make people addicted to social media use. Moreover, the

feedback mechanism of social media is random for users, and users will get unpredictable emotional value. In order to obtain emotional rewards, users are easy to browse social media for a long time. These abnormal increases in social media use can cause negative emotions related to appearance as well as body image anxiety. Social media plays a potential role in promoting anxiety. When users have their own negative emotions, the negative influence of social media on users will be intensified, and there is a higher probability of addiction.

4 FROM THE RECEIVER'S PERSPECTIVE (SOCIAL MEDIA USERS)

4.1 *Internalization of standards and social comparison effect*

Internalization of standards refers to the process by which individuals transform certain external concepts, attitudes, relationships, and standards into their own internal psychological activities or psychological structures. Social media is rife with edited images of the perfect body, and people may constantly internalize them by browsing these images for a long time. During the process of internalization, when people find that they do not meet and cannot meet the "standard", they tend to have negative evaluations of the body, and their self-value orientation also changes.

The social comparison effect means that people will evaluate their abilities and values by comparing with others. When people compare themselves to others, they may experience biases in their self-evaluations that affect their decision-making and behavior. People evaluate themselves by comparing themselves with others. Humans are animals that like to compare and understand their own strengths and weaknesses in comparison, so as to improve themselves. Going up is more likely to produce low self-esteem and reduce subjective well-being while going down is more self-confident and improves subjective well-being. Moreover, the negative emotion before the comparison leads to upward comparisons rather than downward comparisons. Under such a state of mind, self-confidence in appearance and body height is exacerbated, the loss of self-worth is caused, and anxiety is caused to varying degrees (Wheeler & Miyake 1992).

4.2 *Self-objectification*

Self-objectification is to define oneself from the perspective of a third party and treat oneself as an object (Calogero 2012). When people look at an object, they will look at it, evaluate it, criticize it, and ask it to meet certain aesthetics and needs. When people self-objectify, they no longer act from the perspective of self-interest, evaluate or even criticize themselves without emotion, and may view themselves from a harsh perspective and impose unrealistic expectations on themselves. First, through social comparison (comparison caused by self-subject), people are more likely to take the initiative to use external standards to measure themselves, and then use socially defined good figures to evaluate themselves, and tend to self-objectify. Although body shape does reflect a person's health, appearance is innate, and forced changes in both are not conducive to personal physical and mental health.

Social media makes it easy for users to base their self-worth on appearance, and the reduction in self-evaluation is likely to make them experience higher self-objectification and appearance anxiety (Adams *et al.* 2017). Research has investigated the relationship between body shame and appearance anxiety in young women and idealized images portrayed in the media, and compared the relationship with anxiety among women with different levels of self-objectification. They found that exposure to idealized images conveyed by the media increases body shame and appearance anxiety, and women with high self-objectification have higher increases in anxiety than women with low self-objectification (Monro & Huon 2005). Can said that self-objectification affects users of social media. Internet celebrities

present their appearance and body content, and their popular comic legs on social media, eight-pack abs, small waist, elf ears, etc., are instilling beauty and thinness in women, and instilling handsome and strong appearance and figures in men. The concept conveys the importance of these.

Self-objectification can distort people's definition of external beauty. People who are highly self-objectification may view their body as an object and monitor their body more frequently, thinking that there is a gap between their body type and the social ideal. These lead to deformed self-esteem, body shame, and insecurity. Some people irrationally go for plastic surgery in pursuit of beauty, and excessive pursuit of body shape leads to eating disorders, depression, binge eating disorder, substance abuse, and other psychological diseases.

4.3 *Celebrity effect*

Celebrity effect can be seen as a general term for the psychological phenomenon of people imitating celebrities. It causes because celebrities are often given high attention, and what celebrities do or say can easily be strengthened and widely expand. Social media is an important medium for celebrities, including Internet influencers, to communicate their values. Celebrities have the characteristics that the public pursues, and they are the agglomeration of current social value trends. Studies have shown that frequent exposure to celebrity images, and appearance comparisons with celebrities, are associated with personal body dissatisfaction and eating disorders (Brown & Tiggemann 2022). The popularity of celebrities makes the audience blind and loses their self-judgment, appreciates them with a beautifying filter, and creates the psychology of imitation, regardless of good or bad, referring to the lifestyle of celebrities.

4.4 *Individual factor analysis*

4.4.1 *Loss of independent personality*

Although some people have already passed the age of separation and individuation, they have not yet completed separation and individuation. They are accustomed to relying on the external environment to satisfy their own needs and values in terms of thought and action. There is no separate opinion about looks and figures. Rather, it comes from the idea that social media has paved the way.

4.4.2 *Self-identity crisis*

Some people lack stable and continuous self-identity but rely on external identification to establish their own evaluation. When the external environment changes, it will also be greatly affected. For example, negative evaluations from the outside will cause a strong self-identity crisis.

5 DISCUSSION AND SUGGESTION

5.1 *Discussion and suggestion*

Social media and appearance and body image anxiety are related. Everyone's definition of the beauty of appearance and body is different but driven by social media, the audience's aesthetics are limited, and they evaluate themselves according to the limited aesthetics instead of judging themselves. Social network use is associated with mental illness and depends in part on social factors' quality in the social networking atmosphere. Knowing the relevance will help to better harness the potential of social media to positively impact mental health (Seabrook *et al.* 2016). Analytical studies on social media and appearance and body

image anxiety can help provide guidance on aids to help alleviate such anxiety, through social media literacy on body image issues. For example, let anxious people understand the information transmission mechanism of social media, the temptation of its indicators to the psychology of convergence and herd mentality, the comparison of idealized images, the negative impact of lack of self-identity and continuous self-objectification, thus helping anxiety (Betz *et al.* 2019). Finding the source of anxiety and relieving it may also be a better way to improve body image. Anxiety is a ubiquitous emotion. Facing the pressure of reality, people will inevitably have anxiety. People need to allow themselves to be anxious, reduce the sense of stigma, and understand the causes of anxiety about appearance and body. Through objective evaluation and self-awareness, use less social media, communicate more with people in real life, and avoid being affected by the social comparison effect, so as to love yourself better.

5.2 Limitation

This article only provides the perspective of social media and social media users to analyze appearance and body image anxiety but does not analyze specific groups (gender, age, etc.). Many pieces of literature have been researched on adolescents and young women. These two groups are often the main groups that have appearance and body image anxiety. There are few multivariate studies on the establishment of theoretical models of factors causing facial anxiety in previous literature, and no theoretical models have been established in this article, but only summarizes based on previous research, and provides and analyzes the related factors that cause these anxieties.

5.3 Conclusion

This article studies the mechanism of social media from the perspective of communication and psychology, analyzes how social media captures people's psychology from the perspective of communicators to spread anxiety about appearance and body image and views social media users as receivers of information transmitted through media, analyzes why they are prone to appearance and body image anxiety. Social media and appearance and body image anxiety have relevance. Studying the two separately will help to further sort out the causes and effects of appearance and body image anxiety spread by social media, and it will also help in the subsequent relief and treatment of anxiety. The specific analysis is which or which factors cause anxiety.

In the future, a model can be established to conduct multivariate research on the relevant factors mentioned in the article, such as the feedback mechanism and further analysis of herd mentality. The control variables can also be selected from high self-objectification and low self-objectification groups. Relevant research focuses on women and adolescents, and there are few studies on men and other transgenders. In the future, in-depth research can also be conducted with different gender groups as control variables.

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Two modern signal detection approaches: Two sense analysis and content in maskers

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ABSTRACT: This paper analyzed the effects two modern signal detection approaches. The first one is Analysis of signal detection in two senses and the second one is effect of content in Maskers. The analysis was based on Signal Detection Theory, which analyzes humans' ability to discern between signals and noise. In conclusion, recent studies have shown that, when the effects of the masker are taken into consideration, visual and auditory signal detection have certain similarities. They both, for instance, cover the fundamental characteristics that signal detection theory suggests. Also, they both need the assistance of selective attention to complete the signal-detecting process. Additionally, the masker's content affects the detecting process when it comes to auditory signals. The findings of this paper had implications for video production, where careful selection of background music can enhance speech clarity in a video, and pedestrian safety in the field of setting the environment around the traffic.

Keywords: Signal Detection Theory, Noise, Selective attention, Cocktail party effect

1 INTRODUCTION

Detecting signals in noise is a common task in our everyday lives, and people often do not even realize they are doing it. Whether it is trying to understand a conversation in a noisy restaurant or trying to pick out a specific voice in a crowded room, our brains are constantly processing information to filter out unwanted noise and focus on important signals. One classic example of this is the “cocktail party” situation, where a person is surrounded by multiple conversations and must selectively listen to the person they are speaking with while filtering out the other voices. This theory is used in many fields such as psychology, neuroscience, engineering, and physics. For example, in psychology, when psychologists wish to test how we make decisions in unclear situations, such as in foggy conditions or during eyewitness identification, how we would perceive distances, they utilize the signal detection theory (SDT). In these cases, the brain must be able to separate the relevant information from the irrelevant noise to accurately interpret the signal. Moreover, noises, also known as maskers, have lots of real-life applications. For example, people often use white noise (a noise has specific frequency) to make them ignore other sounds in surrounding and focus their own business. White noise's frequency is close to most sound in real-life surroundings like other people's talking and footsteps. Thus, white noise does a great job on mask those distracting sound.

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2 INTRODUCTION OF SIGNAL DETECTION THEORY

2.1 *Signal detection*

The ability to distinguish between information-carrying signal patterns and random noise-distracting patterns is known as signal detection. In John A. Swets' book titled: "Signal Detection Theory and Psychophysics", he mentions a mathematical way to analyze signal detection of humans (Swets 2009). A hit means a signal presents and people recognize it. A false alarm means a signal does not present and people mistakenly recognize it. Moreover, in the experiment of SDT, a group of researchers introduce a way to analyze data from SDT, which shows the performance of people in signal detection in that theory is affected by discriminability and bias (Herzog 2019). They define discriminability as the difficulty or ease with which one can distinguish between background occurrences and a target stimulus. And the degree to which one response is more likely than another is known as bias.

Liberal bias is the decision is yes whenever there may be a signal. Conservative bias is the decision is yes only when it is almost certain that there is a signal. The result of lots of signal detection experiments, like in John A. Swets's book and experiment in visual search tasks (Carrasco *et al.* 2004; Swets 2009) is people will perform better in detection signals when stimuli have less noise magnitude and more signal magnitude which results in higher discriminability. Also, people have different criteria for stimuli.

2.2 *Effect of masker*

Maskers, or noises, were first introduced in Swet's study of signal detection theory and refer to some other stimulus instead of signals (Swets 2009). In recent years, researchers have discovered that there are diverse ways in which maskers can influence signal detection. These investigations have revealed that maskers can have a substantial impact on the perception and recognition of signals, affecting various aspects of sensory processing and cognitive performance. For example, in visual tasks, a masker is the presence of irrelevant visual stimuli. In acoustical tasks, a masker is another unwanted voice besides the signal voice. In addition to these examples, maskers have many other real-life applications. For instance, in the field of audiology, noise is widely used to test hearing thresholds. In this case, the noise is called a "masking noise" and is used to determine the minimum intensity level at which a person can hear a sound. Masking noise is also used in tinnitus treatment. Tinnitus is a condition where a person hears a ringing or buzzing sound in their ears when there is no external sound present. Masking noise can be used to help reduce the perception of tinnitus by providing an external sound that masks the internal sound.

3 EFFECT OF THE SIGNAL OF DIFFERENT SENSES IN SIGNAL DETECTION THEORY

3.1 *Signal detection in the acoustic task – cocktail party effect*

The cocktail party effect is one example of the application of signal-detection theory. It describes the astonishing capacity of the human auditory system, a natural masker, to selectively attend to a target sound source in a loud environment. This phenomenon has captured the interest of researchers, and several studies have aimed to understand the underlying mechanisms involved. McDermott (2009) delved into the cocktail party problem, emphasizing the challenges faced by the auditory system in disentangling and attending to a particular sound source amidst competing sounds (McDermott 2009). The study highlighted the complexity of masker analysis and the cognitive processes involved in resolving the cocktail party problem.

Additionally, some researchers show that selective attention's effect on cocktail party effect considering different maskers. Nolden *et al.* (2018) focused on cognitive masker

control during the cocktail party scenario (Nolden 2018). Twenty-four participants without any hearing problems participated in the first experiment, and twenty-four new participants participate also without any hearing problems in the second experiment. They altered the physical properties and location of the shelter and used it to test the effect of the shelter on the cocktail party effect. Their work demonstrated how the preparation of selective attention to specific voices aids in suppressing maskers, thereby facilitating successful auditory stream segregation. Power *et al.* (2012) investigated the timing and neural basis of selective attention to natural speech (Power *et al.* 2012). It is not a task that can use fMRI (Functional magnetic resonance imaging) and EEG (Electroencephalography) because it is a task about time and needs guaranteed no discrete stimuli. So, they utilize the AESPA (auditory evoked spread spectrum analysis) method, it enabled them to examine the effects of attention on the processing of external stimuli between 200 and 220 milliseconds in the left hemisphere. Their research revealed a late locus of selective attention, shedding light on the temporal dynamics of auditory processing in complex acoustic scenes (maskers).

In short, scientists have made a lot of progress in acoustic field signal detection theory. Scientists have formally linked the cocktail party effect to signal detection theory, studied the effect of masking on the cocktail party effect, and studied the cocktail party effect using neurological research methods. Scientists have shown that various properties of masking affect the cocktail party effect and that selective attention plays a large role in the cocktail party effect. However, research into the application of the cocktail party effect is still an open question. Future scientists will strive to bring this effect into application.

While the research papers mentioned primarily explore the auditory domain, it is crucial to consider the role of selective attention in visual tasks as well. Visual scenes often contain multiple objects and stimuli, creating a parallel to the auditory cocktail party effect. Just as in the auditory domain, selective attention plays a fundamental role in visual perception. This similarity is introduced more in the next paragraph. While the research papers mentioned primarily explore the auditory domain, it is crucial to consider the role of selective attention in visual tasks as well. Visual scenes often contain multiple objects and stimuli, creating a parallel to the auditory cocktail party effect. Just as in the auditory domain, selective attention plays a fundamental role in visual perception. This similarity is introduced more in the next paragraph.

3.2 *Signal detection in the visual task*

The visual field of Signal detection theory has been widely applied to investigate various aspects of visual perception and cognitive processes involved in visual tasks. Carrasco *et al.* (2004) examined the signal detection theory's application in three different visual search tasks: identification, yes/no detection, and localization (Carrasco *et al.* 2004). In their paper, they introduce models of signal detections theory and construct two experiments: two-target identification task and yes or no detection task with two targets to support their models. In the first experiment, the observer performed an orientation identification task by pressing corresponding keys whether the target was tilted to the left or right. And they were instructed to perform the task as fast as possible. In the second experiment, the experiment is the same except observer's task. They were asked to do a yes or no identification task about whether the target was tilted. Their study provided valuable insights into the perceptual mechanisms underlying these tasks and shed light on the principles of signal detection in visual processing.

In visual tasks, masker refers to the interference caused by the presence of irrelevant visual stimuli on the perception of the target signal. Verghese (2001) delved into the relationship between visual search and attention (Verghese 2001). Using the data of physiology and psychophysics, they construct a cluttered model to imitate real-life situations. The result of analyzing data from various field highlight the role of selective attention in enhancing signal detection amidst maskers. The allocation of attention to relevant features or locations helps filter out distractors and improves the detection of the target signal.

According to Verghese's study, Selective attention also plays a crucial role in visual perception by biasing the processing of relevant information and filtering out irrelevant or distracting stimuli compared with acoustic signal detection. Wolfe (2020) provided a comprehensive overview of visual search processes, emphasizing how selective attention guides and prioritizes the allocation of cognitive resources during visual tasks (Wolfe 2020). By selectively attending to target features or locations, individuals can enhance signal detection and reduce interference from maskers. It is similar compared to selective attention in the cocktail party effect.

4 EFFECT OF SIGNAL CONTENT IN SIGNAL DETECTION THEORY IN ACOUSTIC TASK

Understanding the influence of signal content in acoustic tasks is crucial for unravelling the complexities of speech perception and communication in challenging environments. Yahav and Golombic (2020) conducted a study that delved into the linguistic processing of discourse from a cocktail party that is unrelated to the work at hand (Yahav & Golombic 2020). For the method, they set two test groups, the first group's maskers are task-relevant, and the second group's are task-irrelevant. After that they analyze the neural response in left inferior frontal and posterior parietal regions to find the relationship between brain structure and signal detection process. By investigating the neural mechanisms underlying linguistic processing, the research shed light on how the brain handles and prioritizes speech information amidst competing auditory stimuli. This work emphasized the significance of signal content in shaping cognitive resources during acoustic tasks.

In a similar vein, Ferreira *et al.* (2021) explored the impact of effects of various noise types on adults with normal hearing's ability to recognize sentences (Ferreira *et al.* 2021). By examining the influence of various noise backgrounds, the study provided insights into how signal content interacts with the acoustic environment and affects speech perception. The findings revealed the challenges faced by individuals in understanding and comprehending speech in real-world acoustic situations, highlighting the importance of considering the specific content of the signal and its interaction with noise.

Taken together, these studies underscore the significance of signal content in listening tasks. Whether it involves differentiating relevant speech from an irrelevant speech in a complex auditory scene or understanding speech in the presence of various maskers, the specific content of the signal plays a critical role.

5 DISCUSSION

In summary, recent research has shown that visual signal detection shares some similar characteristics with auditory signal detection when the effects of masker are considered. For example, they both cover the basic features that signal detection theory suggests. Also, they both require the help of selective attention to carry out the process of signal detection. Furthermore, in auditory signal detection, the content of the masker influences the detection process. Still, there are some remaining questions about application of the result and result might not fit in real-world environments. In future, researcher will try to set up an observation experiment of signal detection theory to solve these problems.

These results are important to the real world in the various applications. For example, in the production of videos, individuals often encounter situations where they need to add background music, such as in a read-aloud video or a popular science video. For the viewer to hear more clearly what the person in the video is saying, one should choose one's background music carefully. Firstly, the background music should not be too loud, and secondly, the frequency of the background music should be far away from the frequency of the people

speaking in the video. This way, the viewer can better capture the content of what is being said in the video. Also, according to Barton's study about developmental pedestrian safety research (2006), links between children's pedestrian behavior and selective attention point to potential future paths for pedestrian safety research (Barton 2006). Lights and sounds on the road can influence people to do safe things. If selective attention is added to pedestrian safety considerations, the safety risks for people travelling will be reduced, especially for children.

6 CONCLUSION

In conclusion, recent studies have demonstrated that, when the effects of the masker are taken into consideration, visual and auditory signal detection have certain similarities. They both, for instance, cover the fundamental characteristics that signal detection theory suggests. Additionally, they both need the assistance of selective attention to complete the signal-detecting process. Additionally, the masker's content affects the detecting process when it comes to auditory signals. The real-life application of the results is also discussed in the present study.

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A study of the imagery of doors and concierges—an example of the image of Renée in *L'Élégance du hérisson*

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ABSTRACT: Nineteenth-century concierges were a lightning rod for writers and historians, portraying them in a negative light as foolish, tongue-in-cheek, and despicable. Even in the 20th and 21st centuries, the narrative of the concierge is controlled in most literature or films. In *L'Élégance du hérisson*, on the other hand, the author tells more than half of the story with Renée, the concierge, as one of the narrators, breaking the traditional narrative style and subverting the traditional image of women while also presenting class differences in a more intimate way. This paper explores feminine wisdom writing by focusing on two imageries, the door, and the concierge, through Jungian psychology's theory of personality masks theory and textual analysis methods. The door provides an important contribution to Renée's disguise in work, giving Renée a different identity in a demarcated space, as well as giving the door a more cultural significance. Through the role of the concierge, author Muriel Barbery gives her the subjectivity of free expression and reimagines the traditional French woman.

Keywords: door, concierge, *L'Élégance du hérisson*

1 INTRODUCTION

In France, feminism has always been in the spotlight and has given rise to generations of female writers in the literary world. In contemporary France, as well as in the United Kingdom and the United States, many feminists advocate the subversion of the still dominant male-centered culture. The author of *L'Élégance du hérisson*, Muriel Barbery, focuses on the experiences and perspectives of women from the lower classes in France, going beyond traditional narrative models to narrate and outline the political position of women in society through the eyes of the two protagonists, Renée and Paloma, who are of very different ages and social backgrounds.

The theme of *L'Élégance du hérisson* has been studied in terms of the education of young people, in terms of the novel itself and its structure, or in terms of the theme of loneliness. The majority of scholars have concentrated on the representation of animals, such as the “hedgehog,” which is tough and prickly on the outside but graceful on the inside; the “goldfish,” which spends its entire life in a fishbowl; or the “cat,” which represents a member of parliament whose house is named “Constitution” and “Parliament” or the “cats”—the cats with the names “Constitution” and “Parliament” at the congressman's home, or “Leon”—named after Tolstoy—at Renée's home. This paper will start with the imagery of the “door”, using textual analysis methods to explore the important meaning of the “door” and how it helps Renée to achieve her disguise. Then explores how the portrayal of the concierge, a woman who subverts the conventions of French literature, is portrayed in this book.

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2 ANALYSIS OF THE IMAGERY OF THE DOOR

Yupian refers to the door as “the place where people enter and exit”, while Boya says: “The door is also a guard.” It is clear from this that the gate had two functions: the entrance and exit to the building and the defense of the building. The presence of the door means that the public sphere is separated from the private sphere, and it is the entrance to and exit from the building, bridging inside and outside, naturally serving as a link or isolation from the outside world. At the same time, the closing of the door provides it with a defensive function. Apart from being an entrance and exit in life, the door has been given a rich symbolic meaning in literature, and the ordinary door has acquired a unique cultural significance (Yang 2011).

Throughout history and among many cultures, the door has been associated with many distinct metaphorical meanings. Having higher, more elaborate doors compared to low-income families can be a sign of social status and financial affluence. The door may also represent communication, with an open door signifying social integration and a closed door signifying safety and security. Sadly, because women have traditionally been repressed and disadvantaged, denied equal opportunities, and the target of prejudice and violence, the door may also represent gender inequity. The door has thus come to represent the obstacles that impede women from obtaining equality in society (Yang 2011).

The British writer Virginia Woolf said that for Women who want to read and write, all they need is a fixed income and a room of their own. Of these things, Renée, who was a concierge, did by her own labor and thrifty living; she did not depend on anyone; she found the meaning of her life in her own room. On the inside of the door, where she was shut off from the eyes and imagination of others, she was an elegant scholar. The partition of the room door provided Renée with a calm environment for reading and writing in her room, which is barely a few square meters but full of books, where she reads great works of literature and books on philosophy and art and watches moving and sublime films. This small room, made up of four walls, forms an autonomous and independent space crammed with Husserl’s phenomenology, Freud, and medieval philosophy. According to Jean-Louis Deaucourt, the concierge’s existence is inherently theatrical because she inhabits and works in a “space both closed and open at the same time, eminently theatrical . . . propitious for exchanges, for coming and goings” (Herbeck 2018). The closing of the door means restriction and isolation, and isolation from the world means separation from the group and from the norm. Her study created for her a pure place away from the hustle and bustle of the world and materialistic interests. With the door open, she returns to being a scruffy, ignorant concierge with her casual, dishevelled hair, and insensitive expressions, making silly little grammatical errors in communication and cooking notorious dishes.

Doors are essentially a movable barrier between the interior and the exterior of the house, maintaining a separation between the interior and exterior spaces. However, the door can be adjusted the setting of the space according to the wishes of the people at the same time (Liu 2017) The text states that when we open a door. we are, in fact, changing our space in a narrow way. Pierre Bourdieu suggests that different class habits form the invisible boundaries between different social groups. The presence of a room door also divides class spatially. Renée is a concierge, but almost all the people who live in the same building where she works, and lives are prominent people, among them parliamentarians, diplomats, lawyers, and more. The differences between the classes are reflected in the smallest details of their lives, the differences in the decoration of their rooms, the differences in their appearance, and even the differences in the decorative function of the cats they have. When Mr. Ozu first moved into the flat, he redecorated the entire house, replacing all the doors with sliding ones. “The sliding doors, which avoid obstacles and beautify the space, not only do not change the balance of the space but still the space is distorted. When the sliding doors are pulled open, the two spaces communicate with each other and complement each other’s offense. When the sliding doors are closed, each space returns to integrity. Neither this division nor this convergence can be arrogated (Barbery 2010).” Renée, who has an insight into art, is able to

perceive profound truths in everyday life and discover the beauty in the sliding door that Mr. Ozu has renovated in his new home, while Mr. Ozu also discovers the “elegance” that Renée lies beneath the hard exterior of a hedgehog. The way people open and close doors reveal their intentions, and Mr. Ozu knocks on Renée’s door again and again, inviting her out of the room. The exchange between the two has created a resonance between their hearts and souls. Social space is indeed the space where relationships intersect. Social space needs to provide a ticket for the agents who try to enter it. Moreover, that ticket is the various forms of capital associated with these spheres. The class system is fixed, and therefore, there is necessarily resistance to class exchange (Guo 2019). Renée is well aware that there is an unbridgeable gulf between the poor and the rich and that the poor cannot truly integrate into secular society so that she has a different identity in a different space. As a concierge, she confines herself to her room and is unwilling to face reality and change it. She did not want to use her intelligence to challenge the authority and prejudices of high society, let alone invite the powerful. She also refused to allow her territory to be violated. She, therefore, deliberately disguises herself as a tough concierge. However, the appearance of Mr. Ozu and Paloma triggers Renée’s exchange with the bourgeoisie.

The German philosopher Georg Simmel says in *Bridge and Door*: All the time, people in the world are inside and outside the door, through which life’s self moves to the outside world and from the outside world to the self. The mobility of the door offers the possibility of people randomly stepping out of their boundaries and into freedom (Zimmer 1991). The door is ready to open; it is open to receive and go out into the world in order to prove that it is interconnected in its essence with the world (Fu 1994). In the end, when she finally decides to open her heart and try to love and accept, the sudden car accident brings everything to an abrupt end, and the sudden death seems to be a punishment, a constant warning of the boundaries between classes, and the painful result if the poor penetrate by force, ignoring the differences in their class status. A “Cinderella” ending is difficult to achieve in real life, as is the transgression of class.

3 CONCIERGE

In most works, concierges have always been the object of ridicule. They have always been foolish, tongue-tied, vile or other negative descriptions. They would be considered a plague, which means that this species would proliferate very rapidly and risk infection of all social classes, endangering their well-being and even their health or their lives (Strobbe 2031). Balzac’s concierge was calculating and coveted other people’s collections; Proust’s concierge is negatively labeled as a jealous trouble-maker; this stereotype continued into the twentieth century and was used by the heroine of Muriel Barbery’s *L’Élégance du hérisson*, in which the stereotype of the traditional concierge was also comparing the stereotypical image of a traditional concierge to a poodle, as barking at insignificant trifles and following their masters with a stiff gait. Concierges are thought to be ugly, stupid, and obedient like poodles all their lives. Their ugly, silly appearance was considered one of the greatest guarantees of order and security in the building.

In nineteenth-century works, the concierge was always a character rather than a narrative agent. By the twentieth and twenty-first centuries, the narrative of the female concierge is also controlled in most literary works or films, but the male character, also as a concierge, has narrative power. If male and female concierges have the same function, women are subject to harsher and more vicious criticism. The work mentions that people are frightened by the sight of a female concierge reading a book and think they will cause trouble. To the gentlemen and wives, why should an old, ugly widowed concierge have to read Anna Karenina when she should just marriage with someone, have children, and do housework? Even if being ignorant of one’s identity, most people feel entitled to demand one to remain in the fishbowl as one already is. Therefore, people who refuse to live in a “fishbowl” and play

the role they are meant to play are considered to be deviants. When one is miserable in one's fishbowl, no one is concerned, but if one wants to get out of the fishbowl, one will be considered crossing the line (Zhong 2016). Thus, Renée, in order to live a quiet life, chooses to keep her silence in her profession as a concierge and stay in a room of her own.

3.1 *Personality masks*

Personality masks were originally meant to be the masks worn by actors in the classical period, but Carl Gustav Jung described them in his own theory as the system of adaptations and ways in which people have been able to communicate with the world, as Jung put it: The outermost mask of personality conceals the true self and makes the personality an illusion, acting in accordance with the expectations of others, and therefore not in conformity with his true personality. The mask of personality is embodied by the individual's clothing, body language, and specific adornments, which tell the world who they are. At the same time, the mask also determines the image in which a person is presented to society (Anonymous 2021).

Renée is a concierge in a fancy apartment building in France. Born into a low-income family, she was brought up in a neglectful environment. Renée's sister was pretty but passed away prematurely after being abandoned by a wealthy man after marriage, and these experiences have led her to develop a deep animosity towards the rich people of the world. The concierge plays an easily overlooked role in everyday life for the most part. To conceal her cleverness, she does everything she can to conform to the prejudiced image of the concierge in people's minds. She reads in her little study room but turns up the volume of the television so that passers-by have a mental image of a doorman lying in front of it; she avoids discussing philosophical topics with the bourgeois inhabitants; she cuts her hair in a messy way so that people will not notice her; she cooks notorious dishes purposefully to fit her poor status; and her insensitive expressions and silly little grammatical errors, making herself look ignorant and mediocre in front of her arrogant master. The mask offers her protection from the noisy cacophony that comes with her social role and enables her to leave a free and peaceful inner sanctuary.

3.2 *Protect and illuminate*

Etymologically, "Conciergerie" emphasizes the subordinate attributes of the figure with its roots in the early 12th-century word "concergius" or "serviteur", formed from the Latin "cum" or "with" and "servus" or "slave". Meanwhile, from the 10th to the 14th century, "Le Palais de la cité", or the medieval royal palace, had a "Conciergerie" headed by "Le Compte des cierges" – a group responsible for security, whose name derived from their use of candles at night ("cierges") as part of their service. M. Meyer suggests that the term "conciergerie" may derive from this designation. Consequently, the term 'conciergerie' may have originated not from the concierge's humble role as a slave but from this figure's ability to protect and illuminate (Herbeck 2018).

Renée provided protection and illumination to those around her. In fact, she died because of her efforts to protect a local homeless man from being run over in the street; moreover, she saved Jean Arthens' life, at least figuratively, by providing him with knowledge in the form of flower names, "I came because I couldn't remember something that helped me a lot when I was sick and later during my recovery It was you who told me the names of the flowers...Ah, Madame Michel, but you know it actually saved my life" (Herbeck 2018). More importantly, Renée's presence touched Paloma's innermost soft spot. Paloma is a bright, precocious young girl who understands the nature of society and those around her. Moreover, she would have been determined to end her life on her birthday in order to escape the "fishbowl" in which she lives. Renée's death touches Paloma and makes her suddenly realize that leaving the "fishbowl" to achieve true independence, dying is not a good option, so she begins to reconsider her decision to take her own life.

4 WOMEN'S INTELLIGENT WRITING

As Renée says, it could be said that in terms of fame, status, and appearance, she was poor, but in terms of intelligence and talent, she was an undefeated goddess of a hundred battles. The author does not use the 'female body writing', which is more or less common in traditional feminist writers, but as the work shows, intelligence is the only weapon of the primate. Through women's thirst for knowledge and their constant quest for inner cultivation, the author shows modern women emancipating themselves from traditional ideas and confronting the oppression of power and wealth with cultivation and intellectual nobility, and grace (Li 2011).

The author's use of the first person to narrate Renée's story gives her the subjectivity and freedom to express her feelings and reshapes the image of the female concierge. Once women are identified in discourse as 'I', such identity women become individual persons, occupying a position that only the superior class of men can occupy (Lancer 2002). In contrast, Paloma's mother is known to the audience through Paloma's internal perspective, and by comparing the image of Renée in the first-person 'I' with the image of her mother in Paloma's eyes, Renée's emancipation of the modern woman is brought into sharper focus. The author captures the prejudices of the rich in power against the poor through the eyes of a philosophy professor and the perspective of a French concierge, making it easier for the reader to integrate themselves into the image of the concierge and experience the same hatred for the bourgeoisie (Liang 2018). As one of the two narrative agents, the concierge Renée tells more than half of the story. Clearly, the anti-Cinderella ending gives the work a more ambitious and realistic thrust than in previous works by French women writers, who have often been known for their sorrowful love.

5 CONCLUSION

L'Élégance du hérisson sees through the door of Renée's study room to discover the truth that helps Renée's disguise and see her inner elegance. In previous writers' depictions, the concierge is usually a foolish and mean one, but in L'Élégance du hérisson, the author shows us a well-read concierge who can protect and illuminate others. In her small study room, she uses the door to build a barrier that separates her from the troubled world; outside the door she is the concierge who fits the stereotype, inside she is her true self. The role of the concierge is reintroduced from the "lightning rod" to the stage. The reshaping of the image of the concierge breaks the tradition of writing about the female body, giving the narrative subjectivity and subverting the traditional image of women, and at the same time, the narrative of a concierge shows the differences between classes in a more intimate way.

Most of the existing literature focuses on the animal imagery of the work, and there is not enough research on the door imagery, while the empirical results of this paper show that the door plays a crucial role in Renée's disguise, which enriches the imagery research on L'Élégance du hérisson. At the same time, it provides a more diverse research result for feminist research and promotes the development of feminist writing, which no longer sticks to body writing but can turn to female wisdom writing and will be more profound for the shaping of female images.

Due to the lack of theoretical understanding, the current research on the relationship between "door" and feminism is not deep enough and comprehensive. In the future, the research will strengthen the research on the novel's imagery and feminism, and believe that the study of the novel "L'Élégance du hérisson" will be more enriched.

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An analysis of male characters in “The Power of the Dog” through the lens of gender performance and personality masks

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ABSTRACT: In today’s world, the acceptance of masculinity and femininity vary from region to region and from culture to culture. This paper analyses three male characters with different characteristics in the film “The Power of the Dog” from multiple perspectives, based on the script, character performances and audiovisual language, through the measurement of personality masks in Jungian Psychology and the theory of “gender performance”, Anima and “gender performance”, to observe a different kind of rebellion between tradition and non-tradition, and to explore how femininity is externalised and dissolved in a specific living environment and cultural context. It also calls on the public to pay more attention to and accept the existence of “sexual minorities”, to reject the repression of heterosexuality, and to be brave enough to show and release their own selves. The author’s research suggests that, due to the long-term influence of the social environment, most people tend to share a common gender and personality misidentification and have stereotypes about gender, thus showing a strong rejection and fear of the so-called ‘heterosexuality’. At the same time, in certain situations, the suppression of one’s personality can easily lead to cognitive disorders and mental paranoia, resulting in personality distortions and other negative effects, leading to deviations in values in one’s individual life and in the group as a whole.

Keywords: masculinity, femininity, gender performance, personality masks, Jungian Psychology

1 INTRODUCTION

The degree of tolerance and acceptance of sexual minorities varies according to the environment and culture in which they live. Social patterns influence group perceptions, and group perceptions are, to a certain extent, determined by individual perceptions. Once an individual’s cognition is out of balance, and the definition of gender and personality becomes biased, it will lead to errors and dilemmas in group cognition. The danger to the individual of this dilemma is manifested in the form of “misogyny”, a strong rejection of heterosexuality, and “viciousness”, which is the product of distortion and pathology in either case. This paper analyses the groups represented by the three typical male characters – Phil, Peter and George – in the film “The Power of the Dog” and the forms of externalisation and

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dissolution of their heterosexuality in a specific cultural environment in order to explore the conditions and causes of gender repression and its harmful effects on personality. In addition, the paper explores the misleading and negative transformation of gender stereotypes through the measurement of the 'gender performance' theory. In order to further improve the understanding and acceptance of 'sexual minorities' and 'heterosexual externalised groups', the paper further elaborates and analyses these groups.

2 BASED ON JUNGIAN PSYCHOLOGY: PERSONALITY MASK AND ANIMA'S CONCENTRATED EMBODIMENTS IN THE FILM

Jung believes that many men have completely equated themselves with the status given to them by their professions. Behind the dignities are often the most fragile and humble personalities, and behind a person's conceit, there are often some characteristics of inferiority (Jung 2021). People often pursue identity and position, which can bring them dignity, and are used to covering up the emptiness inside through the outside. From the film's beginning, Phil shows the absolute supreme authority on the farm and enjoys the absolute obedience and worship brought by his brave and tough identity. Riding in the grassland, wearing a felt hat and dusty face, Phil always shows a resolute image of a cowboy in the West. He looked down on the weak George and the paper-folded Peter, and by suppressing them, he could more perfectly shape a heroic and strong model man. However, the seemingly resolute appearance is easily broken, and Phil's cover-up of his own personality has reached an almost pathological level. In a patriarchal society, this situation is often more common. The Western background of the film seems to have hinted at what kind of society this is from the beginning and has already explained the reason why Phil is obsessed with hiding his identity, which is that women can only rely on men for a living and become a background board with rags forever. They laughed at men who were "not men enough" repeatedly, and the laughter echoed over the wilderness and never dissipated.

In Jung's view, the relationship between individual consciousness and collective consciousness is roughly equivalent to the relationship between individual and society. The two are suspended on both sides of the balance, one side of the chip increases, and the other side is bound to tilt. In the urgent need for human beings to integrate into the collective, ignoring the call of individual consciousness is inevitable. At the party in the small restaurant, Phil seemed to be the leader of a group of cowboys. Through a set of close-ups, he described in detail the process of destroying Peter's paper flower stamen by hand, burning it and immersing it in water, which won the laughter of his companions. He seems to take nothing to heart, showing others only absolute fortitude and tenacity. However, the collective psychology existing in the unconscious is the "inferior part" of psychological function, and the individual unconsciousness is the "superior part" of psychological function. If individuals integrate collective psychology into themselves and become a part of their own state, then collective psychology may suppress personality and cause mental illness. The film has repeatedly used framing composition, character profiling and other techniques to shape Phil's psychological state of suppressing his heart and longing for redemption. It is under such perennial repression that Phil has formed a near-morbid will to power. In him, collective psychology is far ahead of individual psychology. He suppressed himself in exchange for people's respect and worship, which has had an unavoidable influence on his personality, and these influences are still expanding. His younger brother married Rose without saying a word, making Phil feel that things were developing uncontrollably. His awkward brother George, who had always depended on him, had the nerve to act against him. He vented his anger on horses and tried his best to suppress Rose in his later life. The silent rebellion of his younger brother made him feel a sense of crisis for the first time. Phil thinks that his absolute authority in the patriarchal society was challenged and vented his anger on Rose and Pete. He bullied Rose, which nearly collapsed several times. This morbid expansion psychology

finally turned against Phil, which became the source of his step-by-step walk into the abyss of the future. The personality mask is too controlling of itself, and once the extreme is reached, the shadows will recoil. “The shadow is the vile part of the personality (Jung 1988).”

People cannot be divorced from society, and living in the collective makes collective psychology occupy a high proportion, so paying more attention to fragile individual psychology is necessary. This individual’s psychological content constitutes a conscious personality, which is subordinate to the individual. This kind of consciousness with only personal characteristics will emphasise individual content’s creative right and ownership and try to shape these contents into a whole. Once challenged by the content unsuitable for the whole, it will unconsciously ignore and forget or suppress and deny that part of the content (Jung 2021). Phil has been conducting such “self-education” in his past life, but this kind of education is too arbitrary and violent. In order to create an idealised image of a man, he has to sacrifice part of his own content. This part of the content has always existed in his body and cannot be discarded. It can only be tolerated, suppressed and restrained.

Personality masks (Persona) is another apt name for conscious personality. The closer the Personality mask is to reality, the weirder the inner self behind the personality mask becomes. Verena Kast says. “the mask of the human personality” leads to the creation of a ‘shadow’ of the human personality (Kast 2003). “Jung believes that even though personality masks seem to be the product of individualisation, it is the projection of collective psychology, a compromise of the individual to collective requirements, a “compromise between the individual and society” (Yang 2002). Especially in a society that tends to show a single role template by one person, the collective often implies the appearance that the individual should show. The individual passively deduces the role that reflects collective psychology. In such a morbid collective, the demands on individuals are often morbid and unreasonable. In the Western world, a man as weak as Pete can only be called “Miss Nancy” forever. Partly out of fear, Phil ordered himself to play the role of a successful man. Here, “being strong and brave” is no longer a personality but a necessity to win status. However, such a role actually has no “authenticity”. In the process of shaping Personality masks, people often need to make substantial concessions to the outside world and stifle their true selves. Even some people themselves will get lost in this performance and think that the selves they show are themselves. “The result of this imbalance that exists between the personality mask and Anima and Animus is that it may cause rebellion in Anima or Animus (Butler 2009). “This will lead to the sacrifice of other parts of the personality structure and damage mental health.

In addition, when Personality masks influence individuals, they can play a powerful role externally, but when they are unconsciously influenced internally, they will show femininity (Jung 2021). The film uses panoramic and distant shots to shoot the natural environment of the Western world many times, suggesting that powerful external forces have created such male characters’ sense of being “untamed” towards the inner self. In the authoritative society of men, men will take it to their advantage to suppress their own femininity as much as possible, while the femininity and intentions that exist in individuals will be suppressed in the unconscious. These unconscious images of women are Anima. However, no man will have only male qualities and no female qualities. This repression is wrong in itself.

3 THE “GENDER PERFORMANCE” IN THE PLOT

Gender Performativity is a proposition of great significance in the field of gender studies and was proposed by Judith Butler, a leading contemporary American queer theorist, in *Gender Trouble: Feminism and the Subversion of Identity*. In her view, the gender identity of the subject is not innate but constructed later in society; it is not established and unchanging but indeterminate and subject to change, i.e., performative. “If the immutable qualities of biological gender are challenged, then perhaps the construct called ‘biological gender’ is as culturally constructed as social gender (Hall & Hordby 1987). “The idea that not only gender

but all identities are performative is undoubtedly the central point in Butler's theory. Gender performance is when the "I" repeatedly plays or imitates a certain gender and constructs itself as a subject with that gender (Tan 2010). The subject is a performative construct, a "subject in process" constructed through repeated performance acts. To avoid misunderstanding, Butler sometimes distinguishes "performative" from "performed", "performed" always presupposes a performer, i.e., a subject as an actor, while "performativity" does not (Tan 2010). Butler argues that both biological sex (sex) and social sex (gender) are the results of repeated performances "in the sense that gender has always been an action, although it is not an action exercised by the subject who may supposedly precede it in existence (Hall & Hordby 1987)."

The film opens with Peter's inner monologue, "When my father passed, I wanted nothing more than my mother's happiness. For what kind of man would I be if I did not help my mother if I did not save her?" Compared with the traditional perception of that extremely protective male image, the boy's image is very different: fair face, handsome, slender and thin, slender fingers, wearing a spotless white shirt, making very delicate handmade paper flowers, often teary-eyed when sad, moreover, fiddling with the comb teeth and twirling a hula hoop when nervous and anxious. In short, Peter presents the audience with a feminine, weak, and unmasculine male image that is at odds with traditional masculinity standards. As can imagine, in the western cowboy society full of traditional male ruggedness represented by Phil, Peter is a complete sense of "alien", subject to their sneer and ridicule. In a condition dominated by heterosexuality and men, people who do not conform to traditional gender temperament standards, weak, timid, crying men and irritable, active, dominant women are rejected and even labelled as "homosexual". "Homophobia of men against men is misogynistic", and this 'misogyny' is not only in the sense that it oppresses the so-called femininity in men, but it is also oppressive to women (Kosofsky 2011). Both Phil and the cowboys mock and ridicule Peter mercilessly, thus showing their common "homophobia". It is a different kind of performance, proving that one is strictly demarcated from homosexuality, thus further expressing masculinity and making one's gender role finalised. Phil and the cowboys suspect Peter of being gay and show their rejection and fear of him, reflecting the deep-seated "misogyny" behind this mentality. This sentiment is oppressive not only to men with so-called "femininity" but also to women. Phil's rejection of the widow Rose triggered his resentment of Peter; he believed Peter's mother, Rose, made him so weak, feminine and fragile, lacking so-called "masculinity".

In contrast to Peter, Phil is a male figure who meets traditional masculinity standards and has typical Western cowboy characteristics. As a respected farmer, he is full of beard, not so well-dressed, sturdy and robust, speech and character irascible and rigid, and even some extreme, is the representative image of the patriarchal society in the film. However, this character, who is in charge of a vast pasture and has a typical masculine temperament, also has a secret inside. Phil's role-player, Benedict Cumberbatch, believes that Phil has shown a "toxic masculinity" in his excessive pursuit of masculinity. In English, the term refers to the suppression and concealment of emotions, especially pain, by men and the deliberate act of expressing their so-called "masculinity". He worshipped the non-appearing Bronk Henry as a god, seeing him as a role model to follow in every word and deed and even as an admirer who acted as a spiritual pillar, eventually forming his homosexual orientation. At the same time, the other side of Peter's image is also fully expressed: he gives his mother the rabbit he had hunted, and shortly afterwards, he dissects the rabbit in his room and downplays his mother's advice to him; it turns out that he was practising surgery, determined to learn medicine and inherit his dead father's career. It can be seen that at this time, Peter has a clear plan for his future goals but also has full confidence to achieve his goals in life, greatly overturning the audience's previous impression that his lack of "masculinity" of him because of his soft appearance. Later, he discovers the secret of Phil's sexual orientation and sees through the fragile heart under his tough exterior. After a long contact, Phil found that Peter was quite similar to Bronk Henry and began proactively releasing his goodwill. The film's

ending is beyond the audience's expectations, Peter gives Phil the anthrax-infected cow's hide to Phil, and Phil also dies of anthrax when using it to weave rope, with wounds on his hands. "To be an independent person, a boy must perform remarkable acts (Gilmore 2021). "Peter proved himself to be truly "masculine" with such a "remarkable act".

4 GENDER PERFORMANCE THEORY FOR LIBERAL EQUALITY

It can be said that the perverse sexual mentality caused by the extreme oppression of sexual and emotional needs and the "toxic masculinity" brought about by the pursuit of masculinity beyond the limits are the important reasons for Phil's tragic end. The root of the problem lies in the shackle imposed on people's minds by social stereotypes of gender temperament. Both masculinity and femininity are not innate but are constructed later along with the development of society. There is no doubt that there should not be a huge gender divide, and neither men nor women should be seen as a mapping of the other gender, let alone a stereotypical gender trait. The backward concept of male superiority over females should be abandoned, and likewise, men should not be rejected by heterosexual authorities because of their self-identity. Phil does not really accept Rose and Peter from the beginning to the end, which leads to the film ending when Peter finally kills Phil to avenge his mother, rather than the audience thinking Phil and Peter to achieve reconciliation, a so-called "happy" ending. Both social acceptance of marginalised sexual minorities and self-acceptance of sexual minorities begin with building bridges to the inner world and smashing the shackles that bind the mind.

The pursuit of individual freedom and equality for all people is the ultimate ideal that has been running through the development of human society. However, in the long history, women have been oppressed by male-centeredness and patriarchal-centeredness and have never really gained equal status with men, and "the binary opposition of gender and the fixation of gender characteristics have restricted the free development of human personality" (Shi 2007). Various feminists have voiced their demands for equality between men and women. However, they are confined to male-dominated social and cultural circles and fail to reveal the root of the problem. Judith Butler's gender performance theory deconstructs the traditional binary gender view of men and women, arguing that gender identity should be plural and changeable. From this theoretical point of view, thinking about and analysing the characteristics of the male characters Phil and Peter in the film and the ending is helpful. For gender and sexual orientation equality, the stereotypical binding and overemphasis on gender temperament based on the binary gender view of men and women is undoubtedly a fence waiting to be broken. Gender performance theory believes that all genders and sexual orientations should be respected, accepted and understood, and all have the right to express themselves courageously and freely, and none is a mapping or attachment of other genders or sexual orientations, which undoubtedly brings unlimited hope for human society to achieve freedom and equality.

5 CONCLUSION

The author believes that gender is set and performed by the long-term influence of the social environment. The specific cultural environment and context play a key role in shaping personality and gender, so the degree and manner of externalisation of heterosexuality change and are difficult to dissipate. This results from a strong rejection and fear of so-called 'heterosexuality'. The suppression of one's personality can easily lead to cognitive disorders and mental paranoia, resulting in personality distortions and other negative effects, leading to deviations in one's life and the group's values as a whole. Not only in Western society but also in today's society, the contradictions of gender self-identification still need to be

addressed and resolved. What the public sees, thinks and should be to promote diversity and open minds. This article comprehensively analyses gender perception barriers in a specific social context and calls for social acceptance of difference. However, different ideologies have different social conditions and varying degrees of tolerance of such groups. This article is limited to a specific trio of personalities and a particular social context and does not represent all regional cultures. In the future, research should take the context of the times and social change as an important criterion for consideration, leading to more accurate and extensive conclusions.

AUTHOR CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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The identity evolution and causes in *The Joy Luck Club* and *Everything I Never Told You*

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ABSTRACT: In recent decades Chinese American literature has received considerable attention from scholars. Considering the research background, this study focuses on the classic Chinese-American literary work *The Joy Luck Club* and the emerging work *Everything I Never Told You*, devoted to exploring the cultural mentality and identity of fictional characters in the literary works of Chinese-American female writers in English literature and exploring the evolution of the “self” identity of Chinese American English literature women writers in the context of the great era, namely from the early Chinese American women’s wavering resistance to Chinese and female identity, to the third generation immigrants’ active acceptance of identity diversity. This study also infers the reasons for this change based on the background of the times and personal factors; the above phenomena are analyzed from both external and internal perspectives. The final conclusion is that the changing identities of the authors themselves and their characters in these two works are influenced by globalization trends as well as the authors’ personal experiences and attitudes.

Keywords: Identity evolution, *The Joy Luck Club*, *Everything I Never Told You*

1 INTRODUCTION

Research on Chinese American literature has received considerable attention in recent decades. Amy Tan and Celeste Ng, known as “Amy Tan No. 2,” have won major literary awards in the United States for their debut novels *The Joy Luck Club* and *Everything I Never Told You*. *The Joy Luck Club*, published in 1989, describes the generation gap and conflict between four Chinese American mothers and daughters. It also reflects the cultural collision and gap between Chinese mothers and American daughters, accompanied by how daughters struggle to find answers to the identity confusion of “who am I” in the cracks of white main-stream society and the process of reshaping their own identity. *Everything I Never Told You*, published in 2014, describes how Lydia, an American daughter in an American interracial family, seeks self-redemption under the dual expectation and pressure of her Chinese father and white mother.

The studies of *The Joy Luck Club* focus on the mother-daughter relationship, the interpretation of Chinese women’s images and cultural differences between China and the United States. In recent years, although the research on *Everything I Never Told You* has increased day by day, with rich research perspectives, involving aspects such as literariness and aesthetic values, women’s issues, family education, psychological or philosophical analysis, and identity issues, the analysis of Chinese identity is not in-depth enough. However, there is relatively little research on comparing two texts simultaneously and conducting research on identity recognition. Therefore, the author decided to take *The Joy Luck Club* and *Everything I Never Told You* as the research text to compare the characters and their

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identities in the works of the two authors and further explore the changes in Chinese-American writers' recognition of their own identities through these differences.

At the same time, based on the postcolonialism theory, this paper uses the methods of text comparative analysis, literature survey and other research methods to conduct a comparative study of the works of Chinese American English literature women writers. This thesis focuses on the cultural mentality of fictional characters as expressed in the literary works of Chinese-American women writers of English literature and explores the construction of "self" cultural identity in the creative work of Chinese-American women. Meanwhile, this paper discusses the evolution of the "self" identity of Chinese-American female writers in English literature with the changes in The Times, that is, from the swaying resistance of the early Chinese-American women to the diversity of the identity of the third generation of immigrants.

2 IDENTITY THEORY

Identity is an important concept in contemporary ethnic studies. Descartes' famous statement, 'I think, therefore I am', points out that people must first possess a rational 'subject' in order to have the possibility of understanding things. Each person has an identity of his or her own, and identities with cultural meanings are subject to various socio-cultural factors. For example, women believe that their self-identity is closely related to gender. Tao Jiajun's theory of identity believes that identity is the communicative effect formed between the subject and others or a certain heterogeneous cultural identity, the recognition degree and acceptance attitude of the subject about the role and characteristics of the group, and the cognition that the subject regards himself as a member of a certain group in the sense of emotion and value. This cognitive construction is based on the subject's psychological self-identity. Therefore, identity is equivalent to the individual's self-identity confirmation. Simultaneously, the image of self and other reflects identity, and identity determines the image of self and other. As Daniel-Henri Pageaux mentioned in *Image*, the question of identity involves the discussion of the status and image of others. All literature that thinks about its own identity transmits images of one or more others to speak to itself. The discernment of the other becomes the discernment of the self. Therefore, identity and imageology are inseparable (Pageaux 2001). Based on this, this paper starts with the characters in the author's pen and analyzes the identity of the characters and the author's own identity.

At the same time, it should be noted that the issue of identity is complex and varied, and the identity discussed in this paper refers to the cultural and ethnic dimensions of identity. This can be divided into two aspects: firstly, the recognition of Chinese identity, manifested as the reconciliation between Chinese Americans and their Chinese ancestry; The second is the recognition of American citizenship, manifested as the active integration of Chinese Americans into American society based on their acceptance of their Chinese identity.

3 IDENTITY OF THE PROTAGONIST

3.1 *First-generation Chinese*

As very little space is devoted to first-generation Chinese in *Everything I Never Told You*, only in the introduction to the identity of second-generation Chinese, the following focuses only on the portrayal of first-generation Chinese in *The Joy Luck Club*. As mothers of the first generation of immigrants, they have traveled thousands of miles to the United States with beautiful wishes and boundless attachment to their homeland. These women leave their homeland with tragic pasts and painful memories. One of them, Suyuan Woo, lost all her relatives during the Japanese War, including her parents, husband and two twin daughters. An-mei Hsu saw her mother, the third concubine of a wealthy man, going to her death when

she could not stand the rivalry between the concubines. Lindo Jong, on the other hand, is a husband who has made every effort to break free from the orders of his parents and the words of a matchmaker. Ying-ying St. Clair's first husband, lays around and runs off with her cousin. She was abandoned, and despite the world's opinion, she aborted her child and started a new life. These strong women come to a new environment and face a completely different culture but cannot fit in. Thus the marginalized insist on clinging to and reinforcing their Chinese cultural traditions. Suyuan Woo organized a "Joy Luck Club" during the Anti-Japanese War, which she believed would help her forget her past troubles and misfortunes. Arriving in a new environment in the United States offers new hopes and challenges. In this white mainstream world, the yellow-skinned Chinese are "marginalized". They had to attend Baptist churches, study the Bible and join choirs because of the gifts they received from the Refugee Relief Society, which were a cultural dimension of colonization. In this society of ethnic oppression and power discourse, Chinese people are humble and speechless. In order to gain a sense of self and to prove who they are under the label of "other", they have come together as Joy Luck Club. *The Joy Luck Club* in San Francisco, like in Guilin, is a way for them to relieve their pain, but it also takes on a new meaning: it allows them to maintain a connection with the past and maintain their original cultural identity. Through such 'religious rituals', the mothers affirm their Chinese cultural identity. They dress up, wear beautiful Chinese-style stand collar tops, eat Chinese food such as Wonton, and emphasize that Chinese and Jewish mahjong are totally different (Tan 2006). In her daughter's (June Woo) opinion, her mother must distinguish between the attitudes of the two games, not that there is a difference in the game itself, but that there is a difference in her attitude towards Chinese and Jews. Her mother's attitude is to maintain her Chinese identity. It reflects the residual sense of spiritual belonging and cultural identity that Chinese immigrants have after being separated from their original social and cultural structures.

Edward W. Said believed that all cultures are interlinked with each other. No culture is isolated, and all cultures are hybrid (Said 1999). From the mothers who stick to traditional culture, there can also be read about the process of mutual penetration of The Two Cultures after conflict. Firstly, their language combines broken English and various Chinese dialects. Their names are also a mix of American and Chinese: St. Clair. Yingying's name is the new name her husband gave her when she arrived in the United States. The outfit was changed from a colorful silk dress to light blue poly fiber trousers, a red collared jumper and a child's green pinafore, which was very different from everyone around. Even more profound are the changes in their thinking; despite constantly emphasizing the differences between Chinese and American people, they also have to accept the American way of life. An-mei Hsu lost her young son on a mock American beach vacation with her family. Her initial reaction was to pray to God with a Bible. When "God" did not give her back her son, she turned to the "Sea Dragon King" of Chinese mythology and sacrificed to the sea, a method used by the Chinese, in the hope that the Sea Dragon King would give her back her son. This indicates that her heart is already mixed with American faith in God and Chinese reverence for the gods.

In the generation of mothers who cling to traditional Chinese culture, the American culture is also becoming increasingly deeply ingrained. They also have growing doubts about their cultural identity. For example, Lindo Jong thinks he has two faces: one Chinese and one American, and knows when to use the American one and when to use the Chinese one. When she returned to China, she took off her expensive jewelry, removed her brightly colored clothes and tried her best to blend in. However, despite her efforts to appear entirely Chinese, those around her could still discern that she was not entirely of Chinese descent. Therefore, upholding a distinctly Chinese identity in American society proves challenging.

3.2 *The second generation of Chinese*

Second-generation Chinese have been influenced by American culture since childhood, and most of their knowledge of China comes from their parents' lectures or messages on the

Internet. This makes it difficult for them to recognize traditional Chinese concepts as first-generation Chinese do. Instead, they tend to accept their own identity as Americans, which has led to conflicts and contradictions with their parents, who are first-generation Chinese. Instead of showing the confusion and struggle “between worlds”, they choose to identify with American culture and try to integrate into the United States. However, their efforts to integrate into the United States are thwarted by the mainstream society’s gaze on “otherization”. The outside world does not recognize the identity of the subject, and they suffer explicit or implicit discrimination and exclusion and cannot integrate into the local community.

3.2.1 *From Joy Luck Club*

For the daughters born in the United States, “China” is distant, a mother’s rambling, a Chinese language she does not fully understand, a mythic story.

In the novel’s background, Chinese culture and people are Orientalized, marginalized and even ‘demonized’ in mainstream white American society. White people create all kinds of stereotypes and vilify Chinese people, making people think of gangs, gang warfare, gambling and drug abuse when they talk about China. As second-generation immigrants of Chinese descent, they always feel the unease brought by Chinese characteristics. In order to make their children more accepted by mainstream society, Chinese parents give their children an American name; although they also have a Chinese one to use together, they use American names more often in their daily life. Lena St. Clair was dissatisfied with the Chinese features in her appearance, such as not having deep eyes and not having white skin. She admired her father’s big skeleton and angular face, which showed her recognition of white culture between praise and criticism.

However, while recognizing their American identity, they are equally troubled by the Chinese traits of their mother. In the eyes of every daughter, the mother’s behavior is incomprehensible. June Woo has never carefully listened to her mother’s stories while wrapping her hair. She only regards them as Chinese mythological stories, and each time the ending is different, becoming increasingly profound and gloomy and enveloping her life. Ultimately, she could not figure out what to say about her mother, whom she had lived with for decades. Waverly Jong hated his mother for taking all the honors. He felt his mother knew nothing about chess and had no right to show off. She could not understand Chinese mothers’ pride in their kids and their eagerness to see them succeed. The daughters were impatient with the mothers’ conversations in Chinese and laughed at their English, thinking they were not very flexible. The mother patiently told her daughter, while the daughter only chewed gum and ignored her preaching. Moreover, she emphasizes personal subjectivity and does not want her mother to have too much control over her.

3.2.2 *From Everything I Never Told You*

In *Everything I Never Told You*, James faced the conflict between “lineage” and “identity”.

James’ parents came to the United States as “paper sons” before World War II and worked as handymen in a school in Iowa from California’s Chinatown when James was six years old. As the only Oriental student at Lloyd’s, James stood out and became the object of their “gaze”.

He worked hard to learn pop culture to communicate with his classmates, but he never truly integrated into white society; no one discussed Skelton with him or invited him to play the Monopoly game (Ng 2015). Despite studying at Harvard for seven years, James remained isolated and struggled to make friends. His academic interests, such as researching cowboys, were influenced by his desire to align with American identity. However, even as a teacher of cowboys, James failed to change the students’ perception of him as a racial outsider. This showed that cultural boundaries built around race were deeply ingrained in society and considered a part of social reality. James’ teaching of the Western Cowboy course involved transitioning from being an outsider to the white community to becoming an

insider, crossing the cultural boundaries artificially constructed based on race. His “boundary-crossing” behavior challenged racial and cultural boundaries that students had not questioned, leaving them amazed and dropping out of the class.

Cheng Aimin summarized the themes of Chinese American literature as survival in the gap between two worlds, the confusion between two cultures, the search for their value and the search for cultural communication (Chen 2003). James did not experience cultural conflict, instead he assimilated into American culture but felt alienated by society’s discriminatory gaze, preventing him from feeling a sense of belonging. Identity formation is a social process influenced by various relationships and subject to scrutiny by others. Amartya Sen points out, “The constraints on choosing an identity become more severe when we try to convince others that we are different from (or better than) the identity they insist we should be (Sen 2014).” Only when the subject’s self-identity and the other’s identity are mutually agreed upon can the subject complete the socialization of identity construction. However, when the two show differences, the subject will feel anxiety and alienation, which is James’s dilemma. He chose to identify with American culture, but his racial characteristics, which were different from white people, made him an “alien” in the eyes of mainstream society. People around him did not recognize his self-identified American identity, and the subject’s self-recognition was inconsistent with others’ perceptions of the subject’s identity, which caused James’s anxiety.

In the novel, Celeste Ng highlights the conflict between “bloodline” and “identity” through specific textual details. For instance, James feels uncomfortable when the eyes of his fellow students at Lloyd’s College shift between him and his father, the only two Eastern-heritage individuals in the class. Similarly, in genealogy class, James silently sketches his own chart while his classmates draw leafy family trees, which the teacher almost ignores. The leafy family tree symbolizes a deep connection to the land and an unquestioned sense of American ownership and identity, highlighting the tension between heritage and identity. Although James was also born and raised in the United States, he did not have the same family tree as his classmates in the US and existed only as an “outsider”.

Sollors believes that the United States is a country that emphasizes identity. People of different ethnic and cultural backgrounds choose to identify with American culture in the new land of the United States, which is the spirit of “E Pluribus Unum” and “melting pot”. However, identity is often influenced by “bloodline”(Sollors 1986). Marginal groups cannot rely entirely on the identification of subject sexual selection, and they are always viewed by mainstream society from the perspective of “blood”. This is the dilemma facing James, who chooses to identify with an American cultural identity according to the principle of “identity,” but the mainstream society regards him as a racial “other” and an “alien” according to the principle of “blood.” Sollors argues that dominant groups see themselves as universal standards while excluding dominated or defined groups from using universalism, and instead classifying them according to “descent” [7]. For example, blacks cannot fully develop their subjectivity and identify themselves according to the principle of “identity” but are only defined by the dominant group. Sollors believed that the American Jewish writer Lewisohn reproduced the contradiction between “lineage” and “identity” in the form of autobiography, telling how he struggled between the external definition of identity and self-identity, “the external definition of ethnic identity may therefore lead to the internal definition of ethnic identity” [7].

In Sollors’ view, the division of “lineage” is an act of artificially defining and creating boundaries in order to limit and control marginalized groups. Sollors’ concept of “lineage” refers to physiological and cultural aspects, encompassing racial features in the biological sense and the cultural construction of racial characteristics and boundaries. However, the cultural dimension is of greater significance. In *Everything I Never Told You*, James faces an insurmountable ‘bloodline’ boundary. No matter how hard he tries, he cannot escape the label of being labeled as racial ‘other’ by white people and always cannot integrate into the United States.

His thoughts changed when his daughter Lydia committed suicide because of family pressure. After the death of his daughter Lydia, he stopped imposing his dream of integration into American society on his offspring, and he began to view his American citizenship and Chinese identity equally, finding his identity in a harmonious family. Moreover, while investigating the truth of his daughter's death, James changed from trusting the police at the beginning, believing that the police did not care about the life and death of a Chinese girl, to being moved by the sense of responsibility of the police. At the same time, he realized that what really separated him from mainstream American society was his inner conflict and his sensitive inferiority of dual identity.

In summary, in foreign lands, Chinese Americans like James gradually realized that their American citizenship was real and distinct from other American citizens, and ultimately found their own unique identity.

3.3 *The third generation of Chinese*

The Joy Luck Club does not involve the third generation of Chinese Americans, so this study will only analyze the image and identity of the third generation of Chinese Americans appearing in *Everything I Never Told You*.

3.3.1 *Nath*

After James had no hope of integrating into the United States, he pinned his hope on his son Nath, hoping that he could become a confident young man. However, Nath was also discriminated against and excluded by his classmates due to race issues. When playing a game called Marco Polo in the swimming pool, Ness shouted "Marco" alone. White companions had already secretly swam to the shore, quietly shouting "Polo", and then splashed the water and let Ness swim around in the pool according to the movement of the water. A girl about ten years old shouted, "Chinaman cannot find China". Nath's experience reminds James of the humiliation he suffered in gym class thirty years ago when his classmates hid his clothes and made a public spectacle of him. The real-life Nath is almost a replica of James's youth, as shy. James is conflicted about Nath's behavior. He wants to comfort Nath and tell him that he understands how teasing and not fitting in feels. On the other hand, he wants to slap him a few times and make him a different person. However, it went against her wishes. Due to her short stature, Nath was rejected by the football and basketball teams and instead became obsessed with reading alone and observing space through a telescope. Unable to fit in with the group, Nath is the other side of himself that James does not want to see and the alternate generation of his "other".

Nath's passion for astronomy is a manifestation of his disappointment and escape from reality, caused by his inability to integrate into American society and his father's neglect. James is unable to confront his deepest fears and unpleasant experiences, leading him to distance himself from his son and react violently when asked about astronauts, which Nath is fascinated with. However, the father, James, is so absorbed in his grief that instead of showing "empathy," he takes his frustration with reality out on his son. His aversion to Nath is the inevitable result of his unwillingness to face his "other". In the novel, the relationship between the father and son does not depict a conflict between a father who identifies with Chinese culture and a son who identifies with American culture. James and Nath were both born and raised in America, identifying with American culture and desiring to assimilate into American society. They did not display confusion between the two cultures but experienced discrimination based on their skin color.

3.3.2 *Lydia*

Among the three children of the Li family, Lydia is the most like Marilyn, with blue eyes and high cheekbones. Lydia's Caucasian biology is one of the critical reasons Marilyn and James like her, while Nath and Hannah are alienated from their parents because they inherit

James's Chinese biology. Lydia, like Marilyn, is the embodiment of America, a projection of James' desires, loaded with his father's expectations of integration into America. "Blue eyes" is one of the novel's central images, appearing several times, for example, in chapter 7, when James hopes Lydia will blend in with America, become calm and confident, and "look her neighbor straight with her big blue eyes".

To make her father happy, Lydia pretends to chat with her friends on the phone every night, and James sees Lydia holding the receiver, and his face shows a relaxed and happy expression. The truth was different: Lydia could not get into the circle of her classmates. They were only polite to Lydia, and Pam, who had taken the initiative to call her, was also lukewarm and refused her invitation to skate. She went to the ball every time she dressed up to please her father, stayed alone long enough, and then went home. To help Lydia make friends, James even tries to ingratiate himself with her classmates and awkwardly sings her songs. James' actions failed to win Lydia's friendship and made her lose face in front of her classmates. It was not just a lack of social skills that kept Lydia from fitting in with her classmates; it was a fact that her classmates viewed her as a foreigner in terms of "blood." Lydia is conscious of this and knows that "even with her blue eyes", she "cannot pretend to be part of America" because the "gaze" of those around her always reminds her that she is not like them and in their "gaze" she sees her projection – "incongruity". Lydia's perception shows the role of self and others in identity construction. Self-identity cognition and construction are always influenced by others' opinions. As a hybrid, Lydia's recognition of her American identity is not accepted by people around her. The contrast between her father's expectations and reality put immense pressure on Lydia, ultimately leading to her mental breakdown and other events.

4 AUTHORSHIP RECOGNITION

4.1 *Amy Tan*

An attitude of incomprehension and denial of Chinese culture can be seen throughout Tan En Mei's *The Joy Luck Club*, an attitude that leads to the intense conflict between mother and daughter and the lack of understanding of each other in her work, while the writer herself says she is an American writer and the assumptions she makes are all American premises (Jin 2015).

Amy Tan's portrayal of China in her novels reflects the country's past struggles with poverty, political oppression, famine, war, superstition, and feudal ethics, while the United States is depicted as prosperous, stable, and devoid of war or famine. Despite the challenges faced by early Chinese immigrants, such as the Chinese exclusion law and expulsion, they were able to survive and have enough to eat in America. This stark contrast highlights the superiority of American society and shows the American identity within Amy Tan. Like millions of descendants of Chinese immigrants, Amy Tan, the author, was ashamed and ashamed to be Chinese, even holding clothespins to her nose as a child in an attempt to appear American.

In October 1987, the author's journey home was a turning point, as she acknowledged that "I know to some extent that I belong to this country that is closely related to me". "This trip back home-made Amy Tan more deeply understand the dual culture in her identity, the tension between the two cultures, and the rich experience she and her mother have as Chinese and have to find a balance between the two cultures" (Huntley 1998). "Once you are born Chinese, your feelings and thinking are Chinese, and you cannot change them." In the novel, June Woo says this when she returns to China, which speaks to Amy Tan's true feelings.

The whole story of *The Joy Luck Club*, while recalling the personal experience, traverses a very broad regional, historical and cultural space, is full of different philosophical tension

and contains opposing social behaviors, which undoubtedly makes it a mixed text in a deeper sense. This mixed cultural identity view reflects the author's attitude towards constructing Chinese community culture and her inner struggle against mainstream culture.

4.2 *Celeste Ng*

Celeste Ng was born in 1980 and grew up in an environment where exposure to Chinese culture was not problematic. The cultural differences between China and the United States have also narrowed significantly due to the development of globalization, which has given her a broader perspective and a more peaceful mindset towards Chinese culture. Therefore, in her creation, she no longer takes Chinese elements as the core of her creation but creates other issues beyond ethnic issues, such as white women's rights, reproductive freedom, the gay community, single mothers, rules and freedom, and adoption relationship. Adding these elements and diluting Chinese elements make more people find resonance in her work. It attracted the attention of more readers.

She goes beyond the confines of ethnicity and writes about human commonality from an outsider's perspective, which resonates on a larger scale. This is a new strategy of resistance, reflecting the changing mentality and situation of the Chinese community in the context of the new era.

4.3 *Contrast*

Cultural identity is not a particular culture or nation's innate characteristics. On the contrary, it has a structuralism characteristic, a series of interrelated characteristics. The cultural identity of an ethnic group should be based on the psychological structure of people within the ethnic group. In *The Joy Luck Club*, both the mother and daughter generations have experienced the psychological process of identifying with a single culture to identifying with a mixture of two cultures. Homi Bhabha explains cultural identity in this way: "Identity is never a priori, nor is it fait accompli; it can only be an elusive process of perpetual approach to the image of totality" (Bhabha 1994). Chinese identity is also a progressive and changing process without fixed characteristics. The positioning and reflection on cultural identity are evolving and changing in Chinese English writing. Early Chinese American writers, such as Lin Yutang and Liu Yichang, showed a certain degree of adaptation to the solid mainstream white culture and were assimilated to cater to the "Orientalism" perspective of the suzerain. Tan's contemporary Chinese-American writers Kingston and Zhao Jianxiu began to question and subvert the authority of mainstream culture. Tan's literary works demonstrate the Chinese community's perplexity in a culturally diverse environment and her attempt to provide a solution for cultural hybrids facing a difficult situation. Given the rapid process of globalization, it is unrealistic to uphold the original and unadulterated form of a particular culture. Homi Bhabha believes that "the foundation of international culture is not to advocate the worship of foreign ideas of cultural diversity, but to write and express the hybridization of cultures" (Wang 2007). The free negotiation and translation of one's cultural identity in the context of cultural differences between fragmented and temporary texts is also a central infiltration strategy for immigrant writers. The United States is such a white culture-dominated, multicultural society how Chinese immigrants continue the excellent tradition of Chinese culture, absorb the essence of American culture, and thus construct their own cultural identity, Tan has been concerned about.

Celeste Ng's work is both an inheritance and a development of the style of her predecessors' works. Her works do not revolve around Chinese women but take Chinese men as the main characters, breaking through the original traditional narrative of the "mother and daughter" relationship and reflecting the new generation of Chinese writers' attitude towards Chinese issues. These changes are closely related to the development of globalization, China's rise, and changes in Sino-US relations, and also inspire the discourse power struggle of the Chinese American community.

5 CAUSE ANALYSIS

In the context of globalization, the cross-border flow of population is becoming increasingly frequent, resulting in increasingly obvious ethnic and cultural mixing phenomena. The artificially constructed ethnic and cultural boundaries are increasingly challenged, and some Chinese American writers are beginning to cross ethnic boundaries.

Although both Amy Tan and Celeste Ng are second-generation immigrants, they were born and grew up at different times, so they have different attitudes towards Chinese culture. While Celeste Ng's impressions of China were mostly relayed by her parents and the Western media, it was difficult for her to be exposed to a more realistic version of Chinese culture.

At the same time, the writer's own life experience and opinion also influence their creation. Amy Tan, due to her growing experience and the limitations of the thinking of the times, resists her Chinese ancestry from the heart and emphasizes that she is writing in the American way. While Celeste Ng was influenced by the feminist trend when she was growing up, she gradually began to try to break out of the ethnic limitations and write about the common characteristics of human beings from the perspective of outsiders, which aroused the resonance of people in a wider range. A new resistance strategy was created based on the inheritance of the previous ones.

6 CONCLUSION

To sum up, the identity change of the protagonists in these two works refers to the change from the identity crisis caused by cultural differences to the identity crisis caused by racial differences. The author's identity transformation is transitioning from resisting Chinese American identity to accepting diverse identities. Moreover, this change is closely related to the trend of globalization, intergenerational differences and the author's own experience and way of thinking.

This paper will help to supplement the status quo of research on the evolution of Chinese American identity from the perspective of the postcolonialism "other" theory. Besides, this paper will focus on the cultural mentality in the works of Chinese-American women in English literature, grasp the change of the identity of Chinese-American women under the changing background of The Times, and deeply understand the reasons behind the change to contribute new content to the academic research of contemporary Chinese-American English literature. Moreover, focusing on works by Chinese American writers who use non-Chinese characters as serious protagonists or transcend traditional themes and themes in Chinese American literature can help them better understand the spiritual confusion faced by Chinese people and, through the role of literary works, promote the self-identity of Chinese individuals in reality, strengthen their cultural confidence, and help them view their experiences of cross-ethnic communication equally. This can also expand the boundary and territory of Chinese literature, expand the creation and criticism space of Chinese literature, and outline the Chinese experience and the changes and overall picture of Chinese literature, which not only conforms to the spirit of anti-racism of Chinese literature but also can enhance the vitality of Chinese literature.

Admittedly, the study also has some shortcomings. Specifically, due to the limitation of time and space, the author only selected the representative characters in the two books for analysis and omitted many characters. Secondly, there is still room for improvement in analyzing the causes of identity change, and there is relatively little empirical evidence. In response to the above shortcomings, the author believes that other characters in the two books can be analyzed in the future to enrich the research content. The reasons for the analysis should be supported by empirical evidence, specific historical facts and the author's life experience.

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Feminist analysis of the main reasons and factors of the transformation of female images from “chicks” film to “big women” film in Chinese film and TV works

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ABSTRACT: With the development of the film industry, more and more film and television productions have been produced in China, and a variety of female characters have played a crucial role in these films. Moreover, as time changes and people’s consciousness shifts, the status of women in society has also undergone a radical change. As a result, the role of women in Chinese cinema has also changed accordingly. This paper uses a comparative study to analyze the reasons and factors influencing the transformation of female characters in Chinese film and television from “chicks” to “big women” from a feminist perspective. The results of the analysis show that the transformation is a process, and the reasons for the transformation are the result of many factors, such as the introduction of feminism, and the awakening of women’s own awareness. According to the analysis, the society should pay more attention to films narrated from women’s point of view, and reduce the phenomenon of consuming women on screen, which could help the female image in Chinese films to complete the transformation from a “chicks” to “big women”, and promote the diversity of Chinese film and television works.

Keywords: Feminism, Big Women film, Chicks flick

1 INTRODUCTION

Over the years, China has produced many classic films and television works, among which those with female protagonists account for a large proportion of the total number of Chinese films and television works. By looking at the current development of Chinese society, the hegemony of discourse and patriarchal center that women encounter in society, and the hardships of seeking their own independent living, survival and development. In general, the rise in the status of women in Chinese society from “chicks” to “big women” has led to a more diverse and complex portrayal of female characters in film and television. While there is still much room for progress in Chinese film and television, the trend toward greater representation and empowerment of women on screen is a positive development that reflects the changing values of Chinese society. Feminism, has been stayed tenacious since the moment it first entered the history stage, and today, “feminism” has become a buzzword in all walks of life and on many social media outlets around the world. These phenomena have inspired generations of Chinese and foreign film and television directors around the world to incorporate feminist ideas into their works, adding to the history of feminist film and television development. This paper analyzes the reasons and factors influencing the transformation of the image of women from “chicks” film to “big women” film in Chinese films and TV works in feminism perspective by means of a comparative study.

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2 THE HISTORY OF FEMALE IMAGE IN CHINESE FILM AND TELEVISION WORKS

Over the past few decades, the portrayal of female characters in Chinese film and television has undergone radical changes. Traditionally, female characters in Chinese media were portrayed as submissive and subservient to male authority, reflecting the traditional gender roles and values of Chinese society. In recent years, however, there has been a shift towards portraying female characters in a more in-depth and complex way, depicting them as strong and independent individuals with their own ambitions and aspirations. The following is a brief overview of the historical evolution of the portrayal of women in Chinese film and television. Before Reform and Opening-up, female characters were mainly played by male actors. In the 1930s, Chinese cinema entered a “golden age” marked by the rise of Shanghai cinema, and during this period, female roles became more complex, and actresses such as Ruan Lingyu and Zhou Xuan became iconic figures on the screens (Zhou & Yuan 2019). After the founding of the People’s Republic of China in 1949, Chinese cinema entered socialism period in which films were used to promote communist values and ideology. During this period, female characters were often portrayed as strong, independent and patriotic, reflecting the values of the new regime. During the Cultural Revolution, a period of political turmoil in China, female characters were often simplified and reduced to archetypes that embodied revolutionary or reactionary values. Female roles became more diverse and complex during the Reform and Opening-up Period, reflecting the changing social and cultural values of Chinese society. Actresses such as Gong Li and Zhang Ziyi’s performances often challenged traditional gender roles and stereotypes.

From the perspective of film and television works, traditional portrayals of women in Chinese films and television works before Reform and Opening-up often present women with a limited range of roles and experiences, which can obscure the diversity of women’s experiences and reinforce stereotypes of women’s social roles. To be more specific, traditional portrayals of women in Chinese films and television works tend to reinforce patriarchal norms and customs, such as arranged marriages and filial piety (Rosemary 2002). These norms can limit women’s agency and autonomy and reinforce the notion that women’s primary role is to serve the family and conform to social expectations. However, after the Reform and Opening-up, the roles of women have become more diverse and complex. These include depictions of career-oriented women, independent heroines, and roles that challenge traditional gender norms. Female characters in Reform and Opening-up, Chinese films and television series are increasingly portrayed as having agency and control over their own lives. They are often shown making their own decisions, pursuing their own goals, and playing an active role in shaping their own destinies.

In recent years, the role of the older female protagonist has been particularly popular in many countries, such as American, Japanese and Korean dramas, not just in China. Referring to *The Marvelous Mrs. Maisel*, *Nothing but Thirty*, *Why Women Kill...* These are all excellent films and TV works, most of the female characters in them have one thing in common, excellent and capable at the same time they demand more equality in the relationship between the sexes in marriage, have the equal dedication of themselves and their partners to the family, not like some of the previous films and TV works. Women should stay at home to do the laundry and cook and take care of the children, as if this is an inherent obligation. Compare this to some old TV dramas, such as *The Little Nyonya*, where the women characters is mostly a saintly mother figure who embraces others with love no matter how much they set her up, and at the same time, she basically marries someone like a prince whose parents do not see her, and after all that, she has a happy ending. Overall, the historical evolution of the portrayal of women in Chinese film and television reflects the changing socio-cultural values of Chinese society. Despite setbacks and challenges along the way, the trend toward greater diversity and representation of women on the screen is a positive development that bodes well for the future of Chinese cinema.

3 THE PROCESS OF TRANSFORMATION OF THE CHANGING FLOW OF FEMALE IMAGES IN CHINESE FILM AND TELEVISION PRODUCTIONS

The changing image of women in Chinese film and television productions can be seen as a process of transformation rather than a clear turning point in time. Although there are some famous films and TV series depicting strong female characters, such as Zhang Yimou's *Raise the Red Lanterns* (1991) and the TV series *Princess of Pearl* (1998), this change is gradual and continuous (Wang 2021). In early Chinese film and television productions, female characters were often portrayed as submissive and subservient to male authority, reflecting the traditional gender roles and values of Chinese society. However, since the late 20th century, Chinese film and television productions have gradually portrayed female characters with more depth and complexity, portraying them as strong, independent individuals with their own ambitions and desires. This change can be attributed to a variety of factors, including the rise of feminism and the women's rights movement, changes in social and cultural norms, and the increased influence of western media. As a result, the portrayal of female characters in Chinese film and television works has evolved over time to place greater emphasis on their individuality and agency. Overall, the changing portrayal of female characters in Chinese film and television productions is not a clear turning point in time, but rather a gradual process of transformation that reflects the changing attitudes and values of Chinese society over time (Zhang n.d).

4 ANALYSIS OF THE REASONS FOR THE CHANGING IMAGE OF WOMEN IN CHINESE FILM AND TELEVISION WORKS

In recent years, the portrayal of women in Chinese film and television has under-gone significant changes. The reasons for this change are many. The change in the image of women in Chinese films and television works reflects the improvement in the status of women in Chinese society over the years. Improvements in China's economy and society have brought more opportunities and empowerment to women. As more women enter the labor market and achieve economic independence. Furthermore, the gradual improvement of women's status at home and abroad, the introduction of Western feminist theories, and with the rise of the global feminist movement, Chinese society gradually recognizes the importance of gender equality and women's rights. As a result, the representation of women in film and television works has become more diverse, complex and subtle. In addition, the introduction of Western feminist theory has also influenced Chinese filmmakers to adopt a more progressive and inclusive perspective on gender issues.

The increasing globalization of the Chinese film and television industry has brought international standards of gender representation and diversity closer together. This has encouraged Chinese filmmakers and producers to create more inclusive and diverse female characters. On the other hand, the elevated styles and preferences of directors and actors have driven a shift in the portrayal of women. The artistic vision and personal preferences of filmmakers and actors also influence the portrayal of women in film and television (Li n.d). For example, female directors and writers tend to present female characters in a more profound and realistic way, while male directors may rely on traditional gender stereotypes. In addition, the ability of some actors to portray their characters may lead to more nuanced and complex representations of women on screen.

The awakening of women's own consciousness: With the development of the times, women are no longer traditionally portrayed as weak and needing to be completely sheltered by men, but rather as "cool girls" who are independent and in control of their own lives. The awakening of women's awareness and empowerment has also played a significant role in changing the image of women in Chinese film and television. As women become more educated and financially independent, they are challenging traditional gender roles and

expectations. This can be seen in the increasing number of female-led narratives and the portrayal of strong, independent, and complex female characters.

Market preference orientation and audience preference: Finally, changing audience and market preferences also affect the representation of women in film and television productions. As China's entertainment industry becomes more commercialized, producers are increasingly driven by market demand. This may lead to the creation of productions that cater to specific audience preferences, such as popular romantic comedies or female-centric dramas. Additionally, concurrently, pertinent data demonstrates that, as female consumption officially overtook male consumption on the global market and as mobile Internet penetration grows, the number of female users continues to rise, reaching 582 million active female users in 2022, increasing the proportion of female users on the entire network to 49.3%. This means that how to conquer the female market in the context of the new era has long been an important issue that needs to be considered by those who are oriented to market profits (Zhu 2006).

To sum up, the changing image of women in Chinese film and TV works can be attributed to a variety of factors, including social progress, artistic vision, the awakening of women's own consciousness and market demand. By examining these different factors, we can better understand the complex dynamics that influence the representation of gender in media. In summary, the changing image of women in Chinese film and television can be attributed to a variety of factors, including social progress, artistic vision, the awakening of women's own consciousness, and market demand. By studying these different factors, we can better understand the complex dynamics that influence the representation of gender in the media.

5 AUDIENCES' ATTITUDES AND PERCEPTIONS ABOUT THE CHANGING IMAGE OF WOMEN IN CHINESE FILM AND TELEVISION PRODUCTIONS

Before the Reform and Opening-up, women in Chinese film and television productions were often portrayed as passive, dependent on men, and portrayed as soft, docile, and submissive. Traditional gender roles and expectations are deeply rooted in Chinese culture and history, and these values continue to be honored and reinforced in many aspects of Chinese society. As a result, traditional images of women resonate with audiences who identify with these cultural values and appreciate their on-screen representation. Additionally, many viewers may also be drawn to traditional images of women as a form of nostalgia for the past and as a way to connect with cultural heritage. These images provide a sense of continuity with the past and can evoke a sense of comfort and familiarity (Ying 2005). Today such female images are still active in current film and television productions and have become an inseparable traditional ethical image in Chinese culture.

In recent years, female growth and female-oriented dramas have become increasingly popular and sought after by the majority of female compatriots, such as *Empresses in the Palace*, *Legend of the Miyue*, *The Beauty's Heart*, *Star of Sea* starring Liu Tao last year, and *Wild Bloom* starring Zhao Liying, which has been particularly popular in recent days. With the development of the times and the progress of society, more and more women are coming out of their homes and returning to the workplace. They act as a woman, not just a daughter, wife, or mother such family identity. Women need to have their own social identity, and many people believe that many girls live in the heart of a Xu half summer. Compared to the "chick" image, the "big women" image usually refers to a more mature, capable, independent and strong female image. The reason for the popularity of this image is that, firstly, audiences increasingly want to see realistic women being shown in film and television works; secondly, big female protagonists usually have more realistic and three-dimensional characters and stories, which can bring audiences a more profound and touching movie-going experience.

In the eyes of the audience, the current shift from "chick" to "big women" in film and television works is in line with the social trend. Some viewers believe that the image of

women in film and television has changed dramatically, showing a more diverse and three-dimensional image, while others believe that the image of women in film and television still has a single, stereotypical image (Liu 2007). Therefore, success or otherwise needs to take into account the specific film or TV production and audience group. In general, with the progress of society and the awakening of women's consciousness, more diverse and three-dimensional images of women will be presented in film and television works in the future.

6 THE FUTURE DEVELOPMENT TREND OF FEMALE CHARACTERS IN CHINESE FILM AND TELEVISION WORKS

In recent years, the portrayal of female characters in Chinese film and television has undergone a major transformation. The traditional portrayal of women as passive and submissive has given way to a more complex and subtle representation of female characters. A trend has emerged to portray women as independent and strong-willed individuals, capable of making their own decisions and pursuing their own goals. This is reflected in works such as *Sisterhood*, which follows the lives of four women who form intimate bonds as they cope with the challenges of modern life (Cai & Cai n.d). Another trend is the exploration of gender identity and sexuality, with female characters in works such as *Future World* challenging traditional notions of femininity and exploring their own desires. In addition, there is a growing emphasis on the representation of women from diverse backgrounds, including ethnic minorities. This is evident in *Little Big Woman*, which tells the story of three generations of women from Taiwan's aboriginal community, and in the story of transgender women chasing their dreams to become beauty pageant contestants.

In the near future, the portrayal of women in Chinese film and television is likely to evolve and become more diverse and inclusive. As society becomes more open and accepting of different identities and experiences, people can expect to see more complex and nuanced representations of female characters that reflect the rich diversity of Chinese society. In addition to these trends, Chinese film and television productions are increasingly focused on representing the diversity of women's experiences and identities. This includes the portrayal of women from different ethnic, cultural and socio-economic backgrounds. These representations are important in creating a more inclusive and representative media that reflects the diversity of Chinese society. Overall, future trends in the portrayal of women in Chinese film and television are likely to continue to break away from traditional gender stereotypes and provide more diverse and complex representations of women's experiences and identities (Hong 2005). As Chinese society continues to evolve and become more open and inclusive, the media may reflect these changes and offer new possibilities for on-screen female characters.

7 CONCLUSION

The shift in the portrayal of women in Chinese film and television from "chick" to "big women" can be attributed to a number of factors from a feminist perspective. Feminism is a theory that advocates gender equality and provides a framework for understanding how gender identity is constructed and the social, cultural, and political forces that shape it. A key factor contributing to this shift is the increased awareness of gender equality and the rejection of traditional gender roles (Liu 2006). The feminist theory argues that traditional gender roles limit women's agency and their ability to contribute to society. As a result, there is a growing demand for more complex female roles that are defined not by gender but by behaviors, motivations, and personality traits. Comparative analysis and case studies comparing female characters in older Chinese films with those in more recent works can reveal changes in the portrayal of women. In addition, character creation theory can be used to understand the way female characters are constructed and the messages they convey. Thus,

the representation of women in film and television can influence cultural attitudes toward gender (Jiang 2007). By examining the construction of female characters in Chinese film and television productions, the public gain insight into how gender is constructed and reproduced in these media. From the transformation of female images in Chinese films and TV dramas since the new era, it is easy to find that, along with the spread and influence of new feminist ideas, screen female images have emerged from the prison of de-gendering, breaking the tendency of monolithic portrayal and presenting a pluralistic development of multiple identities and personalities. Although independent female images have been presented in Chinese films and television since the new era, it is undeniable that in the male-dominated aesthetic discourse, consumer women still prevail on the screen, and the modernization of the portrayal of women in Chinese films continues to develop.

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The difference between entailment and presupposition

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ABSTRACT: Scholars have been concentrating on the issue of how to assist listeners in understanding the speaker's meaning because "literal sentence meaning" is not always equivalent to "speaker utterance meaning." It is possible to comprehend "literal sentence meaning" and "speaker utterance meaning" through comprehending entailment and presupposition. Because these two concepts play a huge role in interpreting language. By reviewing a large number of literatures, the author of this paper summarizes the fundamental differences in characteristics between entailment and presupposition, that is, entailment is more stable than presupposition. This difference in characteristics leads to great differences between them in practical application. Presupposition is suited to situations needing much speaker utterance meaning, such as political speech, commercial advertisements, psychiatric treatment, etc., while entailment is applicable to conviction and sentencing, criminal investigation and reasoning, and other strict cases with clear linguistic meaning. At the same time, there are a few issues with the application that are important to note. If a presupposition is used in an entailment situation, it may have a negative effect on the speaker. And when using the presupposition, the speaker should be aware that the words may cause damage to his or her reputation.

Keywords: Entailment, Presupposition, Difference, Application

1 INTRODUCTION

Speech production is more complicated than most people realize. It begins with the processing of semantic, lexical, syntactic, phonetic, and intonational information. Articulation and self-monitoring are then included, as is the building of pre-speech information with an emphasis on the constraints of conversational appropriateness (Leiber 1995). The speaker therefore has a lot of work to do, but what about the listener?

Actually, the speaker's task is easier than the listener's. For listeners, "literal sentence meaning" and "speaker utterance meaning" are two different categories of language use. Sometimes it is difficult to distinguish them. Only when the meaning of the sentence (S is P) and the meaning of the utterance (S is R) totally the same, the speaker truly means what she or he says. However, the two meanings are sometimes different. So Searl noted that there are two issues: "How can the speaker do it? how can the hearer figure out what the speaker is doing? (Fotion 1981)". As Moeschler argued, linguistic communication is an asymmetrical process because "speakers do not explicitly communicate their intentions, and addressees have the hard task of inferring what the speaker means from her utterance (overt information) and some contextual assumptions (covert information) necessary to get the right and intended interpretation (Moeschler 2013)."

Understanding the difference between entailment and presupposition is one of the key tasks for dealing with overt and hidden information (Ja'far 2008). These two concepts

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(entailment and presupposition) can answer the questions about “literal sentence meaning” and “speaker utterance meaning”.

2 ENTAILMENT

2.1 Definition of entailment

The concept of entailment, which has its roots in formal logic, is now widely used in the study of semantics. Entailment can be used to define all basic semantic relationships, including equivalence and contradiction. According to Crystal, it refers to a relationship between two sentences in which “the truth of the truth of the second sentence necessarily follows from the truth of the first” (Crystal 2011). For example, consider (1):

I ate grapes yesterday → I ate a fruit yesterday

One cannot affirm the first while also denying the second (Crystal 2011). According to many academics, entailment is a logical relationship based on the propositions P and Q, meaning that P entails Q (Lyons 1970; Martin 1999). e.g. (2):

P: I ate grapes yesterday,
Q: I ate a fruit yesterday.

A significant accomplishment of Peter Abaelard’s was the discovery of propositions and the creation of the entailment system. He noticed that if P cannot be true, it is trivial (Martin 1999). P or not-P can both entail Q. For example, in (3), although “I did not eat grapes yesterday”, maybe I ate an apple:

P: I ate grapes yesterday.
not-P: I did not eat grapes yesterday.
Q: I ate a fruit yesterday.

Here gives the classical definition of entailment (Moeschler 2013):

P entails Q: a. If P is true, then Q is true; b. If P is false, then Q is true or false.

Entailment always associate to truth-functional values (Moeschler 2013) (see Table 1).

Table 1. Truth table or entailment.

P	Q	P entails Q
1	1	1
1	0	0
0	1	1
0	0	1

Here is an explanation of the table. If P is “John killed Mary”, Q is “Mary died”. Then:

P entails Q (“John killed Mary” entails “Mary died”).

P cannot entail not-Q (“John killed Mary” does not entail “Mary did not die”).

not-P can also entail Q (“John did not killed Mary” entails “Mary died”).

not-P can also entail not-Q (“John did not killed Mary” entails “Mary did not die”).

As shown in the explanation, the negative description’s entailments are unclear because there are two possible outcomes. (John did not killed Mary→Mary died or Mary did not die.) (Moeschler 2014).

All in all, entailment can apply to a conditional relation (if... then) (Moeschler 2013), and it is “the basis of semantic description” with the syntactic, lexis, and logical (Ja’far 2013).

The truth-functional values allow the entailment to function even if it does not perfectly match the way natural language is used (Kempson 1977). Here are two examples.

The first one: if there is a contrast set, the entailment has a wide range of potential outcomes (Kempson 1977). For instance, the entailment of (5a) are (5b) or (5c).

- (5) a. He is not married.
- b. He is single.
- c. He is engaged.

The second one: in negation, Moeschler splits the entailment into two orientations. Upward orientation (Max is not beautiful, but Max is clever) and downward orientation (Max is not beautiful, but Max is ugly) (Moeschler 2014).

In short, some entailment may not conform to people's normal thinking, but it conforms to the truth table, then it is valid.

2.2 *Types of entailment*

Entailment in Lexis. Regarding the entailment in lexical origin, if the sentences contain an expression that belongs to a “quantitative scale” such as (all, most, many, some, few), (always, usually, often, sometimes, seldom, never), (know, believe), or (and, or), a higher scale expression can entail, but not be entailed by, a lower one (Gazdar 1979). E.g., all my teachers assigned homework → most of my teachers assigned homework.

Hyponymy can also involve entailment. “If two assertions differ only in the substitution of a hyponym for a superordinate term, then one of the assertions entails the other (Allan 1986)”. In addition, Moeschler in 2014 pointed out that in the use of hypernymy in entailment, it will be the preferred reading if the hypernym and hyponym are close to (Moeschler 2014). For example, (6a) is a preferred reading over (6b) because it is more predictable (the pet could be a cat or a dog):

- (6) a. Linda bought a beagle → Linda bought a dog.
- b. Linda bought a beagle → Linda bought a pet.

2.2.1 *Entailment in syntax*

The lexical relationships between each word up until this point are what led to the entailments. But entailments can also appear in syntactical issue such as, active and passive voice (Finch 2000). For example, (7a) in active voice and (7b) in passive voice mutually entail each other:

- (7) a. John killed Mary.
- b. Mary was killed by John.

2.2.2 *Entailment in semantics*

Ja'far stated that “the basis of semantic description is the notion of entailment. Many problems of semantics can be solved by assuming that the meaning of a sentence is a structured, partially ordered, set of entailments, with the structure being determined by a combination of syntactic, lexical, and logical considerations (Ja'far 2008)”. So the following is some analysis of the semantic entailment.

Entailment is most frequently produced as a result of the relationship between semantics. E.g., John killed Mary → Mary died. Since one of the possible ways in which someone dies can be due to being killed (Lyons 1970).

Last but not least, metaphor, such as (8), and paraphrase, such as (9), can also involve entailment (Crouch *et al.* 2002):

- (8) Politics is traveling → Party is airport, joining is landing, and politician is traveler
- (9) We beat many players to win the championship → We went all the way to win the championship

3 PRESUPPOSITION

3.1 *Definition of presupposition*

Gazdar stated, “A sentence has a presupposition if it has a lexical item or a structure belonging to a particular set, which includes factive verbs, the definite article, the cleft construction, etc. These are assigned in a mechanical way without regard to embedding, etc. (Gazdar 1979)” Presupposition, according to Mazzarella *et al.*, is background knowledge that is previous, given, or offered. It typically doesn’t cause controversy. Such as (11a) presupposes (11b):

- (11) a. You are late again.
- b. You have been late before.

“You are late again” can presuppose “You have been late before”. But if “You are not late this time”, the presupposition “You have been late before” can still remain. So whatever the presupposing sentence is true or false, presupposition is what people default to. “If presuppositions were not to be accepted by the addressee, the utterance would not provide any relevant contribution to the conversation (Mazzarella, Reinecke & Mercier 2018)”.

In sum up, the classical definition of presupposition is (Moeschler 2013):

P presupposes Q: if P is true or false, then Q is true.

Like entailment, presupposition can be defined in terms of propositions (Gazdar 1979; Levinson 1983) (see Table 2).

Table 2. Truth table or presupposition.

P	Q	P presuppose Q
1	1	1
1	0	0
0	1	1
0	0	0

Here is the explanation of the table. If P is “Mary regrets leaving school” Q is “Mary left school”. Then:

P presupposes Q (“Mary regrets leaving school” can presuppose “Mary left school”).

P cannot presuppose not-Q (“Mary regrets leaving school” cannot presuppose “Mary did not leave school”).

not-P can presuppose Q (“Mary does not regret leaving school” can presuppose “Mary left school”).

not-P cannot presuppose not-Q (“Mary does not regret leaving school” cannot presuppose “Mary did not leave school”).

All in all, using “because” in an epistemic context can make presupposition explicit, but this approach is inappropriate for entailment because it implies that the second proposition can be deduced from the first (Moeschler 2013).

3.2 *Properties of presupposition*

3.2.1 *Defeasibility*

One of the characteristics of the presuppositions, according to Levinson, is that they can occasionally be easily refuted. A straightforward example is to include a clause or phrase in

the presupposing sentence (Levinson 1983). As shown in (12), there is a presupposition. P or not-P can both presuppose Q:

- (12) P: Mary hid her lie.
not-P: Mary did not hide her lie.
Q: Mary lied.

But if it adds a clause to not-P like (13):

- (13) Mary did not hide her lie because she told the truth.

Then it cannot be presupposed that Q “Mary lied”. The concept of canceling the presupposition is known as defeasibility (Levinson 1983). Due to the fact that “knowledge about the world can override the normal interpretation of negative sentences (Mercer 1992)”.

3.2.2 *Open-endedness property*

Presupposition is based on shared, previous knowledge, which is the implicit expression in the utterance. Significantly, there is more than one presupposition in any sentence. Because presuppositions are not directly presented in the sentence, they are inferred by speakers and listeners (Ja’far 2008). For instance, sentence (14) presupposes all sentences in (15).

- (14) Max, the pianist’s wife is a lawyer.
(15) a. A person named Max exists.
b. Both the speaker and the hearer know Max.
c. Max is an adult male.
d. Max is married.
e. Max’s wife is alive.
f. Max and his wife both work

The speakers and listeners can express the presuppositions of (14) by attributing this to all world knowledge. This characteristic of presupposition is also known as the “open-endedness property” or “the expansion of the language use” (Levinson 1983).

3.2.2 *Truth-value gap*

Palmer made the point that when phrases like “The King of France is bald” are used to refer to something, they lose their truth value if the referred term does not exist. There is a “truth-value gap” as a result (Palmer 1981). This sentence’s negation is also neither true nor false. Due to the absence of a French king at the moment, statements like (16a) and (16b) are neither true nor false.

- (16) a. The King of France is bald.
b. The King of France is not bald.

3.3 *Testing for presupposition*

One of the criteria used to differentiate between entailment and presupposition is negation. Negating the entailing sentence will result in the destruction of the entailment, but negating the presupposing sentence will leave the supposition unaffected (Saeed 2015). For instance, (17):

- (17) a entails b:
a. You are late twice.
b. You are late again.
c presupposes d:
c. You are late twice.
d. You have been late before.

The negation of the entailing sentence (You are not late twice) means either “This is the third time you have been late” or “You were late once, not again”. Thus, the entailment is invalid. However, the negation of the presupposing sentence (You are not twice late) has no bearing on the presupposition “You have been late before”. The “constancy under negation” test can therefore be used to distinguish between entailment and presupposition.

4 COMPARISON BETWEEN ENTAILMENT AND PRESUPPOSITION

Presupposition is less stable. On the one hand, once world knowledge can override the presupposing sentence, the presupposition is canceled. On the other hand, if the presupposing sentence refers to nonexistence, then this sentence has no truth value.

Presupposition is less restricted than entailment, as can be seen from the “constancy under negation”. Denying the presupposing sentence does not affect the presupposition. However, entailment will fail when negating the entailing sentence.

What is more, presupposition can involve many forms of utterance, such as inquiry, command, exclamation, etc., but entailment is limited to one form: assertions (Levinson 1983).

A hierarchy on the cancellation of several types of sentences (organized by Gazdar) also shows the difference between entailment and presupposition. The entailment level in that list is higher than the presupposition level, indicating that entailment is more difficult to reject than presupposition (Gazdar 1979).

5 DIFFERENT PROPERTIES LEAD TO DIFFERENT APPLICATIONS

5.1 *Examples of applications*

By contrasting the two, people can observe that the entailment is more stable, and more difficult to cancel in use than the presupposition, which also contributes to the difference in the two’s application scenarios. Entailment is applicable to court trials and criminal investigation reasoning, which require accurate and rigorous logical relationship. Presupposition is suitable for advertising, speech, and psychotherapy, which require a lot of implicit discourse meaning. Here are some examples.

- (1) The entailment from reasoning
 - a. “They’re pretty formal, maybe he was going out for the night.”
 - b. “The trousers are heavy duty. Polyester, nasty, same as the shirt, cheap. They are both too big for him. So some kind of standard-issue uniform.”
 - c. “Dressed for work, then. What kind of work?”
(from BBC TV series Sherlock)

According to Sherlock, a suit with the qualities described above is “They’re pretty formal. The trousers are heavy duty. Polyester, nasty, same as the shirt, cheap. They are both too big for him” entails that the suit is a standard-issue uniform. So a man wearing a standard-issue uniform entails that he is dressed for work. Therefore, reasoning is the process of inferring the hidden truth from numerous entailments.

- (2) The entailment from the law

“Definition of Attempt: A person is guilty of an attempt to commit a crime if, acting with the kind of culpability otherwise required for commission of the crime, he:

 - (a) purposely engages in conduct which would constitute the crime if the attendant circumstances were as he believes them to be; or

- (b) when causing a particular result is an element of the crime, does or omits to do anything with the purpose of causing or with the belief that it will cause such result without further conduct on his part; or
 - (c) purposely does or omits to do anything which, under the circumstances as he believes them to be, is an act or omission constituting a substantial step in a course of conduct planned to culminate in his commission of the crime.”
- (from Model Penal Code)

In this code, if a person’s actions fit (a), (b), or (c), he has committed a criminal attempt. It means that an act consistent with (a), (b), or (c) entails that the act constitutes a criminal attempt. Obviously, the law needs a clear entailment to ensure fairness and justice.

- (3) The presupposition from the product launch
 “Regular phones are not so smart and not so easy to use. Mm... but smart phone are definitely a little smarter but they actually are harder to use. They’re really complicated. Just for the basic staff, people have a hard time figuring out how to use them. We don’t want to do either one of these things. What we want to do is make a leapfrog product that is way smarter than any mobile devices ever been and super easy to use. This is what iPhone is. OK, so we’re going to reinvent the phone.”
 (from Steve Jobs introducing the first iPhone)

Jobs outlined the drawbacks of regular phones and smartphones in this product introduction before claiming that his product was a breakthrough. From his speech, “What we want to do is make a leapfrog product that is way smarter than any mobile devices ever been and super easy to use.” and “we’re going to reinvent the phone” entail that those phones are inferior to the iPhone, which is now the finest phone available.

5.2 Issues in applications

The above is the introduction to the application of entailment and presupposition with some examples. At the same time, some problems that may be encountered in the application are also worth people’s attention.

On the one hand, if a presupposition is used where entailment is supposed to be used, this can have some bad consequences. Here is an example from Frank Fair “how to stop beating your wife?” (Fair 1973). The speaker is assuming that the listener already knows that he beat his wife when he says this. What if, however, the claim that the listener beat his wife is untrue? It indicates that the listener is subject to an unjust evaluation. The parties might be falsely charged if this phenomenon takes place during a court case. The trial may be improperly conducted. A competent trial should examine whether the defendant’s actions are consistent with the rules of the law or judicial precedent. If his or her actions are in line with the law or judicial precedent, they will be convicted and sentenced. All in all, using presupposition to convict and impose a penalty is incorrect. In a strict logical relationship, entailment is recommended.

On the other hand, other researchers focus on whether or not people are accountable for the presuppositions they make when speaking. The more firmly they put forward their presupposing sentences, the more likely they are to suffer damage to their reputations (Mazzarella *et al.* 2018). Therefore, when making political speeches and commercial advertisements, people should pay attention to the presuppositions in their discourse for their reputations.

6 CONCLUSION

It is not difficult to observe that there are apparent distinctions between entailment and presupposition when examining their properties: entailment is more stable than presupposition, and entailment is harder to cancel. Because of their different attributes, they can be applied differently. Presupposition is appropriate for scenarios that welcome the “speaker

utterance meaning” beyond the “literal sentence meaning”, but entailment is appropriate for formal and strict scenes. When employed improperly, entailment and presupposition can have unfavorable effects.

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An analysis of feminist cinema caught in the vortex of the male gaze

Taking the film *Chicago* as an example

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ABSTRACT: The male gaze is a concept that describes how film audiences are positioned to view women from a heterosexual male perspective, which objectifies and fetishizes them. Building on this concept, this article examines how feminist films are influenced by the male gaze. It points out that many recognized feminist films, while paying attention to women's personal growth and development, still sexualize women as objects and conform to patriarchal viewing habits. This research uses the film *Chicago* (2002) as a case study to show how the male gaze affects the plot, visual style, and character design of feminist films. For example, it analyzes how the film uses sexy revealing costumes and erotic sultry movements to cater directly to the male gaze; how the female characters rely on men's help and rewards to get out of difficulties and realize their personal values; and how they have disguised personalities that conform to social aesthetics, rather than identifying with their true selves. Such films are detrimental to gender equality and social progress because they reinforce gender stereotypes, undermine women's agency and empowerment, and perpetuate patriarchal values. It urges more awareness and criticism of the male gaze in feminist films, as well as more research on this topic. There are also suggestions of some possible solutions or alternatives to the male gaze in feminist films, such as using a female gaze that respects women's subjectivity, creating more complex and realistic female characters, and challenging the sexualized feminine standard aesthetic.

Keywords: Chicago, Male gaze, Feminism cinema

1 INTRODUCTION

Feminist films are films that combine feminist philosophical ideas and interpret issues related to women from a female perspective. However, in many recognized feminist films, while paying attention to women's personal growth and development, producers subconsciously have a sense of identity about women's "second sex", and through the patriarchy of women "stared" by men in the context of patriarchal culture, women are still sexualized as objects. Characters need to maintain sexy and beautiful images, and their bodies are disassembled into pieces to be stared at. In patriarchal viewing habits, this gender stereotype is still seen as necessary and laudable. Even the characters of feminist films need to satisfy the pervasive male gaze in order to be the perfect protagonist. Although these films have feminist overtones, they have a deep anti-feminism feature.

The aforementioned phenomena have been confirmed by the academic community to exist and have been addressed as a serious concern. Some believe that feminist films frequently fall into the contradiction of pandering to the male gaze. As for its cause, gender stereotypes are an important statement, and the impact of pornography as a visual spectacle

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on the film market cannot be ignored. However, there is currently a lack of study in this area. Besides, the practice of dissolving the male gaze in movies is still very rare, and practitioners are urgently needed to fill the gap.

The film is a powerful cultural weapon in society, and the gender consciousness taught by the film will penetrate into the value system of each generation. Feminist films framed by the male gaze are sugar-coated cannonballs, and the 2002 Rob Marshall-directed film *Chicago* is a typical representative of this opposition. While they celebrate women's career success, economic independence, and emotional stability (traditionally provided by men), they still specifically require women to follow traditional systems in sexuality, family, and gender division of labor, which is actually a stricter judgment of women. Paying attention to the deep logic of feminist films and distinguishing between the male gaze and the female gaze in the film is conducive to promoting equal rights for men and women and social progress.

This article will take *Chicago* as an example to unfold the male gaze analysis of feminist films from three perspectives: plot discussion, visual style, and character design, focusing on the feminist dilemma trapped in the anti-feminist vortex of the male gaze. In the plot discussion, women often rely on men's help and rewards to get out of difficulties and realize their personal values; in terms of visual style, sexy revealing costumes, and erotic sultry movements cater directly to the male gaze; in character design, in order to achieve success, women often have disguised personalities that conform to social aesthetics, and cannot identify with their true selves. This situation is not uncommon in feminist movies and needs to be rectified. The goal of this research is to skillfully identify the hidden male gaze in feminist films, criticize and weaken the narrative strength of the patriarchal system, purify feminist films, and see and inspire women's development.

2 THEORETICAL FRAMEWORK

The causes and influences of feminist cinema's dilemma of falling into the anti-feminist vortex of the male gaze are complex but still can be analyzed with Laura Mulvey's feminist film theory as a reference. In 1975, her essay *Visual Pleasure and Narrative Cinema* has become one of the most important and influential articles in contemporary film studies and feminist theory, and its explanation of how film caters to and exploits established systems of desire, fantasy, and fear in society is generally considered to be the most meaningful and recognizable. The male gaze, as an associated phenomenon of the patriarchal system, largely reflects the established desire system in society and has become a major source of visual pleasure in mainstream values, penetrating into the stereotyped and market-oriented production of films, and feminist films are not immune.

Laura Mulvey believes that viewing itself brings pleasure, which is an active act; on the contrary, there is also pleasure in being seen, which is passive. At the same time, identifying with the images seen in a narcissistic sense can bring the pleasure of identifying with others (Mulvey 1989). This is the theoretical basis of this article. It is worth emphasizing that the audience is masculine in a sociological sense, especially in mainstream films, and women cannot be the subject of the gaze. Placing the issue of gender differences at the center of the debate around how psychoanalysis can be applied to film studies, and through psychoanalysis, examining the "masculinization" of women as pictorial representations in cinema and the consequent audience position is very beneficial to the study of film gender.

The three pleasures of seeing, being seen, and identifying with others together become a triangular relationship between the audience, the male protagonist, and the female characters. When watching the movie, the audience identifies with the male protagonist (Feng 2013), obtains the pleasure of identifying with others, and experiences the pleasure of watching with the male protagonist, while the female character experiences the pleasure of being watched as a double viewing object on and off the screen (Zhang 2004). This pattern of visual pleasure production is vividly reflected in *Chicago*.

Unlike avant-garde films, as a successful Hollywood musical film adapted from a famous Broadway musical, *Chicago* is undoubtedly a work in mainstream films, which can properly reflect the value pursuit and gender order of the entire society, and inevitably wander repeatedly in the pursuit of feminism and falling into the male gaze, becoming a contradiction. It is this contradiction that gives itself great research value.

3 FILM ANALYSIS

3.1 *Plot discussion*

Chicago tells the story of two beautiful women, Kelly (Catherine Zeta-Jones) and Roxie (Renée Zellweger), who are in prison for murder. Lawyer Billy used them to fabricate lies to gain fame and exonerate them, and the two were once popular. However, the short-lived heat did not bring them eternal brilliance, and they had to find another way out. As a biography of women's self-help, the film does consider women's needs and reflects on men's bad behavior. Even so, *Chicago* is still a feminist film under the male gaze.

With a very obvious feminist consciousness, the film is based on female characters. Unlike traditional female figures, murders committed by women are often staged in the city. When experiencing betrayal by men, they did not compromise but rebelled. In the famous episode Cell Block Tango, each female inmate has a male companion, but these men are like puppets. They use body language to express hatred and strength, reflecting that these female prisoners are the rulers of the relationship and expressing an indictment of a patriarchal society (Sun 2011). Women speak as complete individuals with their own independent consciousness and ambitions, expressing their desire to pursue fame and fortune in the same sense as men in the traditional sense (Kaplan 2000). This is women's struggle against the traditional submissive silent figure.

However, in the same passage, the female prisoners' costumes are all black tight lace-up designs, representing bondage. Female dancers murdered men, mostly for reasons related to love. This is actually a gender limitation that seems to say that love is the most important and only necessary thing for a woman. While rebellion and killing make women seem powerful, the hint that love is what women are all about once again reinforces gender stereotypes and limits women's worlds. The escape of the two heroines is still completed by a male lawyer, and they are completely passive in the relationship. They are just Billy's tools for chasing fame and fortune and the entertainment of people, showing that in reality, women's destinies are actually controlled by men, and it is difficult to escape the end of being entertained and abandoned, and it is more difficult to break free from the shackles of patriarchy (Li 2014).

Kelly and Roxie depend on the male to achieve self-salvation, which is actually an objective act that loses autonomy. Surrounded by beautiful women, Billy pursues fame and fortune and has achieved great success but can be indifferent to the temptation of beautiful women. Such a character image is exactly in line with the audience's ideal self. The established masculinity of mainstream moviegoers makes it easier for viewers to substitute Billy when watching movies, and viewers identify with Billy's character and participate in his power, and indirectly gain their dominance by watching Billy control and use the women in the film. This is a series of chain reactions to gain power and pleasure with the gaze; due to the audience's psychology of identifying with the male protagonist based on the narcissistic complex, the film personalizes and scales the male gaze and provides a super sense of substitution, amplifying visual pleasure.

The act of men "gazing" upon women as mere objects contradict feminist principles, as the derivation of this pleasure stems from socio-psychological factors influenced by the patriarchal system and the societal construct associated with such pleasure. These factors encompass the woman's own identity, specifically the inclination towards self-exposure,

which is vividly portrayed in the psychological longing of female characters in the context of Chicago, desiring to be the object of male gazes (Doane 1991). Both Kelly and Roxie pursue singing and dancing as their careers, and losing popularity in the plot means losing freedom, voice, and even life, showing that all the value of a woman is to be gazed at. Even if these female prisoners prevailed over individual men represented by their lovers, they could not rebel against all men and traditional patriarchy.

3.2 *Visual style*

The visual style of Chicago has two sides: the prison scenes are dim overall, and the color is monotonous and depressing, which is used to depict the American society with chaotic values; the song and dance scenes are extravagant and gorgeous, and the colors are bright and colorful, and the stage effect is obvious, showing the rich and powerful inner world of the characters. However, no matter what kind of scene, the female characters' looks are always "sexy".

In terms of clothing, Chicago's female characters often wear tight skirts, suspender stockings (Zhang 2021), and high heels and prefer designs such as low-cut, lace-up, cutout, translucent, high-slit designs, which are often made of impractical but sexy materials such as leather, silk and animal fur. The combination of extremely high skin exposure and sexualized symbols enhances the character's sexual innuendo. From a cosmetic and coiffure perspective, the female characters in the film consistently uphold an aesthetically pleasing portrayal, effortlessly maintaining a flawless image. Remarkably, even when confined within the confines of prison, they manage to exhibit impeccable grooming, adorned with exquisite makeup and fashionable attire without ever revealing any semblance of plainness or dishevelment before the camera lens. In terms of behavior, the female character knows her sexiness and is good at taking advantage of this, the heroine Roxie tries to buy herself the opportunity to perform with immoral sex at the beginning of the film and later actively seduces lawyer Billy (Richard Gere) to try to exonerate herself, while the other heroine, Kelly, is herself a dancer who makes a living from sexy jazz dance, and the two still need to continue to show off after they are released from prison (Riviere 1999). Women's lives are deformed and sexualized under the male gaze, resulting in everything about women in the film being "sexual".

The male gaze permeates the visual style throughout the film. The beautiful appearance and sexy behavior of female characters make men crazy, and not being stared at and losing heat is a disaster for female characters in the film, even life-threatening. Even before the execution, the camera still captured the edge of the female prisoner's exposed stockings. In the corresponding song and dance scene, the horrific execution was just a magic show that everyone watched and cheered on. In the two layers of the real scene and the abstract expression of the execution, women are watched as objects, and their lives are just a show under the male gaze. Peeping into women's bodies, sex symbols, and life-and-death events make voyeurs get the same extreme satisfaction as watching a performance.

In the language of the patriarchal order, mainstream cinema routinely uses erotic symbols as elements to create a visual spectacle. The film creation team concealed the existence of the camera in the finished film through shooting and editing techniques, isolated the camera from the film scene with an absolutely objective and ignored perspective, and sometimes deliberately used the foreground to block part of the picture to create a relatively closed viewing illusion so that the audience had a sense of security from being discovered. The stealthy photographer, the dim and quiet viewing environment, the clever foreground arrangement, and the subjective perspective with reasonable shaking amplitude all give moviegoers the intuitive feeling of peeping into the characters of the film and women are the objects of the gaze. For the showgirls, the perspectives of the moviegoers and the audience in the plot scene coincide, and Roxie and Kelly perform for the gazers in a dual sense so as to achieve a high degree of consistency and maximization of the male gaze on and off the

screen. In the cabaret Chicago, such scenes can be highly represented in the film, and the audience either gazes secretly at female characters in everyday scenes or visibly gazes at female characters in song and dance scenes.

Since voyeuristic women are an important source of visual pleasure for main-stream films under the patriarchal society, the mainstream film Chicago, as a work focusing on feminism, naturally uses more female characters, and when these female characters enter the film framework, they will become symbols to be stared at, falling into anti-feminist contradictions.

3.3 *Character design*

The film is mainly based on female characters, does not praise the female image of kindness and beauty, and does not emphasize the weak character of traditional women. Wearing powerful-looking clothing represented by black leather, these dangerous and fierce female prisoners no longer possess the gentleness, virtuousness, and kindness that are highly respected under the patriarchal system but treat their lovers ruthlessly and use their wisdom to avoid being sentenced and fight for their own benefits (Hong & Cho 2008). In terms of female character design, Chicago is very rebellious.

However, even with breaking with tradition, the status of female characters being gazed at in Chicago has not changed and has become even more prominent. Women are often the women who are considered and imagined in the mainstream concept of the patriarchal system; whether it is a well-behaved and gentle female symbol or a dangerous and sexy killer image, there is no respect and expression of the true self of the female individual. They are essentially two extremes of the male gaze. In order to try to satisfy the deformed female image, female characters need to be camouflaged to cater to the gender expectations of the mainstream perception. Women who are shown as objects of sexual desire are the main theme of the erotic spectacle; they bear the gaze and refer to the desires of men. This is how mainstream movies take advantage of erotic spectacle.

The process of Kelly and Roxie's exoneration is precisely the process that they submit to Billy, who represents the male gaze, to put on public performances that include the grooming of appearance and the processing of the experience. According to the expectations of society, they unscrupulously forged false personas with eye-catching gimmicks led by innocence, nuns, and pregnancy. Their victory is not a victory for women but the result of grasping the law of the male gaze, which is the use, cooperation, and nourishment of the patriarchal system.

Regarding Freud's theory of castration anxiety, Laura Mulvey believed that it could be escaped by completely rejecting castration, that is, replacing it with a fetish object or transforming the character itself into a fetish so that it could be safeguarded and no longer meant the danger of castration (Mulvey 1989). The fetish viewing fetish requires the beauty of the subject's appearance to make it aesthetically valuable, which is exactly what Roxie and many female characters in films do: make themselves beautiful products. Correspondingly, excessive evaluations will appear, such as the pursuit of beautiful female prisoners. This is essentially the objectification of female characters.

The women in Chicago still do not have a free personality throughout the film, subject to and willing to submit to the patriarchy that has hurt them. This is also the real situation: women are aware of the equal status between the sexes and desire to break the situation of being dominated, but women who can succeed in a patriarchal society can hardly avoid relying on the help of men, using male aesthetics to discipline themselves and become the object of the gaze.

4 CONCLUSION

With the help of Laura Mulvey's feminist film theory, the results of this paper are obvious through the analysis of Chicago's plot discussion, visual style, and character design.

Although *Chicago* criticizes men's misconduct in relationships and tries to tell the story of women's own transformation, it still places women under the male gaze and does not gain enough autonomy and self-identification. The female characters in the film create an alter ego according to the general expectations of men, make themselves a commodity, win the favor of men through sales and marketing, and ultimately rely on men to get out of trouble and succeed.

This is also one of the microcosms of the current common phenomenon in the film industry and even the overall cultural world: it is very difficult for feminist films and other works to escape the traditional thinking of the male gaze while focusing on women. Mainstream films in patriarchal society combine the male gaze with visual spectacle and bind sexualized and objectified women with aesthetics, occupying a huge movie-watching market. In the production of films as commodities, it is impossible to ignore the market and social needs, and the birth of purely feminist films is fraught with difficulties.

Reasonable analysis helps the audience develop a way of thinking from a gender perspective, identify and criticize the male gaze in the film, and achieve egalitarianism on the screen. However, this article does not have much description of proven solutions to the phenomenon that feminist films still fall into the paradox of the male gaze. Laura Mulvey's "destructive pleasure" proposition denies the visual pleasure model in traditional films, and sexualizing women is an important part of it. This method is very radical, which is bound to affect the relevant attributes of film as a commodity, and is not suitable for the transformation of mainstream films, and can only be practiced in avant-garde films. More use of the female gaze and emphasis on women's experiences and feelings can help subtly transform the viewing community, but it is too gentle to make this silent gender war last longer.

In the future, film practitioners should try to deconstruct the female symbols that have been solidified under the patriarchy while ensuring visual pleasure or fundamentally giving the sexualized visual spectacle a new theoretical definition and practical attempt. It is expected that through the new definition and practice that are beneficial to feminist films, feminist films can truly speak for women and help society become a more open and inclusive gender equality one.

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Research on the effects of pet companionships on people's well-being

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ABSTRACT: The well-being of people plays a significant part in their healthy development, and plenty of evidence has shown the association between pet ownership and human well-being. This article explores the impact of pet companionship on people's well-being from a comprehensive level. Although the practical and conclusive causal relationship could not be drawn from current research, evidence that suggests that pet companionship facilitates human well-being has been supportive. First, real pets will be mentioned for the influences on physical and mental well-being in relatively daily and COVID-19 lockdown circumstances. The summary of certain similar and opposite effects of pet interaction in different situations is discussed, before analyzing theoretical model to elaborate on the combination benefits from physical, mental, and social aspects brought about by pet ownership toward human well-being. Virtual pets' effect on physical and mental well-being also presents in the later section, with the application in the medical field. The comparison of real pets and virtual pets is displayed from three perspectives, which include group differences among pet owners, differences in pet traits, and differences in pet-owner relationships. This literature review shows the belief that both real pets and virtual pet interactions offer merits for human well-being that outweigh their limitations, and further experiments with different and profound perspectives should continue exploration in the future.

Keywords: Pet, Well-Being, Virtual Pet, Physical Health, Mental Health

1 INTRODUCTION

With the rise of the economy and the advancement of science and technology, people's attention has shifted from satisfying food and clothing to obtaining a more comprehensive human well-being statement. An increasing number of scholars study the influencing factors of people's well-being to help humans improve their level of well-being. Amiot proposed in 2015 that the presence of pets may influence human well-being currently (Amiot & Bastian 2015). According to the American Pet Products Association's research, by 2023, 86.9 million American families own their pets, which means 66% of US households own at least one pet (Forbes 2023). Such a large pet owning proportion deserves to investigate the effects of pet ownership on human well-being.

Allen and Shykoff studied patients about their physical data and concluded that social support brought about by owning a pet could mitigate blood pressure (Allen *et al.* 2001). The study by Timperio and Salmon obtained that households with dogs engaged in more physical activity and weight control by dog walking (Timperio *et al.* 2008). Rijken and Beek, and Endo and Yamasaki studied adults with dogs and cats and concluded that dog ownership increases the likelihood of being healthily active, while cat ownership does the opposite

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(Endo *et al.* 2020; Rijken & Van Beek 2011). Research has also been conducted about the effects of pets on human well-being during the COVID-19 lockdown, in a relatively restricted environment. Jezierski and Camerlink concluded that interaction with pets had a positive effect on owners during the lockdown period (Jezierski *et al.* 2021). Tan and Fung's research indicated that individuals who adopted pets experienced a greater amount of physical activity and a healthier mentality (Tan *et al.* 2021). Apparently, pet ownership could promote physical and psychological health during the COVID-19 lockdown based on such evidence.

By comparison, fewer academic pieces of research were conducted on virtual pets, yet a number of studies generated their influences on human well-being. For example, Laureano-Cruces and Rodriguez-Garcia's studies mentioned that virtual pets with educational purposes could help children develop healthy eating habits to further enhance physical health (Laureano-Cruces & Rodriguez-Garcia 2012). The studies of Elena and Ding-Bang have largely demonstrated that online pet game players could gain companionship and psychological comfort by participating in the process (Li & Luh 2017). Panont and Plattenburg introduced Asthmon, a portable virtual pet that can measure spirometry and direct appropriate actions to assist children with asthma attacks at school (Lee *et al.* 2010).

Although the impacts of pet interaction have been mentioned above, these outcomes have been addressed quite scattered in relatively daily conditions and relatively restricted environments, exemplified by the COVID-19 period, which would be viewed as the research gap. The respective influence discussed as a comparison from the physical and mental aspects has not been reviewed systematically yet. Group differences between pet owners, differences in pet traits, and pet-owner relationships have also not been analyzed previously among real pets and virtual pets, which will be presented later in the study. This article applies the literature review method to summarizing previous scholars' research findings and briefly summarizing the current development and implications in the respective field. Additionally, it provides recommendations for future human well-being studies.

2 EFFECTS OF REAL-LIFE PET COMPANIONSHIPS ON PEOPLE'S WELL-BEING

Real pets' influences on human well-being will be discussed initially with the differences between relatively daily and restrictive environments. Evidence of pet companionship is presented from physical and mental aspects to address the impact.

2.1 *Companionship in relatively daily environments*

2.1.1 *Pet companionship and physical health of well-being*

A great number of studies received positive results that owning a pet could benefit people's physical well-being. Dog walking has been proven to decrease obesity and help owners achieve better physical fitness. Christian, Richards, and Rhodes concluded that dog adopters engaged in higher levels of physical activities compared to people who did not own a dog (Christian *et al.* 2013). Similarly, research from Rijken and the team also suggested that of people who lived with dogs, 70% met the criteria for healthy physical activity, which was much greater than the group of nondog owners (Rijken & Van Beek 2011).

However, it must be noted that few studies obtained different conclusions. For instance, Mathers and coworkers suggested no significant change in average daily exercise and BMI status among dog owners compared to nonpet-owners (Mathers *et al.* 2010). Lately, Westgarth found little evidence to prove that dog-owning increases physical activity or reduces obesity among their owners (Westgarth *et al.* 2017).

Such contradictory findings might be the consequence of participants' sample selection and pet companionship bias. Interestingly, both Mathers and Westgarth's studies are investigating teenagers. Timperio and the team mentioned the possible reason, which is that

overweight youth dog owners did not participate much in dog-walking but rather completed by other members of the family (Timperio *et al.* 2008). Thus, fewer interactions with dogs might be the reason that increases a higher possibility of teenage obesity. Similarly, adolescents reported in Mathers' research that interaction with their pets took up an average of only 0.7% of their daily energy expenditure. The data in the research also showed that participants who spend over 15 minutes daily with their pets induce a lower BMI status compared to those who spend less time (Mathers *et al.* 2010). More unanimous results regarding pet ownership and body weight need to focus on the interaction with the pet, not merely ownership.

2.1.2 *Pet companionship and mental health of well-being*

A certain number of researches proved that owning a pet promotes people's mental health status. In particular, scholars have focused on the correlation between pet ownership and the reduction of negative emotions, resulting in positive findings. Allen and other researchers, for example, concluded that pet companionship was effective in reducing psychological stress among highly pressured volunteers (Allen *et al.* 2001). McConnell and M. Brown's research also suggested that dog owners experienced less depression and loneliness and less perceived stress (McConnell *et al.* 2011).

In addition to effectively addressing the negative mood that owners are experiencing, pet ownership also helps owners develop a healthier mental state from a more far-reaching and profound perspective. Social support has been proven to assist people built a more resilient mentality toward stress, depression, and occasional emotional disorders, which form a healthier and more functional mental well-being (Ozbay *et al.* 2007). A number of researchers mentioned that pet ownership might provide social support for their keepers. For example, Allen indicated that people who suffer from less social support are more likely to benefit from the supportive environment provided by their pets. The author also admitted that pets are always nonjudgmental and accepting of their owners, which could offer them the ideal social support (Allen *et al.* 2001). Furthermore, McConnell's study revealed that pet companions provide social support for owners like their friends (McConnell *et al.* 2011).

Yet some studies yielded seemingly contradictory results. Elderly cat owners, for instance, seem to use ambulatory mental health services more than those without cats according to Rijken (Rijken & Van Beek 2011). Moreover, Endo and Yamasaki found that cat ownership had negative effects on adolescents compared to noncat owners (Endo *et al.* 2020). Before concluding that cat ownership is harmful to mental health, it may be necessary to pay further attention to participant selection and previous emotional evaluation. Both Endo and Rijken did not assess the participants' mental health well-being and negative emotional condition at the beginning. Especially Rijken's participants are all involved with chronic illness or disability, which may be impactful to the results of this experiment. More accurate conclusions regarding this area could be obtained by ensuring that participants' emotional status, the degree of companionship, and matchable measurement scale are used.

2.2 *Pet companionship in relatively restrict environments*

The COVID-19 pandemic has had a huge influence on public health. In order to curb the virus's relentless spreading and massive infection, several countries issued a lockdown that limited outdoor activity to a restricted environment (Onyeaka *et al.* 2021). Although the possibility of virus transmission between pets and humans could not be completely eliminated, pet adoption has been boosted within the COVID-19 period (Wall 2020). Such a historical precedent not only encourages us to realize the importance of studying the possible impact of pets in relatively restrictive environments but also offers quite an amount of research in such situations.

2.2.1 *Pet companionship and physical health of well-being*

COVID-19 lockdown is directly linked to a large extent of a decrease in mobility and physical activity, yet regular exercise is proven to be helpful in alleviating the adverse physical

effects brought on by the COVID-19 epidemic (Park *et al.* 2022). Several studies have attempted to prove the positive relationship between owning a pet and increased physical activity. Dog ownership, particularly, has been repeatedly proven to enhance people's physical exercise due to their unique walking habits. Dog owners are more physically active than nonpet owners, according to research by Oliva and Louise (Oliva & Johnston *et al.* 2020). Tan and other team members concluded that dog owners engaged in more moderate-intensity activity than people without pets in the next year (Tan *et al.* 2021), a result that even applied to participants with weakened immune systems. Plante and Bedrossian conducted research only with vulnerable immune system participants, which means they experienced more infectious possibilities during the COVID-19 crisis. The outcome showed that young immunosuppressed pet owners reported a much amount of decrease in physical activity compared to patients without a dog (Plante *et al.* 2023). While owing other pets did not generate such a boost in physical activities.

Pet ownership also benefits physical health from another perspective. Intimate contacts with pets induce biochemicals that are beneficial to the human body. Oxytocin, for example, has been shown the availability to strengthen the body's immune system and regulate blood pressure and blood glucose. Endorphins can effectively stabilize heart rate and sleep-wake cycles (Hunjan & Reddy 2020; Wang *et al.* 2015). Within the restricted environments, studies have demonstrated that owners and pets engaged in plentiful physical contact, even more during the epidemic. Cat owners expressed their multiple times of physical contact with pets and the ample comfort received afterward (Endo *et al.* 2020). Thus far, owner-pet bonding is proven to be effective for human overall well-being during the COVID-19 epidemic, especially in the absence of human connection.

2.2.2 *Pet companionship and mental health of well-being*

Retrenchment crisis, risk of infection, economic impairment, and social connection scarcity were critical problems faced by most citizens during the COVID-19, which induced severe psychological problems (Onyeaka *et al.* 2021). Studies addressed human-pet interaction in the COVID-19 context mostly focused on the pet ownership effects toward mental aspects and plenty of studies yielded relatively positive outcomes. First, pet ownership instantly alleviates adverse emotions. Several studies have shown that pet interaction could buffer feelings of loneliness and isolation during a lockdown. Anxiety and depression were also helpfully reconciled. Pet engagement triggered stress release mentioned multiple times by qualitative respondents as well (Carr *et al.* 2021; Hunjan & Reddy 2020; Oliva & Johnston 2020).

From a more general perspective, owning a pet also helps satisfying human social needs. Compared to other pets, for example, dog owners have been more encouraged to participate in outdoor dog walking, which indirectly improved social connections among dog owners. A brief dialogue among dog walkers efficiently decreases loneliness for owners who crave social needs (Carr *et al.* 2021). The pet also could play as a social need compliment to fill the missing human connection due to the COVID-19 quarantine. Pet expressed their sufficient companionship and attention as a form of endorsement to owners, which could be viewed as emotionally supportive (Oliva & Johnston *et al.* 2020).

Another intriguing study applied the placebo theory to some certain extent. The placebo theory refers to a phenomenon in which people claim they experience a real improvement after taking a nonexistent treatment. It only relieves emotional symptoms, such as fatigue, stress, or anxiety, but not the disease itself (Nikolopoulou 2023). During the pandemic crisis, Martin and other colleagues conducted a survey of current and potential dog owners, which refers to people who currently have not adopted a pet yet with extreme intention to own a dog in the future. Their findings revealed that both groups scored similar anxiety and happiness results (Martin 2021), which means that potential dog owners underwent the same amount of anxiety and happiness as the real dog owners during the lockdown. Based on the above conclusion that pet ownership could effectively reduce the anxiety level of pet owners and provide them with emotional support, we might speculate that a mitigating effect also

exists for certain detrimental emotions of potential dog owners. An intriguing point this research presents is that potential owners could be affected by merely the eagerness to own a pet, although adoption is yet to be started for any reason. However, it will be discussed later how a different type of pet may be suitable for such pet-lover owners in the special lockdown environment (Section 3).

2.3 Section discussion and analysis

The above article mainly focuses on the effects brought by pet ownership on human physical and psychological well-being. Although the current evidence does not completely prove that pet ownership has a positive effect on both physical and psychological aspects, a large proportion of robust research has demonstrated that pet ownership brings beneficial effects. Research on the effects of pet companionship on specific ages of people and with specific physical conditions deserves further investigation.

In a relatively daily environment, the physical effects of pet ownership are mainly targeted at increasing physical activity and reducing the probability of obesity. Psychological changes mainly focus on mitigating negative emotions and offering social support to build a healthier mentality. In contrast, the relatively restricted environment brought by the COVID-19 epidemic limited people's movement to a certain extent, which led people to a more vulnerable physical and psychological condition. In addition to enhancing outdoor exercise, pet companionship may also generate more beneficial biochemicals through physical contact with their pet. Even the idea of adopting a pet in the future was highly possible to a reduction in anxiety and happiness promotion.

To sum up, the impact of pet-owning majorly was focused on physical functioning, mental status, and social needs. The relationship between social, physical, and psychological health has been proven to interact positively by Julius and coworkers (Ohrnberger 2017). Moreover, the biopsychosocial (BPS) model sheds light on the interaction of physical, psychological, and social aspects to prove relative human health and, more importantly, overall well-being (Megan 2021). This suggests that receiving benefits from one aspect—whether physical, mental, or social—through interaction with pets can automatically generate positive impacts on the other two aspects to some extent.

3 EFFECTS OF VIRTUAL PET COMPANIONSHIPS ON PEOPLE'S WELL-BEING

Thus far, the paper has elaborated on physical and mental influences brought by the real pet in relatively daily and restricted environments. Lately, attention has been drawn to the virtual pets' impact on human physical and psychological aspects, as well as medical area applications. Qualitative and quantitative experiments are listed as evidence to further discuss the uncertain effects of the virtual pet at this session.

3.1 Virtual pet companionship and physical well-being

A number of researches have explored virtual pets' influences on human physical well-being. Laureano-Cruces and Rodriguez-Garcia, for instance, created a virtual pet, PUMAGOTCHI, to help children form better lifestyles. Adolescent participants shifted to healthier eating habits and realized the importance of being vaccinated afterward (Laureano-Cruces & Rodriguez-Garcia 2012). In addition, Grace Ahn and others also concluded children who engaged with virtual pets performed much better in terms of physical activity than others who only participated in the computer system and even showed a slightly higher willingness to engage in physical activity in the future (Ahn *et al.* 2015).

Thus far, the studies above generate, while limited, quite positive results. The PUMAGOTCHI experiment revealed that children's willingness could be altered by the

influence of virtual pets. And vivid virtual pets were better at encouraging goal attainment for humans than computer machines. The digital pet group requiring more fruits and vegetables might be because they were able to witness the process of the virtual pet becoming healthier by consuming fruits and vegetables through animation, yet the computer group only received messages from the screen. Although their actual consumption was limited by their ability, not their intention. This result demonstrates that virtual pets may have a stronger educational effect on children than computers. Similarly, the third experiment also testified that motions expressed by the electronic pet are more impressive than message only, which could be more memorable for children (PWC 2017). When youth in the experimental group accomplished activity goals, the electronic pets were given a series of “rewarding actions”, such as “sit down”, and showed more complex actions, such as “spinning”, after the children reached higher accomplishment. However, the computer only displays a congratulatory message when children complete the goal. The actions and messages left different mental impressions on the children, which may indirectly lead to different levels of motivation for physical activity between the two groups in the future.

3.2 *Virtual pet companionship and mental well-being*

A substantial number of researchers have investigated the impact of virtual pets on humans’ mental aspects, with mixed results. Some research teams reached quite positive outcomes of the virtual pet influence on psychological health. Heewon and coworkers concluded that participants who engaged with virtual cats experienced a greater amount of stress reduction than others from the cat slide-showing group after the experimental stress-inducing process (Na *et al.* 2022). It is also worth noting that all participant’s heart rates decreased most at the first minute, which proved to be the most effective stress-reducing process. Additionally, the mood status conducted by the authors reflected the positive emotion of the two groups rising at a relatively short period, which indicates participants could benefit from interacting with the virtual cat.

The above experiment points to the virtual pet intervention serving as the moderator of stress, at least in the short term. However, experiments have also demonstrated the two-sided effect of the psychological impact brought by virtual pets. Li and Luh’s several pieces of research largely demonstrated that online pet-raising game players could achieve flow experiences and gain companionship through the engaging process (Li & Luh 2017). On the other hand, Tamagotchi, a virtual pet that is equipped with similar living habits and emotional responses to real pets, remains addictive and obsessive for players at the beginning phase (O’Rourke 1998). Plenty of Tamagotchi players shared their experiences of addiction to the game on the Reddit website, and users are not only limited to children, a large portion of them are adults. Electronic pet game addiction known as internet gaming disorder (IGD) belongs to a type of psychological disorder, which might frequently lead to daily, work, or educational disruptions (Király *et al.* 2015).

3.3 *Virtual pet companionship on medical care*

Virtual pets have functioned as medical tools to assist people to detect and recover from their illnesses to some extent as well. Each virtual pet equipped for medical purposes is specifically designed for the unique detection or treatment of disease. Lee and Croix’s team, for example, developed a portable toy within a virtual pet (Asthmon), which was designed to detect asthmatic children’s condition by detecting the value of peak flow and directing them to breathe to alleviate their symptoms. More importantly, Asthmon could guide students to reach out for help from the school and allow their parents to monitor remotely (Lee *et al.* 2010). Furthermore, Vargas and Alázar demonstrated that the virtual pet was effective in distracting children’s attention during the medical procedure by detecting their heart rate and respiratory rate, which is expected to relieve their pain and stress during the medical

treatment process (Solis-Vargas *et al.* 2021). More recently, a study conducted last year mainly focused on virtual pets providing life support and health-related assistance to Alzheimer's patients and people who suffer from related dementias. Although researchers still looking for more participants, positive feedback has already been received from patients with the disease (Dudley 2022).

Thus far, investigators currently have reached fairly positive outcomes to suggest that virtual pets could detect certain types of illness symptoms. Yet the majority of the current applications of virtual pets with medical purposes are focused on symptom detection and monitoring, while hardly mention of the therapeutic aspects. The underlying mechanism of the development of virtual pets in the medical area so far might be based on real pets' fondness and attractive appearance. In addition to the above experiments, virtual pets could also be applied to more broad aspects, such as the emotional recovery of children during hospitalization after major medical surgery. Even the development of multifunctional virtual pet therapy instruments that combine physical data monitoring and psychological treatment could also be expected in the future.

In addition, virtual pets in the three dimensions are worth being studied. Laboratory-based experiments also demonstrated that robot dogs could generate stress-reducing, positive mood-activating, and pain-mitigating effects for dementia patients (Petersen 2016). Considering Robot pets, as the imitation of real pets, the comparative effect of two-dimensional virtual pets on people still deserves further exploration.

It is estimated that both two-dimension and three-dimension virtual pets have broad applications in the medical field, however, playing an important role in the treatment process seems to be unreachable at current development. The accurate diagnosis of each disease needs to consider various patient situations, causes of the onset, and the complexity of the symptoms after the disease's onset. Moreover, further treatment requires virtual pets equipped with knowledge of medicine. Apart from its own detection and monitoring functions, the link to large pharmaceutical databases and internet connection is a major developing trend of virtual pets in the future.

3.4 Section discussion and analysis

Virtual pets emerged in the 1990s with the fundamental development of modern technology (Laureano-Cruces & Rodriguez-Garcia 2012). Shreds of evidence have been discussed above that virtual pets bring beneficial impact in many aspects. However, fully positive and generalized outcomes could not be drawn thus far. The value of virtual pets, from physical and psychological perspectives, as well as an aid tool in the medical field, has been designed to assist people. This results in the development of virtual pets, which is mainly based on human needs at present. The well-recognized functions of virtual pets include but are not limited to providing companionship for players, entertaining raising pets, and being informative at the same time, which plays the complementary or alternative role to accommodate people who are unsuitable for real pets. However, the excessive companionship of virtual pets might easily lead to electronic game addiction, which also indicates the possible negative impact brought by virtual pets. Meanwhile, the current applications of virtual pets in the medical area are mostly focused on the detection and monitoring of disease, the prospect of future development in comprehensive medical inspection and a certain degree of treatment should be largely expected.

Apart from real pets, virtual pets are products designed by humans specifically according to their actual needs. Therefore, virtual pets are expected to provide certain support and aid individuals in solving specific challenges to some extent. With this premise, the completion of the virtual pet experiment requires additional attention to refrain from researcher's preconceptions and to ensure that participants' expectations of positive results are maintained. In addition, to minimize the threats to experimental internal validity and external validity, methodological problems also need to be excluded to the largest extent. For example,

double-blind testing could be adopted for experimental studies to avoid subjective bias from both participants and researchers. Effective experimental design and conduction are the premises to draw fair conclusions on virtual pet influences.

4 REAL PET AND VIRTUAL PET COMPARISON

4.1 *Group differences among pet owners*

The first section has elaborated on the evidence of the capabilities of pets to facilitate the physical and mental well-being of humans in both relatively open and confined environments. However, the less optimistic condition that needs to be faced is that real pet companionship possesses inherent limitations. Seasonal pet hair allergies, innate respiratory problems, possible injuries from pet interaction, such as scratches or bites, or even zoonotic infections are fairly commonplace for potential pet owners (Moore *et al.* 2022). In this case, the negative influence of pet ownership might outweigh the positive. Moreover, restrictions on specific circumstances always exist. For instance, therapy pets could not visit regularly at nursing homes due to the epidemic outbreak, which brought negative emotions to the elderly. Researchers then introduced virtual pets that could talk with residents as a company in such special circumstances. All participants expressed their fondness for virtual pet visits, and even one favored virtual pets over real pets (Hunjan & Reddy 2020). Real pets are not convenient enough to fully satisfy people's needs in some cases, nevertheless, virtual pets can temporarily replace real pets with the advantage of convenience and even slightly surpass the effect brought by real pets.

On the other hand, real pets also certainly avoid the possible flaws of virtual pets. Due to their intrinsic characteristics, virtual pets have inevitably interacted through a computer or video game screen, which makes them less suitable for certain populations. For instance, elderly who are not inclined to use electronic devices, students with sedentary habits, or computer programmers who are regularly exposed to daily computer screens for long periods, real pets are more appropriate company than virtual pets. Interacting with real pets can improve daily activity to some degree and offer them the opportunity to engage in outdoor events. The physical and psychological advantages, as well as the social benefits, of increased outdoor activities are mentioned above.

Apparently, absolute substitution between real pets and virtual pets is unlikely to exist. Different kinds of pets are suitable for various populations and perform complementary roles in the constantly changing external environment to serve benefits and promote human well-being to the largest extent possible.

4.2 *Differences in pet traits*

Real pets and virtual pets intrigue humans based on their different traits. The mere presence of a real pet could attract people. Amoit mentioned the biophilia theory to express the human innate fondness for animals since childhood. Their tendency to care for other living creatures also encourages owners and their pets to form attachment naturally (Amiot & Bastian 2015), which directly lead to the establishment of an intimate relationship. Besides, real pets are born with emotions that virtual pets cannot possess. Unlike virtual pets, which are designed for a specific level of interactivity, real pets could generate deeper emotions for their owners as they increasingly spend time. The study has shown that cats become happier and more inclined to interact with owners because they receive more attention and companionship during epidemics (Oliva & Johnston *et al.* 2020). The independent and automatic emotional changes of real pets during the interaction with owners are unreachable for virtual pets.

On the other hand, virtual pets are more equipped with functional customizability than real pets. Thus far, some positive results have been conducted in the field of education and medication and truly deserve further exploration. For instance, virtual pets have been

designed to more effectively present the benefits of consuming more vegetables and fruits in order to encourage children to form healthier habits. By virtue of their adorable appearance and vivid movement, the behavior of virtual pets has proven to be more impressive than the direct message from computers. Instead of lecturing from parents and the display of computers, children seem to be able to assimilate knowledge more effectively through virtual pets, even with a conceptual shift in the future. Besides, virtual pets can be used as a more targeted assistance in the medical process as well. Virtual pets can accurately detect and store the patient's physical data in the cloud and can also alert patients in need of medication or emergency medical aid, functions that are unattainable for real pets. Furthermore, virtual pets have also proven to be effective for emotional recovery during the child's treatment. Although real pets may also induce children's negative emotional recovery, the real pet may generate possible damage to the medical environment, such as postsurgical patients being infected with bacteria carried by real pets. In contrast, virtual pets are undoubtedly a better choice. While limited, results from these experiments illustrated the potential value of virtual pets that could be used to assist people more broadly.

4.3 *Differences in pet-owner relationships*

Ample companionship received from interacting with a real pet has been mentioned several times in the above studies, and companionship is one of the measurements to decide the attachment level to pets, which indirectly clarifies the causal relationship (Hawkins & Williams 2017). The attachment developed between human and their pets increasingly deepens through their companionship, and pet owners also thrive at the continuous attention and positive reaction received from pets (McConnell *et al.* 2011). Furthermore, pet care has also been proven to foster the attachment between owners and their pets (Hawkins & Williams 2017). The companionship and daily caring process all indicate the intimate relationship between real pets and their adopters.

Yet the attachment of virtual pets, while limited, also deserves investigation. Chesney and Lawson applied "The Comfort from Companion Animals Scale (CCAS)" to evaluate companionship between virtual pets and real pets. The mean CCAS for Nintendo (virtual pet) owners was 33.1, the mean for dog owners was 39.3, and the mean for cat owners was 37.0, which indicated that participants received more comfort company from dogs and cats compared to virtual pets. However, the standard deviation might imply additional information. The standard deviation of the Nintendo group was 7.5, whereas the standard deviation of the cat and dog groups was all around 5 (Chesne & Lawson 2007). This result indicates that participants in virtual pet groups differ more. Some of them may acquire a slight amount of comfort by playing with a virtual dog, while others might receive a much greater amount of comfort from Nintendogs. Likewise, the inclination to companionship from virtual pets is also illustrated by "The Tamagotchi Effect", which refers to the attachment to digital or robotic agents (Chang 2020). Because Tamagotchi are designed with almost full living habits and physiological requirements as real pets, players are required to take care of their virtual pets to avoid Tamagotchi's death (O'Rourke 1998). This virtual pet caring process may enable owners' emotional attachment. Although the attachment between virtual pets and owners might not be as strong as that of real pets, its existence is undeniable. More sophisticated virtual pets might emerge in the future, which they should be paying more attention to.

5 CONCLUSION

This article has discussed the physical and mental influence brought by real pets in the relatively daily and restricted environment, then focused on the physical and mental impact of virtual pets and their current application in the medical field. Albeit a fully affirmative and generalized conclusion that real pets or virtual pets benefit human well-being could not

be drawn, mounting evidence has proven the positive correlation tendency thus far. Nevertheless, the population who remain resistant to the real pet connection still exists, even though pets proved to be beneficiary for human mental and physical health in great chance. Special occasions that could not be avoided also remain inapplicable for virtual pets, which effectively solve certain problems. Filling research gaps is required in several aspects. For example, the current classification of people is not comprehensive and detailed enough. Applying virtual pets as aid tools could be utilized for the detection and treatment of patients with innate physical vulnerability or disabilities in a more intensive and targeted method. Further research is also necessary for the communication between real pets with humans. For instance, the ways in which they interact, whether physically or verbally, can greatly impact communication efficiency. The emotion that is affected most by pet companionship also deserves further exploration. However, pieces of current evidence have set the tone that both real pets and virtual pets could benefit human well-being.

Moreover, participant selection, measurement scale, analytical methods, and other experimental methodology issues should all be considered for further research. The mechanisms of certain relationships might deserve a cross-sector perspective to reach further apprehension. More generalized and robust conclusions could be established based on longitudinal studies as well. The development of further studies would promote our understanding of real pet influences and virtual pet applications, which might enhance human well-being to a more profound level.

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The flowers of war and the male gaze

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ABSTRACT: The film *The Flowers of War* (2011), directed by Zhang Yimou, is a touching story about a group of prostitutes sacrificing themselves to save a group of schoolgirls from sexual assault during World War II when the Japanese took over Nanjing. It follows the lead prostitute, Yumo, and her interactions with an American politician John Miller. Although there has been much investigation into Zhang's films, *The Flowers of War* is often overlooked. Nonetheless, it is extremely enlightening about the portrayal of feminism in Chinese culture, especially with regards to two contrasting social groups—schoolgirls and prostitutes. It may seem that when the prostitutes are revealed to be heroes, their sexualization lessens. However, through investigating the shots and mise-en-scene of various shots in this film, this essay seeks to argue that even with the prostitutes portrayed as heroes, the sexualization and male gaze in the film never diminish, and instead only turn tragic.

Keywords: Film studies, Gender studies, Male gaze, Feminism

1 INTRODUCTION

The Flowers of War (2011) is a film directed by Zhang Yimou and is a tragic portrayal of a group of prostitutes after the Nanking Massacre (Zhang 2011). The film starts with the Japanese bombing and destruction of Nanjing, forcing a group of schoolgirls to take refuge in a Roman Catholic Cathedral where they were cared by a boy named George Chen. An American mortician, John Miller (Christian Bale), also arrives at the cathedral with the intention of burying the resident Priest, Father Inglewood. Attempting to escape the Japanese, a group of flamboyant prostitutes also arrive at the church, climbing over the walls when they are denied to enter. The climax of the show culminates in how the Japanese officers order the schoolgirls to serve the Japanese army in a victory celebration (they were unaware of the presence of the prostitutes), which implied that they will be raped and sexually harassed repeatedly. Horrified, the schoolgirls attempted to commit suicide but were saved when the head of the prostitutes, Yumo, mobilizes the prostitutes to go in the place of the girls. The film ends with Miller driving out of the city with the schoolgirls hiding in his truck, while the prostitutes were driven away in another Japanese vehicle, presumably to their deaths, having martyred themselves for the schoolgirls.

The Flowers of War can be considered a feminist film—it portrays the strength and courage of prostitutes, gaining their respect in the eyes of the audience. This is especially significant because, in Chinese culture, prostitutes were of the lowest social status. The audience's perception of the prostitutes is influenced by the male gaze as manifested through the character of John Miller—as Miller gains respect for the prostitutes, the male gaze diminishes, and instead, the women are characterized with honor. However, this essay

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argues that even with the change from a licentious prostitute to a virtuous martyr, the male gaze is always prevalent and the prostitutes' sexualization is never stopped—the male gaze simply turns tragic. This subtle change in the male gaze is extremely significant for the film and the future feminist movement, as it is an attempt to explore the impacts of women's sexuality on the perception of women.

2 PROSTITUTES AND THE MALE GAZE

The prostitutes are portrayed with a heavy male gaze as soon as they are introduced. The first shot of the female protagonist, Yumo (the leading prostitute), is a close-up of her side profile where she looks into the mirror. This is emblematic of the male gaze in three areas: first, the close-up shot means that the audience's gaze is only focused on her face, which is one of the most sexual aspects of her body; second, her face is heavily made up in accordance with Chinese beauty standards—smooth, pale skin, red lipstick, and winged eyeliner—and thus emphasizing her beauty and her desirability to men; third, she is checking her reflection in the mirror of a makeup compartment, which seems trivial considering they are searching for refuge in a war-torn city. This action reinforces the (phallogocentric) stereotypes that women are superficial and only care for their appearance, even in times of crisis. It trivializes the prostitutes, portraying them as lacking substance and depth in their character. In fact, the structure of this shot will follow Yumo for the rest of the film—during her conversations with Miller or the other prostitutes. This shot is usually always a close-up of her face, constantly reminding the audience of her first appearance as a sexualized prostitute.

Zhang uses even more close-up shots as the film progresses to accentuate the sexuality of the prostitutes. For instance, in the following sequence where the women flip over the Church wall (after being denied entry), Zhang uses close-up shots of the women putting their hands on each other's buttocks to lift each other over the wall. Although the shot is quick and the screen is so full of limbs and hands that one cannot exactly discern each other's body parts, a careful inspection of the film would reveal that the woman's bare butt cheeks and the top of her tights are visible. Such a close-up shot of frenzied movement subtly acknowledges the promiscuity of the prostitutes without making it blatant for the audience which could have two potential effects: first, it highlights the sexuality of the prostitutes but the quick action then leaves room for redemption to honorable and proper women (as they will be considered after their sacrifice); second, it serves as another aspect of the male gaze, appealing to the audience's scopophilia by hinting at erotic scenes to come, including shots of the cleavage of the prostitutes.

Other than close-up shots, Zhang also utilizes the *mise-en-scène* of a film—the “use of spacing, how it is arranged, and the actors and objects [that] relate within it”—to describe the



Figure 1. The women, as viewed through the perspective of the schoolgirls. From *The Flowers of War* (2011) (Zhang 2011).

male gaze (Corrigan 2001). This is epitomized in the next sequence, where the women walk across the Church courtyard to the main building and interact with Miller and the schoolgirls. All three (groups of) characters are actively involved in the construction of the male gaze. First consider the prostitute women, perhaps the most obvious representation: Zhang has a slow-motion shot of them strutting down the courtyard, all wearing colorful clothes and fashionable fur coats (Figure 1). Although their footsteps are not completely in sync, the rhythm of their steps is still close to each other and their hips sway in the same direction. This ostentatious way of walking, combined with the costumes, creates a sense of gracefulness and mysteriousness because of the context of the setting—a war-torn city covered in soot. The audience’s eyes are immediately drawn to them, and in this sense, the women are manifesting the “traditional exhibitionistic role of women” —literally to be looked at and admired, perhaps even with sexual fantasies projected onto them (Mulvey & Jiminez 1989).



Figure 2. One of the schoolgirls looking at the women through the stained glass window. From *The Flowers of War* (2011) (Zhang 2011).



Figure 3. Miller waving to the prostitutes from the window. From *The Flowers of War* (2011) (Zhang 2011).

Actually, these prostitutes are viewed—not only by the audience but also by the diegetic gazes of Miller and the schoolgirls. The girls are watching the women from a hole in the stained glass window at the top of the church (Figure 2), while Miller is sitting on the windowsill of an open window at the same height as the girls (Figure 3). This *mise-en-scène* further objectifies the prostitutes because they are literally being looked down upon. In addition, it attributes the women characteristics of actors, as the *mise-en-scène* mimics the spatial structure of ancient Greek amphitheatres. In these structures, the actors to be looked

at are in the middle of the ground with the audience looking at them from the surrounding hills. This further portrays the women as spectacles, a literal act and piece of drama to be viewed.

In fact, the original shot of the women strutting across the courtyard comes from a point of view (POV) sequence from the perspective of one of the schoolgirls—Shujuan. First, there is a shot of her forehead pressed against the stained glass window, the light reflecting some of the color of the glass onto her eye. Zhang then cuts to the shot of the women strutting sashaying across the courtyard, and the camera shot slightly shifts upward and downward, as if actually from Shujuan’s perspective because she as a person would be moving. Cleverly, Zhang has the camera shift in time with the women’s steps, creating a rhythmic strut much like one of a model’s and thus emphasizes the women’s sexual desirability. Although the audience may not be sutured into the film to identify with the schoolgirls, this act of looking through a small hole in a stained glass window allows the audience to experience some aspect of voyeurism – the erotic gratification of watching someone without oneself being seen.

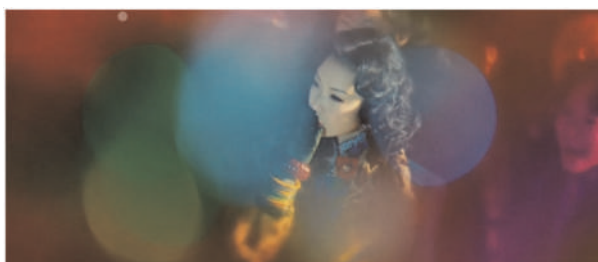


Figure 4. Yumo blowing a kiss to Miller as viewed from the perspective of the schoolgirls. From *The Flowers of War* (2011) (Zhang 2011).

In contrast to the girls’ careful and hidden observations from a small hole, Miller looks at the women unashamedly. His first interaction with the prostitutes is to wolf whistle at them, resulting in the prostitutes enthusiastically waving at him. Yumo blows a kiss at him, but even though the action is directed at Miller, the audience sees it through the perspective of the schoolgirls with Yumo’s face in focus in the small hole of the stained glass windows (Figure 4). The windows are blurred, but the various blues and reds are bright, attributing Yumo with an element of exoticism – exoticism as a well-dressed woman in a demolished city with the added layer of her position as an Asian beauty who is attractive to a Western man. While the audience views this action from the girls’ perspective, Zhang then cuts to Miller’s reaction—falling backward from the window sill in an exaggerated manner. This juxtaposition between Miller’s excessive outward display of flirtation and the girls’ cautious looking perfectly illustrates how “in a world ordered by sexual imbalance, pleasure in looking has been split between active/male and passive/female” (Mulvey 1975). Miller is active and his movements show his sexual desire for the women; the girls are passive—they make no reaction at the women’s entry other than quietly observing them. Thus, Miller can be construed as a diegetic manifestation of the male gaze while the schoolgirls are a manifestation of the female gaze.

As such, perhaps it is only the male audience who will identify with Miller and have gratification from voyeurism—perhaps the female audience more closely identifies with Shujuan and the schoolgirls. As E. Ann Kaplan wrote, “the difference between male voyeurism and the female form is striking. Even when she watches, the woman does not own the desire; it is to distance herself from sex. The man owns the desire and the woman” (Kaplan 1983). While the male audience may gain pleasure from the voyeurism through the girls’ point of view, the female audience would more likely be ashamed of and dissociate themselves from the women’s sexual tactics.

Miller as a manifestation of the male gaze is further emphasized through his interactions with Yumo—literally trying to pay her for sexual services. He tries to force himself upon her, saying “blessed are thee among women, blessed are they lips, blessed are they eyes, blessed are thy hips and thy gams, and they chest” while trying to reach out and grab her (Zhang 2011). In this line, Miller singles out the sexual aspects of Yumo’s body, using the physical elements of her body to define her rather than her character—the very definition of objectification and sexualization. He also implies that because of her beauty in these body parts, she is special, hence “blessed are thee among women”, suggesting that she is better than all the other women because she is prettier. In this scene, the shots are mostly sequences such that it is a POV sequence from the perspective of Miller, looking at Yumo’s face. Miller is the “agent of the look” and the audience is able to identify with him because of their on-screen likeness arising from narcissism and the formation of the audience’s ego (Mulvey & Jiminez 1989). As a result, the audience will be sutured into the film, identifying with Miller and the male gaze he represents, objectifying the women. Another shot is a POV sequence from Miller’s perspective where he is lying on the floor, and the camera is placed on the floor to mimic Miller’s angle, looking directly up at Yumo’s buttocks. The camera catches Yumo walking away in slow motion, swaying her hips, emphasizing her sexual desirability to Miller and the audience, accentuating her position as a prostitute who uses sex as a way to make a living.

There is an added layer of cultural analysis to the male gaze—Miller is American while Yumo is Chinese. In his films, “Zhang is showing a ‘China’ that is at once subalternized and exoticized by the West,” with the “[Chinese] ‘ethnicity’ amount[ing] to an exhibitionism” (Chow 1995). In this case, Yumo, as a beautiful prostitute and a Chinese woman, is an “exhibition” for Miller, and this is only heightened by her oppression. For a Western audience, and indeed, for a Western man like Miller, “oppression itself almost has a decorative dimension in relation to female beauty” because the oppression of women in the film arrives from Chinese culture and from the war, both of which can be attributed to a context unique to Chinese people (or at least never experienced by a western audience). Thus, a Western man will not have any identification with this cultural difference, and will be able to look at the women’s oppression from a “predominantly aesthetic point of view – without emotional involvement or identification,” (Lu 1999). As there is a lack of empathy, the Western male audience cannot identify with Yumo, emphasizing her role as a spectacle to be viewed. From these various scenes using cinematic apparatus such as *mise-en-scene* and close-up shots, it is evident that at the beginning of the film, the prostitutes are heavily scrutinized under the male gaze.

3 HEROES AND THE DIMINISHING MALE GAZE

Although the beginning of the film is heavily infused with the male gaze and objectification of the women, as the film progresses, Zhang takes care to show the tragedy that the women face, allowing the audience to sympathize with them before he elevates them to the status of a hero. Dou and Lan, two of the prostitutes, return to the brothel to get pipa strings so Dou can play a song for an injured hero who resembles her younger brother. The action in itself portrays the prostitutes as humans with emotion, rather than merely objects. However, during their return to the church, the women were caught and raped by Japanese soldiers.

The rape sequence is frightening. After the women are caught, the film immediately cuts to a couple of Japanese soldiers undressing and laughing but with a woman screaming in the background. This scene immediately links the audience’s mind to rape, and by hearing the voices before seeing the women, tension is increased in the audience. The scene immediately cuts to a close-up of the woman’s hand, with the camera shaking from left to right, in time with what seems to be the sound of a chair rocking on the ground. The woman’s nails scrape the table she is desperately clinging to. The next shot is a shaky close-up of the woman’s bare shoulder pressed down by the man’s hand and the camera shakes back and forth with her head. The shaky shots continue as the woman bites the Japanese man’s ear, enraging him.

He runs out of the room to grab a bayonet and plunge it into the woman's chest. The screaming ceases immediately.

Similar to the previous close-up shots of body parts that aimed to showcase sexual desirability, the close-up shots in this scene are also related to sex. However, in this scene, the close-up shots serve more to emphasize the horrors happening to the woman's body. The constant shaky shots from behind the woman looking at the man seem to be taking the perspective of the woman, suturing the audience in, except this time, as the woman. By structuring this scene in such a way that the audience information is revealed to the audience little by little—sound first, then see snippets of close-ups, then the face of the rapist—tension is raised from the previous relaxation of life in the church. This scene will have two different effects on the audience: it may either appeal to the scopophilia of some, or, it will ignite sympathy for the victim and immense anger at the rapist. The latter is more likely, especially as the scene was mostly shot from the perspective of a woman, and through a female gaze, it would be as if empathizing with the rape victim. The male gaze diminishes because sex is no longer something to be fantasized, but rather rape, which is much more violent and brutal. Subsequently, this is one of the major scenes that give gravity to the prostitute's character—no longer are they women trading sex for money, rather, they are also victims of the tragedy of war.

With the context of the horrors of rape laid out for the audience, it is easier for the audience to accept the prostitutes as tragic heroes, different from their previous portrayal as promiscuous and superficial women. What previously made the women detestable now makes them tragic—they flaunted their bodies and their sexuality, only for the audience to realize that their bodies are constantly abused (as mentioned previously by Yumo when she described how she was raped at thirteen). Thus, the male gaze begins to diminish and the women are treated with greater seriousness. When Yumo convinces the prostitutes to go in the place of the girls, all of the women are fully dressed. This is incredibly significant because in the previous scenes with only the woman, at least one of them would be showing cleavage. While there are still close-up shots used on the women's faces, in this sequence the close-up shots serve to enhance their facial expressions rather than just looking at a sexual part of the body. Furthermore, the girls are speaking in deep and quiet voices, different from their previous scenes where they squeal and giggle. The “low-pitched voice[s] [attribute them] manly courage,” contrasting their initial “high-pitched voices” which indicate “female cowardice” (Beard 2017). Here, the male gaze then diminishes, because the deeper voices provide the women with a sense of androgyny. Ironically, the male gaze only diminishes when the women have male characteristics, so in a sense the male gaze is still present but simply not directed at them anymore, allowing the women to gain the respect of the audience.

4 NUANCE: THE TRAGIC MALE GAZE

Even with the change from lowly prostitute to martyr, the male gaze never truly lessens – how can it, when the women martyr themselves by succumbing to the male gaze and literally using their body as a means of martyrdom? For instance, consider the sex scene between Miller and Yumo. If the male gaze was truly eradicated, then there would not be a literal sex scene in the film. Although in an interview, Zhang described it as something very healthy and very beautiful because they have the same fate and responsibility (to save the girls) so it is an act of true passion. Nonetheless, this scene is the epitome of a Freudian analysis (Zhang 2012).

In Freud's psychoanalysis, when a male child realizes that the mother does not have a penis, the child assumes that she is castrated (Chaudhuri 2006). This traumatizes the child, who is always reminded of the threat of castration whenever he looks at a woman. Two common methods of removing the unpleasurable threat of castration in films are: first, investigating the woman for her guilt (her castration) and then saving or punishing her; second, using fetishism to imbue the woman's body with extreme perfection such that the

“missing” penis is overlooked. In *Flowers of War*, Yumo embodies both counts. While Miller may not have been very actively “investigating” her past, Yumo reveals her “guilt” of how she was forced into prostitution. Prior to having sex, Miller says to her “When this war is over, I’m going to find you, and I will take you home,” to which Yumo replies “no, after tonight, my body will no longer be mine. Take me home now” (Zhang 2011). On the surface, it seems beautiful, but psychoanalysis offers a different view. Miller is attempting to save Yumo, and she agrees to be saved, so her castration is then overlooked and the male audience, as sutured in by Miller’s character, also experiences this savior syndrome. Furthermore, with all the sexualization of Yumo in the initial parts of the film, as analyzed in the first subsection of this essay (especially with Miller’s line “blessed are thy . . .”), Yumo’s body is presented as flawless, matching the second method of removing castration anxiety. Zhang is not wrong in that this scene is beautiful and tragic when showcasing two souls torn by war finding solace in each other, however, there is an undeniable male savior syndrome and male gaze present. Perhaps an explanation for the emotional effect of this scene is because of how society has been so entrenched in the male gaze—society encourages men’s savior syndrome resulting in women romanticizing being saved by the men.

While the male gaze never fully diminishes, it is true that there is a change in its nature—the male gaze turns tragic. In one scene, the women wrap curtains around their breasts in an attempt to hide them so they look more like young schoolgirls. There is first a sequence of close-ups of various qipaos being unbuttoned and the backs of various women as they shrug off their clothes. String music with slow, yearning notes plays in the background as there is a medium shot of women wrapping cloth around each other’s breasts. Women’s bare backsides are clearly on display and the audience’s attention is immediately drawn toward their breasts because that is the body part their actions are directed toward. There are also close-up camera roll shots focusing on the women’s waists, moving in such a direction so that the waist seems to be moving. This scene has the most nudity in all of the film, for a scopophilic audience, this only enhances the sexual desirability of the women, hence enhancing the male gaze. However, the heart-rending background music creates a melancholy and woeful atmosphere, and this, combined with the close-up shots of nude body parts, reminds the audience that these women will be sexualized and raped by the Japanese in the near future, generating sympathy for the women in the audience. In this sequence, they are not only sexualized because of their characterization as prostitutes, but this sexualization also serves to highlight how they are sacrificing themselves through sex, thus creating a tragic male gaze.

5 CONCLUSION

Sexual promiscuity and desirability are presented as a double-edged sword. On the one hand, women are objectified and condemned because of it, the former mostly from the male gaze and the latter from the female gaze. On the other hand, the prostitutes’ sexuality is also their power and their sexual sacrifice is also what portrays them as heroes. Zhang navigated this ambiguous characterization of sexuality through the tragic male gaze, and sexualizing the women but encouraging sympathy rather than scopophilia.

This film has the subtext that heroic women are not promiscuous. This is most obviously shown in the scene where Yumo convinces the prostitutes to go in the place of the schoolgirls and the male gaze diminishes. However, this can also be seen in other ways, for instance, in how all of the women have sorrowful backstories, especially with Yumo being raped by her stepfather. This moment in the plot further leads the audience to view the women as upright citizens rather than licentious beings, creating the basis for the tragic male gaze – the women are not by nature promiscuous, they are forced into it because of the context of the world they live in. This allows their initial sexual promiscuity to be understood and sympathized with rather than to be hated; it is then easier for the audience to respect the women as heroes.

In addition, the film provides an insight on Chinese feminism. Even though the sexualization of the women towards the end of the film is tragic, it is still sexualization. The whole film then revolves around the theme of sexuality, especially with the women using their sexuality to save the girls. The sexual intercourse between Miller and Yumo further highlights the Freudian fear of castration and the need for a man to save a woman. Thus, while women have the status of heroes, they are still subject to objectification and appeal to men's savior complex.

The *Flowers of War* is a phenomenal film. It is one of China's first modern films centered around heroines and the story of feminine strength, and it is also an insight into the traditional status of women in Chinese culture. This essay investigated the role of the male gaze in the portrayal of Chinese women, especially with regard to the different depictions of women when they are considered prostitutes or when they are considered heroes. Nonetheless, this film is extremely complex with many themes (including orientalism, religion, and war) to be explored, for future studies into such a film, this essay could act as a valuable perspective on gender.

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Identify the presence of romantic love in undefined relationships based on film analysis

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ABSTRACT: This research aims to illuminate the intricate dynamics of emergent romantic love in undefined relationships by drawing upon film analysis of “Before Sunrise” and “Lost in Translation”. The study identifies and emphasizes the significance of the initial stages of love – moments often overlooked in both academic literature and popular discourse. Using cinematic narratives as a lens, the research highlights the transformation from initial attraction to deep emotional connection, underlining the subtleties of affection and mutual interest. The analysis underscores the key role of non-verbal communication, self-disclosure, and shared spaces in articulating unspoken love and cultivating emotional bonds. The study concludes that the nascent stages of love, encapsulated in these elements, are crucial in setting the foundation for love’s later development and are essential in the pursuit of emotional fulfillment and resilience. The findings suggest the need for further research into the early phases of romantic love to enrich understanding in psychology, literature, and related fields.

Keywords: Before Sunrise, Last in Translation, Film Analysis and Love

1 INTRODUCTION

Romantic love is often depicted in its beautiful forms, with tales of heartwarming encounters and triumphant victories against all odds. However, there seems to be a gap when it comes to articulating the genesis of love. Understanding the precursors of love is not just about dissecting its beauty but about recognizing its significance in the pursuit of emotional fulfillment and resilience. The potential to identify the nascent signs of love equips people with the courage to define relationships rather than passively awaiting a love declaration. It is essential to affirm the existence of love during the hazy pre-commitment stage rather than overlooking the subtle love present during this period, which often serves as a catalyst for the blossoming of a relationship.

Cinema, with its capacity to visually portray emotional shifts, body language, and interactions between characters, provides a unique lens through which to study the emergence and progression of love. The sincere emotional portrayals and engrossing narratives in films often resonate with audiences, enabling a deeper understanding and experience of the sensation of love (Plantinga 2020).

Despite love being a central theme in various academic fields, ranging from psychology to literature, understanding the blurred and often ambiguous early stages of romantic love, particularly prior to a relationship’s formalization, with an emphasis on committed relationships, marriage, and long-term partnership, presents a significant scholarly void right there (Christopher & Sprecher 2000). The transformative journey from initial attraction to

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deep emotional connection, which involves subtle indications of affection and reciprocal interest, is often overlooked. Furthermore, the existing literature offers limited insights into the complexity of undefined relationships where strong emotional bonds exist but are unspoken or unacknowledged.

This study attempts to address this gap by examining three key elements: non-verbal body movement, self-disclosure via conversation, and allowance of shared space, as potential indicators of early-stage love. It is postulated that these factors, though seemingly insignificant, may be instrumental in the formation and development of romantic bonds. Analysis of these elements could offer a more profound understanding of the enigmatic process through which romantic love is cultivated. By scrutinizing these aspects in filmic depictions of love, the study endeavors to draw insights into the intricate process of love's inception, offering a valuable contribution to the discourse on romantic relationships. Notably, this exploration is not in opposition to existing research but instead augments it, providing a more nuanced perspective on the early, often nebulous stages of love, thereby enriching the understanding of this complex and universal emotion. The nuanced complexities and the subjective nature of this universal emotion make it a challenging subject of study.

2 NONVERBAL BODY MOVEMENTS

The film, *Before Sunrise*, directed by Richard Linklater (Linklater 1995), provides a rich canvas to examine the subtle cues and behaviors indicative of emerging love. Set over the course of a single night in Vienna, it chronicles the encounter between two strangers, Jesse and Celine, who meet on a train and impulsively decide to spend the night exploring the city together. In this section, this film is chosen as the primary case study due to its focus on the evolving dialogue and interaction between the two main characters.

A seminal scene that illuminates the importance of nonverbal communication in establishing mutual attraction takes place early in the film, during their initial encounter on the train. In the close quarters of their seating arrangement, Jesse and Celine engage in a conversation, navigating through their personal narratives and shared experiences. Amid their exchange, Jesse reaches out to touch Celine's hand gently, signaling his growing attraction. His gesture, an intimate breach into her personal space, is significant and is further emphasized by Celine's reciprocation, as she allows the contact without withdrawal, indicative of her mutual interest and acceptance.

Moreover, the dance of non-verbal communication is beautifully choreographed through subtle exchanges and measured responses. Their interactions resemble a carefully orchestrated ballet, with each gesture, glance, and pause contributing to the unfolding narrative of their mutual attraction. The rhythm of their dialogue is matched with synchronized movements, like a dance of mutual understanding and emerging affection. For example, when one leans in, the other subtly mirrors the action, a sign of rapport and engagement usually found in interpersonal communication. The play of their facial expressions is yet another significant element of this dance. Smiles are reciprocated, gazes are held, and subtle nods of understanding are exchanged, weaving a pattern of mutual interest and connection (Miles *et al.* 2009).

Additionally, the frozen moments, namely the pauses mentioned above, are when they hold each other's gaze for what seems like a beat longer than necessary, time seems to stand still. Along with their eyes locked, they become oblivious to the surrounding commotion of the train, indicating a shared moment of recognition and connection. These moments are significant as they capture the essence of unspoken attraction, a realization of an emotional connection that transcends the confines of their immediate environment. It is within these frozen moments that the premise of their emerging love story is established, signaled by a mutual understanding that is yet to be articulated into words (Kellerman *et al.* 1989).

In the scene under consideration, the sequencing of non-verbal cues begins with close proximity followed by physical touch and the close proximity is initiated by the cramped,

confined setting of the train, which naturally facilitates physical closeness. As the scene progresses, their physical closeness is complemented by engaged conversation, shared laughter, and empathetic nods, creating an environment conducive to intimacy. Therefore, based on the unfolding of the scene, it can be discerned that the close proximity facilitated by the environment sets the stage for further non-verbal interaction, culminating in the act of physical touch. This sequence and its implied emotional progression align with the concepts of non-verbal communication as described in the book *Nonverbal Communication* (Burgoon *et al.* 2016). Consequently, it is evident that a romantic bond is gradually forming between Jesse and Celine, despite the absence of explicit verbal declarations of love.

By the same token, the film *Lost in Translation* (Coppola 2003), directed by Sofia Coppola, masterfully uses nonverbal communication to depict the developing emotional bond between its protagonists, Bob Harris (Bill Murray) and Charlotte (Scarlett Johansson). Nonverbal communication is a critical tool in deciphering emotional states and interpersonal connections, and this film offers a wealth of instances where the characters' body language, facial expressions, and behaviors reveal far more than their spoken words.

A particularly poignant example of this is a scene set in a lively Tokyo karaoke bar. Bob, a washed-up actor, and Charlotte, a young woman questioning her life's direction, have found solace in each other's company amid the alienation they feel in a foreign city. This scene, laden with music, laughter, and seemingly carefree camaraderie, carries an undercurrent of introspection and emotional disclosure, primarily communicated through nonverbal cues.

Indeed, Bob's performance of Elvis Costello's "(What's So Funny 'Bout) Peace, Love, and Understanding" in the crowded Tokyo karaoke bar is a pivotal moment of emotional connection in "*Lost in Translation*". The song selection, with its themes of confusion, longing for understanding, and a desire for peace and love, serves as a reflection of Bob's internal emotional state (Plantinga 2020). More revealing than the song choice itself, however, is Bob's nonverbal communication during the performance. His gaze towards Charlotte is steady and intense—a stark contrast to his earlier, more detached demeanor, which denotes that the change in his nonverbal cues subtly underscores the shift in his emotional landscape with his eyes, filled with affection, understanding, and a touch of sadness, revealing his growing emotional investment in Charlotte (Kellerman *et al.* 1989, Burgoon *et al.* 2016). In tandem with this, the micro-expressions on his face—a soft smile that lights up his features, a furrowed brow that suggests deeper introspection—serve as a silent testament to his shifting emotions. They act as a window into his internal world, illustrating a level of intimacy and connection he feels with Charlotte that words fail to capture. This scene thus exemplifies how non-verbal cues, intertwined with self-disclosure, can profoundly communicate the complexities of a burgeoning romantic connection.

On the other side, Charlotte's responses to Bob's performance are equally telling. Her reciprocation—reflected in her own gentle smiles and the warmth in her eyes—speaks volumes about her feelings towards Bob. When she maintains eye contact with Bob, she is not just acknowledging his performance but also validating the emotional undercurrents it carries. Her body language is open and orient-ed toward Bob, subtly indicating her comfort and trust in him. Furthermore, the fact that this interaction occurs in a crowded bar adds another layer to their non-verbal communication. Despite the chaos around them, their shared attention and the intimacy of their nonverbal exchanges create a metaphorical bubble, separating them from the rest of the world. This scene is a testament to their burgeoning emotional connection as they navigate through their shared loneliness and find solace in each other's company (Burgoon *et al.* 2016).

In summary, in "*Before Sunrise*", the film eloquently portrays the nascent rapport between Jesse and Celine during their initial interaction on a train. Their exchange is replete with gestures, mirrored movements, prolonged eye contact, and tactile communication, all serving as tangible indices of mutual attraction. The analysis above posits that this tapestry of nonverbal cues, intertwined with their physical proximity and shared discourse, lays the cornerstone for their evolving romantic narrative. Similarly, in "*Lost in Translation*", a scene set in a bustling karaoke bar becomes a crucible for the manifestation of emotional

bonds. Bob's emotionally charged performance of a particular song provides a window into his internal state. His unwavering, penetrating gaze, accompanied by subtle facial expressions, encapsulates his burgeoning affection for Charlotte. Conversely, Charlotte's reciprocal actions—her open body language, soft smiles, and sustained eye contact—serve as tacit affirmations of Bob's sentiments. Despite the clamor of their surroundings, their shared focus cultivates an intimate sphere, delineating them from the extraneous environment.

3 SELF-DISCLOSURE VIA CONVERSATION

"Before Sunrise" presents a vivid illustration of the process of self-disclosure, which refers to the act of sharing personal information, feelings, and experiences with another individual, often leading to heightened intimacy and mutual understanding (Jourard 1971). As Jesse and Celine spend the night together in Vienna, they engage in deep, intimate conversations that range from their views on life and death to their personal histories and future dreams.

One key scene that encapsulates this process of self-disclosure occurs in a Viennese café. Jesse and Celine sit across from each other, their faces lit by the warm glow of the café lights. They're enveloped in their own world, oblivious to the café's other patrons. This setting reinforces their isolation, a symbol of their deepening emotional connection that sets them apart from the rest of the world.

In this scene, Jesse shares a personal story about his father, a moment of vulnerability that indicates his willingness to open up to Celine. His facial expressions and tone of voice reveal a mix of emotions, like nostalgia, regret, and a hint of sadness. On her part, Celine listens attentively, her gaze soft and empathetic, her nodding indicating understanding and shared sentiment. This exchange, steeped in personal history and emotion, exemplifies self-disclosure and signifies a key turning point in their relationship. Celine reciprocates Jesse's self-disclosure by sharing her own experiences and fears. The couple's conversation weaves through topics of death, past relationships, and future aspirations, highlighting their mutual willingness to delve into personal and often vulnerable topics. Their conversation is punctuated by moments of silence, laughter, and shared understanding, indicating their comfort with and acceptance of each other's disclosures.

Through these dialogues, the audience can perceive the deepening emotional connection between Jesse and Celine, in line with Sprecher and Hendrick's findings on the role of self-disclosure in increasing intimacy and satisfaction in relationships, which demonstrates how the self-disclosure serves to deepen their connection, making their relationship feel authentic and relatable (Sprecher & Hendrick 2004).

The concept of self-disclosure plays a crucial role in the film "Lost in Translation", as well, particularly in the emotional bonding between the protagonists, Bob Harris and Charlotte. One scene that encapsulates this concept is a late-night conversation between Bob and Charlotte in their hotel room. The hotel room scene in "Lost in Translation" illustrates the power of self-disclosure in facilitating emotional bonding.

The cityscape backdrop of Tokyo serves as a canvas against which Bob and Charlotte's raw emotional disclosures are painted, offering a stark contrast to the bustling city life outside. In this setting, Bob and Charlotte share their innermost thoughts, fears, and experiences. Charlotte opens up about her dissatisfaction with her marriage and her struggles to find purpose in life. Bob reciprocates by revealing his career disappointments and feelings of loneliness. This is not just about sharing information; it's about sharing feelings, insecurities, and deeply personal experiences, which constitute self-disclosure in its purest form and by extension, this mutual self-disclosure elevates their relationship from a casual acquaintance to a deeply emotional bond (Laurenceau 1998; Sprecher & Hendrick 2004). The openness and vulnerability displayed by each character allow for mutual understanding and empathy, leading to a stronger emotional connection.

In the context of self-disclosure theory, this scene demonstrates how self-disclosure can foster intimacy and mutual understanding. Through their willingness to open up and share their personal struggles, Bob and Charlotte deepen their connection, creating a bond that transcends their transient encounter. It's a testament to the power of self-disclosure in creating meaningful connections, even in the most unlikely circumstances (Laurenceau *et al.* 1998).

In summary, "Before Sunrise" elucidates the process of self-disclosure through a poignant scene set in a Viennese café. Here, Jesse unveils a personal narrative about his father to Celine, navigating a spectrum of emotions from nostalgia to regret, thereby signaling his readiness for emotional vulnerability. Celine reciprocates with empathetic engagement and her own revelations. This reciprocal sharing and the acceptance thereof epitomize the essence of self-disclosure, and it is through this intimate dialogue that the audience discerns the evolution of their emotional rapport. The scene's resonance aligns with Sprecher and Hendrick's research findings accentuating the significance of self-disclosure in cultivating relationship satisfaction and intimacy. "Lost in Translation" also employs the concept of self-disclosure, most notably within a nocturnal exchange between Bob and Charlotte in their hotel room. Contrasted against the animated Tokyo cityscape, their conversation unravels layers of their innermost thoughts, insecurities, and life experiences. This raw emotional transparency transcends their relationship beyond mere acquaintance to a profoundly emotional connection! which explains the potency of this communication process in fostering an intimate bond, thereby underscoring its capacity to catalyze meaningful connections even in unlikely scenarios.

4 ALLOWANCE OF SHARED SPACE

The research of Lyman and Scott on shared space in romantic relationships is well-scaled in "Before Sunrise". Jesse and Celine's journey through Vienna can be seen as a progression from public to more private spaces, reflecting the development of their relationship. An essential scene that pictures this theory occurs when they decide to leave the bustling city behind and head to a park, specifically, the Wiener Prater Park. This is a significant transition from the more public spaces they've occupied, like the train and the café, suggesting a deeper level of comfort and intimacy between them. In the park, they sit on the grass, framed by the Ferris wheel in the background. The setting is quieter, more isolated, and lends itself to more intimate conversation and interaction, where they share personal anecdotes, explore philosophical thoughts, and even engage in playful physical interaction, like pretending to be milkshake-drinking characters (Moss & Schwebel 1993). This not only shows their willingness to be in a more private space together but also their increased comfort in engaging in whimsical, personal activities with each other. Later, as their bond deepens, they venture into even more intimate spaces. A pivotal moment occurs when they decide to spend the night wandering the city rather than staying at their respective accommodations. This decision to share the private space of the night, usually reserved for those with close relationships, signifies their growing emotional connection and willingness to explore the relationship further.

Through the lens of Lyman and Scott's research, the choice of shared spaces in "Before Sunrise" underscores the evolving relationship between Jesse and Celine, from strangers to intimate confidants, all within the span of a single night (Lyman & Scott 1967).

Similarly, Lyman and Scott's theory regarding shared spaces and their implications for relationship development is clearly scaled in Sofia Coppola's film "Lost in Translation" as well. The film's protagonists navigate through a variety of spaces in Tokyo, both public and private, their relationship evolving in tandem with the shifting settings. The film's narrative sees the pair traversing through neon-lit karaoke bars and bustling city streets, representing the initial stages of their relationship. These public spaces serve as neutral grounds where

they begin to know each other; their interactions are casual and friendly. However, as the narrative progresses, so does their comfort with each other and the spaces they inhabit together. A pivotal scene that embodies this shift occurs in Charlotte's hotel room. In this intimate setting, away from the public eye, they lie side by side on the bed, engrossed in conversation, and the room, dimly lit and silent except for their voices, represents a safe space for both characters, symbolizing the emotional sanctuary they've found in each other amidst their respective crises (Floyd 2006). The decision to share this private space indicates a higher level of trust and comfort between Bob and Charlotte. Their physical proximity, with them lying next to each other, mirrors their emotional closeness. The quiet, private setting contrasts starkly with the loud, public spaces they frequented at the start of their relationship, indicating the progression from casual acquaintances to intimate confidants.

This scene is a testament to Lyman and Scott's theory, demonstrating how shared spaces can reflect and impact the development of relationships. The transition from public to private spaces in "Lost in Translation" is not merely a change of setting but a metaphorical journey reflecting the evolution and deepening of Bob and Charlotte's connection (Lyman & Scott 1967).

In "Before Sunrise", the progression from more public spaces, such as the train and café, to more private spaces, like the Wiener Prater Park and their shared night walk, exemplifies the progression of Jesse and Celine's relationship. Their comfort and intimacy grow as the spaces they share become more secluded and private. The decision to spend the night together wandering the city is a clear indication of the depth of their emotional connection. When it comes to "Lost in Translation" likewise effectively utilizes the concept of shared space to illustrate the evolution of Bob and Charlotte's relationship. The shift from the neon-lit bars and bustling streets of Tokyo to the quiet, intimate setting of Charlotte's hotel room underscores the transformation of their relationship from casual acquaintances to confidants. The private space of the hotel room becomes a sanctuary for them, a place for genuine connection and understanding, symbolizing their deepening emotional bond.

Therefore, both films remarkably demonstrate Lyman and Scott's theory that the nature and progression of shared spaces in romantic relationships mirror the evolution of the relationships themselves. The choice of setting serves not only as a backdrop for the narrative but also as a reflection of the characters' emotional journey and the growth of their relationship.

5 CONCLUSION

In dissecting the intricate phenomenon of love, the elements of nonverbal body movement, self-disclosure via conversation, and allowance of shared space offer an invaluable lens. These elements interact and intertwine, painting a comprehensive picture of love, from its latent inception to its tangible manifestation. Nonverbal body movements self-disclosure through conversation, and the allowance of shared space operate synergistically in the complex tapestry of love. Nonverbal cues serve as physical manifestations of unexpressed emotions, signaling latent affection and desire that may not yet be verbalized. This silent language of love, when decoded, can reveal the profound undercurrents of nascent romantic connections. Self-disclosure complements these cues, acting as a verbal conduit for one's feelings, fears, aspirations, and thoughts. This sharing fosters trust and emotional bonding, accelerating the transformation of potential affection into a deeper bond. The concept of shared space reflects the evolution of the relationship, with the transition from public to private spaces signaling a deepening of trust and intimacy. This spatial dynamic, when analyzed, uncovers the tacit acceptance of shared intimacy. Together, these three elements constitute a comprehensive framework for understanding the unseen yet potent mechanisms that give rise to love. However, the manifestation of these elements is shaped by the larger context in which love unfurls. Factors such as cultural norms, societal expectations, and

individual beliefs invariably influence the expression and reception of love. They contextualize nonverbal cues, self-disclosure, and shared spaces, affecting their interpretation and significance. As such, understanding the interplay between these elements and their context enhances the comprehension of the diverse expressions and experiences of love.

In sum, an intricate analysis of nonverbal cues, self-disclosure, and shared spaces unveils the multifaceted dynamics of love, underscoring its emotional intricacy, inherent trust, and reciprocal acceptance. Nevertheless, this exploration is not without its limitations. The interpretations, inherently subjective, could be colored by personal and societal biases, and the depicted cinematic narratives may not authentically mirror real-life relationships. Additionally, the study's lens is focused primarily on heterosexual relationships, thereby constricting its breadth of insights. Future research should strive to broaden its scope to include diverse relationship typologies and account for individual variances, thus contributing to a more holistic comprehension of romantic love.

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A study on the influence of watching ‘study with me’ videos on college students’ learning motivation

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ABSTRACT: Nowadays, the Internet technology is increasingly developed and popularized among the broad masses of people, and the relationship between people’s life and the network is getting closer and closer. With the development of webcast and video technology and the increase of social pressure, “companionship learning video”, which combines learning with live streaming, has become a popular new way of learning among contemporary young people, especially college students, since it first appeared on YouTube in 2018. Students only need to turn on the electronic equipment, enter the corresponding live room or watch relevant videos to enhance the learning experience, gain emotional resonance, and improve learning efficiency. This paper first investigates whether college students watch companionship learning video, and the length, frequency and type of watching, as well as their learning motivation. Then the present study uses the means of analysis of variance to objectively explore whether watching companionship learning videos can enhance learning motivation. It is found that the increase in the frequency of watching companionship videos during the test preparation period and watching companionship learning videos can improve college students’ learning motivation, but the frequency does not affect their learning motivation. The relevant summary and prospect are put forward.

Keywords: ‘Study with me’ Videos, Learning Motivation, Virtual Companionship, College Student’s School Work

1 INTRODUCTION

1.1 *Question raising*

1.1.1 *Concept definition*

The term ‘study with me’ comes from a foreign video tag: study with me, which refers to recording one’s daily learning through an internet platform and sharing it with others, achieving a collaborative learning effect in a virtual space (Wang 2021). There are two main modes of study with me videos: one is live learning, which involves real-time live streaming during the learning process. These types of learning videos are often relatively long; the second type is a themed short video about learning records, where bloggers selectively edit the recorded video and add appropriate music and commentary to mediate the atmosphere.

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Motivation to learn refers to the motivational tendency to stimulate learning behavior, guide toward a certain academic goal, and maintain this behavior. This definition suggests that learning motivation has a triggering, directional, maintenance, and mediating effect on learning behavior.

1.1.2 *The impact of social “involution” on the popularity of study with me videos*

With the development of the times, society has become increasingly “introverted”, and “people are worried that their diploma may not be high enough” has become increasingly common. Correspondingly, there has been an increase in the number of people who record their daily preparation for exams and their daily learning life and post them on social media (Chen 2020). Everyone does not want to be left behind by others. Seeing others learning can create a sense of crisis and unease, which motivates people to involuntarily participate in learning together. Learning bloggers such as postgraduate entrance exams, public entrance exams, and editors have emerged one after another, and the popularity of related topics has continued to rise, forming an emerging “learning craze”. During this process, videos called “study with me” have also begun to spread from major foreign video websites to China, becoming one of the popular short video tags today. It plays an important role in various social networking and video software platforms such as the Bilibili animation app, micro-blog, Little Red Book, and TikTok.

1.2 *Review of relevant research*

1.2.1 *Causes of study with me videos*

First, the lack of media technology and learning space is one of the primary causes. The continuous upgrading of the live webcast platform and major software in the live broadcast function technology provides a physical basis for learning live broadcast, which liberates the majority of students from the offline physical study room, not only provides a learning atmosphere and fresh learning experience but also avoids dressing up and going out. At the same time, the imbalance between the supply and demand of learning needs and public learning space has become increasingly prominent (Wang 2022). According to the China Statistical Yearbook, the library building area occupied by 10,000 people up to the end of 2019 is only 114.4 square meters (Chen 2022). The online shared study room allows everyone to study with peers without squeezing the public resources that are already lacking. Meanwhile, because live short videos can transmit information more effectively than words and pictures, they are quickly accepted by users and become important carriers of content online. The prevalence of mobile devices enables users can surf the internet whenever and wherever, breaking the boundary between disseminators and audiences, and also lowering the threshold for shooting and making videos. Anyone can be the creator of videos and upload them to the Internet with simple equipment. Second, it is because of the increasing eagerness for knowledge among the younger generation (Chen 2022). With the continuous improvement of citizens’ education level and the enhancing pressure of further studies and employment challenges, more and more young people choose to “involution.” The number of people who take various qualification examinations such as the postgraduate entrance examination and the civil service examination is increasing year by year. Furthermore, many people who have already had a job will decide to study more to stand on a higher level. However, due to the impact of the epidemic, lots of people can’t go to the library or classroom to study as before, but can only study independently at home. Numerous people find that without an ideal accompanying learning atmosphere, their learning efficiency greatly declines, yet their learning goals are pressing their hearts, so they are immersed in the anxiety about the inefficiency. When someone is making or watching the “study with me” video, both the creators and the receivers put themselves in a public where other people are supervising so that they have pressure and companionship to improve learning efficiency when studying alone (Sun 2022). Therefore, more and more people begin to perform an

alternative form of self-monitoring by recording learning videos and participating in live studying events. At the same time, the main users of the online learning platform are “post-00 s”. These young people love new things and long for the opportunity to express themselves, and because they were born in the era of the internet, the desire to become an “online celebrity” is rooted in many people’s hearts. As a new form of social media, live broadcast platforms is conducive to the personal image display of anchors because of their coexistence of real and virtual and real-time interaction. Besides, the continuous updating and optimization of the image of the broadcasters under the communication appeal coincides with the fame expectations of many college students which attract many practitioners (Zhou 2021).

1.2.2 *Reasons for watching study with me videos*

First of all, the “live study room” based on the “involution” society and deep loneliness has become a channel for users to express their emotions and opinions, which can resonate with partners facing the same pressure and express their opinions freely. It has become a “safe haven” for users’ spirits (Zhang 2022). “Study with me” live broadcast platform can provide students with corresponding professional knowledge and exchange learning information with peers, which can reduce anxiety well. Facing the fierce competition of modern society and the boost of the uncertainty of risk, the pursuit of “certainty” in changes and unknowns has increasingly become a collective psychological reaction. People always need something to make themselves to find a clear position in the strange social torrent and to be in a comfortable state of mind and body (Luo 2021). From this perspective, “learning” or “group learning” has become easy-to-control and easy-to-operate risk-taking mechanism when facing people’s academic anxiety (Lin 2022).

Second, it is mainly to form a kind of “presence” and group identity (Wu & Zhang 2021). On the one hand, the live broadcast viewers are located in their own real physical space, which is a kind of real body presence. On the other hand, viewers and anchors are in the learning space of the live broadcast room at the same time to jointly construct an online virtual space, which is also a virtual body present and let themselves participate in this cloud learning video by sending “bullet screen” and comments (Wen 2023). The traces left by these individuals are the evidence of intuitive perception that “I am present and others are present”, which proves that they are studying hard and can also perceive the emotions and signals released by other participants like electric shocks which make the relationship cross the air just like make friends in reality. In addition, by searching the corresponding keywords on the live broadcast platform, such as 24 postgraduate entrance examinations, and IELTS study, the corresponding crowds can be searched, and joining one of them can give the viewers a sense of group identity. At the same time, you can also know the learning progress of other peers’ exam preparation to urge yourself to study.

1.2.3 *Learning effect produced by watching study with me video*

At present, there are few studies on the effect of watching “study with me” videos on learning. Watching live learning videos during long-term study can indeed have a positive impact on knowledge acquisition. Some college students reported that they watched study with me videos on mobile devices and immersed themselves in virtual learning. Although some people have criticized the efficiency of this kind of learning, there are still many young people, especially Chinese college students, who said that this approach helps them concentrate and eliminate unnecessary interference, resulting in passing the final exam and achieving their ultimate goals. However, this effect is not obvious in a single learning. This shows that watching the live broadcast of learning for too long in a single study may fall into the trap of auto-affection and ritual performance while ignoring the acquisition of knowledge. According to the different conclusions between watching live learning videos during long-term learning and single learning, we can know that the real effect of watching live learning is the interactive chain of “sense of presence” and the community with common goals (Zhu & Shi 2021).

1.2.4 *Main research methods used in advance research*

Chen, Li, and Wen conducted a survey on how anchors and followers interact during the live learning process, as well as the effectiveness of the interactive presentation. They conducted in-depth interviews with Bilibili anchors and viewers. Through online interview mode, they gained a certain understanding of the psychological mechanisms of anchors and summarized the reasons for the rise and development of “learning live streaming”, as well as the presentation forms of “learning live streaming”. In addition, online interviews are conducted with specific groups of people, such as students or white-collar workers between 20 and 30, and those who watch live learning broadcasts. Through interviews with the audience, their psychology, motivation, and impact on their own behavior can be explored while watching such videos. Second, Wen and Lin conducted a participatory observation method, in which the author conducted a certain period of research on the live streaming rooms of several popular B station up hosts, observing the mode of live streaming and interaction in the comment area. Zou and Zhu used the method of distributing survey questionnaires to collect subjective data, while Zhu also used experimental methods to collect objective data.

1.2.5 *Summary and commentary on relevant research at home and abroad*

Through the review and organization of previous studies, it has been found that many researchers have conducted analytical research from the perspectives of psychology, journalism and communication, sociology, and education. However, currently, research on “study with me” in China is mostly focused on journalism and communication, while research on educational psychology is relatively lacking, mainly focusing on the “learning live streaming” model and lacking data on the “learning short video” model. The most important thing is that most of the conclusions in the previous research are subjective and lack objective data support.

Therefore, this article will adopt the form of distributing survey questionnaires to college students to study and supplement the impact of “study with me” videos on their learning motivation and behavior. First, how does watching “study with me” videos affect students’ learning behavior, second, the impact of watching “study with me” videos on college students’ learning motivation, and third, the impact of watching “study with me” videos on college students’ learning motivation.

2 RESEARCH METHOD

2.1 *Sample selection*

This study conducted formal surveys from April 20 2023, to May 4, 2023.

The survey questionnaire was mainly distributed online, and a questionnaire was set up in the Questionnaire Star Program to generate an electronic link and QR code. The questionnaire was shared in university student groups as well as social media platforms such as Little Red Book and Weibo, allowing college students to freely fill it out. A total of 160 valid questionnaires were collected.

2.2 *Questionnaire setup*

This study used the “Motivation Questionnaire for College Students” (2006) compiled by Professor Tian Lan from Hubei Normal University to conduct the questionnaire survey. The reliability coefficient of the questionnaire is greater than 0.7, and a total of 16 questions are used to test the learning motivation of the subject college students. At the same time, regarding the survey on watching study with me videos, this study has set 10 questions in total, investigating the gender of the subjects, whether they usually watch study with me videos, the types of videos watched, the majors of the bloggers, the viewing frequency,

changes in viewing frequency during the exam period, reasons for viewing, whether they believe that watching study with me videos increases study time, enhances learning motivation, and has a positive impact on their own learning. If the subject chooses “no” in the option of whether they usually watch study with me videos, they will no longer continue to fill the content related to study with me videos and jump directly to the “Motivation Questionnaire for College Students”.

Then, based on the content of the questionnaire, this study will use SPSS software to conduct one-way ANOVA on whether the factor of watching study with me videos and the frequency of viewing have a significant impact on the learning motivation of college students, exploring whether these two factors have a significant impact on the learning motivation of college students.

2.3 Survey data statistical results

2.3.1 Descriptive statistics

The collected questionnaires were statistically analyzed, and the results are as follows:

First, about the option of whether they usually watch study with me videos, 103 out of 160 people chose “yes”, and 57 people chose “no”, which indicates that watching study with me videos is a relatively common behavior among college students. Second, the surveyed college students tend to watch videos that are purely academic and accompanied by music or white noise. The blogger’s major does not affect the selection of videos, as 73.79% of college students randomly select a study with me video to watch. Third, regarding the change in viewing frequency during the exam period, the data statistics found that 31.07% of the subjects only watched study with me videos during the exam period, and 48.54% of the subjects usually watched videos, showing that the frequency increases during the exam period. Therefore, it can be inferred that college students have a greater need to watch study with me videos during the exam period. Fourth, regarding the main reasons for watching study with me videos, the questionnaire results show that the main reasons for the subjects watching videos are to create a good environment for shared learning, gain a sense of company, and stimulate their own learning motivation and gain a sense of urgency. Finally, in the subjective judgment of the questionnaire about whether watching study with me videos has a positive impact on their own learning and specific performance, more than 90% of people believe that watching study with me videos has had a positive impact on themselves, such as increasing study time and making them more motivated to learn.

2.3.2 One-way ANOVA analysis

Based on the questionnaire survey, this study used SPSS software to conduct one-way ANOVA on the effect of “whether watching study with me videos” and “viewing frequency” on the learning motivation of college students, exploring whether there is a significant correlation between these two factors and the learning motivation of college students. The independent variables are “whether watching study with me videos” and “frequency of watching study with me videos”, and the dependent variable is “learning motivation of college students”.

The statistical results are as follows: Table 1 shows the ANOVA analysis between “whether watching study with me videos” and “learning motivation of college students”. It can be inferred from the significance level of <0.05 that there is a significant difference between “watching study with me videos” and “not watching study with me videos” with regard to “learning motivation of college students”. Therefore, the data show a significant positive correlation between “watching study with me videos” and “learning motivation of college students”. Table 2 shows the ANOVA analysis between the “frequency of watching study with me videos” and the “learning motivation of college students”. It can be inferred from the significance level of $0.084 > 0.05$ that the “frequency of watching videos” does not have a significant impact on the “learning motivation of college students”.

When we compare and summarize Tables 1 and 2, we can conclude that watching Study with me videos can effectively enhance the learning motivation of college students. The frequency of watching videos does not affect the change in learning motivation of college students.

Table 1. Relationship between watching study with me videos and learning motivation of college students in ANOVA analysis.

	Sum of square	DOF	Equipartition	F	Significance
Between-group	4228.437	1	4228.437	47.025	.000
Within-group	14207.163	158	89.919		
total	18435.600	159			

Table 2. Relationship between the frequency of watching study with me videos and college students in ANOVA analysis.

	Sum of square	DOF	Equipartition	F	Significance
Between-group	608.119	4	152.030	2.123	.084
Within-group	7016.657	98	71.599		
total	7624.777	102			

3 DISCUSSION

It is generally believed that if students watch study with me videos and the more often they watch, the higher the learning motivation of college students will be. However, after data analysis, it was found that what really affects the learning motivation of college students in study with me videos are the behavior of “whether watch study with me videos”, rather than “viewing frequency”. This may be because once the sense of companionship and urgency similar to that in the classroom is generated by watching study with me videos, it has a relatively long-lasting effect and can have a long-term impact on the psychology of the subject group. Therefore, as long as they watch study with me videos during a week, their learning motivation will be significantly improved. On this basis, the influence of viewing frequency on learning motivation is not significant. This is somewhat contradictory to the research conclusion of Zhu and Shi: the higher the frequency of use, the better the knowledge acquisition of students, to some extent (Zhu & Shi 2021). However, the dependent variable of that study was knowledge acquisition, which still differs from the dependent variable of this study (learning motivation). Additionally, the subject groups in that study were not only college students but also primary and secondary school students, which may be why the conclusions differ.

However, according to the survey results of this study, 73.79% of college students watched study with me videos that were not related to their major, and only 4.85% of the subject group chose to watch videos to acquire knowledge. Instead, they watched to get psychological stimulation to help with their learning. At the same time, according to the survey of the main software for watching “study with me” videos in the subject group, Bilibili Anime, it can be found that most “study with me” videos do not record specific learning content, but only the learning process, with the focus on the blogger’s learning behavior rather than the knowledge learned.

The research results of this study show that watching “study with me” videos can enhance the learning motivation of college students by influencing their learning psychology and

maintaining a certain degree of persistence over time. Therefore, allowing college students to watch such videos appropriately when their learning motivation declines can effectively maintain and improve their learning motivation, thereby helping to improve their academic performance.

However, this study also has certain limitations. For example, the specific ratio of male and female viewers of study with me videos were not investigated. There were also difficulties in collecting college students' academic performance data, so it was not possible to effectively obtain the subject group's academic performance to further verify the conclusions.

4 CONCLUSION

With the further improvement and popularization of internet technology, the virtual world on the internet and people's real-life has gradually become inseparable. Watching "study with me" videos for online interactive learning is one of the fusions of real life and the virtual world. This learning model, which has only emerged in recent years, has largely changed traditional learning models and brought unexpected impacts to students. Therefore, this study aims to help people further understand this new learning mode and find suitable learning methods by analyzing the impact of watching study with me videos on college students' learning motivation and behavior. However, this study also has certain shortcomings, such as the inability to collect specific academic performance data of college students for further verification, which will be further explained in future research.

AUTHORS CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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Declaration of dependence—the indelible connection between nature, gender, and transgender expressed through Ebenezer Galluzzo’s “thick”

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ABSTRACT: With the increasing acceptance toward gender and sexuality minorities, there are activists and artists exploring approaches to raise awareness for this community and to encourage sexual and gender minorities to accept and express themselves. Gender euphoria is a concept developed from this trend of movement to demonstrate a state of alignment of one’s psychological state and one’s gender expression, aiming at promoting an utter acceptance of oneself and one’s gender identity. This essay focuses on analyzing the artwork “Thick” created by artist Ebenezer Galluzzo in the Gender Euphoria Exhibition sponsored by Five Oaks Museum. Ebenezer’s artwork discusses the dilemma faced by the transgender community and their embarrassment of existence in the context of Gender Dichotomy. “Thick” includes the topic of the co-existence of masculinity, femininity, masturbation, and nature. By interpreting Ebenezer’s work through adapting theories correlated to gender equality, gender euphoria, transgender, feminism, and the relationship between nature and women, this paper concludes that Ebenezer’s work “Thick” has a rebellious nature toward the existing gender dichotomy system and encourages the transgender community to pursue gender euphoria in order to accept and love their identity. However, since this essay only analyzed one of Ebenezer’s works, the conclusion of this essay is limited by failing to give Ebenezer’s work and their stance on the transgender community a holistic review.

Keywords: Nature, Gender, Transgender, Ebenezer Galluzzo, “Thick”

1 INTRODUCTION

Transpeople and trans-identity are topics with controversy. However, with the rise of feminist and LGBTQ+ movements in recent years, the transgender community received attention from the public and gained support from celebrities and politicians. However, the unequal treatment imposed on the trans-community by society only alleviates to a minor extent despite the uplifting revolution in recent years. Transpeople, especially transmen, are constantly questioned regarding their gender identity and masculinity. Transmasculinity is categorized as subordinated masculinity by scholars such as Michael Kimmel, arguing that transmen are being discriminated against in patriarchal society because of the femininity within them.

Ebenezer Galluzzo is a transmen artist who uses digital photography and decorations such as gold leaves to reflect the difficulties he and other transmen have been through and reveals his utter dissatisfaction toward society’s attitude toward “binary supremacy” and the exclusion of transmen from both sides. This essay discusses the content and symbolization of Ebenezer’s artwork “Thick” (2020), presented in Gender Euphoria Exhibition sponsored by

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Five Oaks Museum. The essay will make its argument based on the content of the discussion related to the introduction to Ebenezer Galluzzo, transgender people, transmasculinity, the concept of gender euphoria, and man and woman's relation to nature. This article suggests that aside from the necessity of changing society's discriminative recognition of transpeople, the only way for transpeople to liberate themselves is by reaching the three states of gender euphoria simultaneously: cognitive euphoria, social euphoria, and body euphoria.

2 AN OVERVIEW OF EBENEZER GALLUZZO

Ebenezer Galluzzo(he/him) can be recognized as a gender-nonconforming transman, a mother, and a husband (Galluzzo n.d.). Photography is the media used by him to share his stories as a transman. He uses photographs as the lens for him to redefine the way the world sees him and the way he sees the world. To reveal the struggles external cultural, and social exerts on him and to show how he has been through such struggles. He created this self-portrait photographic project to embrace and celebrate his trans identity and to rebel against the restrictions and judgments cast on him by society. He uses materials like gold leaf, gold paint, and copper paint to elaborate the self-portrait created by the digital photograph. The addition of decoration linked his self-portrait to elements in nature, which explores the topic of gender in the context of nature. His general artwork combined the genital trait of males and females, expressing the difficulties the transgender community faced in a judgemental society. "This photographic project began as a way to witness the truth of my gender expression and morphed into a celebration of myself, my power, and embracing my trans identity" (Galluzzo n.d.). He regards the process of painting and decorating the photographs as his refuge from the world entrenched with the notion of "binary supremacy" and as changing the ordinary pictures to a way to rebel against the shame society cast on trans people with pride. Ebenezer Galluzzo expressed on the website of the Gender Euphoria Exhibition that he is utterly unsatisfied and determined to challenge the binary gender norms that regard the existence of trans people like him as "unnatural."

3 AN OVERVIEW OF TRANSGENDER

3.1 *Definition of transgender and their difficulties*

According to the American Psychological Association(APA), transgender is defined as an umbrella term for people whose gender identity, gender expression, or behavior deviates from that associated with the sex they were assigned at birth (American Psychological Association 2014). With the increasing exposure of the transgender and non-binary communities and support from celebrities like Sam Smith and Laverne Cox and politicians like Phillippe Cunningham and Brianna Titone, the right and voices of transgender and non-binary gender people are being advocated by the public (Smith & Picotte 2019). However, according to the fact that only 62% of Americans expressed support toward trans people in 2019, there is still much work that should be done (Smith & Picotte 2019). Injustice Every Turn: A Report of the National Transgender Discrimination Survey suggests that due to bias, transgender participants had faced the loss of job, relationship, eviction, school bullying, sexual and physical assault, homelessness, denial of medical service, and Incarceration (Grant *et al.* 2011). The state of transgender can be divided into the state of body and the state of cognition. For the state of the body, no matter how much surgery transpeople have been through, their bodies will be recognized as "beyond the binary" and "ambiguous" (Hansbury 2005). Such discrimination often stems from difficulties categorizing them into masculinity and femininity defined by gender dichotomy, which brings the question to the existing way of gender-categorizing. Such a rise of questions brings a platform for artists like Ebenezer to express their envision of a more diverse way to define and identify gender.

3.2 *Definition of transmasculinity*

Transmasculine is an umbrella term referring to individuals assigned to a female gender role at birth but at some point come to self-identify as men or with some other masculine identity rather than seeing themselves as women (Zimman 2014). Transmasculinity will be applied to a spectrum of transmasculine gender identities, from perhaps the more male-identified to the more non-binary (Hansbury 2005). It is more aptly described as a context: masculinity enacted by people with transgender identities (Zimman 2014). As transpeople, or, in particular, as a transman, being in the “middle” position is inevitable once a person decides not to be limited to “binary gender dichotomy” (the notion that reckons human entity’s gender can be only divided into male and female) and search for gender or sex reassignment.

According to Hansbury, however, transgender men, or transmasculine continuum’s cognition identities, can be divided into three major subgroups: 1) WoodWorkers, 2) Transman, and 3) GenderQueers (Hansbury 2005). WoodWorkers can be defined as transmen who tend to live as cisgender men. They are usually only out to their family and (probably) their partners. Most importantly, they view their female history as secret (Hansbury 2005). Transman is the man who figured out that being a woman and hiding under the refuge of “butch” or “lesbian” is not satisfying and demands gender reassignment. Even though the stereotype toward transgender is that the “trans” individual should forfeit any trait that deviates them from their desired gender and should pursue an “ultimate” state of gender transformation, being a “trans” is never about arrival; It is always about process, about crossing from one side to the other, and about being “across,” “beyond,” and “through” forever (Hansbury 2005). Transman does not deny their female history but fully accepts it. Finally, gender queers can be defined as people who defy the classification, seeking mobility and possibilities beyond labeling (Hansbury 2005). Ebenezer Galluzzo’s art mainly represents and discusses transmen.

3.3 *Gender euphoria*

This essay argues that in order to alleviate the degree of harm to the mental and physical health of transpeople due to the discriminations society cast on them, not only do the social norms need to be changed but, for the transpeople, only by reaching gender euphoria can they accept their identities and be liberated from the restrictions “binary supremacy” imposes on them. Gender Euphoria, by its definition, is the ecstasy and comfort of a psychological state when an individual’s gender expression aligns with one’s identity (Plume 2022). Gender euphoria is an ideal state often sought by non-binary and trans individuals. It is an overwhelming state of confidence, happiness, and freedom reached by the confirmation that an individual’s gender expression matches one’s gender identity. Gender euphoria can be divided into three subcategories: cognitive euphoria, social euphoria, and body euphoria. Cognitive euphoria can be reached if an individual wholeheartedly accepts and loves one’s gender identity and feel that “I love myself” and “my authentic self is lovable” (Plume 2022); Social euphoria means one’s gender identity will be recognized by others. Others will gender the person correctly, title them correctly, and call them by the right name, which will spark a strong sense of happiness and belonging (Plume 2022); Body euphoria is a general sense of comfort, ease, and enjoyment of one’s body, feeling in the right size and right form (Plume 2022). Achieving gender euphoria is an important step for an individual who does not conform to gender dichotomy and is exploring possibilities beyond the line.

3.4 *Men and women’s relation to nature*

Given the inclusion of nature in the style of decoration of Ebenezer’s artwork and the natural element presented in “Thick”, it is essential to figure out the symbolization of nature and men and women’s relation to it. The book, *The Death of Nature: Women, Ecology and the*

Scientific Revolution states that ‘Women and nature have an age-old association – an affiliation that has persisted throughout culture, language, and history (Merchant 1980). As expressed by Sylvana Tomaselli in *The Enlightenment Debate on Women*, nature is treated as external, disenchanted, to be studied, analyzed, and probed into by man, and it becomes a thing to be used, mastered, and overcome by man (Tomaselli 2017). Man henceforth alienates himself from woman, motherhood, and nature based on the abovementioned attitude (Tomaselli 2017). The “man” mentioned above refers to the masculinity used to construct the man, and masculinity itself can be divided into four categories: hegemonic masculinity, subordinated masculinity, complicit masculinity, and marginalized masculinity. Hegemonic masculinity is defined as the ultimate form of manliness. Men with such masculinity are the idealistic figure of authority (Connell 2020) and the configuration that can justify dominance and inequality (Pascoe & Bridges 2016). In other words, hegemonic masculinity confirms its identity by setting the definitions of masculinity in opposition to a set of “others”, especially in opposition to femininity (Kimmel 2013). In other words, in order to confirm the absoluteness of manliness, the hegemonic masculinity chooses to disclaim dominance, discrimination and power over the entity of femininity. Subordinated masculinity can be used to describe gay and transgender men, according to Raewyn Connell (Pascoe & Bridges 2016). Gay men and transgender men are considered subordinated because gay men blur the line in sexuality, and transmen blur the line regarding gender and sexual identity. Either way will lessen the extent of opposition between masculinity and femininity, which increases the possibility for (hegemonic) men to lose power and, therefore, will be humiliated as being feminine, which is the severest fear of men. Thus, in order to reinforce the power over females and femininity, men with subordinated masculinity will be reckoned as feminine and prone to be called “sissy.” While the humiliation itself is discriminative, the link between femininity and nature provides trans artists like Ebenezer to associate subordinated masculinity, femininity, and nature together to display the vibrance and strength of womanhood via artwork and therefore endows power toward the feminine entity.

4 DESCRIPTION OF “THICK”

“Thick”, created in 2020, is a self-portrait digital photograph created by Ebenezer and decorated with gold leaf. This digital photograph depicted a gender-blurry body lying in bed, masturbating. The body has gender-neutral arms, a feminine hand, and a masculine hand, which can be distinguished by the texture, color, and shape of the nails. The body also has relatively masculine legs and relatively feminine pubes. The relatively feminine hand is masturbating, yet the penis was replaced by a “Thick” bundle of cotton on twigs by decorating the picture with gold leaf—some pieces of cotton fall on the body’s stomach, representing the sperm from the orgasm. In the background, a quarter of two overlapping golden circles may symbolize the intersection of the binary male and female sex and gender of transpeople. The combination of female and male sex organs is placed at the center of the intersection of the two circles.

5 ANALYSIS OF “THICK”

Based on the context of the discussion and the interpretation of “Thick”, this essay will develop an in-depth analysis of this artwork. First, the fact that this body is masturbating with a feminine hand can derive several interpretations. According to Lesley A. Hall, masturbation, especially in the Victorian Era, is perceived as “self-abuse,” which is physically and mentally deleterious and sinful (Hall 1992). Masturbation was reckoned as a source of danger to males because the pleasure of orgasm was too intense to be safely experienced often (Hall 1992), and true manliness should stay away from masturbation because it is a

filthiness forbidden by God and an unmanliness despised by men (Hall 1992). Masturbation will also inevitably lead to onanism, which is non-procreative and potentially reproductive sexual activity (Hall 1992). Most importantly, deliberate masturbation will cause excessive involuntary emissions of sperm, which will degrade men's vital energy and masculinity (Hall 1992). Henceforth, the reason that Ebenezer chose to let a feminine hand masturbate is for irony that the "true men" will not masturbate and therefore protect their health, yet transmen are men who possess femininity and is not "complete men" who will not have the notion to protect their health but only seek immoderate sexual pleasure. Such a notion is irrational and sexually discriminative because first, masturbation is a normal sexual behavior that should not be stigmatized, and secondly, masculinity and femininity are definitions of general characteristics derived from the two genders, male and female, in the context of gender dichotomy, which means there is no strong empirical evidence to prove that femininity should be reckoned as inferior to masculinity or as "incomplete" and vulgar version of masculinity.

The design that the body's penis is made of cotton and twig indicates that human of every kind of gender belongs and associates with nature. Men, women, and humans with other sexes or gender identities are far more similar than different (Kimmel *et al.* 2017). Thus, any gender should not put itself in opposition to nature to claim and enhance its power. The title of the artwork, "Thick", is often used to describe the girth and length of the penis. Both criteria will be linked to the extent of masculinity. The word "Thick" reflects society's expectation toward transmen—to construct their characteristic of body and mindset utterly against women, which means society expects transmen to not only abandon their female historical identity but also pursue "Thick" and long penis to express that they are both physically and mentally competitive to be a "man". Another layer of indication is that transmen's penis is usually fake or smaller than non-trans male, which represents the "penis-shame" from the society cast on transmen, questioning their masculinity and associating the degree of masculinity with the existence, length, and girth of the penis. The absolute "binary supremacy" is devastating the social tolerance toward transgender people and placing transgender people in an awkward position. Ebenezer rebelled against such supremacy by placing a body that combines the sex organs of both male and female in the context of nature, suggesting that nature would accept the co-existence of men and women in the same body. What does not tolerate such co-existence is society. Henceforth, Ebenezer's adaptation of nature in the topic of gender euphoria is to demonstrate the idea that the existing criteria that pigeonhole masculinity and femininity and make femininity the absolute inferior "other" of masculinity devastate the state of existence of gender and sexual minorities. By including the trans body in nature, Ebenezer stressed that nature is accepting toward all human-being, that humans should feel free to explore their bodies and sexuality, and that humans should, in turn, love and accept themselves. Given all of the difficulties faced by transmen and transpeople discussed so far, the only solution for the trans community to gain true liberation on their identity of sex and gender from society's restraint is by attaining cognitive, social, and body gender euphoria. By doing so, trans people, especially transmen, can be comforted with, accept, and celebrate their gender and sexual identity and realize that trans people's identity can be defined as a spectrum, therefore liberating themselves from the irrational requirements of society.

6 CONCLUSION

This essay provides a relatively thorough discussion of transgender people and transmen in this society and their difficulties concerning their gender and sexual identities and societal expectations towards them. This essay analyzes Ebenezer Galluzzo's artwork "Thick" and how this work sheds light on the relationship between men, women, and nature. This work also provides the ultimate solution for trans people, transmen, in particular, to liberate

themselves from the monotonous requirement society casts on them and to accept and celebrate their gender and sexual identity to achieve the state of gender euphoria, which is an acceptance of one's gender in the aspect of cognitive euphoria, social euphoria, and body euphoria.

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Power reversal, female gaze and narrative subject in post-feminist cinema

Taking the short film *All The Crows in The World* as an example

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ABSTRACT: Feminism made in China is different from feminism in the Western context. After analyzing the mass media films, some scholars believe that Chinese feminism is a one-sided feminism. The elite female class promotes the female consumerism of the elite class by taking positions in state institutions. Propagating a pseudo-feminism that is attached to male authority and compromises with the state at the expense or disregard of the interests of middle and lower class women. The short film *All The Crows in The World* is different from this propaganda context, and adopts novel narrative strategies and perspectives. Taking this short film as the research object, this paper applies feminist theories and combines the context of China's post-feminist culture to deconstruct the source and expression of power in the short film plot from three aspects: plot structure, narrative subject and shooting elements, and explains how the director realizes the reversal of viewing power. Through the third perspective narration, it breaks through the female weak image and puts the male power under the female gaze. The short film deliberately creates space for multi-meaning interpretation and special visual beauty through ambiguous and incomplete plots. Through the analysis of the short film *All The Crows in The World*, this paper aims to study the difference between it and mainstream Chinese films, analyze the root of female self-weakening in combination with Chinese local culture and mainstream ideology, and discuss how visual symbols can achieve meaning or resonance for non-local audiences.

Keywords: post-feminism, female gaze, narrative subject, feminist short film

1 INTRODUCTION

Some scholars argue that Chinese post-feminism is different from Western post-feminism and that mainstream Chinese post-feminism is defined as different from Western-derived liberal feminism and socialist feminism, but rather as a pseudo-feminism in which middle-class elite women implicitly give up some of their power, disguised by consumerism (Yang 2020). Combined with this Chinese-made feminist context, the short film *All The Crows in The World* gives an alternative perspective (Tang 2021), one that does not define women themselves, leaving behind the self-reporting of female emotions and the utopian illusion of female self-imagination and imagined masculinity disguised by consumerism, but adopts a relatively objective female perspective to observe the operation of male power with a certain viewpoint and attitude. This short film, directed by female director Tang Yi, won the Palme d'Or for Best Short Film at the 74th International Short Film Festival in Cannes in 2021. Through the perspective of its protagonist, Zhao Shengnan, the short film tells the story of a young girl, unaccompanied by her parents, on an adventure in the adult world. The narrative

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space of the film is selected from her experiences in four scenes: a candy store, a dinner party, a KTV box, and an underground garage. This paper takes *All The Crows In The World* as a sample for analysis. Through detailed observation of the short film, it aims to analyze the effect of the setting of the narrative subject and the narrative strategy of the short film to elaborate how the short film integrates the use of lines, subtext, and props to form visual symbols, and the process of the symbols to produce derived meanings. Through the setting of the narrative subject, it reverses the position of women being gazed at, puts male power in the position of being gazed at, the non-self-referential speech tradition of perspective, and also successfully changes the position of women being spoken to and being in a weaker position through the narrative strategy of changing women's self-speech.

2 REVERSAL OF GAZE POWER

Laura Mulvey's theory of the gaze sees seeing and being seen as a distribution of power, with the seen party being the oppressed party and the viewing being the party of power (Chaudhuri 2006). In the short film *All The Crows in The World*, the director attributes the power to look to the right to consume and suggests the class privilege of consumption through a spatial setting. For example, in the Dessert Shop scene, Zhao Shengnan and his classmates see the water store owner cheating with his lover as consumers. In the dinner and KTV scenes, Boss Zhao and the guests also enjoy a table of food and watch the Taoist priest practice as consumers. For Boss Zhao, who is at the apex of the power of consumption, what is consumed is not only the food but also the performative rituals, the attachment of a seat of guests, and Boss Zhao's proposal for his son The marriage contract, which can also be understood as some kind of consumer goods, is exchanged in exchange for support to live and develop in the United States. The garage scene is a continuation of the previous two scenes, in which Zhao Shengnan gives a tip to the "hat man" and in return, the "hat man" takes Zhao Shengnan to spy on the couple meeting in the garage and the object of the spying becomes a consumer product. In the four scenes of the play, the right to see is derived from the right to consume, and the consumer holds the right to see the four scenes of the film, which is the mechanism of the operation of the right shown to the audience. The spatial setting of the short film emphasizes relative privacy, suggesting specific class attributes and explaining the source of consumer power; for example, in the dinner and KTV scenes, the right to see belongs to the class that holds the right to consume, and this class is Boss Zhao and other guests.

In "Watching Modern China: Toward a Theory of the Asian Viewer" (Zhou 2003), Zhou Lei develops Mulvey's theory of the gaze, using the term erotic over-investment to deconstruct how the director places the dominant power in the position of being watched, flexibly explaining that the right to see is not a stereotypical male gaze but an interchangeable one. The focus of the analysis is to deconstruct how the right to see is formed. *All the Crow in the World*, the reversal of the right to see is achieved through the setting of Zhao Shengnan's character, the superimposition of scenes, and the use of props. As a guest, Zhao Shengnan does not have the right to consume and is an accessory of Cousin Tang, who should be the object of the gaze of Boss Zhao who has the right to consume. "Zhao Shengnan, as a minor, attends social gatherings and KTV venues with adults, positioning herself as an "An irrelevant outsider". Unlike the "hat man" who has to please Boss Zhao or the Taoist who performs ritual ceremonies, Zhao Shengnan, as an "outsider," becomes an observer. The speeches of Boss Zhao, Cousin Tang, and others' flattery, the Taoist's ritual performance, and the scenes of customers selecting female attendants in the KTV all become objects observed by the outsider". In addition, the short film reverses the power of watching by listing Zhao Shengnan's four experiences with props; for example, at the beginning and end of the film, there are props with metering properties, namely the stopwatch, and it is Zhao Shengnan who holds this power of time measurement.

3 THE “SIGNIFIER” OF VISUAL SYMBOLS DERIVED FROM AUDIOVISUAL CONTRAST

Eisenstein believes that film as a work of art, if passively understood, is the process of organizing intentions in the audience’s psyche and emotions and that the purpose of the film is to subtly organize intentions in the audience’s psyche and emotions in order to convey emotional intentions. Without the title *All The Crows in The World*, the whole film could even be called “Zhao Shengnan’s Night of Adventure”. However, with this opinionated title, the film immediately takes on a new meaning. The title of the film takes the first half of the phrase, *All The Crows in The World*, obviously with an attitude, this ambiguous title brings the audience endless imagination. This ambiguous title brings the audience endless space for imagination and supplementation; things that have no definite meaning are characteristic of short films.

The collection of visual symbols that in *All the Crows in the World*, such as the ideologies of the dining table, matchmaking, LGBT, and KTV underground culture, are juxtaposed and mingled, seemingly without a dominant cultural discourse. In the view of Zhao Shengnan, Boss Zhao plays the role of consumer power, while the guests, the Taoist priest, and the “hat man” play the role of consumer goods, presenting the social and class relationships between the characters through a simple string of lines. In some episodes, the lines have broken through the basic discourse function, and the onomatopoeic lines realize the symbolic meaning of the social relationship between the characters. According to Althusser, ideology is composed of two mechanisms: the first mechanism is the repressive state apparatus, which includes institutions such as the judiciary and prisons and forms a directive ideology; the second mechanism is the ideological state apparatus, which encompasses cultural customs and subtly shapes ideology (Louis Althusser Archive 1970). In *All The Crows in The World*, reflecting the second mechanism proposed by Althusser, i.e., the operation mechanism of Ideological State Apparatus, the director uses cultural symbols such as scenes, props, and background music to present the relationship between classes, and by stitching the audience (Sutuer) into the subjective perspective of Zhao Shengnan, thus making the abstract ideological operation mechanism of the state apparatus is presented to the audience. The “socialist canteen” that appears at the entrance of the restaurant represents the egalitarianism that China once had under the planned economy, where special groups enjoyed egalitarian welfare privileges and were able to enjoy a fixed share of meals as members of the community. The status of the members, or the class of the members, determines their right to receive such benefits, and the division of rights brought about by their status is a strong state will. By learning how to bark at a karaoke bar, the film implies that the source of rights is not purely a free market economy and that learning how to bark is the only way to “become the luckiest man” and enjoy the right to choose and have a voice.

Background music is another tool for visual symbols to generate derived meanings. The short film derives additional meaning through the contrast created by the musical theme and the scene setting. For example, in the dinner party scene, the song “Liu Yang River” sung by Cousin Tang was composed in 1950, and the background of its composition is a song of praise to the policymakers when Chinese peasants, who lacked the means of production at that time, regained their land resources under the land reform policy. The background music of the KTV box playing “Nanniwan” is a Chinese song created in 1943, intended to praise the spirit of the hard struggle of the Chinese army and people in Nanniwan at that time, which contradicts the consumption and entertainment environment of the KTV, and the uniform actions of the hostels under the command are also contrasted with the setting of the scene. When Boss Zhao selects a female service, the background music changes to “Socialism is good”. The above two songs are ironic to the KTV scene, representing underground entertainment culture.

The short film evolves the once sacred and serious religious and political ideological themes into cultural symbols with consumption and entertainment, and the original

ideological themes gradually become abstract through the contrast formed by the above audiovisual contrast. The director intersperses a black-and-white Montage Sequence of the Daoist priest's ritual in the footage towards the end of the KTV episode (Jeremy 2015), again suggesting the consumer and entertainment nature of the scene, drawing an equivalence between the Daoist priest's performance and the KTV hostesses' performance, as well as the various performances of Boss Zhao and others in the KTV box, echoing the title of *All The Crows in The World*.

4 THE UNDEFINED NARRATIVE SUBJECT

Language is realized by the speaker (Locuteur) or the subject of speech (Sujetparlant) (Kristeva 2016). In *All The Crows in The World*, the director does not set any character definition for Zhao Shengnan, who is not the subject of the narrative, but her experience is created throughout the film, and the background is created to bring the audience to produce psychological suggestion and different definitions of her, even in the same scene, different perspectives produce different definitions of the character. For example, in The Dessert Shop scene, Zhao Shengnan and her classmates are students who are not yet involved in the world. The moment she takes out the stopwatch, she takes the initiative of observation and changes the audience's psychological expectations. At the dinner party, Cousin Tang labels her as a "veritable high school student, not like gang-girl", at which point Zhao Shengnan seems unwilling to accept Cousin Tang's definition and announces in public that she has already been in love, removing the label of a good girl that Cousin Tang has given her. At the end of the film, Zhao Shengnan takes out her stopwatch again, signaling that she has once again acquired the right to measure and observe, a reversal of the plot that rejects external definitions of her and an open-ended ending that leaves no definition of the character and creates endless possibilities. Some scholars argue that feminist studies in China differ from the three waves of feminism in the West, and its name is China-made feminism (C-fem). China has entered post-socialism and has developed a new gender power structure with a male-dominated market logic emphasizing the cultural hegemony of women's economic dependence on men's sexual objectification (Wu & Dong 2019). The class represented by Boss Zhao can define marriage as a commodity of quid pro quo exchange, a definition that carries the hegemony of strongly associated masculinity. The definitions that appear in the plot come from the hegemonic culture of masculinity. By constantly reversing the audience's psychological expectations, *All The Crows In The World* rejects the external masculine discourse's definition of the character and, as well as the open-ended ending, empowers the female protagonist's freedom of self-definition.

5 CONCLUSION

Through the formal design of non-self-referential narrative and characterization, *All The Crows In The World* reverses the status of women as gazed upon, changes the image of female weakness, and makes visual symbols derive new meanings through audiovisual contrast. The stereotypical representation of Asian women in Western-centric cultures is unlucky and unhappy (Hagedorn 1994). The "Chinese" 20th century "documentary style" of photography can perhaps be seen as a temporary state of affairs before photography was finally institutionalized, officialized, and mainstreamed. Li Mei and Wu Hong explain that the sympathy of Chinese photographers in the 1980s and 1990s for the lives of the underclass came from the "scarred writers" of the "post-Cultural Revolution" period (Xu 2020). This scarred nature seems to accompany the mainstream culture, which habitually portrays women as repressed and damaged underdogs. The narrative strategy of *All The Crows In The World* changes the image of the underdog and no longer focuses on female self-talk such as

bullying, rape, and the suffering of women who have lost their lives as the main narrative strategy. From the viewpoint of a female witness, the narrative displays the visual symbols constructed by the characters in front of the audience's eyes, without the mark of "scars", and re-examines male power from a female perspective.

The innovation of this paper lies in the selection of a relatively new research object with the independent perspective and viewpoint of female directors to study feminist practices in the medium of film and television. Since the research object is a Chinese-language short film, it fails to analyze whether the energy and meaning of video symbols can produce meaning in non-Chinese-speaking audiences, which is the focus of future research, i.e., the construction and practice of framing the meaning interpretation of female video symbols by audiences in different contexts.

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The kernel of Chinese post-millennium comedy films

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ABSTRACT: The popularity of Chinese New Year films on the Mainland after the millennium shows a strong demand for spiritual entertainment during the festive season. As an enduring Chinese film genre, comedies complement the festive atmosphere of the Chinese New Year season and have therefore become a common format for the festival season. This paper systematically examines the shared elements in the narrative structure of Chinese New Year comedies, addressing three key aspects: thematic selection, geographical variations, and the amalgamation of diverse genre motifs. This study employs linguistic humor as a case study, employing laughter to analyze the psychological impact on audiences, encompassing self-deprecating humor, satirical commentary on reality, and the audience's self-reflective identification within comedy psychology. Collectively, these components epitomize the spiritual and cultural essence of the distinctive Chinese New Year comedy genre, showcasing the singular temperament of Chinese New Year films. This remarkable quality stems from the extraordinary festive ambiance and the distinctive Chinese dream culture's profound allure, which manifests through nostalgia.

Keywords: Chinese New Year films, comedies, linguistic humor

1 INTRODUCTION

In 1905, Ren Qingtai, the owner of Beijing Fengtai Photo Studio, found Tan Xinpei to shoot the first Chinese movie, “Dingjunshan”, and since then, Chinese movies have continued to develop. From the 1930s, when films shed the shadow of Peking Opera and grew into maturity, to the seventeen years of stormy development after the founding of New China, and then to the diversified films that blossomed after the reform and opening up, Chinese films have been changing with the perspective and direction of China's development. In the mid-1980s, reform and opening up ushered in market-oriented reforms, and the traditional film system ushered in a transformation. In 1993, Document No. 3 of Radio, Film and Television, “Some Opinions on the Current Reform of the Film Industry Mechanism” was promulgated, truly marking the marketization of Chinese films. The document has been relaxed regarding introducing imported films, access qualifications for Sino-foreign co-productions, liberalization of ticket prices, and the review process. In terms of function, it is established that film is a popular culture with the nature of serving people for entertainment. At the same time, the rise of Internet culture and pop culture has raised the audience's spiritual demand for entertainment films, and the commercial nature of movies has been developed here like never before.

As a classic film genre, comedies occupy an important part of the Chinese film market and carry a crucial spiritual core. Comedies used to occupy a quarter of the market in the 1980s, and China has extended a unique form of comedy. The Dictionary of Cinematic Arts defines

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comedy as “a feature film characterized by the effect of producing laughter.” The comedy film employs exaggerated expressions, distinctive linguistic styles, and an amusing plot structure to elicit laughter from the audience. The reasons behind the laughter are diverse, encompassing the satirical portrayal of villainous characters, the endearing “Ah Q” spirit (referring to self-satisfaction in the face of frustration, failure or oppression) of self-expression, or even the innate longing for an improved existence. Even in different cultural contexts, the techniques and expressions of laughter are constantly changing. As a result, comedies can show a unique group’s temperament and aesthetic standards.

The concept of “New Year’s film” originated in the U.S. film market, meaning that during the Christmas and New Year period, studios would take advantage of this time to produce films that fit the holiday atmosphere, are mostly comedic in presentation, and are both popular and enjoyable. As the sell-out rate increased, the concept continued to this day. In 1995, the Hong Kong movie “Rumble in the Bronx,” starring Jackie Chan, was introduced to the Mainland, becoming the first movie introduced to the Mainland under the name the “Chinese New Year movie”. Since then, mainland directors, represented by Feng Xiaogang’s films, have started making Chinese New Year films. Among the many slots for movie releases, the Chinese New Year slot has also become a prime slot contested because of its high attendance and universality. Since the first Hong Kong Chinese New Year movie, “Security Unlimited”, Chinese New Year movies have gradually become a popular film genre in China, with a unique film core and style, and are “an important driving force in an era of spiritual and cultural entertainment consumption (Xu 2019).” It is closer to the psychology of the people and reflects the social reality.

New Year’s films occupy a unique time and core, closely related to society’s psychology and the audience’s aesthetic style. The comedy is very good at demonstrating the audience’s aesthetic sense and mapping the aesthetic ideas and standards of a particular group of people. Each year’s New Year’s film is able to show the aesthetic trend and audience’s thoughts of this era, recording the changes in the country with a unique perspective. As globalization proceeds, soft power gradually becomes essential to a country’s overall strength. “The characteristics of Chinese New Year movies in terms of image composition and content selection are also specifically and subtly subject to the cultural psychology and aesthetic inertia of the general public (Wang 2008)” The cultural dissemination of movies has also taken on great significance. The volume and enthusiasm of research on Chinese New Year’s films and comedies have been high, but few studies focus on the core of New Year’s comedy films. The Chinese New Year comedy film contains the unique cultural core of Chinese comedy and the festive spirit of the New Year film. This paper takes this as a starting point, not only to fill the lack of research on the unique kernel of Chinese comedy but also to map the psychology of society at large to a certain extent. Therefore, this paper will look at the unique psychology of Chinese New Year’s season films and the historical development of Chinese comedy to find the special context of Chinese comedy. This study delves into the essence of Chinese New Year comedies by examining three key aspects: the shared characteristics of New Year comedy film settings, the distinctive employment of linguistic humor, and the central portrayal of New Year contexts intertwined with oriental ethical and emotional foundations. Notably, in the wake of the recent epidemic, comedy films during the New Year season have gained prominence. Yet, no New Year comedy film has emerged to captivate the audience phenomenally. Therefore, it is hoped that by exploring the core elements, Chinese New Year comedy films will experience further development and garner widespread acclaim.

2 THE SELECTION OF NEW YEAR FILMS AFTER THE MILLENNIUM

In past films, it is obvious that urban themes appeared less in the 80s and 90s and were far from the general audience, mostly as artistic aesthetics and reflections of the times. This

period experienced the trauma of the Cultural Revolution and the liberation of the mind and entered a period of ideological criticism in cultural thought. In literature, literature of pain, literature of roots, literature of reflection, and more emerged. Around the “decade of the Cultural Revolution”, people launched a series of discussions on the value of human beings, their fate, and their dignity, which also deeply influenced the fifth generation of directors who graduated from Nortel in the 80s. “The main object of artistic expression is human beings, and realistic portrayal of characters and profound revelation of their inner world has become the goal that all excellent works strive to pursue” (Zhong 2005). Moreover, the New Year’s movie fills the gap as a functional movie at a special time, focusing on ordinary urban people.

In the same period, the “Chinese New Year” movie had already appeared in Hong Kong, representing how Chinese people began to welcome the new year with movies. However, westerns have not formed a unified cultural and story core compared to Hollywood genre films, song and dance films. Therefore, each country’s New Year’s film has distinctive and unique cultural characteristics, and as a “rural country” in China, modernization and urbanization were the dreams of thousands of families at that time. The people also demand entertainment, especially a strong demand for comedy, a category with clear entertainment characteristics. As a result, the initial stage of the New Year comedy was represented by Feng Xiaogang’s film, which focused on the life of people in the metropolis, and the main characters were mostly ordinary and common people. Especially after the millennium, the choice of the subject matter focused on male love, workplace promotion, and life events as the story’s theme. The character’s point of view also shifts from the small man in the big historical events of the 1980s to the changes in his life brought about by policy changes in the world of the small man and his attitude. Although the characters shown do not have perfect characterization, a distinct and full character arc has emerged, and each character has a unique image that cannot be replaced.

The second is the choice of geographic location, whether in 2008 “If You Are the One” or 2015 “Detective Chinatown”, the choice of geographical location has escaped the big cities in Beijing, Guangzhou and Shenzhen. The lens is also the flow of traffic, the four-way highway, light and strange city buildings. The people’s desire for modern urbanization and their eagerness to be integrated into the center of the world are well illustrated. In the later period, the geographic changes are characterized by the outward movement of the city and its connections. Turning cities into the world centers of Paris and New York, for example, the “Detective Chinatown” trilogy moves from Thailand to the United States to New York, linking the world with the Chinatown Detective universe. It is also evident that with the development of the times, the film’s perspective has shifted from the countryside to the city, and now it has to string together the cosmopolitan city.

Finally, the selection of the type of story, the New Year’s comedy, is not bound to a particular; 2013’s “Personal Tailor” the combination of dreams and comedy, the role of the characters and the construction of time and space to form a contrast of comedic effect. 2015 “Detective Chinatown” combines suspense and comedy, so the thrill of the thrill and humor and relaxation will strengthen the nature of the story’s tension. 2021 “Hi, Mom” combines metaphysical fantasy and comedy, making the comedy itself detached from realism through strange encounters such as time and space rewinding. Today’s New Year’s films come in various forms, not limited to a certain type of pairing and a fixed form of comedy. However, finding a commonality in these themes and genres is not difficult. The characters will be somehow out of real life, into a sudden adventure, or somehow involved in an event that has nothing to do with real life. In “Personal Tailor,” from the background setting that the leading group is a dream planner, the people in the story are detached from reality into a variety of time and occupations to complete their dreams “through a gamification means to complete the examination of the relationship between reality and dreams” (She 2022). “Detective Chinatown” is directly separated from the space of real life; gifted teenager Qin Feng fails the police academy and is forced to go to his cousin in Thailand; the two are

forced to get involved in a murder case, and the need to solve the mystery and track down the real killer. “Hi, Mom”, on the other hand, goes backward in time through metaphysical means, entering a time when he was not born and completing his regrets. Although the setting of this kind of New Year’s film puts the eyes on the ordinary people of urban life, the story is getting farther and farther away from real life, placing the comedy setting in ludicrous coincidences of fate or unbelievable journey encounters. A way to escape from real life into a fantasy journey, to forget life’s troubles and get a short break.

3 LINGUISTIC HUMOR

There is an endless amount of social research behind the simple question of the laughing point of comedy, which is why comedy is one of the most expressive aesthetic features of the times. Behind comedy is the definition of “elegance and vulgarity”, “beauty and ugliness”, and “good and evil”, which is why comedy is, to a certain extent, private in terms of country, class and even geography. Therefore, comedy is private regarding country, class, and even geography to some extent. Moreover, in the late 1980s, urban and city themes emerged, and comedy landed on urban society and popular culture, with the middle class’s aesthetics becoming the period’s discourse. Unlike Western Chaplin-style physical expression, Chinese comedy is mainly based on verbal humor. Especially when the Chinese New Year’s film was introduced to China, the audiovisual language of cinema was also developing, physicality was no longer the only way of expression, and humorous language techniques were more often used in comedy films.

Over the past twenty years, comedy has evolved because of the popularity of Internet technology, including the use of many current Internet terms. There are also forms of identity swapping, using power reversals to create a contrasting comedic effect. However, the most used form that has endured is verbal mockery. Self-deprecation is the fastest form of humor that is harmless to others. Self-deprecation means self-parody self-deprecation. As an illustration, in the film “Lost in Thailand,” Xu Lang becomes infuriated by Wang Bao’s behavior, exclaiming, “Are you some kind of oddball?” Wang Bao, in response, scratches his head and quips, “How did you know?” This self-deprecating manner of self-identification reveals the character’s self-awareness and underscores a deeper aspect of their personality. Moreover, in many instances, taunting serves as a narrative device, introducing unexpected twists that contribute to a seamless plot progression.

The second is a deeper mockery of the status quo, mostly triggered by the dilemmas in the film’s plot. For example, in “Lost in Thailand”, Xu Zheng as Li Chenggong, after much trouble, comes to Thailand to sign a contract but is found at the wrong temple and nearly killed in a misunderstanding of the fight; his counterpart Wang Bao tries to comfort: “There is not me, we are partners.” Li Chenggong: “What partner? Twins (a popular Chinese girl group)?” Or perhaps in a traffic jam, Li Chenggong kept urging the driver, who said, “The Chinese are the most rushed in the world”. However, this kind of mockery is more targeted and specific than self-deprecation, “people can feel a certain emotional color from it, and consciously and unconsciously stand on its opposite side. Another difference between the two is that satirical jokes often come with authenticity, which defines the satirical foothold, which is the ability to resonate with people universally (Hu 2014). This part of the New Year’s comedy is a form of passing, showing the audience the current state of society so that everyone is in the same time and space in the social state, while this isolates the audience’s emotions from the light-hearted atmosphere into the emotions of anger or sadness.” With the more immersive development of film technology, the difficulties encountered in the development of the story many times also let the audience reaction of not being able to laugh; at this time, the mockery of the status quo is also a way to break the deadlock, using mockery to cope with the difficulties, which is the affirmation of self, but also the way to face the difficulties, so that the audience in which the same to find hope in the plot.

The joy in comedy is collective in nature, representing the viewpoint of most people. This viewpoint is antagonistic in nature, taking the viewpoint of a certain group of people as a point of view to watch and react, thus identifying themselves or making a distinction with themselves by identifying others, and the representative of the New Year's comedy is the middle class pursuing urbanization and urbanization. "The most important feature of New Year's comedy in the aesthetic consciousness is moderation, through flirting with life, "sarcasm" life, re-establishing its own value judgments" (Dong 2022). For example, "Embrace Again" contains a group of retired doctors, social workers, restaurant boarders, couriers and more, which can find themselves in countless moments in these professions that are completely equipped with reality. The audience is able to identify themselves through the overlap of professional experiences in the story. Most satirical references to other collectives are based on the story's hollow, gentle flirtation. For example, the cotton-playing storyline in 2013's "Personal Tailor" uses absurdity to present a view of art. 2016 "Mermaid" for rich people with money can not be exchanged for true love. Alternatively, in recent years, the genre of comedies, exemplified by the Happy Flower films, employs common people as central figures representing the struggling middle class. These characters, burdened with misfortune, vividly exaggerate their experiences and aspirations, creating a stark contrast. Situated within a context closely linked to real-life circumstances, the protagonists unveil unexpected fixations. As spectators, the audience is aware from the outset that these endeavors are futile. The definition of comedy from a psychological point of view by the famous British literary critic Logie Fuller is to evoke the instinct for mischief to gain satisfaction. Usually, the main character in a comedy will be in varying degrees of difficulty and confusion, but the audience is watching from a distance or even gaining some satisfaction (Fowler 1987). In the way of information difference, knowing others, watching others, and then knowing oneself, gaining the middle class to the self and completing the identification with the self, gaining the balance of psychological mechanism, and finally winning the audience's laughter.

4 THE CHINESE CHARACTERISTICS AND FESTIVAL CHARACTERISTICS AT THE CORE OF COMEDY

The definition of "New Year movie" in Chinese academia has always been controversial, on the one hand, because of the uncertainty of the genre and the fact that only comedies are considered "Chinese New Year movies". At present, with "The Wandering Earth", "Full River Red," and other multi-genre films competing for the Chinese New Year season, the definition has not yet been concluded. On the other hand, is the uncertainty of the schedule. Some think that every Chinese New Year period is considered a "Chinese New Year film", and some think that because of the different times of the Spring Festival every year and New Year's Day also has the meaning of welcoming the old and the new, so from the New Year to the Spring Festival period are considered as "Chinese New Year season". Here we will define the period from New Year's Day to Spring Festival, collectively called "Chinese New Year films".

The concept of the "Chinese New Year movie" has become so popular and has gradually become the "golden slot" in the movie schedule partly due to the Chinese people's concept of festivals. "Traditionally, the Chinese New Year is a time for recuperation, prayer and entertainment after a year of hard work, and is the grandest, liveliest, most important and most ritualistic celebration of the year (Wu 2016)." During its long development and evolution, festivals were also seen as a time to entertain popular culture. Especially during the agrarian period, festivals were a time to vent the emotions of repetitive work and a special time for visiting friends and relatives and socializing, so this traditional folklore festival culture was entrusted with strong expectations and morals. To this day, the Chinese New Year still exists to soothe people's hearts and carry hope. The Chinese New Year film also

assumes such a function and gives it a certain collective carnival nature in the context of national celebration. Chinese New Year eliminates individuality with the same rituals, such as watching the Spring Festival dinner, putting up curtains, and giving out red envelopes and other customs. Linking individual feelings with the outside world is a group revelry among people. This characteristic makes the “Chinese New Year movie” absolutely not one person’s happiness but the happiness of millions of families. For example, in 2013 “Hotel Deluxe”, the staff in a hotel, the couple who are going to have a wedding, the actresses who are competing with each other, and the people who originally do not know each other create misunderstanding, solve the misunderstanding, and finally all get their happiness. Although there are main and secondary actors, the New Year comedy movie still gives each character a happy ending that belongs to them so that the audience can see that happiness is not just one-sided but a common feeling, thus satisfying the public’s need for New Year’s comedy.

5 UNIQUE LOSS IN THE KERNEL

The Chinese culture has always favored “dream” as an expression of imagery. In Eastern philosophy, “Zhuang Zhou Dream a butterfly ” represents the yearning for freedom and a poetic spiritual home. In literature, “Nanke’s Dream” shows the transformation between reality and a dream world to reflect and feel about one’s fate. The film is naturally a “dream” factory. The dream-like experience of life is the original function of the film. “A pipe dream” is known as the entity of Chinese dream culture“ (Teng & He 2012), but also the spiritual and cultural core of this world is impermanent; life is like a dream deep into the creation of the film. “A pipe dream” is to say that the poor scholar was given a dream by the Taoist priest, in the sleep of the great ups and downs, won the rich and famous after a lifetime, and woke up to find that the handwriting is still nothing story. This unreal and lost story reveals the profound meaning that life is as short as a dream. In the film’s creation, for example, the theme of a sudden adventure is set up, allowing the audience to temporarily dream out of the way of real life. Like the 2021 box office champion “Hi, Mom” which takes viewers on a mesmerizing voyage into a dream-like realm of fulfilled self-remorse, there is also the Tang Detective universe portrayed in “Detective Chinatown”. This cinematic universe unfolds with a captivating premise, beginning with a mystical convergence of unfamiliar individuals and concluding with their dispersion at the airport after embarking on a fantastical adventure. These narratives do not aim to depict real-life encounters but instead offer a surreal expedition interwoven with genuine identities, mirroring the inception and culmination of a vivid dream.

Compared to the West, China does not have a systematic form of comedy and comedy theory, and the clown is only a hurried chapter in opera, so a mixture of sadness and joy must characterize the comedy that grows on Chinese soil. However, both comedy and tragedy have the same role of showing and giving vent to human emotions (Lu 1990). Laughing also has the role of catharsis; the catharsis of this emotion in the Chinese New Year comedy is usually the desire of the main character as a reflection of the Chinese New Year comedy; it is not difficult to see the main character has an obsessive desire, also known as “motivation” in the script, representing the ordinary people for the pursuit of the worldly and irreconcilable dilemma of reality. A pipe dream is called a “rich dream”, full of the desire for money and status. In “Lost in Thailand”, Li Chenggong runs from China to Thailand for a multimillion dollar contract, and on the way, he is framed by his competitors and chases them all the way. The presence of Wang Bao, whom he should not have known, represents the power of desirelessness, as does the Taoist priest who gives the dream in the allusion to “A Pipe Dream”, bringing Li Chenggong to experience the absurdity of desire, which is also a release of desire for the audience. The interests of such stories fall in a surprisingly consistent way, as Li Chenggong of “Lost in Thailand” notices the quality of his products and gives up the opportunity to sign a big contract and beat his rivals, as well as the possibility of getting rich,

choosing to keep his feet on the ground and cherish the happiness around him. “Hi, Mom” Jia Xiaoling misunderstands her mother’s expectations and goes from not wanting to be born to realizing on a deeper level that a mother’s love is unconditional and cherishes the care she gives. “Personal Tailor” is more straightforward, not hesitating to point out that the dream is awake and it’s time to live life on the ground. The rupture of the pursuit of money and fame in these stories will inevitably bring a kind of “lostness” of waking up from a dream, giving a self-reflection of “an empty” busy work, aware of their limitations, while the film also brings the most simple relief as the wisdom of the people. The phrase “cherish what’s in front of you” echoes the festive theme of gathering together and comforting each other during the Chinese New Year and gives people a sense of relief and relief when they return from a hard year. This is why the Chinese New Year comedy slogan always says, “Tears and laughter, celebrate the Chinese New Year” The essence of comedy goes beyond mere “joy”; New Year comedy serves as a testament to this notion. It signifies that after enduring the necessary hardships, a transformative “awakening moment” arises—a realization that one can grasp onto the fragments of their existence and that redemption is within reach. This sense of “joy” is accompanied by profound gratitude and an array of complex emotions.

6 CONCLUSION

In 1993, Chinese cinema ushered in market-oriented reforms, marking the decentralization of cinema and symbolizing the importance of popular culture occupying an important place in the world of literature and art. The New Year comedy films themselves were created for the people to celebrate the holidays and comfort their hearts, relying more on the spread of popular culture. The study concludes that New Year’s comedies thematically focus on the city’s life, focusing on big events from the perspective of ordinary people. The geographic span also shows a trend from rural to urban and urban to cosmopolitan as China’s vision continues to internationalize. The genre of New Year’s comedies is mixed with other genres, but most of them present a non-living aspect, allowing the audience to get a brief detachment from real life while watching the film. In discursive humor, comedy is mapped behind some discursive attributions. Self-deprecation and mockery of the status quo are both common forms, on the one hand, to match the characters, and on the other hand, to link life and express one’s position with mockery. At the same time, while watching the comedy, the audience is also identifying themselves with others, their existence through similar characters, and also the balance of psychological mechanisms obtained by flirting with others.

The concept of Chinese New Year is not only about welcoming the old and the new but also about common happiness in China. The year is not the concept of a small family, and the whole country’s revelry means that the family’s happiness in the Chinese New Year comedy is real happiness. Under the concept of sharing happiness and sorrow, the Chinese New Year comedy is collective and has the characteristics of Chinese “dream” culture. First, at its core, the New Year’s comedy symbolizes a call for dreamy encounters in which the audience is briefly taken out of real life. The second is that such dreams also present the desires of ordinary people’s lives, and the trade-offs in the process of chasing desires represent the “lostness” of the New Year’s comedy, presenting the concept that things are unpredictable and cherish the holidays around us.

This paper analyzes the thematic connotations, background settings, and changes in film genres in the post-millennium Chinese New Year comedies from the specific context of Chinese culture. Within the realm of linguistic artistry, this study delves into the psychology of comedy, specifically examining the elements of linguistic mockery and self-identification. It aims to explore the cultural essence of Chinese New Year comedy within the framework of Chinese dream culture. Following the conclusion of the epidemic and the subsequent economic recovery, there has been a substantial surge in the public’s craving for spiritual

entertainment. Consequently, the volume of comedy productions within the extensive collection of Chinese New Year films has significantly escalated. However, the absence of a truly exceptional Chinese New Year comedy has persisted for an extended period. This paper analyzes Chinese New Year comedies from social, psychological and cultural aspects, filling a gap in the study of Chinese New Year comedies. While maintaining their unique cultural core, New Year's comedies should also maintain the people's perspective and satisfy the pursuit of New Year's flavor, both of which are indispensable.

Within the realm of comedy psychology, there are additional avenues worth exploring to enhance the New Year's comedy film experience, catering to both the physical and mental aspects of enjoyment. However, due to limited comprehension of psychological nuances, the current scope of the investigation remains restricted, with a minimal exploration into the intensity and profoundness of laughter. It is imperative that future research endeavors delve deeper into the psychological mechanisms at play, facilitating a more comprehensive understanding and exploration of this domain.

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Analyzing the impact of differences in portrayal of homosexual situations in LGBTQ movies on the social acceptance of homosexuality

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ABSTRACT: The research background of this article is different types of homosexual movies from different periods. The research topic is the impact of homosexual movies on social acceptance, as well as the similarities and differences between the portrayal of homosexuality in movies and reality, as well as the impact of these distances, and exploring whether they are good or bad. This article will calculate these distances and conclude by comparing story portrayal, character portrayal, and portrayal with real-life social allusions. Finally, this study found that most film and television works with a focus on homosexual culture do not differ significantly from reality in portraying this group. The impact of this has been proven to be very beneficial, as the nature of being close to life makes movies more touching, resonating, and deepening people's understanding of the LGBTQ (Lesbian, Gay, Bisexual, Transgender, or Queer) community. The realistic depiction is more appealing to people. The research also proves the impact of these movies on social acceptance. Film and television works that are close to reality have generally increased society's acceptance of homosexuality. On the contrary, if the LGBTQ population depicted in a movie is significantly different from real life, people tend to have a mediocre response to it. The significance of this article mainly lies in exploring the significance of homosexuality in film and television works, as well as its relationship with social attention and acceptance.

Keywords: LGBTQ Movies, Social Acceptance, Homosexuality

1 INTRODUCTION

The legalization of same-sex marriage in the Netherlands in December 2000 marked a significant milestone in LGBTQ rights. This groundbreaking law, which came into effect on April 1, 2001, made the Netherlands the first country to legalize same-sex marriage. Subsequently, Belgium, Spain, and other nations swiftly followed suit, embracing marriage equality. The momentous occasion of June 27, 2010, witnessed the Icelandic Prime Minister, Johanna Sigurzadoti, entering the institution of marriage with her long-term female partner, coinciding with the official implementation of the same-sex marriage bill. Notably, Taiwan recognized the legal protection of same-sex marriage on May 24, 2017, becoming the first Asian region to do so. As of today, 32 countries and regions worldwide have legalized same-sex marriage, signifying a growing acceptance and respect for same-sex unions within the legal framework.

In parallel with these real-life advancements, there has been a discernible shift in the portrayal of homosexuality in film and television, reflecting the increasing openness and

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social tolerance towards the LGBTQ community. The origins of LGBTQ representation on screen can be traced back to 1919, during a time between World War I and World War II when societal attitudes were less accepting. The mere existence of these early films is remarkable, serving as a testament to their significance. It suggests that society had some level of awareness and understanding of homosexuality, providing a platform for greater comprehension and inspiring individuals who previously felt constrained by societal norms to courageously embrace their true selves.

Presently, same-sex-themed films predominantly strive for authenticity and realism, although it is important to acknowledge that film and television works often aim to embellish and idealize reality. Consequently, the depiction of same-sex experiences on screen may not always accurately reflect the complexities and challenges faced by LGBTQ individuals. Some productions tend to exaggerate certain narratives, creating a distorted impression of the LGBTQ community. This reflects the differing levels of resonance these works achieve with their intended audience.

Although researchers have generally paid attention to the LGBTQ community and the portrayal of homosexuality in film and television works falls within the scope of research, the focus has predominantly been on image analysis. However, there is a lack of comprehensive research examining the disparity between the depiction of LGBTQ individuals on screen and their real-life experiences. In light of this, this article aims to fill this academic gap and explore the deviations between reality and art. By selecting specific film and television works as case studies, this paper will analyze the gaps between these works and the experiences of the real-world society they represent in order to investigate the impact of these disparities.

2 THE DISTANCE BETWEEN ARTISTIC PROCESSING AND REALITY

Film and television works, as a medium that connects reality and large screens, can effectively shape and reflect the values of an individual, even a society, regarding an event, a concept, or a group. Throughout history, there have been many film and television works on the topic of homosexuality, and these topics have successfully attracted attention to this topic. However, the impact of such attention can be both positive and negative. Are these works being utilized as tools for the expression or endorsement of homosexuality, or are they merely reflecting the societal perception of homosexuals?

It is undeniable that the exposure of film and television works has made more people understand this group, so some people may choose to support them or stay nonchalant. However, regardless of the reaction, the overall presentation of homosexuality in film and television works is developing in a positive direction. Compared to participants who viewed a movie with a heterosexual character, participants who watched a movie with a gay character were more likely to have favorable attitudes toward homosexuality (Mazur & Emmers-Sommer 2002). According to Bonds Raacke et al, recall of positive media detection was linked to more favorable attitudes toward homosexuality. For instance, the presence of gay and lesbian figures is more prevalent today than it was a few years ago. According to Mazur & Emers Sommer, Levina, Waldo, Fitzgerald, and Loftus, increased minority presence has been linked to increased emotional bonds with successive minority characters in the media, leading to more liberating characteristics among Americans (Thaker 2017).

Nevertheless, it is important to recognize that as works of film and television, artistic exaggeration is often employed to some extent in portraying real-life situations. Therefore, this article aims to assess the “distance” between the artistic processing of homosexuality and the reality it seeks to depict. This evaluation will involve a comparison of the narrative portrayal, character representation, and adaptation of these works to the current social landscape.

In terms of story portrayal, it is undeniable that many movies have opened up the cruel truth and presented it naked to the audience, creating a film that tells the story of suffering.

What is moving is that these manifestations are not exaggerated facts, but rather a microcosm of the real world's views on the LGBTQ community. They often magnify the details that touch the heartstrings the most, turning them into perfect examples that burst into tears. This does not entail exaggerating inconsequential aspects, but rather imbuing them with the value that they were once overlooked and deemed insignificant, deserving attention and empathy. The film "The Normal Heart" portrays the struggles faced by the gay community in New York during the 1980s AIDS epidemic. By focusing not only on the main characters but also on the experiences of secondary characters, the film effectively depicts the impact of AIDS on the wider homosexual community. While the movie addresses homosexuality and AIDS, its scope extends beyond the disease itself, highlighting the societal indifference and the fight for gay rights during that era. Several poignant details further evoke a sense of sadness and injustice, such as the pilot refusing to fly with a gay man with HIV, repairmen refusing to service televisions in sick men's wards, and the denial of death certificates to male homosexuals who died of AIDS, preventing proper cremation and burial. Through the lens of AIDS, the film narrates the marginalization and discrimination faced by the LGBTQ community in 1980s America, emphasizing their struggle for equality. Rather than solely delving into the main characters' emotions, it explores the LGBTQ community's pursuit of societal acceptance and equal rights during that period. This realistic and impactful depiction of the community's suffering garnered significant recognition and attention at the time.

The film "Brokeback Mountain," released in 2005, shares a similar allure to "The Normal Heart" in its portrayal of homosexuality. Interestingly, it presents a seemingly ordinary story, thereby aligning itself closely with reality. This choice by the director underscores a commitment to realism. The film's plot is straightforward, depicting conflicts, separations, infidelity, and even marital deception, elements that occur within heterosexual relationships but are deemed less acceptable within homosexual relationships. Homosexuality is already stigmatized, and these actions amplify the condemnation they face. It is not difficult to comprehend why society labels them as outcasts and directs its collective outrage towards them. The film's poignant quality lies in the director's portrayal of the struggles faced by two men during a time when their forbidden emotions were deemed unacceptable. Their love, which dare not speak its name, leads to marriages and children, yet their relationships remain disjointed. It is noteworthy that the film was released earlier, a time when public criticism of "worldviews" was not as prevalent. Instead, the focus was on Ang Lee's nuanced and straightforward depiction of the characters.

The situation in the 1993 film *Farewell My Concubine* is slightly different. It tells the story of rebellious love in the ups and downs of the Qing Dynasty, resistance against Japan, liberation, Cultural Revolution, and chaotic times. There is a plot in the film where the protagonist's lover is caught by a Japanese military officer. They threatened the male lead to sing for them because he was an actor. In order to save his lover, the male protagonist bravely died and sang for the Japanese, but unexpectedly, he was mistaken for a traitor. Years later, when the past was reopened, he was also charged with this crime for self-preservation. After experiencing various despair, the male protagonist no longer had expectations for life, so he swung his sword and committed suicide in his final scene, ending his own life. *Farewell My Concubine*, unlike the other two movies mentioned above, focuses mainly on the development of a single character Cheng Dieyi. Instead of exploring the hardship of the gay community as a whole, the director chooses to concentrate on the depiction of a small character who struggles with finding self-recognition, dignity and equality, under the pressure of doubts, disdain, and criticism. It is also these nuances that make the movie more proximate to the reality. The more masculine character is given to Cheng Dieyi's lover, who will play the king, while Cheng Dieyi is cast in the transvestite role of the concubine in a well-known traditional opera. It is repeatedly stated in the film that "I am by nature a man, not a woman," which perfectly captures the contradictory character of Cheng Dieyi's process of gender cognition. Similarly, before real life queers receive questionings from the outer world, they face questioning from themselves first. Ultimately and relentlessly it is the question of

sex orientation, but to answer that question is what connects the screen and the reality. Furthermore, the ingenious design, which makes the depiction of homosexuality in this film more compelling, exists when the cast of the character Cheng Dieyi, Leslie Cheung, happens to be a gay himself. Because of this, Leslie Cheung's concubine never fails to be convincing, and his personal life—in which he is effectively brought up by the opera as a gay whether or not he agrees—contains intricate emotional currents (Ebert 1993).

In fact, this film is regarded by many as a pioneer in the history of Chinese cinema that focuses on homosexuality. As a film from the 1990s, it was able to be released and recognized at that time, which has proven its influence. The impact on society, not to mention the significant increase in people's acceptance of homosexual groups. As a film that revolves around the relationship between two men, 'Farewell My Concubine' won awards such as the Palme d'Or at the Cannes International Film Festival and the Ballon d'Or in the United States for Best Foreign Language Film. It was also nominated for Best Foreign Language Film at the Academy Awards that year. It has received widespread praise both domestically and internationally, and South Korea has even decided to rerun 'Farewell My Concubine'. This indicates that the impact of this groundbreaking film is immeasurable. At least for Chinese society and the LGBT community at that time, it was groundbreaking and unforgettable.

It is slightly different in that many of its scenes are devoted to the role of Cheng Dieyi, so there is less description of supporting role and the background of the times. This also leads to the fact that although the character's image is three-dimensional and vivid, this film is more like an autobiography. But its influence cannot be denied. Because it is so pioneering and profoundly insightful in terms of its allusion to reality, it is easy for whoever watches it to empathize with the character Cheng dieyi. Even in modern films, the directors have emphasized how the LGBT community struggled in the flood of history, how the secular past was, how the government was, and how it may have been. This may reflect the fact that society is now more widely accepted, and that more and more people in nowadays society live with an opener heart which no longer view homosexuality as a taboo.

In terms of portraying characters, some directors who make same-sex movies tend to prioritize actors who have good appearances rather than those who do not. There is a tendency for movie directors to opt for better-looking actors so that the presentation on screen looks pleasing. This, however, to some extent pulls movies away with reality. Movies often lose what they initially intended to express in order to cater to the audience's taste – everyone has the right to love and be loved, no matter identity or gender. It is important to note that this argument cannot be applied universally. For instance, in the film "Total Eclipse," one of the male protagonists has an ordinary appearance, bald and significantly older. Similarly, in "Wilde," the portrayal of Oscar Wilde's character does not emphasize stunning looks or a proud physique to align with his character. However, these films have still garnered positive reviews. This is because Oscar Wilde himself was not conventionally handsome, and the director's choice of casting was astute. By effectively capturing the essence of the writer and respecting the historical period, the films have successfully portrayed their characters. In essence, movies like these significantly deviate from traditional casting norms and have a large portion of the plot adapted from real-life events, which brings the film closer to reality.

3 THE IMPACT OF DISTANCE

The concept of impact holds significant weight, and this article primarily focuses on the influence of the distance created by film and television works on the social acceptance of LGBTQ groups. Discrepancies between media portrayals and reality can lead to tension between children's perceptions and expectations. As aptly noted by Mazur and Emmers-Sommer, exposure to more unorthodox perspectives of the family may help people comprehend, accept, and feel comfortable with other ways of viewing and defining the family

(Zurcher *et al.* 2018). From Mazur and Emers' findings, it becomes evident that movies have a greater potential to impact their audience than other media forms, given the intuitive effects they produce. From a political and social standpoint, the overall impact of cinematic portrayals of homosexuality is mainly positive.

To comprehend queer representation in film, the book *Queer Cinema: Schoolgirls, Vampires, and Gay Cowboy* explores the political and social processes that shape these cinematic trends. The author argues that queer cinema has the potential to foster greater societal acceptance of queer partnerships (Mennel 2012). By reclaiming "queer," Mennel argues that the queer community broadens the discussion to encompass sexualities and identities beyond gay or lesbian. In a similar vein, Daniel Marshall's book *Reading Queer Television* explores queer TV shows and characters to understand how they are interpreted and situates this form of media as a fertile subject of critical and political interest (Marshall 2016). According to Marshall, analyses of queer representations' past and present are sparked by these representations, commenting on how mass-produced queer television is positioned within culture and politics. In search of normalization of gender and sexual disparities, this reflection engages viewers in educational activities surrounding LGBT culture and issues. However, Marshall also notes that although the number of representations has increased, these portrayals often perpetuate stereotypical views of gender and sexual differences, potentially hindering the acceptance of queer individuals. Queer characters on television are frequently stereotyped or depicted in an excessively negative way, in addition to being incompletely. According to author Andre Cavalcante, this is what he refers to as "anxious displacement," which is defined as "the excessive symbolism and negative codification of societal inequalities that surround LGBT (lesbian, gay, bisexual, and transgender) characters' figures and relationships" (Cavalcante 2015). In essence, these stigmatized images or messages are projected away from LGBT characters and onto other aspects of their surroundings, such as the people or relationships they are surrounded by. There are still "traces of the 'other,'" according to Cavalcante, even though these stereotypes or negatively defined qualities have been replaced. Anxious displacements are described by Cavalcante as having a double-edged effect; while they frequently present a chance for legitimization and normalization, they also have a propensity to be "overloaded with negatively codified social differences and symbolic excesses". In the end, anxious displacement is the method used by TV shows to 'normalize' the lives of LGBT characters. However, the method ultimately distorts the identities of the LGBT characters and reinforces derogatory stereotyped pre-conceptions about LGBT people and their lifestyles. Mennel and Marshall aim to broaden the scope of critique and critical interpretation of queer representations in movies and television (Thomson 2021).

On the one hand, films have served as an effective medium for promoting understanding and challenging the demonization of the LGBTQ community. However, the journey towards acceptance of homosexuality has historically been arduous. An example of progress can be seen in the film "The Boys in the Band," released on March 17, 1970, which prominently featured gay characters and marked a significant milestone for gay representation in Hollywood at that time. Prior to this, the Motion Picture Production Code of 1930 prohibited the depiction of "sex perversion," leading to the absence of homosexuality on screen. Although certain characters, such as the "sissy" cowardly lion in "The Wizard of Oz," the aesthetes in Hitchcock's "Rope," and Plato in "Rebel Without a Cause," managed to convey gay interpretations through subtext, explicit representation was rare. In contrast, "The Boys in the Band" openly explored gay desire and identity, with each character self-identifying as a "fairy" or a "queen." During a period when discussing homosexuality openly was still stigmatized and many Americans had limited exposure to openly gay individuals, this film contributed to increased visibility and representation of the gay community in popular culture (Cohen 2015).

Furthermore, research conducted by Procter & Gamble, the largest advertiser globally, and the advocacy group GLAAD revealed that media representation has played a

significant role in shaping public attitudes towards the LGBTQ community. Over the past few years, 48 percent of non-LGBTQ individuals have played parts in the growing acceptance of gay and lesbian people due to their portrayal in the media. Comparatively, those who had not seen LGBTQ individuals in the media had lower acceptance rates. The study further indicated that 76 percent of respondents felt comfortable viewing LGBTQ characters in movies like “Love, Simon” and television shows like “Pose.” Moreover, 80 percent of those surveyed expressed a change in their stance on supporting equal rights for LGBTQ people after seeing them represented on screen, compared to 70 percent among those who had not encountered LGBTQ individuals in the media. This online survey was conducted between November 20 and December 3, 2019, with a sample size of over 2,000 non-LGBTQ American adults (Variety 2020).

4 CONCLUSION

In conclusion, most of the target movies this article has analyzed do not have many distinctive differences in the portrayal of homosexuality in film and television works and in the real world; instead, they have significant experiential overlap with that of reality, and this helps the society better feel and understand homosexuality. Moreover, the varied discrepancies among films centering on homosexuality may accordingly impact how people and society perceive and view this community. People’s perceptions can be altered by television and movies, which can alter how they view the world, other people, and communities. In the end, this essay shows how portrayals of LGBT people in cinematic have influenced and shaped people’s understanding of this group, from seeing it as unfavorable, one-dimensional, and erroneous to being more empathetic, understandable, and acceptable. From the analyses shown above, it is clear that for the majority of this type of movie, the degree of acceptance of the society is generally high, meaning that the discrepancies have left a positive impact on the research object. It is from a point where homosexuality has always been viewed as taboo to where it becomes a topic that people can openly talk about and discuss. In addition, the need of accurate and acceptable representations of queer people in the media has been emphasized, as well as the impact that queer individuals have on popular media and the decisions that are made in this field. Overall, they influence society’s perception and understanding of the LGBTQ community in a good way.

However, the limitation of this article lies in the number of sample films being outlined and discussed in the text. To be more specific, many of the movies that share the same theme—homosexuality—are not included, which might lead this article to fall victim to data bias and deter the results. In this article, the number of movies sharing greater similarities than differences between real-life portrayal and cinematic portrayal of homosexuality is more than those that do not. However, there are numerous movies that have not been included such that it is never to be perfectly sure whether the difference in the portrayal of homosexuality is really big or small. Nevertheless, this study is believed to be very prospective. Because as society is developing, it is also witnessing more and more people being open to evolving ideas, concepts such as LGBTQ, that is initially unacceptable. There will be more movies about this unusual community. Likely they will be a significant step for homosexual people to fight for equality in their lives.

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The reflection of feminism in *Pride and Prejudice*

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ABSTRACT: Feminism has undergone nearly a century of effort and struggle and has become a research trend that cannot be ignored in modern literature. When it comes to feminism, there are many related literary works, such as *Jane Eyre*, *French Lieutenant's Woman*, and *Pride and Prejudice*. In the essay, the author will analyze the reflection of feminism in *Pride and Prejudice*. The author Jane Austen successfully portrayed several vivid female images in her works, revealing Britain's social reality from the end of the 18th century to the beginning of the 19th century. She fully expressed her feminist consciousness and harmonious views on marriage through them. In the essay, the author first introduced Jane Austen and feminism, then discussed the creation background of *Pride and Prejudice*. Subsequently, the author focused on the reflection of feminism in the novel's heroine Elizabeth. The reflection of feminism in Elizabeth could be shown in the following aspects: outstanding wisdom, independent spirit, rebellious qualities, the courage to pursue love, disdain for secular etiquette, and more. In today's environment of unequal status between men and women, the reflection of feminism in *Pride and Prejudice* still holds great significance until now.

Keywords: Jane Austen, *Pride and Prejudice*, Feminism, Heroine Elizabeth

1 INTRODUCTION

Since ancient times, no matter in politics, economy, culture, and other fields, or the private sphere such as family, women have been in an unequal position with men in people's ideas. That is why feminism was founded and initiated. Feminists believe that the gender discrimination concept of male superiority and female inferiority could be changed because it is not naturally formed but artificially constructed with the development of history. With the development of the economy and society, women's awareness of pursuing freedom and equality has become stronger, and their awareness of feminism has gradually awakened (Haydar 2014). The awakening of feminism consciousness has promoted the development of the feminist movement, which is a social and political movement aimed at ending sexism and gender discrimination and promoting class equality. The feminist movement is a social movement that transcends class and racial boundaries, exhibiting different characteristics in different cultures and deeply reflecting women's issues in different societies.

Due to the further liberation of female ideology, a new field of "feminist" literature has emerged in the literary world. In a patriarchal society, in order to vent women's emotions and reflect their lives, women began to create literature with "female consciousness", among which Jane Austen was one of the early authors. Jane Austen has repeatedly explored the

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process of young women's self-discovery from love to marriage, and female consciousness is vividly reflected in her novels. As one of the most renowned female writers in the history of British literature, her six novels, without exception, chose women as the central characters, aiming to reveal the social reality and dissatisfaction with reality in England at that time. Jane Austen's literary works are always imbued with feminist ideas, and *Pride and Prejudice* is the most representative work (Khalaf 2017). As she said in Elizabeth's words in *Pride and Prejudice*, "She is dissatisfied with the world as she experiences more and more things. This world is constantly changing, and superficial opinions are highly unreliable. As time passed, her beliefs became increasingly firm." Elizabeth's pursuit of women's rights and happy marriage in *Pride and Prejudice* was, to some extent, a challenge to England's male-dominated society at that time (Wang & Liu 2011). Although there were still some shortcomings in the female ideology in *Pride and Prejudice* due to the influence of social culture at that time, it still left a deep impression on readers and awakened women's pursuit of social status and equal rights at that time (Langland 2000).

With the constant advancement and development of society, people's lifestyles have undergone profound transformations, accompanied by a gradual improvement in ideological concepts. Love, an everlasting theme of humanity, has taken on new forms in the modern era. Nowadays, many individuals engage in romantic relationships without pursuing marriage, often driven solely by momentary impulses and emotions, disregarding the importance of understanding how to sustain a lifelong commitment. While Jane Austen's masterpiece, *Pride and Prejudice*, originated in a different era, it still serves as a reflection of contemporary social realities. In Chinese society today, the values surrounding marriage have become perplexing, and the worship of wealth remains prevalent. Moreover, the number of marriages is declining while divorces continue to rise. The foundation for a blissful marital life lies in embracing a correct and enlightened perception of marriage. Remarkably, the concepts of love and marriage depicted in *Pride and Prejudice* maintain significant influence and offer invaluable guidance for young people in their pursuit of romantic relationships. This essay aims to present an innovative analysis of the feminism exemplified by Elizabeth who establishes an appropriate model for young women's mate selection in modern society. It emphasizes that a happy and fulfilling marriage should be built upon love, rather than mere material possessions.

2 THE CREATION BACKGROUND OF *PRIDE AND PREJUDICE*

Pride and Prejudice is a famous work in the history of world literature that shines with feminine colors. The novel depicts real British society from the late 18th century to the early 19th century, with rural life in England as the starting point, emphasizing the ideological concepts of men being superior to women in the context of the times. At the beginning of the novel, Austin has expressed that the story will develop around the marriage between men and women (Lau 2017).

An excellent work must have a distinct historical background and central idea, and *Pride and Prejudice* is no exception. Austin lived during the Industrial Revolution in the late 18th century, during which Britain was filled with the roar of noisy machines. During this period, people's pursuit of material possessions far exceeded everything, so wealth became the standard by which people measured everything, including marriage. At that time, society generally believed that women did not need to create material wealth, and their daily life was to serve their husbands and loved ones. Patriarchal ideology remained dominant, and women were still regarded as appendages to men. Women have almost no job opportunities, and they also have no right to inherit property. If a family does not have a son, the family's property will be inherited by distant relatives. Therefore, before marriage, they rely on their parents, and after marriage, they rely on their husbands (Lutfiah 2008). In such a situation, if women want to achieve a happy life and avoid falling into the situation of enduring cold,

hunger, and loneliness, getting married is the only best way they can choose, meaning they can rely on marriage and belong to men. Indeed, in this social context, most women naturally believe that life should be centered around their husbands and children, completely following their husbands' orders; Women limit any abilities they possess and devote themselves wholeheartedly to family life; The virtues of women are patience and obedience, and they must acknowledge that there is no equality between men and women (Fraiman 1993). At the same time, the novel provides detailed descriptions of the middle-class family, such as Mrs. Bennet's eagerness to let her daughter marry, the prolonged detention of her daughters at dances, banquets, and visits to family and friends, and Charlotte's marriage to the boring Collins (Dabundo 2011). It vividly portrays the status of women who were subservient and chosen at that time, and praises Elizabeth for her feminist spirit, which is the novel's central idea.

Despite the low status of women, a small number of women are unwilling to accept the status quo and express strong dissatisfaction with secular beliefs through various means, just like Elizabeth in Austen's novel and Austen herself (Zhou 2014). She expressed the resistance to men mainly through the description of Elizabeth's intelligence and rebellion, in order to reflect the social phenomenon of gender inequality in British society at that time (Lau 2017). Originating from Austen's writing, the novel's female protagonist Elizabeth and male protagonist, Darcy were able to live happily together, which is the reflection and resistance towards the real society. The novel incorporates the author's personal emotions, which is the embodiment of the author's feminist ideals. In the novel, Elizabeth's good friend Charlotte was a representative of the vast number of women at that time. Her vulgar and conservative female image formed a sharp contrast with Elizabeth, which had a more realistic color and could better reflect British society at that time (Zhang 2020).

3 THE REFLECTION OF FEMINISM FROM ELIZABETH

Elizabeth was born different from her sisters, without her sister's gentleness or her sister's innocence, but she was always very rational. Elizabeth loved reading, and reading makes people wise. She made herself more educated and intelligent through reading. In an era of severe oppression of women at that time, people's demands for women were to be ladies who assisted their husbands and children. Women are considered foolish, and even the dumbest men are more witty than the smartest women. The whole society believes that women should be naturally obedient to men (Lutfiah 2008). However, Elizabeth is not like this. Her appearance breaks the oppression of men and clarifies that women can be as smart as men after being educated. Her appearance breaks the constraints and shaping of men's requirements for female ladies, showing the image of a normal educated, and respected woman, full of her own personality (Chang 2014). So Elizabeth is the most dazzling female figure in the novel. She is confident, self-esteem, intelligent, and lively, not only daring to pursue a romantic love life but also constantly striving to defend her marital happiness. She possesses strong qualities to overcome all obstacles, which is a new woman with the perfect combination of feminist ideals and reality. Through Elizabeth, the feminism in the novel is mainly reflected in the following aspects.

3.1 *Outstanding wisdom*

In Austen's works, Elizabeth's appearance may not be the most outstanding, but her unique feminine charm has won the love of a large number of readers. Elizabeth has good educational background and is intelligent and witty, far surpassing other uneducated upstarts in the novel. She has ideas and opinions, and even Darcy's very arrogant aunt is deeply amazed by her young age's insight (Dabundo 2011). She is such a person full of wisdom and vitality,

a person who is vastly different from those vulgar people. The novel not only vividly portrays the wise Elizabeth and Darcy but also spends much time describing characters such as the conservative Charlotte, the vulgar Mrs. Bennet, and the foolish Pastor Collins which could better highlight the precious feminism reflected in Elizabeth from the opposite perspective (Dabundo 2011). Her in-depth description of men and women cleverly proves that wit and intelligence are not unique to men, and clumsiness and stupidity are not exclusive to women. Both men and women have their own strengths and weaknesses. Men and women should be equal.

3.2 *Independent, rebellious qualities*

Throughout *Pride and Prejudice*, Elizabeth, as a woman who loves learning and has a strong sense of humor, exhibits great disgust when faced with people's foolishness and exaggeration and has her own unique value judgment system. She always believes that marriage should not be a materialized means of obtaining property and social status but a natural fusion of spiritual fields based on mutual understanding, respect, and even appreciation. The idea that a good marriage can only be established based on love reflects Austin's opposition to material and sexual marriage and her ideal of pursuing a beautiful love. In the eyes of most people at that time, a good marriage was the only pursuit of women, and the only criterion for measuring marriage was the husband's money and status. While in Elizabeth's view, this profitable marriage is the tomb of women. She believed that only true love for each other is the most important when considering marriage (Alquraidhy 2021). She disdained her friend Charlotte's money-oriented marriage philosophy, and when Collins, the only heir to the Bennet family's property, expressed his favor towards her, she dared to disobey her mother's orders and refused outright (Chang 2014). In the process of getting along with Darcy, she clearly expresses her views on marriage to Darcy, mocking those who compromise marriage as a guarantee of survival, and criticizing people's hasty attitude towards marriage. As the plot of the novel develops, Elizabeth has always held a strong prejudice against Darcy and silently expresses her resistance to Darcy's arrogant attitude. Elizabeth's challenge to Darcy was also the resistance by women to a series of outdated marriage systems, family values, and other bad habits at that time, which reflected Elizabeth's call for personal independence and freedom (Suaidi & Rusfandi 2016).

3.3 *Dare to pursue love*

Marriage has always been a major concern for humanity, especially for women who rely on men to live under patriarchy. Marriage is their only dignified way out. Elizabeth's marriage is undoubtedly perfect and enviable, as it not only has a rich material foundation but also satisfies a rich spiritual life. However, the colorful music of Elizabeth's marriage did not fall from the sky but was obtained through overcoming various difficulties. Elizabeth's confidence and self-esteem led her to demand equality between men and women in marriage. In society at that time, Elizabeth should bow down to Darcy like other women and do everything she could to flatter him. However, Elizabeth did not think so. She was brave enough to pursue equality in life and believed that in the pursuit of love and marriage, men and women should have equal status (Lu & Zhao 2015). Darcy was handsome and very rich, and many girls looked at him with admiration, and he was very proud. Elizabeth's unique personality initially attracted Darcy, prompting him to propose to her. However, his proposal was met with rejection due to his initial arrogance, which Elizabeth found off-putting. As misunderstandings between them gradually dissipated, Elizabeth began to overlook Lady Catherine's opposition and developed a strong bond with Darcy.

Darcy's two proposals actually demonstrated the unique personality of the character Elizabeth. Elizabeth was different from the mainstream of society at that time. She acted very rationally in the face of the proposal of Darcy, who is a rich son-in-law. She would not

marry Darcy for his wealth but for the love between them. Darcy is willing to tolerate Elizabeth, who is full of wildness and wisdom and willing to give her respect, which is why Darcy and Elizabeth ultimately come together (Suaidi & Rusfandi 2016). They are confidants who identify with the freedom and equality of women that Elizabeth pursues.

3.4 *Disdain for secular etiquette*

In British society at that time, family education was the most important regardless of the family's economic situation. While Elizabeth went her own way, showing contempt for the world in everything she said and did, daring to challenge the secular rules of propriety. For example, in order to visit her sick sister, Elizabeth braved the rain and crossed three miles of muddy fields regardless of her female physique, appearing disheveled in front of the "upper class" (Sultana 2012). For example, when Elizabeth was invited to attend the banquet of the noble Lady Catherine, while everyone was trying their best to please her, Elizabeth remained calm and even mercilessly accused Lady Catherine of being unreasonable. Her many words and actions violated the character of a lady at that time and were despised by others (Alquraidhy 2021). However, the scene, which was mocked by those so-called ladies, fully demonstrates the charm of a normal woman like Elizabeth, who grew up in the natural sunshine and rain, full of wildness. At the same time, it also contrasts the thinness and boredom of ladies like flowers in the greenhouse (Khalaf 2017). The image of an independent, strong, and self-loving woman who can withstand the wind and rain was immediately established. Elizabeth's personal charm was fully displayed here.

In that era of England, ladies should possess some talents, such as painting, singing, playing instruments, and more, because only in this way could they attract men's attention and have the ability to please them (Sultana 2012). Elizabeth is not good at these things. In her opinion, these talents are just vulgar games that people play in their leisure time. When she is asked to showcase her talents by the noble Lady Catherine in front of everyone, she only plays a piece of music with a casual attitude. These actions demonstrate her disdain for the secular ethics at that time, and also highlight her unique feminine charm (Lu & Zhao 2015).

4 CONCLUSION

This essay analyzes the manifestation of feminism in the protagonist Elizabeth of the novel. After briefly explaining feminism, it analyzes Austen's feminist consciousness and the social background of her creation of this work. It focuses on analyzing the protagonist Elizabeth in the novel from four aspects, namely Elizabeth's outstanding wisdom, independent resistance spirit, the pursuit of perfect love, and contempt for secular etiquette. In the entire novel, Austen wrote the most about Elizabeth, placing all her ideals and hopes on her, believing that only marriages based on true love, like Darcy and Elizabeth, could be considered happy and fulfilling. In addition, Austen extensively portrayed Darcy's psychological process from arrogance to admiration for Elizabeth, which to some extent, reflects the process of mutual communication between men and women on an equal basis. From a unique female perspective, Austen sharply reveals the phenomenon of male superiority and female inferiority in British society through the novel *Pride and Prejudice*, expressing strong dissatisfaction with male dominance and conveying the will and desire of feminists for gender equality. In the context of today's unequal status of men and women and the prevalence of marriage materialism, the author summarized the reflection of feminism in *Pride and Prejudice*, which has certain guiding significance for today's social problems. Though the novel is created in the late 18th century and is analyzed from different angles, it still holds great significance until now. The feminism reflected in Elizabeth still has certain reference significance for gender equality and marital freedom in today's society.

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Feminist film and television productions in China

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ABSTRACT: With the spread and development of feminist ideas in China, more and more film and television works have begun to focus on the state of women's existence. Taking feminism as a research perspective, this article analyses existing film and television works and academic research results to sort out the thematic content and narrative characteristics of recent Chinese feminist film and television works. The analysis reveals that Chinese feminist film and television works have gradually formed a trend of "independent women" as the theme and "self-awakening" as the main content, but there are still many problems. Although Chinese feminist films and TV works differ to a certain extent in their choice of subject matter, creation methods and narrative content, their expression of women's independence and self-worth has resonated with an increasing number of viewers and has gradually formed a new trend of "feminist" thinking. In the future, Chinese feminist film and television productions should pay more attention to the survival and spiritual aspirations of ordinary women in real life, and at the same time fully explore and reflect the thoughts and expressions of the traditional Chinese culture on the concept of "equality between men and women".

Keywords: China, Film, Television, Feminism

1 INTRODUCTION

Since the emergence of feminist theory, feminist film and television works have become important vehicles for the presentation and dissemination of feminist ideas. From the very beginning, feminist film and television works have been closely associated with concepts such as "women", "feminism" and "independence", and have received widespread attention and discussion. In recent years, the number of feminist film and television productions in China has gradually increased, not only in terms of quantity but also in terms of choice of subject matter, narrative style, and aesthetic tendencies, showing a diversity of characteristics.

Through a review of feminist films and TV productions broadcast by major TV stations in mainland China in recent years, it can be believed that these productions have shown significant differences in terms of thematic content and narrative style, but there are still some misunderstandings and prejudices on the issue of gender equality. Therefore, this paper aims to provide some reference for the creation of feminist films and television works in China today through a review and analysis of the current situation of feminist films and television works.

2 DEFINING FEMINIST FILM AND TELEVISION WORKS

2.1 *Feminism*

Feminism first appeared in the 18th century in the French bourgeois revolution. It advocated that women should have equal rights and status with men, with the ultimate goal of achieving equality between men and women, peaceful development, and the elimination of

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social differences due to gender. It was of great significance for the status of women and society as a whole (Liu and Zhang 2016).

Feminism as a social and cultural trend was mainly formed after the mid-20th century, culminating in the second wave of feminism from the mid-1960s to the early 1970s. During the feminist movement of the late 19th and early 20th centuries, benefiting from the industrial revolution, the gap between women and men in terms of social function was reduced, and women gained the right to vote, to work, and to be educated. By the late 1970s, Western conservatism returned, the radical left declined, and feminism as a radical movement subsequently entered a period of retreat and reflection (Liu & Zhang 2016). In the process, feminism began to move towards a more sober and pertinent theoretical construction, and various forms of feminist scholarship were formed. Feminism made the transition from a political movement to a cultural trend.

Unlike Western societies, Chinese feminism did not really begin until the late 1970s. At that time, Chinese society was in a state of radical change, and the implementation of reform and opening up created a favourable social environment for the development of feminism in China (Lu 2019). In the mid-1980s, the 'second wave' of feminist development in China began to emerge. The introduction and dissemination of feminist theory during this period led to a number of feminist figures becoming actively involved in the Chinese women's movement. Some of them were members of the Chinese Communist Party, some were members of democratic parties, and some were activists among the Chinese Communist Party members. Among this group were both Marxists, represented by Mao Zedong, and leaders of the Chinese Communist Party, represented by Deng Xiaoping. After the 1990s, feminism in China began to move towards a new stage. It manifested itself in three main ways: firstly, in the political sphere, feminism became more closely related to other trends such as liberalism and the New Left; secondly, in the cultural sphere, feminism became more closely related to cultural pluralism; thirdly, in the economic sphere, feminism became more closely related to marketisation (Lu 2019).

Since the new century, the development of feminism in China has taken a new turn for the following reasons: on the one hand, with China's rapid economic development and rising international status since the new century, Chinese feminism has made unprecedented achievements both domestically and internationally, and feminism in China has taken on an unprecedented momentum; on the other hand, in the international community, Western countries, led by the United States, have become more and more active due to the existence of Gender discrimination and gender inequality have seriously affected the economic and social development of Western countries, and the issue of women's development and gender equality, in particular, has attracted increasing attention from the international community. As a result, a number of countries have actively guided and supported feminist movements in their countries. China's rising influence in the international community and its rapid economic and social development has provided a broad space for the development of the feminist movement in China.

2.2 *Feminist film and television works*

Feminist film and television works are a cultural phenomenon that reflects both the socio-political, economic, cultural, and ideological attitudes of people in a certain period of time, as well as their different attitudes towards socio-political and ideological attitudes and their views on the position of women in society.

The development of Chinese feminist film and television works can be defined in two dimensions: firstly, the themes of feminist film and television works, and secondly, the narrative content of feminist film and television works. Thematically, Chinese feminist film and television works focus on two issues: the first is the expression of women's existential dilemmas, and the second is the representation of women's awakening of self-awareness. In terms of narrative content, Chinese feminist film and television works mainly focus on the theme of 'independent women'. Chinese feminist film and television works focus on and reflect on the gender roles of men and women, the division of labour between family and society, gender

relations and conflicts in contemporary Chinese society, and use ‘independent women’ as the main object of expression, to a certain extent presenting the concept of ‘equality between men and women pursued in Chinese society and cultural traditions (Qin 2015). The main object of expression is the ‘independent woman’, which to a certain extent reflects the concept of ‘equality between men and women pursued by Chinese society and culture.

Throughout history, women have been oppressed and enslaved as appendages of men, but the deeper the oppression, the stronger the resistance. Since the 1980s, with the development of feminist movements around the world, feminist film and television works have taken on new characteristics in terms of subject matter, creation methods, and narrative content (Zeng 2005). Especially with the spread of feminist ideas in Western countries, feminist films and TV works have gradually shown a new trend of “self-consciousness awakening”. Chinese feminist film and television productions have also gradually formed the trend of “independent women” as the theme and “self-awakening” as the main content (Yuan 2022).

3 FEMINISM AND THE IMAGE OF WOMEN IN CHINESE FEMINIST FILM AND TELEVISION

3.1 *The changing image of women*

With the spread and development of feminist ideas in China, more and more film and television productions have begun to focus on the state of women’s existence and to explore and express women’s consciousness and self-worth. In addition to the traditional “housewife” and “virtuous wife and mother”, more and more film and television productions have begun to focus on the current state of women’s existence, their spiritual aspirations and their pursuit and growth in the process of self-awakening (Dan & Hou 2022). The change in the image of women is partly due to the influence of the social environment on women, and partly due to women’s own self-awakening and rethinking of their own values and positioning in the context of the new era. Chinese feminist film and television productions are gradually showing the characteristics of independent women in their portrayal of characters, and more and more women are pursuing their own self-worth in their own way (An et al. 2014). These characters are all unique in their way, and their qualities and traits are all distinctly representative of some of the women in contemporary Chinese society who are independent, self-empowered and pursuing their dreams (An et al. 2014).

In the 1990s, the most common image of women in Chinese film and television was that of the traditional woman who puts her family first. Take the 1990 TV series *Crave* as an example, in which the female protagonist Liu Huifang is a typical traditional Chinese woman who is gentle, kind, considerate and tolerant. She has given everything she has to her husband, children and family, without regret. Her image has been used as a moral standard for the evaluation of women in society for a long time afterwards.

In the mid-1990s, the most iconic female figures were the Qiong Yao girls, who were popular with female viewers at the time. Most of the women in these dramas were crazy about love, using it as an outlet for their rebellion against patriarchy and fate, and often in radical ways to pursue and redeem love. However, it is important not to judge Qiong Yao dramas solely based on contemporary perspectives. Within the context of their time, the romance-focused Qiong Yao heroines somewhat reflected women’s defiance against societal norms and their quest for personal liberation.

The Cinderella-style goofy and sweet image has officially been the representation of women’s on-screen image during this time since the 2000s, when a series of Taiwanese idol dramas, exemplified by *Meteor Garden*, began to acquire popularity. The female heroines in these idol dramas are mainly regular women who are caught in terrible situations in their life for different reasons and are unable to overcome these problems and change the status quo on their own. The Cinderella genre portrays women’s yearning to improve their mundane lives, but due to different restraints or biases, women who have not found an outlet in real

life naturally place their aspirations in love. Later, women learned that relying on Prince Charming to fix their fate was impractical, and society's progress and development provided women with more opportunities. At this period, women's awareness was progressively awakening, and more women sought to attain job success and realise their full selves via personal effort rather than being happy with love alone.

As a result, women were portrayed on the screen in the period of big female protagonists. The most iconic of these dramas is *The Legend of Donnie Yen*. In these dramas, the female protagonist is usually a low-start, high-flying character who, with the help of a kind male character, makes her way to the top of her life.

Slowly, female viewers began to turn their attention to women more similar to themselves, and this is when a series of films and dramas about the lives of ordinary women emerged. As a result, ordinary women became the face of the new generation of women on screen, with dramas such as *Ode to Joy* and *30 Only*. The dramas focus on a number of women working in the metropolis and show the lives and loves of contemporary women.

3.2 *Problems at the present stage*

As mentioned, it can be seen that the portrayal of female characters has developed from the traditional family-oriented women, the love-oriented Qiong Yao girls, to the silly and sweet girls, career-oriented heroines, and now gradually back to ordinary women. The representation of women on screen has changed a few times. From all these transformations, it is easy to see that as women's emotional and career aspirations have changed, women's representative roles have gradually changed from the "egoless" social and moral role models of the early 1990s to independent women who pursue love and career simultaneously. This reflects both women's aspirations for beautiful emotions and their pursuit of self-fulfilment, as well as the continuous progress of society. However, at the same time, it is necessary to point out that there are still many problems with the feminism advocated and the image of women portrayed in film and television productions at this stage.

Firstly, many of the so-called big female protagonists and independent women in film and television dramas are not really independent. For example, in the plot, many female protagonists talk about being strong and independent and self-actualised, but they are at their wits' end every time they are in trouble and have to rely on the help of male characters to solve their problems. This is the reason why many dramas with large female protagonists are ironically called cynical feminism (Liu 2022). On the one hand, they demand equality between men and women, but on the other hand, they ask men to take the main responsibility.

Secondly, portraying women's growth and advocating for gender equality does not imply instigating conflicts between men and women, nor does it involve harboring animosity towards men. In many contemporary female-driven films and television productions, it is common to label male characters and subject them to objectification and stigmatization. Various stereotypes such as "Migrant Man from Rural Areas", "Momma's Boy" or unfaithful men are ubiquitous (Qin 2015). The purpose of these characterizations is not to serve the plot but rather to elicit discomfort among female viewers and gain popularity. This deliberate portrayal aims to intentionally create a binary opposition between men and women.

Finally, feminist films and TV productions are still not free from the shadow of the male gaze (Wu 2012). The concept of the male gaze was originally developed by British film critic Laura Mulvey, who argued that the pleasure of watching could be split between active masculinity and passive femininity. In a male-dominated, patriarchal society, the male, as the subject of looking, subliminally disciplines women's thoughts and behaviours through a valued gaze (Mulvey 2016). This fits right in with John Berger's view in his book *Ways of Seeing*. That is, men watch women and women watch themselves being watched (Berger 1972). In such a context, the affirmative gaze from men becomes the main way of evaluating the value of women. Over time, even women themselves agree that only women who are admired and recognised by men are of great value, while those who are not sought after by

men are failures and pathetic. At the same time, this shadow of the male gaze is also heavily projected in films and TV productions that promote feminism. It is ironic, for example, that many of the big female dramas today still highlight the excellence of the female characters in the dramas by saying, “All men are in love with me”.

4 CONCLUSION

The first and most important step towards the promotion of equality between men and women is definitely not to reject and confront men but to overcome the shadow of patriarchy that has been hanging over females for thousands of years. Only then will women be able to stop making themselves into the sophisticated Barbie dolls approved by the patriarchal society and find a more authentic and complete self, becoming truly independent and equal to men. The change in the portrayal of women in film and television shows that in recent years women are becoming more aware, their status is rising and their social environment is improving, all of which are very positive changes. At the same time, however, it cannot be denied that there is still a long way to go in terms of realising equal rights for men and women and enabling women to achieve true freedom and independence and that the whole society needs to work together to achieve this.

Feminist film and television productions have a certain degree of gender differences in terms of subject matter, creative approach and narrative content, but they also have commonalities. In terms of narrative, Chinese feminist films and TV productions often adopt a civilian approach to expression, focusing on women’s survival and spiritual aspirations in real life in terms of plotting and characterisation, and focusing on the ‘awakening of self-awareness’. This new trend of ‘feminist’ thinking is inextricably linked to the traditional Chinese culture’s reflection and expression of the concept of ‘gender equality’. In the future, Chinese feminist film and television productions should pay more attention to the current situation and spiritual aspirations of ordinary women in real life, and at the same time, fully explore and reflect the thinking and expression of the concept of ‘gender equality’ in traditional Chinese culture, so that Chinese feminist film and television productions can continue to progress in terms of diversification and individual development.

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An exploration of the cultural discourse of cyberspace terriers—taking *The Legend of Zhenhuan* as an example

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ABSTRACT: “Geng” is an important part of cyberspace discourse, and a highly charged form of popular culture. This article takes the phenomenal costume drama *The Legend of Zhenhuan* as an example, through textual analysis to dig out the frequency, themes and discourse style of Internet “geng” from this drama, study and analyse them from the perspectives of mimesis theory, carnival theory, fandom theory and subculture to explore the symptoms of the era, and give critical discussions and reflections. Zhenhuan Geng as a line “geng”, has its own characteristics. “Geng” mostly revolve around daily issues, and have the function of deconstructing serious issues. The extensive use of powerful “geng” represented by Zhenhuan Geng in the Internet space is the result of netizens’ emotions, which is the process of symbiosis and identity recognition. The symbolic and stylized content of “geng” culture is also the mild resistance of subculture to mainstream culture and values.

Keywords: Mimetic Drama Theory, Subculture, Carnival Theory

1 INTRODUCTION

“Geng” refers to buzzwords that are widely disseminated on the Internet, and it has a special meaning and can trigger the emotional resonance of a group of people. At present, the research on “geng” is mainly focused on the study of their conceptual characteristics and the study of their communication effectiveness, but there is not enough research on a specific type of “geng”. This study will use textual analysis, critical discourse analysis and other research methods, combined with communication theories such as interactive ritual chains and fetish communication, to explore the symptoms of the era, as well as the role of meme as a subculture. Finally, this study tries to make critical reflections and suggestions on the basis of the relationship between the culture and the mainstream culture.

2 LITERATURE REVIEW

At present, academic research on “geng” is mainly focused on the study of its conceptual characteristics and the study of its communication effectiveness.

From the perspective of linguistic semiotics, the concept of “geng” as a near-sounding misuse of the word “gag” (“comic”) has the potential to be used in a variety of ways. “It has a funny and humorous connotation, and is produced in a specific discursive circle, with the function of an ‘identity marker (Tong 2023).” From the perspective of subcultural studies, “geng” are not only witty expressions with a laughing point, but also a “mild rebellion” against the structural pressures of real life (Huang 2023).” As a highly charged popular culture,

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“geng” have a strong property of reproduction and entertainment: distribution—re-creation—re-distribution” (Liu 2023). Belonging to the “pop culture”, the culture of “geng” is metaphorical, with a specific rhetorical logic and textual properties that reinforce its perceptibility and representativeness (Cai and Zhao 2022).

In the research on the dissemination of “geng”, the spread of “geng” is a kind of meme communication. The “geng” of “phenotype meme creation” have been imitated, mutated and competed, and the “geng” that exist in the form of strong memes have the upper hand. “geng” can be widely spread (Tong 2023). The power of “geng” communication is based on identity psychology and herd effect (Cai & Zhao 2022; Tong 2023). The emotional energy and identity harvested by users promote the popularity of “geng” culture on social networking platforms (Xu & Lu 2022). The spread of “geng” culture in cyberspace helps people change their minds, improve interpersonal relationships, complete self-confirmation, and realize environmental monitoring (Huang *et al.* 2022). Netizens lack emotion in real life (Jiang 2013). The entertainment attribute of “geng” and its widespread dissemination may exhaust the vitality of normative language and serious expression (Mo 2022).

The Legend of Zhenhuan, a Chinese drama that has continued to be a hit in the last decade or so, is also an important source of many “hot stems” on the Internet. Lines from *The Legend of Zhenhuan* such as “Jianqiu, my head hurts”, “Baojuan, what’s wrong with my voice”, “Yichang Hong”, “Fat Orange”... The high replicability and dissemination of these lines on the Internet has made them into the discourse of netizens, turning them into “hot memes” and creating a huge online frenzy. At the same time, various secondary creations based on *The Legend of Zhenhuan*, such as videos, illustrations and emoji packs, have been widely circulated on the Internet, forming a unique online cultural landscape (Lin 2021). Most of the studies on the phenomenal court drama *The Legend of Zhenhuan* have focused on the cultural value of the drama itself, such as: the costume design of the court drama can assist the drama in restoring history, adding aesthetic value and enriching the characters’ image (Wang & Li 2021). The popular “Zhenhuan Style” has enriched modern Chinese language and is of great value to linguistic studies (Zheng 2021). *The Legend of Zhenhuan* has enriched modern Chinese language and is of great value to linguistic studies (Zheng 2021). The compositional techniques and melodic features of the vocal works of this drama have achieved a fusion of musical ethnicity and modernity (Zhang 2014). In addition, the translation of the text and the analysis of the character of a particular character in the overseas dissemination of this drama have also been the subject of much discussion among scholars.

However, there is still a gap in the research on the dissemination of “hot stems” generated by the work, and what are the commonalities and individualities between the dissemination of “geng” in *The Legend of Zhenhuan* and the dissemination of “geng” in cyberspace? What are the commonalities and individualities between the spread of “geng” in *The Legend of Zhenhuan* and the spread of meme culture in cyberspace? What are the symptoms of the times reflected in the spread and application of memes? What kind of critical thinking should be given to this popular phenomenon?

3 TEXT ANALYSIS

3.1 Analysis methods

In this paper, the author mainly uses the jieba Chinese word splitter running on the Python environment to split words and statistics for the text of Weibo hot “geng” (Bazhuayu Data Collector). Five examples from *The Legend of Zhenhuan* were selected: “Jianqiu, my head hurts”, “Baojuan, what happened to my voice”, “I can’t do it”, “Wan Wan class Qing” and “Your fortune is behind you” were used as examples. At the same time, the author analyzes the vocabulary and text structure of these texts, summarizes the discourse style of the people who play with the stems, and explains the social context in which they are produced.

3.2 Analysis results

3.2.1 Word frequency distribution

This study collected the following words on the microblogging platform from early April to mid-May 2023: “Jianqiu, my head hurts”, “Baojuan, what happened to my voice”, “I can’t do it”, “Wan Wan class Qing”, “Your fortune is behind you”. After cleaning the collected texts (removing emojis, the texts themselves, and the topic symbols), the word frequency statistics showed that: The five most frequently used words for “Jianqiu, my head hurts” are “headache” (0.12), “catch a cold” (0.07), “work” (0.07) and “don’t want to” (0.02) and “go to school” (0.02). For “Baojuan, what’s wrong with my voice?“, the 5 most frequently used words in the list are, “pharyngitis” (0.16), “laxative” (0.05), “antigen “ (0.04), “national” (0.03) and “can’t tell” (0.03). Among the words used for “I can’t do it”, the five most frequently used words in the list are “Cai Shaofen” (0.06), “teacher” (0.05), “take back” (0.04), and “life” (0.04), “Niangniang” (0.02). For “Wan Wan class Qing” were, “love” (0.12), “wushan” (0.08), “crush” (0.07), “stand-in” (0.06), “Chunyuan” (0.05). For “Your fortune is behind you” were, “announce officially “(0.07), “sister” (0.07), “termination of contract” (0.06) and “new drama” (0.04).

3.2.2 Subject labeling

In order to analyse the specific content of the texts containing the stems to obtain sentiment analysis, the author sorted the collected samples according to the time distribution and conducted manual sentiment annotation to label the use of Zhenhuan Geng in the Internet space into the following five thematic categories: 1. Physical condition; 2. Gossip about life; 3. Hot topics; 4. Emotional expressions; 5. Purely terse texts (See Table 1).

Table 1. Subject labeling.

Subject category	Definition	Representative term
Physical conditions	description of physical condition	“Baojuan , my throat was tested for an antigen in the morning, and I was directly recruited, Baojuan.”
Tucao life	Complaints about living conditions	“After finishing my homework, I still have to catch up with three dues. Jianqiu, my head really hurts”
Hot topic	Discussion on Internet Hotspot Events	“The female college student who speaks out for women , your luck lies ahead”
Emotional catharsis	Borrowing stalks to vent emotions	“The concubine can’t do it, kill me, why is it so difficult, the concubine is so difficult”
Plain text	Use the meme itself, without any other representations	

3.2.3 Conclusion of the analysis

Based on the analysis of the text, the following conclusions can be roughly drawn.

The use of Zhenhuan Geng revolves around current affairs (the new crown epidemic infection), as an extension of the images in the scenes of the play. “Jianqiu, my head hurts” and “Baojuan, what’s wrong with my voice” are extended to the current contextual space (e.g. the new crown infection), and become a way for netizens to linguistic phrases to describe symptoms and express attitudes and feelings.

The use of the Zhenhuan Geng can be used to comment on hot characters or events, e.g. for the actress Cai Shaofen, who plays the role of the Queen, netizens still use lines from the drama to comment on her, and still address her as “Niangniang”.

The use of Zhenhuan Geng would draw netizens’ references to lines and characters in the drama, for example, when using the stems of “Wan Wan class Qing”, netizens would also quote lines from the drama as an expression of their overall feelings, such as the line “For the time being, I can get “Wan Wan class Qing”, temporarily dispel the worries, and also get rid

of the non-clouds of Wushan “The role of Chun Yuan was also likened to a character who is as beautiful as her first love, which is a self-expression in the virtual space of the Internet.

In terms of thematic labelling, the use of Zhenhuan Geng mostly revolves around daily life and online issues, with humorous and witty connotations, often in the form of flirtation and self-deprecation, using the hints of scenes in the drama to deconstruct serious issues. At the same time, the use of Zhenhuan Geng is often improvised, mixed and used in contrast and analogy. With the help of tools such as emojis and emoticons, which makes their use more figurative and the extension of line stems creates a theatre of Zhenhuan in cyberspace, where the real world and the Forbidden City on the Internet mingle together. In cyberspace, netizens enjoy a discourse carnival to create stems and have fun with “geng”, throwing “geng” and other forms of subcultural participation, making mild resistance to mainstream values and culture. This is a gentle resistance to mainstream values and culture.

4 THE FORBIDDEN CITY CARNIVAL IN ONLINE THEATRE

4.1 *Emotional symbiosis and identity*

Internet society has broadened the possibility of constructing a wide variety of non-mainstream identities and communication practices. Through the Internet, Internet users find their own discourse groups in various discourse spaces according to age, gender, work, interests, values and other factors, and break geographical and temporal limitations to participate in the public discussions of specific online groups. As the number of Internet users grows, the size of the community expands and its scope extends, and the discursive style and cultural symbols unique to a certain online community become more distinct. Terrier culture acts as a coagulant in the process of group cohesion, and the use of a certain terrier preference allows members of the same intentional group to recognise one another based on their language style. For example, the hot stems such as “eight in the morning”, “working as a worker”, and “roll up and die”, which are common expressions of university students’ lifestyles and living conditions, are used to achieve an unspoken and default presentation of content, and use such expressions as the topic itself to trigger emotional expressions and discussions among the same group. Likewise, in the first massive batch of new crown infections since the opening of the 2023 Chinese epidemic, netizens made extensive use of such stems as “Jianqiu, my head hurts” and “Baojuan, my voice” to emotionally express their own physical state, instantly topping Weibo hot searches. Whether it is spontaneous expression or a herd effect, the use of these stems has created a certain rallying phenomenon in the context of a common reality. These rallying phenomena are based on a common discourse, through communication and interactive participation, and are realised through a public platform, which is both a self-expression in the public space and a manifestation of real life in the online discourse space.

As the main force of the Internet, young people are burdened with both work and emotional stress in the real world. The expression of terrier culture and the open, anonymous virtual space of the Internet not only provide young people with a special place for discourse, but also a channel for emotional exchange and catharsis. As a kind of buzzword, terrier culture breaks up and reorganizes the real context in daily use. By relying on the special expression function of terrier culture language, offline social terrorists turn into online social cattle, finding the possibility of identity and emotional symbiosis in the interaction.

4.2 *The forbidden city carnival in the perspective of fascination*

In 1976, Richard Dawkins, a zoologist from Oxford University, put forward the theory of the muse in his book *The Selfish Gene*. He used the analogy of the role of genes in biological evolution, pointing out that the muse is something that plays a genetic role in the transmission of language, ideas, beliefs and ways of behaviour: biological evolution relies on the replication of genes, while the change of civilisation relies on the replication of various

cultures, information and ideas –the genes of civilisation. Under the Internet, information is reproduced and disseminated faster than humans can imagine, content and discourse expand to a whole new scale, and the interface of information extends in all directions. The culture of stalking, represented by the “Donnie Yen stalk”, is being copied, used, created and recreated by all people, creating a “participatory carnival” in cyberspace.

5 CONCLUSION

In the world of youth subculture, terrier culture has not only the common characteristics of subculture: resistance, marginalization and stylization, but also its special characteristics: high replicability and high dissemination. Netizens have incorporated the culture of terriers into their daily discourse system, realising non-mainstream expressions in a pluralistic manner. In the Internet era, culture has become fragmented, and the characteristics of circles are significant. Internet users use their discourse styles to identify similarities and integrate into their circles, and the highly mixed and mobile tribal circles become the basic unit of group existence. The tribal group orgy and the tribal group carnival and the carnival of the Internet as a whole intermingle in a highly complex way, converging and fragmenting in an endless array of Internet topics.

At the same time, terrier culture deconstructs serious issues in a tongue-in-cheek and light-hearted way, dissolving mainstream values and advocacy, and conveying non-mainstream values and collective emotions. However, the expression of opinions of this group is not violent or confrontational, but dissolves ambivalence through flirtation, metaphor and parody. Also, this phenomenon deconstructs mockery through performance and self-presentation in cyberspace, in order to understand and observe social reality with self-irony and black humour, and finally reconciles with oneself or the real world, achieving a mild resistance to mainstream discourse.

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Intersectionality and discrimination: Challenges faced by LGBTQ+ Asian international students in the U.S. education system

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ABSTRACT: The current United States education system has been negatively influenced by white supremacy and systematic racism. Alongside racial discrimination, Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, and Asexual (LGBTQ+) students are constantly experiencing discrimination resulting from their LGBTQ+ affiliation. By examining the relationship between intersectionality and sexual and cultural discrimination, this research article focuses on the type of discrimination that LGBTQ+ Asian international students is facing from a multicultural perspective. The result shows that students who come from an internalized homophobic cultural norm often encounter a more difficult time expressing their sexual orientation to their environment compared to Native U.S. citizens. Due to cultural conflict, students from such cultures will lack family support from their home country, and thus need extra attention and support from their learning peers and teaching faculties to accomplish their academic goals. The goal of this research is to indicate the significance of intersectionality in the U.S. educational system and showcase the challenges that Asian international students are facing based on their racial, cultural and gender identities.

Keywords: Intersectionality, LGBTQ+ Asian international students, Discrimination, Cultural conflict, U.S. education system

1 INTRODUCTION

The conflict of Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, and Asexual (LGBTQ+) population rights has been in the spotlight of social and political conflicts for over a decade from a retrospective point of view. Even though definitions, terms, and theoretical frameworks, such as intersectionality, have been established and promoted by activists in regard to making the positive progression of such topics, a tremendous amount of effort is still needed from society to actualize equality for the population.

In the current society, LGBTQ students in schools and other teaching facilities are facing various forms of discrimination from their surroundings. Despite the positive impact of legalizing same-sex marriage on the LGBTQ+ community, homophobia and unequal treatment persist in schools, highlighting the continued discrimination faced by LGBTQ students and faculty in educational institutions despite changing perspectives on homosexuality. LGBTQ+ students often face gaslighting, passive-aggressive manipulation, and toxic stereotypes frequently associated with their gender, race, or cultural background. For example, numerous high schools and colleges in the U.S. exhibit discrimination by

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disregarding the intersectionality and sexual orientation of LGBTQ individuals (Payne & Smith 2018). Studies reveal that a significant percentage of graduate programs across 55 universities lack educational resources that emphasize the importance of sexual orientation. Discrimination against acknowledging sexual orientation and gender identities negatively affects K-12, college, and graduate students in the United States (Szalacha 2004).

Those discrimination towards the LGBTQ+ population can specifically cause more traumatizing experiences to students who are at a relatively younger age experiencing adolescents. From a psychological perspective, students in such phase are in critical development stages and often are unsure about one's identities and thereby need a supportive environment with guidance. Given the circumstances as such critical and yet sensitive stages of their life, students who belong to the LGBTQ+ population will often seek out reassurance and support from their fellow students, teachers or family members, and therefore it is critical for the surrounding community to come to the awareness of the needs of those students and response to those need actively.

Society has increasingly paid more attention to establishing educational reform that focuses on educational equality and equity; students who identify themselves as a part of the population are still, quite frequently, being perceived as "sexual minorities" and will often be in discrimination circumstances such as feeling the sense of isolation by fellow acquaintances, verbal abuse, mental health crisis that collectively contribute to non-outstanding or poor academic performances (Chung & Katayama 1998). Many students, teachers and parents failed to treat those students with respect by not recognizing and acknowledging their sexual orientation identities, especially for students who come from immigrant or international backgrounds that may adhere to problematic cultural norms that are against the LGBTQ+ right.

When examining such discrimination towards LGBTQ+ students in the United States, intersectionality, which emphasizes how different identities of an individual, such as gender, race and cultural background, can factor together, leading to a larger degree of discrimination without one's awareness (Crenshaw 2017), is a factor that needs to be put into consideration. Since students who are from different cultural backgrounds might be facing more discrimination in regard to their sexual orientation due to systematic racism, cultural stereotypes, or conflicting cultural norms from their home country, educators need to put more effort into creating a welcoming environment for those students. The focus of this research paper is to examine the current status of discrimination towards the LGBTQ+ population from a multicultural angle. Given the circumstances that systematic racism is one of the most rooted yet problematic foundations that shape U.S. society, it is important for educators to support LGBTQ+ students despite their cultural and racial background. In other words, to not focus solely on white students or students who are from a native cultural background, but also those who were being discriminated against not only because of their sexual orientation but also their racial or cultural identities. This research will provide a general framework of how LGBTQ+ students, despite all the positive reform in the educational system, are still facing challenges on a daily basis due to homophobia and toxic stereotype. Furthermore, it will provide a thorough comparison of discrimination for white LGBTQ+ students and Asian LGBTQ+ students and take further analysis of how intersectionality and cultural diversity play a significant role in discrimination on sexual orientation.

2 INTERSECTIONAL PERSPECTIVES ON DISCRIMINATION IN EDUCATION: EXAMINING LGBTQ+ AND CULTURAL IDENTITY

Discrimination towards the LGBTQ+ population has been conceptualized as a type of inequality that could be applied to the population as a whole instead of focusing on the population with a specific race. However, the degree of prejudice and bias can vary

dramatically based on the racial background of individuals. Given that the implementation of white supremacy, despite sometimes being unintentional, in a classroom setting has increasingly caught educators' attention towards creating an equal learning environment for students of color. For instance, a tremendous amount of research conducted by scholars focusing on racial discrimination in the education system has dedicated their time to examining the Student to Prison Pipeline (StPP). Such a phenomenon can be found in the U.S. public school system, indicating the tendency of students who belong to the racial minority population to be more likely to be suspended from their school for accusations of violating school discipline. The cause of StPP is tightly correlated with white supremacy and systematic racism alongside other types of toxic stereotypes and discrimination towards racial minorities and is constantly influencing their learning environment (Wald & Losen 2003). Students who belong to racial minorities group are frequently experiencing fewer academic resources, such as advanced A.P. courses and qualified teaching faculties, compared to affluent white students (Wald & Losen 2003).

Though fighting against racial discrimination in the U.S. system and advocating for educational equality and equity is a long journey and requires constant action, it is important to address the bias towards gender and cultural identity in the framework of racism. When it comes to the Student to Prison Pipeline, a large portion of current research on the topic focuses on a student who is a legal U.S. citizen with a heterosexual orientation (Shippen *et al.* 2012). Documented and undocumented immigrants and international students who want to pursue their educational journey are often left out of the picture when it comes down to sexual discrimination. While LGBTQ+ discrimination in the education system has been heavily criticized by social media, news articles and television displays, the target individuals are typically white or legal U.S. citizens, to say the least. The case of Gavin Grimm, for example, is a transgender student who was forbidden to use the male restroom that matched his gender identity while attending Gloucester high school. Thus, he sued his school board in Gloucester County. The case regarding gender discrimination against Grimm, that supposed to be the first supreme court case involving a transgender person, has eventually been sent back to the 4th Circuit (Miller 2019). Grimm's experience of gender discrimination has successfully brought society's attention to educational inequality in the LGBTQ+ population, and a tremendous amount of progress has been made since then. However, it is important for scholars and educators to bring intersectionality into consideration while celebrating the success of Gavin Grimm's impact on provoking educational reform regarding the LGBTQ+ population. As mentioned before, intersectionality is the concept brought up by Kimberly Crenshaw, emphasizing how various identities of an individual can collectively contribute to discrimination against the individual (Crenshaw 2017). Grimm was a student being discriminated against based on his gender identity and was simultaneously privileged based on his racial identity. While this research has no intention to understate the discrimination towards Grimm nor criticize him as a white individual. It is critical to mention the fact that one of the biggest cases regarding discrimination against LGBTQ+ students is centralized around a white individual. From a comparative perspective, racial and cultural minorities in the LGBTQ+ population rarely get representative opportunities on social media despite having to face racial, cultural and sexual discrimination at the same time.

Research on the negative influence of intersectionality often emphasizes racial and gender identity from a heterosexual perspective. Unfortunately, cultural discrimination against immigrants and international students is often overlooked in the broader context. International students sometimes can experience a tremendous amount of discrimination due to language barriers and cultural differences. When it comes to systematic racism against immigrants and international students, the focus often shifts to the toxic stereotype of a certain culture and lack of citizenship and communicative skill. Though it is a different type of racism compared to the native black student population, such discrimination should also be considered a severe obstacle that can cause traumatizing experiences for those students

throughout their educational journey. Given the circumstances that racism is a constant factor influencing the education system, international and immigrant students who do not speak English as their native language can be criticized by their surrounding for having a certain accent and eventually try to disregard their own cultural identity, such as language, to avoid the discrimination (Zhang 2010). Many international and immigrants student will actively engage in the process of cultural assimilation to better fit into the White dominant society, leading to giving up their own cultural identity. On the other hand, however, cultural identity is another factor in one's intersectionality that can lead to internal crises and mental health struggles for international and immigrant students who belong to the LGBTQ+ population.

Regardless of one's personal preference, the cultural background is always going to be a part of international and immigrant students that can positively or negatively influence their decision to acknowledge their sexual orientation and gender identity, depending on their cultural background. Even though the process of cultural assimilation sometimes might take place automatically depending on the period of time those students spend in the United States, the challenge of fitting and obeying their original cultural norms still exist for international and immigrants students, especially for those who find their affiliation as a part of the LGBTQ+ population. Despite the fact that discrimination towards LGBTQ+ students in the U.S. education system is yet one of the biggest issues that need to be eliminated and does require scholar and educators to put in an adequate amount of effort, the United States is one of the few nations that are generally open towards the LGBTQ+ Population. When considering gender identity discrimination or discrimination towards the LGBTQ+ population from a multicultural perspective, some countries normalize the concept of homophobia and add an extremely negative connotation to homosexuality. Some Eastern Asia countries, for instance, have implemented homophobic practices in governmental and political settings. Social norms of such society stigmatized the LGBTQ+ population as abnormal and illegal and, depending on the situation, acknowledging one's sexual identity as being a part of such population can be considered illegal and, therefore, one can be punished for "spreading inappropriate and dividing information." Though there are other countries that have similar practices against the LGBTQ+ population, this research will specifically focus on how toxic social norms can lead to a tremendous amount of discriminative experiences for East-Asia international students living in the U.S. who consider themselves a part of the LGBTQ+ population.

3 CULTURAL ASSIMILATION FOR LGBTQ INTERNATIONAL STUDENTS

Due to the extreme homophobic cultural norms, international students who come from distinguished cultural backgrounds might face the extra number of difficulties in regard to announcing their sexual orientation and identifying themselves as an individual. Intersectionality is the factor that needs to be put into consideration while evaluating such a challenge. Depending on the cultural norms, students who come to study aboard might lack the opportunity to have support from family and friends from their native country. Furthermore, depending on cultural and social norms, stigmatization of the LGBTQ+ population can apply and, therefore, negatively influence one's experience of being a part of the population (Wei & Liu 2019). Since many Eastern Asian countries have homogeneous social systems which typically put an emphasis on fitting in to create harmony, international students from such country sometime face internal struggles in fulfilling expectations from their families and relatives (Young 2017). It is worth noting that though some countries might not take homophobic practices to a high degree, the LGBTQ+ population and homosexual marriage, especially among the older generation, is considered abnormal. Given the circumstances, an international student from East Asia who felt a sense of belonging in the LGBTQ+ population often will be hesitant to express themselves. Unlike students who

are citizens that naturally fit into the U.S. culture, international students have to face the challenge of cultural assimilation, external and internal cultural conflicts and discrimination not only from their learning environment but also from their own family due to their “abnormal” sexual orientation. As mentioned before, students who belong to the LGBTQ+ population have already been facing discrimination depending on their learning environment; it is significant for them to have support from their family members and significant others. Since international student from Eastern Asian country holds a tendency to come from a society that implements homophobia and discrimination towards the LGBTQ+ population as a foundation of the society, it is extremely hard for them to have the support they need in regard to announcing their sexual identity.

4 THE INFLUENCE OF INTERNALIZED HOMOPHOBIA IN DIFFERENT CULTURES

Since there is a significant difference between the U.S. and East Asia’s education system, most international students from Asia spend their critical development period in their own country and, depending on their parents’ decision, will come to the U.S. for high school or college education (Hayhoe 2019). Internalized homophobia is a type of oppression that those students face on a daily basis, and they might conceptualize such oppression as normal. Since the LGBTQ+ population is not a well-discussed topic in some East Asia countries, students from such backgrounds are rarely educated in regard to the importance of accepting diverse sexual orientations. While experiencing cultural assimilation, international students can face an internal conflict in identifying themselves as neither the LGBTQ+ population nor outside the population. Such a personal crisis is a result of constantly experiencing internalized homophobia while making an effort to adjust to the U.S. culture. International students who come from such cultural backgrounds have a higher tendency to consider themselves as “problematic” or “abnormal” when identifying themselves as a part of the LGBTQ+ population. As mentioned before, students who experienced discrimination against the LGBTQ+ population in their learning environment tend to have a higher rate of mental health issues; it is worth noting that international students from an East-Asia background, comparatively speaking, have higher chances of experiencing psychological and mental health issues as a result of receiving education from an internalize homophobic perspective. Research regarding internalized homophobia indicates that there is a positive correlation between the mental distress of the LGBTQ+ population and the degree of internalized homophobic practice in their home country since intersectionality is a critical factor for educators to consider when it comes to discrimination towards LGBTQ+ students in the U.S. (Xu *et al.* 2017).

5 CONCLUSION

Although the promotion of equality and equity for the LGBTQ+ Population has been taking place in the education system for the past decades, students who belong to such a population are still facing discrimination based on their sexual orientation and intersectionality. Individuals can suffer from stigmatization and toxic stereotypes due to their racial, cultural and gender identity. Since white supremacy and systematic racism have been conceptualized as a foundation of the United States society, racism against racial minorities should also be taken into consideration. Though there is no doubt that native U.S. students who belong to the LGBTQ+ population are facing a tremendous amount of challenges and difficulties regarding their identity in society, it is critical for educators to pay attention to those who experience discrimination from a multicultural perspective. International and immigrants student achieving their academic goals in the U.S. can face cultural conflict when it comes to

identifying themselves as a part of the LGBTQ+ population and, therefore, struggle with mental health distress and lack of family support. Alongside racial and gender discrimination, –problematic cultural value is another factor that can constantly influence international and immigrant students’ experience regarding being a part of the LGBTQ+ population. Since some countries, due to cultural and social norms that form from historical events and governmental policy, have normalized and implemented homophobic practices into daily social settings, students who come from such cultural backgrounds will need extra help and support from their learning environment. Given the circumstances, it is critical for not only educators but also press and social media coordinators to take action to acknowledge the challenges LGBTQ+ international and immigrant students are currently facing. Information and case regarding such topics are severely underrepresented in social media and do not get enough attention from the public to provide support for those students. It is worth noticing that international and immigrant students, comparatively speaking, have a more complex cultural background and are undergoing many challenges in regard to cultural assimilation. Therefore, it is important for teachers, educators and school faculties to recognize and positively respond to those students’ needs in order for them to be able to achieve their academic goals while being able to fully express their gender identity in an open, welcoming learning environment.

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The spell translation in literature works—taking *Harry Potter* as example

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ABSTRACT: *Harry Potter* is one of the most famous Children's books in the world. Since the first book in this series—*Harry Potter and the Philosopher's Stone*, it has raised the craze of wizarding world globally. With its Chinese translation introduced in 2000, it also made many Chinese become huge fans of *Harry Potter*. The spells in *Harry Potter* are one of the most important elements in this book. The wizards and witches use spells to fight and spells push the plot forward. Therefore, the understanding of the spells is essential to understanding the whole story, and translating spells is a difficult task for translators. The translation version of People's Literature Publishing House has gained great reputation. Therefore, the author applied textual analysis to explore the characteristics of spell translation in this version and the strategies it used. The findings of this paper show the shared attributes of spell translation in *Harry Potter* and hope this can inspire readers in terms of made-up words translation in literature works.

Keywords: Spell Translation, *Harry Potter*, Literary Translation

1 INTRODUCTION

Harry Potter is a series of children's books written by J.K. Rowling. J.K. Rowling is a British female writer. She enjoys writing since her childhood. She came up with the idea to write a story about *Harry Potter* on the train to London when she was 24 years old. The whole series has raised the wave of *Harry Potter* and Hogwarts across the world. She also wrote some relevant books like *Fantastic Beast and Where to Find Them* or *Harry Potter and the Cursed Child*.

The whole series contains seven books, namely *Harry Potter and the Philosopher's Stone*, *Harry Potter and the Chamber of Secrets*, *Harry Potter and the Prisoner of Azkaban*, *Harry Potter and the Goblet of Fire*, *Harry Potter and the Order of the Phoenix*, *Harry Potter and the Half-Blood Prince*, *Harry Potter and the Deathly Hallows*. The seven books are an instant hit in the UK and the rest of the world, translated into 80 languages. It is no exaggeration to say that it is one of the most popular children's books in the world. It has been adapted into movies by Warner Bros.

The seven books tell a story about a boy named *Harry Potter* whose parents died and boarding at his uncle's home finally finds out that he is a wizard and goes to Hogwarts School of Witchcraft and Wizardry to start his new journey. In school, he made friends with classmates like Ron Weasley and Hermione Granger, met some great teachers such as Albus Dumbledore and Remus Lupin, enjoyed the sweetness of love with Cho Chang and Ginny Weasley, also had to know some nuisance like Draco Malfoy or Dolores Umbridge, and most importantly, he found out the reason for his parent's death and identified his rivals—Lord Voldemort and his disciples—Death Eaters. After several battles, he defeated the villain Lord Voldemort and understood the true meaning of love.

The Chinese translation version, the author choose them to be published by People's Literature Publishing House. *Harry Potter and the Philosopher's Stone* was translated by Cao Suling and Ma

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Ainong. *Harry Potter and the Chamber* was translated by Ma Aixin. The rest of the series was translated by Ma Aixin and Ma Ainong. In order to make an analysis, the author also will quote the version published by the Crowning Publishing Group, which is translated by Peng Chien-wen.

In this thesis, the author mainly applied textual analysis. Through analyzing the translation of the *Harry Potter* (by People's Literature Publishing House), the author aims to find out the strategies the translators used and their advantages. To argue the points more clearly, the author also applied contrastive analysis, comparing the differences between the original text, the version by People's Literature Publishing House, and the version by the Crowning Publishing House. Through this thesis, the author is meant to explore the characteristics of the spell translation in *Harry Potter*, and probe into some skills that can be applied to made-up word translation in literature works. By researching the spell translation, the readers are expected to learn some typical methods and strategies.

2 THE DEFINITION OF SPELL

Spells are some mysterious words that have the power to help people with blessing, exorcism, or other things related to the spiritual world. To be more specific, in *Harry Potter*, the spell is the special skill of wizards and witches in the book, and it is also an important element in the construction of the magic world in the book (Xu 2020). It is the only weapon against each other (Xu 2020). Furthermore, a few special spells are important to the development of the plot of the work (Xu 2020). Witches and wizards in the book rely on spells to protect, defend or attack, and some key spells such as Avada Kedavra or Expelliarmus have impressively pushed the story forward. Spell is one of the most significant elements in the world of *Harry Potter*. Therefore, the translation of spells is essential for foreign readers to understand the plots.

3 TYPES OF TRANSLATION STRATEGIES

There are two types of translation strategies—foreignization and domestication, and then, there are eight translation methods, among which are zero translation, transliteration, word-for-word translation, literal translation, liberal translation, imitation, variation translation, and recreation. In *Harry Potter*, the translators mainly applied literal translation, transliteration, liberal translation, and the combination of the three.

Table 1. Some spells in Harry Potter and their translation strategies.

Spell	Translation	Translation strategies
Sunshine, daisies, butter mellow.	阳光, 雏菊, 甜奶油	Literal translation
Turn this stupid, fat rat yellow	把这只傻乎乎的肥老鼠变黄	
Eye of rabbit, harp string hum,	兔眼晶晶, 竖琴幽幽	Literal translation
Turn this water into rum	把这清水变美酒	
I solemnly swear that I am up to no good	我庄严宣誓我没干好事	Literal translation
Wingardium Leviosa	羽加迪姆 勒维奥萨	
Waddi-wasi	瓦迪瓦西	Transliteration
Lacarnum Inflamarae	火焰熊熊	Liberal translation
Petrificus Totalus	统统石化	Liberal translation
Lumos	荧光闪烁	Liberal translation
Expelliarmus	除你武器	Liberal translation
Everte Statum	悬空翻转	Liberal translation
Serpensortia	乌龙出洞	Liberal translation
Obliviate	一忘皆空	Liberal translation
Arresto momentum	减震止速	Liberal translation
Aparecium	急急现形	Liberal translation
Alohomora	阿拉霍洞开	Hybrid translation
Avada Kedavra	阿瓦达索命	Hybrid translation

3.1 *Literal translation*

Literal translation means that the meanings, expressions, grammatical forms, and sentence structure form in the language syntax system of the translation must be in accordance with the original text (Wang 2023). By using literal translation, translators can make the original text reappear authentically. This translation strategy in *Harry Potter* is used to translate long-sentence spells, with lots of modifiers (see Table 1).

3.2 *Transliteration*

Transliteration is to translate the original text by its pronunciation, and it is usually applied to name and mimetic word translation. In the *Harry Potter*, it is used to translate spells with special gestures. A typical example of transliteration is the translation of Wingardium Leviosa, which is translated into 羽加迪姆 勒维奥萨. When characters say this spell, they apply a unique gesture at the same time, and something flows up to the sky after the spell, so readers could easily understand it is a spell and its concrete function (Zhou 2022). By applying transliteration, the translators can keep the spells' original sound and allow them to remain mysterious.

3.3 *Liberal translation*

Liberal translation means that the translators don't translate the original context word by word. Instead, he or she focuses more on the sense groups of the text. The spells in *Harry Potter* mostly derive from Latin, which in ancient Rome can only be learnt by people from upper class, and its grammar is really hard to learn (Wang 2021). This causes a huge reading barrier among Chinese readers, so the translators used liberal translation (Wang 2021). This is the most common translation strategy in the *Harry Potter*, and spells of this kind are usually translated into four-letter word, especially into four-letter Chinese idioms. For example, in the spell Petrificus Totalus, Petra means stone in Latin while totus means all, so the translators translated it into 统统石化, which means to petrify all. By liberal translation, the translators can convey the meaning of spells more accurately.

3.4 *Hybrid translation*

This translation strategy mixes various single translation strategies together, absorbing the advantages of them all. In the *Harry Potter*, it usually combines transliteration and liberal translation. For example, the spell Avada Kedavra derives from Abracadabra, which means to devastate something in Aramaic, the official language of Persian Empire. The translators translated it into 阿瓦达索命, keeping the pronunciation of Avada, but also making some supplements to its meaning.

4 TRANSLATION ANALYSIS

The translators of the *Harry Potter* comprehensively applied the above four translation methods to excellently finish the spell translation. The spell translation of this version has the following characteristics.

4.1 *In accordance with the function of spells*

As the author mentioned before, spells are used by witches and wizards to protect, defend or attack, which happens in a moment, so the spell must be short and easy to remember. Table 2 shows how long spells last in the movie *Harry Potter and the Philosopher's Stone*.

Table 2. Some spells in the movie *Harry Potter and the Philosopher's Stone* and their duration.

Spell	Duration
Oculus Reparo	0'1''60'''
Alohomora	0'0''96'''
Wingardium Leviosa	0'1''59'''
Lacarnum Inflamarae	0'2''36'''
Petrificus Toralus	0'1''63'''
Lumos Solem	0'1''00'''
Immobulus	0'0''75'''

From Table 2, the readers can see that no spell lasts for more than 3 seconds, so the translation also has to meet the requirement of simplicity. Moreover, from the book readers can know that a witch or a wizard must remember the pronunciation of a spell to use it, so the translation of the spell should be able to be memorized easily.

From Table 1, readers can see that most of the translations, especially those translated by liberal translation, use four-letter words, usually four-letter idioms. The four-letter idioms manifest the peculiar and obvious styles of Chinese—expression in the short form with deep meanings (Bai 2017). It means that four-letter idioms can contain rich ideas and thoughts with fewer language materials, which also means that four-letter idioms can not only convey much information but also be easy to remember and contain great artistry and enjoyment (Bai 2017). Moreover, four-letter words, especially four-letter words in Chinese have their unique sense of rhythm, resulting in great readability. Therefore, translators could use them to translate spells, living up to the standard of simplicity and strong rhythm.

4.2 Understandable

The post-Babel era is the era of translation (Niu 2022). The collapse of the Babel Tower represents division of both languages and humans (Niu 2022). In order to understand and communicate with each other, translation is human's inevitable mission (Niu 2022). Therefore, one of the essential purposes of translation is to let readers understand the original meaning of the text. As the author mentioned before, the translation of spells in *Harry Potter* is the key for readers to understand the meaning of the whole book. Therefore, the translators flexibly applied the above four methods. From Table 3, readers can find that liberal translation is mainly used, as it is the best way to convey the meaning of the spell. Compared with the version by the Crowning Publishing Group, readers can see the translators apply transliteration much less, and this also makes the version by People's Literature Publishing House easier to understand by Chinese readers.

Table 3. Different translations of spells between People's Literature Publishing Group version and the Crowning Group version.

Spell	Translation by People's Literature Publishing Group	Translation by the Crowning Publishing Group
Alohomora	阿拉霍洞开	阿咯哈姆啦
Avada Kedavra	阿瓦达索命	啊哇咄喀咄啦
Aparecium	急急现形	阿八拉象
Finite incantatem	咒立停	止止，魔咒消
Orchideus	兰花盛开	噗噗兰
Wingardium Leviosa	羽加迪姆 勒维奥萨	温咖癫啦唯阿萨
Quietus	悄声细语	嘘嘘静

For example, the spell *Aparecium* derives from *appareo*, meaning to appear in Latin. In the book, it is used to let hidden words on paper appear. The translators of the *Harry Potter* (by People's Literature Publishing House) translated it into 急急现形, which means quickly appear in Chinese. Compared with 阿八拉象 in the version by Crowning Publishing House, which is just a combination of meaningless mimetic words, it allows readers to deduce the function of the spell more easily.

4.3 *Contextual*

The contest of the situation was first proposed by Malinowski, a linguist (Zhao & Zhao 2022). He claimed that words do not exist in isolation (Zhao & Zhao 2022). Instead, their meanings can only be understood in utterances (Zhao & Zhao 2022). Without a specific situation, words would be meaningless (Zhao & Zhao 2022). The translators of the *Harry Potter* also considered the context to choose proper translation strategies. One of the most typical examples is the translation of *Wingardium Leviosa*. In the book, when students first learned this spell, Ron Weasley mispronounced it, so Hermione showed him the right pronunciation and the right gesture, which aroused a conflict between Ron and Hermione. To show the pronunciation mistake, the translators transliterate both the wrong spell and the right spell to let readers understand the plot.

4.4 *With personal emotion*

In *Harry Potter*, spells have been categorized into neutral ones, mischievous ones, evil ones and so on. Therefore, some of the spells contain emotional information. The translators have to express this hidden information to the readers. In the interpersonal communication, emotive language has the function of conveying emotional information and enriching meanings of sentences, and it is one of the media used to exchange emotions (Xu 2020). Therefore, translators used some emotional words to translate some of the spells. An emblematic example is the translation of *Crucio*. According to J.K. Rowling, there are three Unforgivable Curses in the world of *Harry Potter*, which means they would cause great damage to others and if a witch or wizard uses any one of them, she or he would be sentenced to life imprisonment in Azkaban, a jail for evil wizards and witches. *Crucio* is one of the three Unforgivable Curses, and is used by villains to torment others. For example, because of being cursed by *Crucio*, one of *Harry Potter*'s friends, Neville Longbottom's parents had to spend rest of their life in pain in St. Mungo's, a hospital to take care for cursed people. To show the evil power and hatred of this spell, the translators translated it into 钻心剜骨, which means to pierce one's heart and gouge out one's bone. This translation vividly shows the pain brought by the spell, and make readers loathe characters who use this spell to harm others. In this way, the translators successfully convey the emotional information of the spell.

4.5 *Building defamiliarization*

Translation is a cross-linguistic activity. It involves not only two different language signs but also two different cultures reflected by languages (Zheng 2022). Therefore, translating contains culture delivery. Because of different cultures, the translation may let readers feel strange. But Opoyaz, Russian formalism claims that defamiliarization is the essential attribute of literary language and the most essential characteristic of literature as a kind of language arts (Zhou 2022). So how to balance the culture of defamiliarization and assimilation? The author has to emphasize that *Harry Potter* is a series of stories based on a Western cultural background, and most of the spells in it are created by J.K. Rowling, which is sometimes even novel to British readers. Therefore, how to retain this sense of unfamiliarity aroused by cultural differences for Chinese readers is a task for translators. To achieve this goal, the translators applied foreignizing method. Foreignizing method means when

producing target text, translators would keep some exotic parts to deliberately break the management of target language (Zhang 2021). With this method, the translators could keep the strange sense of spells. For example, the translators translated Alohomora into 阿拉霍洞开 instead of some common idioms like 芝麻开门. Alohomora in the book is used to open the locked doors. It derives from a local dialect in Sidiki in West Africa, and it means to steal amicably. In order to let readers understand its function, the translators kept the pronunciation of Aloho, but added 洞开, which means to open in Chinese to explain its meaning. Compared with simply 芝麻开门, this translation successfully keeps the exotic part of the spell, and Chinese readers won't be confused by a sense of familiarity, as 芝麻开门 is a common spell in Chinese to open a door. It reminds readers that it is a Western spell and used in Western cultural background. It can emphasize the innovation in worldview setting of the novel and distance readers of target language from made-up words, thus giving readers a sense of engagement (Wen 2021).

5 CONCLUSION

In this paper, the author found that the spell translations in *Harry Potter* have applied four strategies: literal translation, transliteration, liberal translation and hybrid translation. They share some attributes—they are in accordance with the function of spells, understandable, contextual, with personal emotion, and able to build defamiliarization. In the future, the author hopes this thesis could help people with made-up word translation in literature work. The future study should focus more on how to realize such characteristics and methods that help to achieve this goal.

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The translation strategies and skills of nouns in *Harry Potter*

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ABSTRACT: *Harry Potter*, a worldwide famous series novel, has been translated into more than 80 kinds of languages. Using different translation skills, the translated content might express different meanings. This paper focuses on three translation strategies and skills used in Chinese translation novels, which are Culture Image Translation, Domestication Translation and Foreignizing Translation. The author of this paper studies these translation skills by looking through the documents of related papers and also using examples comparing the nouns in the Chinese translation and the original novels. This paper offers different views and referential values. After reading the related papers, the author found that these three translation skills have both advantages and disadvantages, the translated content might not express the novels' author's original viewpoints accurately, but sometimes could fit the taste of the target readers. In order to ensure the quality of the translation, translators can use different translation strategies that are suitable to the original novels.

Keywords: Harry Potter, Nouns, Translation skills

1 INTRODUCTION

1.1 Culture image translation

Culture Image is the condensation that could represent cultural characteristics. Cultural images from different national backgrounds represent different cultures with different features (Liu 2016). Therefore, cultural image translation should not only preserve the cultural characteristics of the original work, but also combine the cultural characteristics of the target readers, preserve the differences between the two cultures, and improve the translation from the perspective of the author and readers, so that the main theme of the original work can be fully understood by the target readers (Liu 2016).

For example, take Western culture and Chinese culture. Due to the differences between the origin of these two cultures and the value systems, like the words, social systems, even the beliefs, and so on, there may be different perspectives of things (Kuo 2021). One side could not learn about the other side's culture knowledge, so translators might need to make the translation native. One side could not learn about the other side's culture knowledge, so translators might need to make the translation native.

1.2 Domestication translation and foreignizing translation

Domestication Translation and Foreignizing Translation are two translation skills that have completely different translation purposes. Domestication Translation is from the perspective of readers so that readers can have a clearer understanding of the novel author's intentions, by contrast, Foreignizing Translation is from the perspective of novel's author, the

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translators should faithfully convey the author’s novels’ ideological content as much as possible (Tian 2018). These two translation skills have different effects.

Compared to Foreignizing Translation, Domestication Translation is a translation skill that pursues idiomatic expressions rather than considering too much the intentions of the expression usage from the original author. Foreignizing Translation is more focused on the writing purpose of the original author (Tian 2018). Instead of using less idiomatic words to translate the original content, translators choose to keep the language style and characteristics, whereas target readers might be confused about the translation and not feel connected to the original.

As a result, these two translation skills have controversy because sometimes when translators use them, the translation effect is not satisfactory. Therefore, translators need to consider different contexts and choose a relatively accurate translation skill.

2 AN OVERVIEW OF *HARRY POTTER*

Harry Potter is written by JK Rowling, and this series of novels has a high rank in the literary field. It is one of the most popular novels in the world. The sales of novels exceeded 700 million, and the film series adapted from the novel also grossed a total box office revenue of 7.8 billion dollars, the data show its great influence around the world.

This series of novels tells a world that is different from the real world, mainly talking about a few young witches and wizards who went through a lot of big events bravely together in their growth process and finally became the persons they wanted to be.

After reading the whole novel, readers could find a complete world system created by the author, which made readers intrigued by more detailed information. Apart from the exciting plots, the values expressed in this series of novels reflect the original author’s attitude towards the world, such as racial problems, the importance of love, and so on, attracting readers’ minds. Readers could find emotional resonance by reading this series of books.

3 TRANSLATION

3.1 *Culture image translation*

Cultural image translation is the process of presenting the cultural and artistic connotations expressed in the original text to readers in other regions who may lack similar artistic and cultural backgrounds, allowing readers to directly feel the cultural connotations that the author wants to express (He 2014). At the same time, the translator should also respect the cultural differences between the reader and the author’s region, and respect the cultural images of the reader’s region (He 2014).

Table 1. English words and corresponding Chinese translations.

Example	English	Chinese
1	Gringotts	古灵阁
2	Order of the Phoenix	凤凰社
3	Death Eaters	食死徒

Table 1 shows the English words used culture image translation method.

In novels, Gringotts is a bank for wizards and witches. On the one hand, Chinese translators used transliteration, so it was translated into “古灵阁” (see Table 1). On the other hand, “阁” in Chinese means an official and serious place, which matches the context that Gringotts is a bank and a place full of mysteries. Although Chinese readers may be confused about what is “古灵阁”, they can learn from the translation that it is a solemn place.

In both English and Chinese culture, phoenix has a lot of good characteristics. In Western culture, it means the secular bird, and in Chinese culture, the phoenix represents peace, kind, and immortal (He 2014). So translators paraphrased “phoenix” into “凤凰” (see Table 1). In English meaning, order means a religious group, and in Chinese meaning, order means a voluntary organization. In novels, Order of the Phoenix is an organization grouped by Dumbledore, it is organized by individuals but also has a large scale. So translators translated Order of the Phoenix into “凤凰社” (see Table 1) which matched the original meaning but did not miss the relationship between Western culture and Chinese readers’ cultural background (Kong 2018).

The mainland translation of ‘Death Eaters’ is “食死徒” (see Table 1), which adopts a literal translation method and combines the language characteristics of Chinese to translate ‘Eaters’ as “食徒” instead of “食客”. In Chinese, “徒” represents people who believe in religion. In the novel, ‘Death Eaters’ are a group of people with strong beliefs and crazy followers of Voldemort, so the translation of ‘徒’ is very suitable for the cultural habits of Chinese readers.

3.2 Domestication translation

Domestication translation is a translation method that adapts to the cultural environment of the target audience according to their requirements (Wang 2023). Harry Potter novels contain many nouns with Western cultural characteristics, such as names of people, creatures, special places, and spells. The Western culture behind these nouns is quite different from the Chinese culture that Chinese readers are familiar with. Therefore, translators need to according to the reading aesthetic needs that Chinese readers can accept, and strive to refine the translation without changing the meaning of the original text and also respect the culture background of the readers (Zhou 2013). Domestication translation focuses more on the reader’s reading experience and tends to translate the original text into a language that the reader can better understand (Chang 2023).

Table 2. English and corresponding Chinese translations.

Example	English	Chinese
4	Peeves	皮皮鬼
5	Expelliarmus	除你武器
6	Stupefy	昏昏倒地

Table 2 shows the English words used domestication translation into Chinese.

The character of a ghost in the novel is called Peeves. If this word is transliterated in Chinese, it should be “皮乌斯” (Table 2). If it is translated directly into Chinese, it is a nuisance and troublesome thing. However, the translation of the Chinese Mainland version is “皮皮鬼”. This translation can let the reader see at a glance that Peeves should be a naughty and disruptive character, which is an effect that cannot be achieved by literal translation or transliterated names.

This type of translation method is widely used in mainland translation versions when translating spells. Taking the incantation “Expelliarmus” as an example, it is translated as “除你武器” in mainland China (see Table 2). The original meaning of the word is to disarm the opponent, while the translation provides readers with a very intuitive understanding of the function of the incantation.

Taking the spell “Stupefy” as an example, the original word is a verb, meaning to make people sleepy, while the Chinese Mainland translation is “昏昏倒地” (Table 2). This translation not only allows readers to understand the meaning more directly, but also conforms to most of the rules of the translator’s translation of spells, that is, translated into four-word words, but also very catchy (Cai and Pan 2020).

The Burrow in Harry Potter is a house that is simple and crude. In Chinese translation, it was translated into “陋居” (Table 2). This translation could make Chinese readers associate one famous Chinese ancient poem, On My Modest Room (陋室铭). The translation of the Chinese version clearly that the Burrow is simple but is a place where people live.

3.3 Foreignizing translation

Foreignizing translation is different from domestication translation, as it tends to preserve the language characteristics of the original text and allow readers to understand the meaning of the original text themselves, rather than replacing content that may not be understood by readers with explanations that are easier for them to understand (Zhu 2014). The characteristic of this translation is that it can ensure that the author’s original intention can be conveyed more directly without translation modification, while this method may make the content difficult for readers who may have cultural differences to understand (Fu 2014).

In novels, the author, JK Rowling designed a lot of names according to the Western culture, but Chinese readers are not familiar with them. Chinese translators might consider the beauty of the translation, the translations of many of the names are transliteration which could not express the correct suggestions of the author directly (Cui & Li 2022).

For some Western readers, it might be easy to know the meaning of the names directly from seeing the original contexts. However, for most Chinese readers, it would be much more difficult to understand the author’s original intention.

Table 3. English and the corresponding Chinese names in *Harry Potter*.

Example	English	Chinese
7	Sirius Black	小天狼星·布莱克
8	Narcissa Malfoy	纳西莎·马尔福
9	Voldemort	伏地魔

Table 3 shows the Chinese translation of the names used in foreignizing translation.

Taking the name of “Sirius Black” as an example, Sirius should be transliterated into “西里斯” according to the rule of common translation of personal names, but mainland translators literally translated it into its original meaning, namely “天狼星”(see Table 3). The original author combined the character characteristics of the character itself when designing the name, so the translation of “天狼星” can let readers associate the characters with their names, but many Chinese readers do not know about these planets, they will not associate the meaning of a name with the characters (Mo 2013).

Narcissa is the name of a flower. It also contains a meaning of painful love. In the novel, Narcissa Malfoy is a grateful mother but in a dangerous and dark condition, she loves her family deeply. So the name of this character can show the characteristics of this role, but Chinese translators transliterated it into 纳西莎 (Table 3). This translation could not convey the author’s meaning.

Voldemort originated from a French word that means fly away from death. It matched the character that he was afraid of death. Chinese readers were not familiar with French so could not understand the meaning of the name, Chinese translators also transliterated it (see Table 3) without showing the original meaning.

4 CONCLUSION

Translators used various kinds of translation skills while translating *Harry Potter* and three translation strategies were widely used which were the object of the study, were Culture Image Translation, Domestication Translation, and Foreignizing Translation.

The readers of *Harry Potter* are from different countries, and the novels have a large market, so there are a lot of translation versions. Translators are the bridges of the writers and readers. Different translators would use different translation skills to translate them. If translated in an inaccurate way, the meaning of the content would be changed, so choosing proper translation skills is important. This paper has found no perfect translation skills exist, like Domestication Translation and Foreignizing Translation, translators would for the perspective of target readers, original authors or different cultural backgrounds to translate, as a consequence, translation might ignore readers' reading experience or original author's purpose.

Qualified translators should translate the content on the basis of the rule of without changing the original author's meaning or the original meaning and achieve effectiveness. Sometimes following conventional translation skills might not be the optimal choice, and translators should consider the context of the content and the cultural differences between the original author and readers, in order to ensure the quality of the translation.

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An analysis of whether the Qing political system is a bureaucratic organization in Weber's term

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ABSTRACT: Contradictory bureaucratic and unbureaucratic features in Weber's term coexist in the Qing political system. The Qing political system largely resembles a modern bureaucracy in Weber's term with respect to having a clear hierarchy of powers based on a high degree of specialization, a detailed set of rules that regulate all bureaucrats, the Qing Code, and a series of formal procedures that specify the impersonal management of bureaucrats. However, at the same time, the influence of the emperor's unrestrained autocratic power reveals the complex dynamics of the Qing political system: mechanisms through which the emperor manipulates the government and personal connections flood the superficially bureaucratic system. Building upon existing literature and an analysis of the History of the Qing and adopting the theoretical perspectives of Fukuyama's study on political systems and Weber's theory of bureaucracy, this article aims to reveal the complex dynamics of the Qing political system and demonstrate the hidden logic that dominates the superficially bureaucratic Qing politics.

Keywords: Qing Dynasty, Political System, Bureaucracy, Max Weber

1 INTRODUCTION

The significance of whether the Qing political system is a bureaucracy in Weber's sense stems from the operating logic of the pre-modern Chinese political system, which is fundamental for gaining insightful findings regarding pre-modern China and tracing the root causes on an institutional level from an organizational perspective. The Qing political system, the peak of autocratic feudalism, is selected as it represents the most organized and evolved pre-modern (before 1911) Chinese political system as very few pre-modern institutions were compatible with the Qing political system in terms of size and level of organization (Waley-Cohen 2004). When it comes to studying the Qing political system itself, some of the existing studies have focused on analyzing the historical events during the Qing Dynasty and tracing the causes back to specific features without a comprehensive study of the Qing political system as a whole (Luo 2016; Ye 2013; Zhou 2021). Other scholars who study the Qing government more comprehensively overlook its difference from modern government and often analyze its pros and cons with the presupposition that it is a modern bureaucracy (Lü 2002; Qian 2012). A comprehensive study of whether the Qing government is a modern bureaucracy provides a better framework for analyzing the Qing government and a better perspective to analyze the causes of many historical events on an institutional level.

On one hand, the Qing government in many respects is a modern bureaucracy in Weber's sense, or otherwise, it would be impossible to govern such an enormous territory. On the other hand, such a seemingly bureaucratic organization in Weber's sense is regarded as

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‘patriarchal’ in opposition to being a bureaucracy by Weber himself (Weber 2016). This study will investigate the aspects of the Qing government that are compatible and incompatible with Weber’s model based on an analysis of existing literature. Specifically, this article will adopt two contrasting perspectives, Weber’s and Fukuyama’s, on the pre-modern Chinese political system and analyze the Qing political system arguments in alignment with each perspective.

This paper will commence by introducing Weber’s theory of bureaucracy, along with two contrasting perspectives on the Chinese political system, in the theoretical framework section. Subsequently, these theories will be applied to the Qing political system for more detailed analysis in the following two sections, with a thorough exploration of features of the Qing political system that correspond with each perspective.

2 THEORETICAL FRAMEWORK

Bureaucracy was defined by Weber as a mode of organizational management that arises along with modernization (Weber 2016). This model emphasizes hierarchies, strict rules, specialization, and impersonal management of workers (Weber 2016). This means that it is characterized by clear hierarchies of power, detailed regulations and rules, division of labor, and use of impersonal decision-making based on merit and expertise. Correspondingly, when this model is applied to a political system, a modern bureaucracy should have the following features: 1) there is a clear hierarchy of power; 2) every bureaucrat performs his specialized duty; 3) detailed rules and regulations are implemented that regulate the actions of bureaucrats; 4) the impersonal management of bureaucrats should be based on merit and expertise through official procedures.

Whether the Chinese political system is a bureaucratic organization in Weber’s sense is contested. Although Weber himself claimed that it had not been a modern bureaucratic organization by his time (Weber 2016), the Chinese political system does indeed fit into his model of bureaucracy in many respects. This is well illustrated by Fukuyama, a leading figure in contemporary political science, who disagrees with Weber’s claim and argues that the Chinese government is a modern bureaucracy with an established central power, a clear hierarchy, a high degree of specialization and impersonal management of bureaucrats based on detailed rules and regulations (Lü 2002). Regardless, Weber is correct to a large extent in the sense that the Chinese government lacks a clear hierarchy of powers due to its patriarchal aspect and accordingly the impersonal management, which are essential for a modern bureaucracy. This section will introduce these two contrasting perspectives on whether the Chinese government is a modern bureaucracy.

On one hand, Fukuyama argues that China has been a modern state with a modern bureaucratic political system since the Qin Dynasty (220—202 BCE) (Fukuyama 2011). He stresses the impersonal aspect of Weber’s bureaucracy and argues that a modern state differs from tribes in the sense that ruling is based upon an impersonal bureaucratic system rather than kinships or similar personal connections as in tribes. In his theory, replacing kinships and such personal relations with impersonal management as the way of governing, the Chinese political system dating back to as early as Qin Dynasty had developed to be a modern bureaucracy in Weber’s sense (Fukuyama 2011). This is because ever since Qin Dynasty, 1) the Chinese government has had a central power (the emperor and the central government) that is supreme to all other powers within the territory, and a clear hierarchy of powers where power is gained through its official relation to the central power; 2) all bureaucrats are subject to the law that regulate their actions; 3) instead of kinships or other personal relations, all bureaucrats are appointed by the state and its political system where the central power lies according to their merit through official procedures (Fukuyama 2011). Therefore, Fukuyama argued against Weber and regarded Weber’s claim that China’s political system was not a modern bureaucracy as a ‘myth’.

However, on the other hand, Weber himself has explicitly stated in his book *Economy and Society* that rather than a modern bureaucracy, the Chinese government was ‘patriarchal’ and ‘autocratic’ (Weber 2016). Although Weber did not elaborate on this argument regarding China, the hierarchy of powers was indeed confused to a large extent due to the existence of the emperor’s autocratic power, creating space for personal connections and unofficial relations to rule. This violates the fundamental principle of impersonal management in Weber’s theory of bureaucracy and thus from this perspective, it may be speculated that the Chinese political system is not a modern bureaucracy.

3 ANALYSIS FROM FUKUYAMA’S PERSPECTIVE

This section will analyze the aspects of the Qing government from Fukuyama’s perspective and explore features in alignment with Weber’s model of bureaucracy.

First, the Qing political system had a clear hierarchy of powers revolving around a central power based upon division of labor and specialization. On one hand, at the top of the hierarchy lies the supreme power of the emperor (Waley-Cohen 2004). This supreme power of the emperor is the root from which the whole government’s power is derived through the emperor’s endorsement and authorization to govern in his name (Lü 2002). On the other hand, the power of the government is organized both vertically and horizontally (Lü 2002). Vertically, the central government known as Chaotin, province, prefecture, and county are the four administrative levels of government from high to low, and the bureaucrats on each level execute the policies and orders from those on one level above (Lü 2002). Moreover, all bureaucrats are ranked into nine grades indicating their position in the hierarchy. Horizontally, the central government has three main branches: 1) the Executive: The Six Ministries including the Ministry of Personnel, Ministry of Revenue, Ministry of Rites, Ministry of War, Ministry of Justice, and Ministry of Construction: they are responsible for governing six sections of the society and perform both policy-makers and policy-executers; 2) the Judiciary: the Dali Court, which is independent of Ministry of Justice and responsible for handling legal cases; 3) the Censorate, which is responsible for supervising all the bureaucrats (Qian 2012). The government of all lower administrative divisions also has these three branches but under different names (Qian 2012). This shows that the Chinese government has a very clear hierarchy and a high degree of specialization that resembles the separation of powers.

Second, rather than by personal networks as in tribes, all bureaucrats are regulated by the Qing Code (Qian 2012). The Qing Code is a comprehensive law that does not only apply to ordinary citizens but also has a specific section that lays out a complete set of specific rules that regulate bureaucrats and punishment for any deviant behavior (Qian 2012). There are two ways how the Qing Code regulates the bureaucrats: 1) the Censorate is an independent department that is responsible for supervising all bureaucrats and reporting any deviant behavior directly to the emperor; 2) any bureaucrat may impeach any other bureaucrat for their deviant behavior regardless of their ranks (Qian 2012). This shows the Chinese government also has the rule of law (only the emperor himself possesses immunity) and the detailed rules aspect in Weber’s sense.

Third, rather than personal connections such as kinships, the bureaucrats are selected and promoted through formal procedures (Lü 2002). This is evident in both the initial selection of bureaucrats and further promotions in their later careers. First, bureaucrats were often selected through a civil service examination system that was designed to recruit the best talent and the most educated into the bureaucracy (Lü 2002). The exam system was divided into three main levels from low to high: county, provincial, and palace examinations. Only those who pass the lower level may proceed and take the next higher level. Then those who pass the provincial and palace examinations will be assimilated into the government. Second, all bureaucrats face assessments of their performance every three years, those in the central government’s assessment known as “Jingcha” (Literal translation) and that of those in the

local government known as “Daji” (Literal translation) (Lü 2002). Then all reports will be gathered and analyzed by the Inspection Panel, which will determine whether to promote or impeach a bureaucrat based on his performance (Lü 2002). The selection and appointment of a bureaucrat through formal procedures indicates the impersonal management of the bureaucrat in the Qing government.

4 ANALYSIS FROM WEBER’S PERSPECTIVE

Quite the opposite, rather than being organized in a bureaucratic manner, Weber views Chinese politics as ‘patriarchal’ in essence (Weber 2016). As a result, on the one hand, it lacks a clear hierarchy of powers while on the other hand, the management of bureaucrats is highly personalized, contradicting Weber’s model of bureaucracy.

4.1 *The confused hierarchy of powers*

On the one hand, the Qing political system has a hierarchy of powers that is confused in many respects, largely due to the mechanisms through which the emperor inflicts his will onto the government in an unrestrained manner (Qian 2012). In Weber’s view, the confused hierarchy of powers is essential because of the existence of the emperor’s autocratic power (Weber 2016) which prevents 1) the ‘routinization’ and ‘rationalization’ of the Chinese political system, and 2) the development of a clear hierarchy that would potentially undermine this autocratic power (Kong 1999). The direct cause for this is that the emperor’s autocratic power is placed above the whole political system, exerting his will upon the government at any spot and at any time (Zhou 2023). As a result, the mechanisms that ensured this emperor’s autocratic power had led to the confused hierarchy of powers within the government.

First, one mechanism that erodes the clear hierarchy is the “Imperial Edict by Letter” (Zhu 2006). Imperial Edict by Letter refers to the orders that the emperor discreetly sends to the relevant bureaucrats directly (Zhu 2006). This bypasses all the formal procedures where the emperor could only approve or reject the bill proposed by the relevant department in the central government, which then will forward the approved bill to the relevant district government to put it into practice (Zhu 2006). This positions all bureaucrats at the emperor’s disposal, eroding the power of the whole central government.

Second, the superior power of the central government in relation to the district government is largely confused. Prior to Qing Dynasty, all orders must be initiated and distributed by the Six Ministries which then would give specific orders to provincial governors for them to implement (Qian 2012). However, during the Qing Dynasty, the ministries no longer could directly give orders to the district governments but only advise the emperor on specific topics, and the emperor was the only one that had the power to give specific decrees (Qian 2012). In this situation, the superior position of the central government composed of Six Ministries in relation to district government is highly vague.

Third, the power within the central government is also chaotic to an extent. On one hand, prior to the Qing Dynasty, there used to be only one minister and one deputy minister in each ministry (Qian 2012). However, during the Qing Dynasty, there were two equal ministers and four equal deputy ministers, half of which were Manchu while the other half were Han Chinese. As a result, there have been many cases where contradictory orders were given by the two ministers (Qian 2012). On the other hand, during the Qing Dynasty, both ministers and deputy ministers could independently report to and advise the emperor (Qian 2012). Given that the power to advise the emperor is the only power left with the ministries, this mechanism means that ministers no longer have the authority to lead the deputy ministers, leading to a confused hierarchy within the ministries.

Lastly, the power of the management of bureaucrats that used to lie in the hands of the Ministry of Personnel was also puzzled during the Qing Dynasty. Before the Qing Dynasty, the appointment of bureaucrats higher than grade five was determined by the

central government mostly with the candidates proposed by the Ministry of Personnel as the primary range, and the bureaucrats lower than grade five were solely appointed by the Ministry of Personnel (Qian 2012). However, during the Qing Dynasty, the appointment of bureaucrats higher than grade five was decided by the emperor alone often without the Ministry of Personnel's awareness (Qian 2012). Furthermore, although the Ministry of Personnel still has the power to appoint bureaucrats lower than grade five, the candidates must be interviewed by the emperor in person and the appointment be approved. This change in the appointment procedure considerably muddles the power of the Ministry of Personnel.

4.2 *Personalized management of bureaucrats*

The confused hierarchy of powers further leads to the personalized management of bureaucrats based on personal connections. Without a clear hierarchy of powers, the superiors, including the emperor himself, would have to rely on the loyalty of subordinates to execute orders and hence will develop personal networks by promoting the bureaucrats who have close personal connections as an indicator of loyalty (Zhou 2023). In the meantime, the subordinates also rely on superiors for promotions or protections that rules and regulations insufficiently provide (Liu 1999). As a result, the management of bureaucrats is largely built upon the personal connections, which is in violation of the impersonal management of bureaucrats in Weber's model.

On one hand, the initial appointment becomes highly personal. As all bureaucrats are appointed either directly (those higher than grade five) or indirectly (those lower than grade five) by the emperor, the appointment is largely based upon the emperor's own feelings toward individual bureaucrats, and all appointment is regarded as an emperor's charity, which is also highly confidential (Lü 2002). Henceforth, all public actions in a bureaucrat's career life are highly influenced by his personal relationship with the emperor (Lü 2002).

On the other hand, the assessments of bureaucrats' performances and the corresponding recommendations for positions that determine promotions or demotions are also highly personal. As the examiner is usually the superior of the object bureaucrat, the assessment is often determined by bureaucrats' informal relations with their superior rather than actual performance. As assessments are highly subject to judgements, the superiors often use the assessments to reward those who are personally loyal to them and punish those who are not (Zhu 2006). The emphasis on personal loyalty is largely because, with the confused hierarchy, bureaucrats need to forge a personal network of power based upon personal loyalty from their subordinates to ensure the implementation of their will (Zhu 2006). Within the personal network of power, personal connections such as classmates, teacher-student, and family friends play a key role in building trust. Assessments and corresponding recommendations to positions made by superiors, the critical determinant of promotion and demotion, are a great chance to promote loyal subordinates and grow such personal networks. According to the Record of Decrees of Qing Dynasty, at least 30% of county governors are appointed due to the recommendations of their superiors (Qian 2012).

Moreover, the prevalence of such personal network of power and the consequent highly personalized management of bureaucrats mark a distinct feature of all pre-modern Chinese political system, including that of Qing. On one hand, the pre-modern Chinese political system has a complete set of rules and regulations for impersonal management of bureaucrats that specifies the hiring, appointing, rotating, promoting and speculating bureaucrats in a strikingly detailed way (Yan 2010). On the other hand, in the meantime, personal networks built upon personal connections are widespread within the political system, exerting magnificent influence over the appointment of bureaucrats on all levels (Chen 2011). The root cause of these personal networks of power could be traced back to the emperor's autocratic power and the resultant confused hierarchy of powers and personalized management of bureaucrats.

5 CONCLUSION

In conclusion, contradictory bureaucratic and unbureaucratic features in Weber's term coexist in the Qing political system. On one hand, the Qing political system largely resembles a modern bureaucracy in Weber's terms with respect to having a clear hierarchy of powers based on a high degree of specialization, a detailed set of rules that regulate all bureaucrats, the Qing Code, and a series of formal procedures that specify the impersonal management of bureaucrats. However, at the same time, the influence of the emperor's unrestrained autocratic power reveals the complex dynamics of the Qing political system: mechanisms through which the emperor manipulates the government and personal connections flood the superficially bureaucratic system. On one hand, the mechanisms through which the emperor deploys his autocratic power create a confused hierarchy of powers. On the other hand, as a result, personal networks of power arise and lead to highly personalized management of bureaucrats. The research findings of the complex dynamics of the Qing political system may provide an organizational perspective for scholars to analyze the dysfunctions of Qing Regime in the face of challenges and the final fall of the dynasty. Also, the challenges of the Qing political system may as well be inspiring for contemporary Chinese politics.

There are several limitations to this study: first, due to the word constraint, the mechanisms through which the autocratic power is exerted and the internal mechanism of personal networks of power are presented in a considerably brief way given the complexity of both phenomena. Second, the Qing political system is a highly complex organization and features of it are by no means limited to those analyzed in this article. The research gap exists in the unbureaucratic aspects of the Qing political system. First, how bureaucrats obtain their authority when the hierarchy of power is not clearly defined and upheld by the system, and second although personal networks of power are a commonly acknowledged phenomenon across Chinese history, an integral and comprehensive study of its internal mechanism and how it exerts influence on the political system is absent. Future studies may focus on these two fields and produce inspiring insights.

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Impression management and interpersonal communication in the internet age: Exploring the new dynamics with MBTI personality testing as an example

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ABSTRACT: Digital platforms and social media impact communication modes in contemporary society, with personality traits playing an increasingly important role in online interpersonal dynamics. This paper examines the evolving landscape of impression management and interpersonal communication in the context of the Internet age, with a specific focus on the application of MBTI personality testing. Drawing upon a review of relevant literature, this study reveals that the popularity of MBTI personality testing has created new avenues for individuals to categorize themselves, seek like-minded individuals, and influence their social behaviors. This research sheds light on the dynamic interplay between impression management, interpersonal communication, and the utilization of MBTI personality testing in the Internet age. It contributes to a deeper understanding of the opportunities and challenges associated with self-presentation and social interactions in the digital era. The study concludes by suggesting the need for critical engagement with MBTI testing and the development of digital literacy skills to navigate the complexities of online social dynamics.

Keywords: MBTI, personality type, impression management, self-presentation, interpersonal interaction

1 INTRODUCTION

In contemporary society, digital platforms and social media have significantly influenced communication and posed challenges in navigating interpersonal relationships. In this context, individual personality traits play a crucial role in managing online impressions and shaping interpersonal dynamics (Li 2018). Previous research has suggested that personality may be related to the use and nature of the use of the Internet (Wang *et al.* 2012) and contributes to understanding why people behave the way they do on social media platforms (Amichai-Hamburger & Vinitzky 2010; Correa *et al.* 2010; Wang *et al.* 2012).

In order to better explain social variations among individuals, psychologists and researchers have developed various personality assessment tools, including the Myers-Briggs Type Indicator (MBTI) personality test (Zywica & Danowski 2008). The MBTI test categorizes individuals into 16 different personality types based on cognitive preferences, information processing styles, emotional expression, and interpersonal interactions. Each personality type possesses unique characteristics and tendencies, such as extraversion (E) versus introversion (I), and feeling (F) versus thinking (T). Moreover, individuals' self-presentation on social media platforms is closely linked to their personalities, as they utilize the results of the MBTI test to showcase their identities and connect with others in

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emotionally resonant communities. For instance, individuals on Chinese social media platforms participate in the MBTI test to obtain their personality profiles and tend to apply the results to various domains, including career choices, relationship building, and team collaborations. Hence, the MBTI personality test may aid individuals in self-categorization, facilitating the identification of like-minded individuals and exerting an impact on self-perception and social interactions.

However, despite the widespread acceptance and application of the MBTI personality test in practice, research on its influence on individuals' cognition and interpersonal interactions remains relatively limited. Therefore, this study aims to bridge this research gap by investigating the impact of MBTI personality testing on cognition and interpersonal interactions, drawing upon theories of dramaturgy and symbolic interactionism. By exploring the relationship between individuals' personality traits and their online social interactions, this research may contribute to understanding the dynamics of self-presentation and image management on social platforms in the digital age.

This study will conduct a literature review to explore the potential mechanisms through which the MBTI personality test may influence individual cognition and interpersonal interactions. Additionally, this paper will discuss, from a theoretical perspective, the changes in interpersonal interactions brought about by different personality types in social applications, as well as the impacts of these changes on individuals and society.

2 KEY DEFINITION AND THEORETICAL FRAMEWORK

2.1 *The Myers-Briggs Type Indicator (MBTI) test*

The Myers-Briggs Type Indicator test, based on Carl Jung's psychological types, has found broad application and acceptance (Gu & Hu 2013). It classifies individuals into different personality types based on four dimensions: Extraversion-Introversion, Sensing-Intuition, Thinking-Feeling, and Judging-Perceiving. For instance, "ISFP" individuals are typically described as introverted, sensing-oriented, emotionally driven, and perceptive (Goby 2006). Although individual differences exist within the "ISFP" personality type, they, in general, exhibit an accommodating social tendency, value harmonious relationships within close-knit social circles, and emphasize personal emotional experiences and interactions with others.

While the test has its critics, its popularity on social media platforms reflects the ongoing interest and significance of personality testing. According to Weibo (a popular social media platform in China) Index, the number of topics related to MBTI has significantly increased since March 7, 2022 (Tang 2022). As of July 2, 2023, the cumulative number of searches for the trending topic #MBTI# on Weibo has reached 3.22 billion times, with a total discussion count of 762,000.

2.2 *Symbolic interactionism*

Symbolic interactionism explores how individuals create and interpret symbols during social interactions. It focuses on concepts like the role of symbols, gestures, and shared meanings in shaping social reality (Li 2018). This theory offers insights into the dynamics of how MBTI is utilized in social media interactions. It highlights the role of symbols, such as MBTI types, in shaping individuals' self-presentation and the interpretation of others' behaviors. It also emphasizes the importance of shared meanings and the co-creation of social reality through symbolic exchanges.

On social media platforms, MBTI test results are widely utilized and discussed, serving as a specific symbol for expressing individual personality traits and preferences. First, Symbolic Interactionism emphasizes the importance of shared understanding and interpretation of symbols. On social media, individuals collectively accept the MBTI test as a

symbol and engage in shared interpretations of the meanings and characteristics associated with different MBTI types. This shared understanding of diversified personality types may create a shared context, enabling individuals to better interpret the behaviors and expressions of others.

Secondly, symbolic interactionism focuses on how individuals construct social reality through symbol interaction. On social media, individuals can share their own MBTI types, participate in related discussions and interactions, and establish connections with others who possess similar or complementary MBTI types to construct a social reality based on MBTI types. This social reality is based on symbolic interaction, as individuals utilize MBTI test results and associated symbols to shape their social identities and foster mutual understanding in social interactions.

Moreover, Symbolic Interactionism highlights the flexibility and adaptability of symbols. On social media, individuals can flexibly employ and adjust the symbolic representation of their MBTI test results to align with their self-presentation and interactive needs. The flexibility of symbolic interaction allows individuals to select and utilize symbols based on different social contexts and interactive partners, thereby better achieving their social goals.

2.3 *Dramaturgical theory*

The concept of dramaturgy, which views social interactions as a virtual theater where individuals are seen as actors performing on a stage, is highly relevant to the virtual environment of the Internet (Ying & Hong 2018). In both contexts, individuals strategically present themselves, manage impressions, and navigate social roles to create desired identities (Baert & Filipe 2009). Goffman's work highlights the importance of impression management and the ways in which individuals strategically control their self-presentation to influence others' perceptions (Baert & Filipe 2009). Therefore, the application of dramaturgy theory to social interactions in virtual environments aligns with the core principles of understanding human behavior and social dynamics.

The key concepts in this theory, like frontstage, backstage, role behavior, and collusion, find practical expression in the context of individuals utilizing MBTI test results for self-presentation and impression management on social media platforms. Firstly, the frontstage refers to the public surface image that individuals project on social media. When engaging in self-presentation using MBTI test results, individuals selectively display traits and behaviors associated with their MBTI type to shape a specific image. For instance, an individual self-identifying as an "ENTJ" (Enterprising type) may emphasize their leadership and decision-making abilities in their self-introduction, aiming to exhibit confidence and assertiveness. By carefully selecting and presenting specific role behaviors, individuals seek to present traits aligned with their MBTI type in the front stage to obtain specific social feedback and recognition.

Second, the backstage represents individuals' authentic selves on social media, the inner aspect that is not visible to the public. Within the context of MBTI self-presentation, the backstage may encompass more of the individual's complexity and diversity, extending beyond the confines of a singular MBTI type. Individuals may retain certain authentic traits and thoughts that are not fully showcased on the front stage. For instance, an individual classified as an "ISFP" (Artistic type) may exhibit a passion for various art forms and creativity in the backstage, while these traits may not be prominently or explicitly displayed in the frontstage.

Role behavior refers to the roles individuals assume and the corresponding behaviors they exhibit in specific social contexts. Influenced by the results of the MBTI test, individuals can selectively adopt role behaviors that align with their MBTI type to shape their self-presentation. For example, an individual identified as an "INTP" (Thinker type) may demonstrate their rationality and logical reasoning skills when discussing particular topics, assuming the role of a rational analyst. By selectively displaying specific role behaviors,

individuals strive to establish resonance with others on social media platforms and engage in meaningful interactions.

Collusion also plays a significant role in this context. Collusion refers to the mutual cooperation and interaction among participants, aimed at jointly maintaining and supporting each other's performances (Baert & Filipe 2009). When utilizing MBTI test results for self-presentation, individuals may engage in collusion, which involves mutual support, recognition and coordination to collectively shape a social reality that aligns with their MBTI type. For instance, within MBTI-related online communities, individuals may respond and empathize with a meme stating that optimism is characteristic of the "ENTP" MBTI type rather than disprove it, thereby reinforcing shared performance and fostering understanding.

3 MBTI TYPE AND SOCIAL INTERACTION

3.1 *MBTI test on social media*

With the rise of social networks in recent years, internet users have gained more agency in shaping and producing textual meaning. They have transitioned from passive text interpreters to active producers, disseminators, and participants in creating symbolic codes around shared topics. Young people, in particular, utilize symbols to express their personalized needs and establish emotional resonance with others within their social circles. This process allows them to achieve a sense of self-identity as well as a sense of belonging to a group (Wang 2022; Zhao 2022).

In this context, the increasing popularity of the MBTI test as an interactive symbol reflects the contemporary youth's quest for self-identity and the desire to find a sense of belonging. Social media platforms have become spaces where individuals prominently display their MBTI types, engage in discussions about their implications, and seek connections with others who share similar personality traits. This phenomenon also aligns with the theoretical framework of symbolic interactionism, which emphasizes the role of symbols in shaping social interactions and the construction of meaning. With the extensive discussion of MBTI topics on social platforms, MBTI personality types are becoming symbolic representations through which individuals communicate and negotiate their self-identity and interpersonal relationships.

3.2 *Features in MBTI-associated self-presentation*

As depicted in Figure 1, this paper will analyze how the MBTI personality test is involved in users' impression management and self-presentation processes on the Internet within the framework of dramaturgy. First, the MBTI test serves as a tool for individuals to comprehend their personality traits and preferences (Goby 2006). In the pursuit of self-presentation, individuals engage in frontstage performances on social media, influenced by their MBTI test results. For instance, extroverted individuals may consciously or unconsciously adopt behaviors, communication styles, and social cues that align with their MBTI type. They tend to actively seek social interactions and exude outgoing qualities, while introverted individuals may opt for more reserved and contemplative behaviors. Moreover, individuals may selectively emphasize aspects of their personality that conform to the stereotypes associated with their MBTI type, strategically shaping their desired image for others. The MBTI test thus becomes a framework through which individuals construct and perform their frontstage personas on social media.

Secondly, MBTI types have become a new self-identifier for individuals on social media platforms (Wang 2022). For instance, people incorporate their MBTI types into their profiles as a means to express their unique personalities and highlight their specific interests.

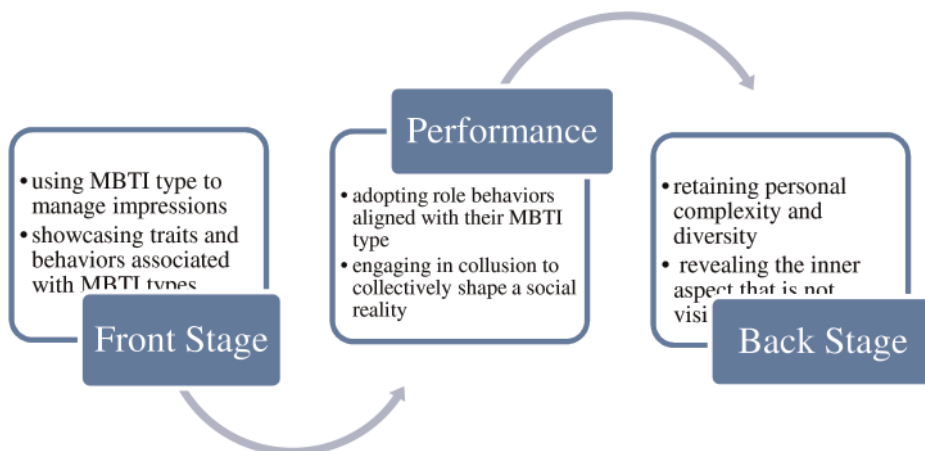


Figure 1. MBTI type and dramaturgical theory (Original).

This self-identification process serves as a mechanism for individuals to align themselves with like-minded individuals or those who possess complementary traits, thus facilitating the formation of deeper and more significant social connections (Li 2018).

Thirdly, the strategic application of MBTI types in self-presentation extends beyond individual behaviors. It can also shape individuals' choices of social groups, interests, and even career paths, as they seek environments that align with the preferences and strengths associated with their MBTI type. By consciously leveraging their MBTI type, individuals can enhance their self-presentation, manage the impressions they create, and potentially influence others' perceptions and interactions with them.

Additionally, social media has witnessed the emergence of numerous communities and groups centered around MBTI types. By openly sharing their MBTI types, individuals can establish a profound sense of belonging within a community of like-minded individuals who resonate with their unique personality preferences. In fact, these communities foster an environment of mutual cooperation among participants in social interactions. Within these communities, individuals often engage in collective support, finding resonance and understanding with one another. Such collective support and affirmation within MBTI-based online communities indicates the shared understanding and collaborative nature fostered by collusion in dramaturgy. Participants actively collaborate in supporting and validating each other's performances, creating an environment where individuals feel seen, heard, and acknowledged for their unique expressions of their MBTI types.

4 SUGGESTIONS

4.1 Existing problems

From an individual standpoint, the subjective interpretation of MBTI test results may lead to the development of rigid self-impressions. The MBTI test tends to oversimplify and stereotype human personality, thereby potentially failing to capture the complexity of an individual comprehensively and accurately. Although the Internet enables individuals to project specific facets of their personalities, the persona depicted through online MBTI tests may not fully reflect one's authentic self. The categorization provided by the MBTI personality model can inadvertently encourage individuals to conform to predetermined personality profiles, limiting their uniqueness and stifling their creative expression. By

excessively relying on the MBTI framework to shape their self-image, individuals may overlook the multifaceted nature of their personalities and inadvertently reinforce stereotypes.

From the standpoint of social media platforms, the utilization of MBTI test results in providing personalized content recommendations also carries certain drawbacks. Specifically, it can contribute to the formation of filter bubbles and echo chambers, where individuals are primarily exposed to content that aligns with their existing beliefs and preferences. Consequently, this may lead to limited exposure to diverse perspectives and reinforce algorithmic biases, thereby hindering the exploration of alternative viewpoints and the fostering of a more inclusive online discourse.

These issues highlight the limitations and potential drawbacks associated with the application of MBTI test results in social interactions and self-presentation. It is essential to acknowledge the multifaceted nature of personality beyond the confines of a standardized test.

4.2 *Strategies for mitigating issues*

As the use of MBTI testing in self-presentation on social media platforms can lead to stereotypical self-impressions and limited individuality, it is crucial to identify actionable solutions. This paper presents three key strategies for improving the application of MBTI testing in self-presentation.

Firstly, promoting individual self-awareness can help individuals go beyond the constraints of MBTI test results and embrace their multidimensional identities. This can be achieved through self-reflection exercises, encouraging individuals to explore their unique strengths, interests, and experiences. By emphasizing the complexity of human personalities, individuals can develop a more nuanced understanding of themselves and avoid being overly reliant on their MBTI types.

Secondly, educating individuals about the limitations and potential biases of MBTI testing fosters critical thinking. Encouraging individuals to question the validity and generalizability of type descriptions can help them approach their test results with a more discerning perspective. By promoting critical engagement with the MBTI framework, individuals can avoid perpetuating stereotypes and embrace a more holistic view of human personality.

Thirdly, creating inclusive online communities that value diversity and encourage open-mindedness is vital for mitigating the negative impacts of MBTI testing in self-presentation. Platforms should promote respectful and constructive discussions that challenge stereotypes and facilitate the exchange of diverse perspectives. By cultivating an environment where individuals can freely express themselves beyond their MBTI types, social media platforms can encourage authenticity, creativity, and meaningful interactions.

Addressing the challenges associated with the application of MBTI testing in self-presentation requires a multifaceted approach. By implementing these recommendations above, individuals can embrace their unique identities, engage in informed self-presentation, and contribute to a more vibrant and inclusive social media landscape.

5 CONCLUSION

The internet era has brought about significant changes in impression management and interpersonal communication through the use of MBTI personality test results. This paper explores the application of MBTI types as a tool for understanding and navigating social interactions, drawing on perspectives from dramaturgy and symbolic interactionism. Individuals strategically present their desired self-images based on their MBTI types, aiming to shape favorable perceptions. Social media platforms have further amplified the influence of MBTI in self-presentation, allowing users to identify and connect with like-minded

individuals, fostering a sense of belonging and enhancing self and group identities. This study has identified potential issues associated with the application of MBTI testing in self-presentation and has proposed possible improvement suggestions. The findings suggest that relying solely on MBTI types for self-identification can lead to stereotyping and limited individuality. To address these concerns, the study recommends promoting individual self-awareness, educating individuals about the limitations of MBTI testing, and fostering inclusive online communities.

However, it is important to recognize the limitations of this study, which is based on a literature review. Future research could consider incorporating empirical methods such as surveys, interviews, or experimental designs to gain a more comprehensive understanding of how individuals interpret and apply their MBTI types in interpersonal interactions. Additionally, exploring the implications of MBTI tests in face-to-face interactions and offline contexts would provide a more holistic perspective on the influence of personality types.

In conclusion, while the application of MBTI test results in impression management and interpersonal communication reflects the evolving nature of online interactions, further research is needed to uncover the intricate dynamics and potential implications of using MBTI in various social contexts. By expanding our understanding of how individuals employ MBTI in their interactions, more nuanced and inclusive approaches to communication and relationship building could be fostered in this digital age.

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Feminist blogger's image collapse—based on Goffman's dramaturgical theory

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ABSTRACT: In the current era of the Internet, surfing on the Internet has become a form of entertainment for many young people. Among the numerous social hotspots at present, people are increasingly concerned about feminism and discussing it extensively. However, it cannot be ignored that a few feminist bloggers are suffering from the phenomenon of image collapse. To some extent, Goffman's Dramaturgical Theory applies to the study of this phenomenon. Therefore, the paper will use Goffman's theory to analyse the phenomenon, investigate the causes and consequences of it and make recommendations for a healthier development of feminism. The reasons include that some feminist bloggers whose image collapse lack rational thinking about feminism, be enticed by large commercial interests and lack proper impression management. The effects involve two levels which are individual level and social level. At individual level, the feminist bloggers' image collapse may sustain losses of economic and renown and may suffer from virtual violence. At social level, the feminist bloggers' image collapse may lead to the loss of cultural guiding power, disturb social order, and, to some extent, go against feminism. Finally, there will conclude that the feminist blogger should propel impression management and improve the authenticity of identity to avoid image collapse. The paper aims to raise awareness of feminism among the people and hopes the phenomenon of feminist bloggers' image collapse will reduce. What is more, advises feminist bloggers to utilize social media effectively to make a genuine contribution to the development of feminism in China society.

Keywords: Feminism, feminist blogger, Goffman, Dramaturgical Theory

1 INTRODUCTION

In the current era of the Internet, surfing on the Internet has become a form of entertainment for many young people. Among the numerous social hotspots at present, people are increasingly concerned about feminism. The number of feminism discussions is increasing. Therefore, the topic of feminism should not be narrowed. At the same time, social media provides the platform for the improvement of women's voices. Feminist ideas on social media are currently dominated by the belief that women should have independence and the right to freedom. Furthermore, concerns such as gender violence and prejudice are addressed. However, it cannot be ignored that a few bloggers are suffering from the phenomenon of image collapse. In other words, they displayed themselves as a feminist or some other figure, but they did not maintain their image well; their sudden action opposed their original image. Therefore, it raised doubt about their feminist identity and those bloggers' image collapse. To some extent, Goffman's Dramaturgical Theory applies to the study of this phenomenon. Because there have been fewer studies that use Goffman's Dramaturgical Theory to interpret the phenomenon of female rights bloggers collapsing, this paper will use this theory to analyze the image collapsing

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of feminist bloggers, investigate the causes and consequences of this phenomenon, and make recommendations for a healthier development of feminism. What is more, the paper also suggests that feminist bloggers should make good use of social media so that they can make a genuine contribution to the development of feminism in China society.

Therefore, the paper will do the analysis in five parts. The first part is about what Goffman's Dramaturgical Theory is and what is relevant to feminist blogger and their image collapse. In the second part, the paper will introduce feminist bloggers, including the reasons they become famous and take an example to portray the phenomenon of their image collapse. Then come to the third part. There the paper will analyse the causes and effects of feminist image collapse by using Goffman's theory. The fourth part is about suggestions to feminist bloggers. They should make appropriate impression management so that there will be less phenomenon of image collapse. Then in the last part, the paper will draw a conclusion.

2 THE THEORY STRUCTURE OF GOFFMAN'S DRAMATURGICAL THEORY

2.1 *Simply introduction of Goffman's dramaturgical theory*

To begin with, Goffman's Dramaturgical Theory is a kind of theory that illustrate people's interaction in daily life. In this theory, Goffman made an analogy between society and the stage and compared social members to actors (Wang 2012). Through this kind of analogy, he wanted to explain people's daily life exactly.

In addition, there are some aspects of the operational mode of Dramaturgical Theory. First, it includes some elements. As it means society can be seen as a tremendous stage, people's interaction in society is like a performance given to audiences on stage. Therefore, the dramaturgical theory includes scripts, front stage, backstage, actors and audiences. According to Goffman's theory, the front stage is a place where the actors can show an impression that includes specific significance (Wang 2012). What is more, there have some elements on the front stage. It covers setting and personal front, and the personal front includes appearance and manner. Actors performing on the front stage tend to reveal an ideal type or what they want to be in a specific circumstance. Besides, the backstage is opposed to the front stage. Because of the insulation with audiences, actors here can take off their masks and be their real selves.

Moreover, in order to display almost the best performance, actors always tend to make excellent impression management (Hou 2001). Impression management needs to hold great dramaturgical loyalty, the dramaturgical discipline and the dramaturgical circumspection (Goffman 1956). Under the good use of impression management, the actors can leave a superb impression on audiences and achieve the expected effects.

2.2 *Dramaturgical theory and the phenomenon of blogger's image collapse*

2.2.1 *The phenomenon of blogger's image collapse*

Nowadays, the Internet is widely used, and social media is becoming more and more popular, so everyone seems to have the possibility to post what they think or what they want to share. It is obvious that more and more people tend to become known bloggers, and most of them have a specific label, such as makeup blogger or feminist blogger. That refers to what they focus on and what the image they set up. Setting up people's images or characters originally comes from making cartoons or movies (Su 2022). With the development of the Internet, people's setting-up image gradually becomes the method for some stars and known bloggers' to show themselves. So people who are interested in those fields can easily find them and follow them.

However, some of the known bloggers' images were collapsing. It means that what the bloggers post on social media is not in accord with their figures (Mei 2020). The bloggers' setting-up image has become the focus; any fault they make will destroy their image, and even cannot recover their image. Therefore, those bloggers' images collapsed.

2.2.2 *The relationship between image collapse and the dramaturgical theory*

To some extent, the Dramaturgical Theory is in accord with this phenomenon of the blogger's image collapse. The reason is that there are numerous people talking about image collapse, and most of the phenomenon takes place among celebrities, such as some famous bloggers. Therefore, according to the Dramaturgical Theory, those celebrities are the actors, and the image they set up and the activities they do are similar to the actors' performances on the front stage. Furthermore, bloggers' behavior backstage comes to the front stage unconsciously, and audiences see this, and their image collapse (Song 2018). Because what they behave backstage is not in agreement with their image. Therefore, the Dramaturgical Theory is fit for the phenomenon of bloggers' image collapse.

3 INTRODUCTION TO FEMINIST BLOGGER

As the article will focus on feminist bloggers to analyse the phenomenon of their image collapse; in this part, the article will analyse the reason why feminism is a current topic on social media and what are feminist bloggers and their image collapse.

3.1 *The Reasons for the popularity of feminism on social media*

Feminism currently plays a role in some social media bloggers' personal brands or online personas (Tortajada & Willem 2022). There also have a widespread discussion about feminism on Chinese social media platforms. Feminism is a theoretical framework that advocates for women's equal rights, not only in the political sphere but also in their daily lives. For instance, women strive for equal rights, including the right to vote, as well as seeking to eliminate unfairness in family dynamics, gender roles, and the workplace (Nie 2019). With the rapid development of social media, an increasing number of individuals are engaging in the fight against sexual harassment and gender inequality. This trend is also observed on Chinese social media platforms like Weibo. Whenever an incident related to feminism arises, Weibo users actively participate in discussions, and feminist bloggers often share their perspectives through comments on social media.

The phenomenon of feminism's prominence on social media can be attributed to several factors, two of which are particularly noteworthy. Firstly, it is likely connected to China's economic development. The flourishing Chinese economy cannot be overlooked in this regard. According to Marx's theory, the superstructure is dependent on the infrastructure. Given that economic development as a foundation is conducive to the progress of education, the educational level in China has significantly improved. Consequently, women's access to education has expanded, leading to a growing realization among them that the fight for equal rights is crucial for achieving gender equality.

Secondly, social media platforms provide women with an avenue to articulate their thoughts and express their views on feminism (Hou 2022). For instance, on Weibo, where nearly every user can view and interact with posted content, individuals are encouraged to express themselves. Furthermore, due to the relatively open nature of Weibo, people are more inclined to share their opinions and try to break the stereotypes about women. Consequently, to some extent, social media platforms like Weibo facilitate discussions about feminism and challenge traditional definitions of women's roles, such as the notion that women are solely responsible for their families, do not need to pursue their own careers or professional aspirations and the image about women's vulnerability and sensibility (Zheng 2020).

3.2 *The phenomenon of feminist blogger's image collapse on Chinese social media Weibo*

Given the prominence of feminism as a popular topic on social media, certain bloggers adopt the persona of a feminist blogger, engaging in discussions on ambiguous issues and

expressing their personal perspectives on feminism. These bloggers exert a significant influence, particularly on female audiences.

However, some feminist bloggers on Weibo are currently facing an issue of image collapse. While they often share their thoughts on feminism, they also express viewpoints that do not align with feminism and sometimes even endorse a patriarchal perspective. An illustrative example can shed light on this phenomenon.

One such blogger on Weibo, who goes by the pseudonym Zhang Xiaonian Benren, is a graduate of Tsinghua University and has established herself as an intellectual elite woman. She regularly posts videos on Weibo, predominantly focusing on feminism. For instance, she explores the necessity of virtue in a woman's life, challenging the prevailing notion in ancient Chinese society that women should dedicate themselves solely to their families and household chores. Furthermore, she occasionally recommends feminist literature and emphasizes the importance of female independence. Undoubtedly, she conveys her feminist views through these means. However, her image collapsed when, in one of her videos, she made a statement that undermined her previous feminist stance.

In this specific video, she asserted that beauty salons and sperm banks serve as the two saviors of independent women. Moreover, she depicted her husband's desire to donate his sperm as a behavior beneficial to women and the prosperity of our country. Surprisingly, she placed unwavering trust in him and regarded him as an exemplar of flawless feminism.

In reality, single women in China are unable to have children through sperm donation directly. This option is only accessible to married women who are unable to conceive naturally. As feminism is about fighting for equal rights in gender, workplace and somewhere else, the female should become independent so that they can have the strength to do it. Whether a woman wants to have children or not is highly correlated to feminism. However, Zhang Xiaonian holds the point that women, through sperm donation, can be saved. This viewpoint is not related to feminism. Because it actually connects female fate to male and shows the point that females depend on fertility and male. What is more, this viewpoint also denies that females could have the subjectivity and initiative to save themselves. She does not understand feminism clearly. Consequently, while publicly identifying as a feminist, she made statements on her social media channels that contradicted feminism. This discovery led the public to feel deceived, perceiving the blogger as lacking genuine feminist values. Eventually, she admitted her mistake, confessing her lack of knowledge about feminism and her failure to read even a single book on the subject. Her engagement in debates on Weibo with others was merely superficial, and she did not possess a deep understanding of the true objectives of feminism. As a result, her feminist image ultimately crumbled.

4 THE REASONS AND EFFECTS OF FEMINIST BLOGGER'S IMAGE COLLAPSE

4.1 *The reasons*

The example mentioned above is not a single example. There are also other female bloggers be the same. The reasons for the blogger's image collapse become a vital issue to analyse. Therefore, in this part, the paper will focus on what are the causes of this phenomenon.

The first reason is lacking rational thinking about feminism. Like the example above-mentioned, that blogger only talked about feminism in her video but actually did not know what feminism is. Some feminist bloggers only tend to follow the trend of discussing with others about feminism. However, they even never do some investigations or read materials on feminism. Therefore, they cannot provide an argument to support their thesis.

The second reason is that large commercial interests entice bloggers to focus on social concerns like feminism, gaining exposure and visibility. Nowadays, in Chinese society, especially on the website, the number of fans is one of the measurement indicators of a blogger's popularity. In order to attract fans immediately, the bloggers make topics and

improve the exposure rate so that they can gain more fans constantly (Wang 2019). After numerous fans they attracted, the huge commercial value and massive economic interest gradually occurred. Therefore, the blogger's desire to make money is stronger, and it manifests in hundreds of advertisements. In order to gain more money and improve their commercial value, some feminist bloggers tend to focus on hot topics in society. Because they want to seek quick success and instant benefits, they may be unaware of making some false or exaggerated arguments. Finally, the feminist bloggers' image collapsed.

The third reason is that feminist bloggers lack proper impression management. Because of that, they may suffer from performance disruptions which refer to their image collapse. According to Goffman's theory, designed performance tries to produce an impression of an ideal image (Goffman 1956). However, when actors do not maintain their ideal selves on the front stage or unconsciously show their thoughts that oppose their image, the performance may be difficult to continue.

Such as the example, Zhang Xiaonian, in her performance, there is also the front stage and backstage. The front stage is the ideal feminist image she shows to the audience and her performance as a feminist. Because her image is a feminist, her front stage just conveys the values and ideal image of feminism to the audience. The backstage is about her real self and real thoughts and her complete figure. However, in one of her videos, she published her opinion as opposed to her feminist figure. Therefore, the primary cause of her image collapse is that backstage comes to the front. In her video, what she really thought of feminism came to the front stage. What is more, as the Internet develops, the social scenes become more and more complex, and the distinction between front stage and backstage becomes blurred. Therefore, the blogger's real thoughts of other aspects which are opposed to their image on the front stage are easier shown on the front stage and the blogger's image collapse also easier. The blogger's lack of proper impression management ability is one of the reasons for their image collapse.

4.2 *The effects*

4.2.1 *At individual level*

To the bloggers, the image collapse may have an effect on themselves. There may be two aspects. First, they may sustain losses of not only economic but also their renown. There will still use the example mentioned above. When this feminist blogger's image collapse, her fans may be unfollowed, and her commercial value may decrease. Because there may have a crisis of confidence, and some of the enterprises may never focus on her. The enterprise often invests in those who are excellent and whose image is in accordance with their temperament (Wang 2019). Therefore, she may suffer commercial value losses. Second, the blogger may suffer from virtual violence. When her image collapse, her backstage may show to audiences. Because the backstage always refers to the place where she can expose her real self. Therefore, as her real thoughts, which do not mean feminism, are posted, the audience may think they are deceived. Then, the audience may let off their dissatisfaction with the blogger.

4.2.2 *At social level*

At the social level, the blogger's image collapse also has some effects. First of all, it may lead to the loss of cultural guiding power. Nowadays, with popular entertainment developing, celebrities have stronger influence and leadership over the audience. For instance, some people who are interested in feminism may follow some feminist bloggers, wondering what they think about feminism or what feminism is. A number of feminist bloggers who have read feminist books such as *The Second Sex* by Simone de Beauvoir may truly give some valuable information to their followers or audiences. However, if the blogger is more likely to rely on their label, such as feminism, they may lack cultural accumulation. As a result, the blogger will finally become a meaningless sign carrier and loss their cultural guiding power.

Second, it disturbs social order and, to some extent, goes against feminism. On the one hand, the feminist bloggers' image collapse may lead to a loss of social credibility in interaction in daily life (Wang 2019). For example, when a people see a blogger on Weibo, he is more likely to hold a doubtful idea and not just focus on the blogger's topic. That is to say, the trust between people and people is declining.

Moreover, the occurrence of image collapse has detrimental effects on the development of feminism. Particularly within Chinese society, certain feminist bloggers initially sought to engage in the widely discussed topic of feminism, yet they failed to acquire a deep understanding of its principles or grasp its true essence. Consequently, when their public personas crumbled, it led to confusion among individuals regarding the concept of feminism. Some individuals, unaware of feminism's true meaning and lacking knowledge about its principles, might still place their trust in these bloggers. Consequently, feminism can be led astray and deviate from its intended path.

5 THE SUGGESTIONS FOR FEMINIST BLOGGERS

In order to make the phenomenon of feminist bloggers' image collapse decrease and promote the development of feminism in Chinese society, actors need to do better impression management and convey correct feminist values. Therefore, the phenomenon of image collapse may decrease, and feminism may progress better. There will be two suggestions.

5.1 *The effects*

According to Goffman's theory, in order to make perfect performance in the interaction, the actors and their teammates need to have some attributes and practices (Goffman 1956). Bloggers' manipulation on the front stage and backstage is the manifestation of impression management (Dong & Ding 2018). What is more, the actors in the performance also have dramaturgical discipline. It means that the actors can keep in mind who they are and what their roles are. In addition, they should also control their behavior when they are having a performance. While the performance has an inevitable failure, the actors should apologise to the audience and quickly renew the performance (Goffman 1956).

That is to say, when a feminist blogger's image collapse, they should give an apology to audiences as quickly as possible (Liu 2017). They need to have genuine, convincible and true apologies so that they can leave a sincere image for audiences and give other feminist bloggers a caution. In addition, the feminist bloggers' team should also prepare in advance so that they can better deal with the emergency fact and apologise to audiences (Zhao 2018). By doing propel impression management, the feminist bloggers whose image collapse can decrease the detrimental impact on feminism as far as possible and make feminism developed healthier.

5.2 *Improve the authenticity of identity*

The second method is that feminist bloggers need to improve the truth of their identity. According to Goffman's theory, having a perfect performance need to have dramaturgical circumspection (Goffman 1956). In order to let feminism develop better and decrease the phenomenon of feminist bloggers' image collapse, one of the most important is that the feminist bloggers themselves should know exactly what feminism is. That is to say that feminist bloggers should really have knowledge of feminism, such as having read feminist books generously or having listened to some feminist lessons. Only by really understanding what feminism means can they actually become feminist bloggers and help female to express their opinions and to fight for equal rights (Zhang 2020).

6 CONCLUSION

As a consequence, the feminist blogger's image collapse is due to three reasons. It is because they lack rational thinking about feminism, be urged by economic interest and lack proper impression management. Therefore, there will come to the conclusion that the feminist blogger should propel impression management and improve the authenticity of identity to avoid image collapse. That is to say, by sincerely apologise, improving the knowledge of feminism and undertaking the responsibilities of feminism propagation, the feminist blogger can reduce the phenomenon of image collapse and make feminism better developed in Chinese society. Due to the lack of research which refers to analysing the feminist blogger's image collapse by using Goffman's Dramaturgical Theory, the paper tries to use Goffman's theory to analyse this phenomenon in Chinese society, especially on social media like Weibo. The reasons and effects of a blogger's image collapse may not deeply analyse, and the suggestions of how to have perfect impression management may also lack technicality. Finally, the analysis that the paper does want to raise awareness of feminism among the people and hope the phenomenon of feminist blogger's image collapse will reduce in the future. What is more, the paper also wants feminism can develop well in Chinese society and one day can entirely achieve the equality of gender, not only in law but also in people's daily life.

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From McDonaldization to Disneyfication: Urban space development in Chinese society

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ABSTRACT: Several significant Chinese cities have transitioned from McDonaldization to Disneyfication, resulting in new consumption patterns and social models. This study aims to investigate the complexities of this transition by analyzing its causes, repercussions, and potential solutions. By investigating this trend, this study seeks to shed light on how urban spaces reflect the evolution of human industrial development, technological progress, and consumer satisfaction. The analysis of McDonaldization and Disneyfication demonstrates that the urban environment is shaped in various ways by the consumption habits of its inhabitants. In contrast to Disneyfication, which emphasizes a consumption-oriented approach with a concentration on personalized and diverse experiences, McDonaldization is characterized by production-focused, large-scale, and standardized production. This transition is leading to the emergence of post-industrial values and consumer culture. There are unique challenges as a result of Disneyfication, including social stratification and a blurring of the lines between reality and illusion. The study examines a variety of solutions, such as the implementation of McDonaldization principles and the provision of low-income accommodation. This study concludes with a critical analysis of the socioeconomic dynamics of urban development in China, paving the way for future research to examine these complexities in greater depth. Ultimately, it emphasizes the significance of striking a balance between McDonaldization and Disneyfication in order to create urban spaces with diverse requirements that are vibrant and inclusive.

Keywords: Consumption Patterns, McDonaldization, Disneyfication, Urban Space Development, Post-industrial Society, and Post-industrial Society

1 INTRODUCTION

Urban spaces in China's main cities have undergone significant changes due to the evolution of consumer culture. This process involves a number of adjustments, but McDonaldization and Disneyfication are the most prominent. This paper illustrates the principles and repercussions of both McDonaldization and Disneyfication within the context of contemporary Chinese society by analyzing both phenomena.

Sociologist George Ritzer coined the term McDonaldization in 1993 to describe a social model that emphasizes efficiency, calculability, predictability, and control. This principle mirrors the operational strategy of McDonald's fast-food chains and emphasizes standardization and homogeneity (Ritzer 1996). McDonaldization plays a crucial role in creating and replicating predictable, standardized experiences in urban development. Despite this, as societies progress, the appeal of uniformity diminishes, leading to the advent of Disneyfication (Zhang *et al.* 2021, Prosser n.d.).

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Disneyfication is reflective of a shift toward personalized and diverse experiences in the urban spaces of developed Chinese cities. Alan Bryman introduced Disneyfication, a concept that prioritizes the consumer experience over production uniformity (Bryman 1999). In this regard, it is possible to observe a trend toward the creation of immersive, thematic environments that provide consumers with out-of-the-ordinary experiences. Consequently, a post-modernization process can be identified, which signifies an evolution within consumer culture and a shift towards a more individualized consumption model (Paterson (n.d.)).

A transition from McDonaldization to Disneyfication is indicative of a societal shift from a consumer-centric to a production-centric perspective. The exhibition depicts the evolution of China's urban spaces during the post-industrial era. In this new era of urbanization, urban spaces transcend ordinary physical locations to become experiential platforms, offering a vast array of experiences that defy expectations of standardization and predictability.

This research aims to investigate how Disneyfication has impacted the urban fabric of Chinese cities. Specifically, the study investigates the transformation of urban consumption spaces into multifunctional centers for entertainment, leisure, education, and social interaction. These modifications reflect altering societal demands for personalized experiences, especially among middle-class consumers (Artz *et al.* 2003). And delve deeper into the phenomenon that while Disneyfication is common in many urban areas, the principles of McDonaldization still apply in many cities. This phenomenon reflects the fact that despite rising consumer demand for immersive, one-of-a-kind experiences, the efficiency and predictability inherent in McDonaldization continue to underpin many aspects of urban development. In addition, the research investigates the difficulties associated with Disneyfication, such as the blurring of the boundaries between reality and fantasy, physical and mental discomfort, and the possibility of Disneyfied spaces reverting to McDonaldized models due to market pressures.

This paper examines these dynamics to provide a comprehensive understanding of the transformation of urban spaces in China's major cities, focusing on the societal implications of the shift from McDonaldization to Disneyfication. In addition to providing valuable insights for policymakers, urban planners, and business practitioners who are responsible for navigating these changing landscapes, this study contributes to existing knowledge on urban development.

2 IN-DEPTH ANALYSIS OF MCDONALDIZATION AND DISNEYFICATION

This section aims to examine McDonaldization and Disneyfication as they pertain to the development of urban spaces in Chinese cities. It discusses both the historical emergence and contemporary interpretations of these concepts, providing context and relevance to the ongoing transformation of urban spaces.

McDonaldization, a phenomenon of the industrial era, resulted in the large-scale standardization of production, which led to the homogenization of consumption spaces. Numerous industries have utilized McDonald's approach, which is characterized by predictability, calculability, efficiency, and control, as an economic and operational template. In China's fast-food industry, KFC and Chinese brands like Dicos have adopted McDonaldization principles. Citing a specific study, Smith J.'s research demonstrated how these chains have standardized their offerings and operations across all locations, homogenizing urban areas (Smith n.d.). In the early phases of urban development in China, efficiency and uniformity were highly valued during the industrial era. In an endeavor to modernize, cities adopted standardized building designs and city plans. McDonaldization significantly impacted the urban landscape, instilling a standardization ethos that produced a predictable and similar urban landscape. On the other hand, Disneyfication emerged in the post-industrial era, aligning itself with postmodern values such as individualism, diversity, and consumer focus (Paterson (n.d.)). With the transition towards a service and knowledge economy, urban spaces came to provide opportunities for mixed consumption, emotional engagement, and commercial sales (Ma & Wu 2005). As a result, urban landscapes have

evolved from mundane spaces for standard consumption to spaces that offer unique, immersive experiences. Notably, theme parks such as Shanghai Disneyland and OCT East in Shenzhen have flourished in Chinese cities. For example, a case study was conducted by Zhu, L., and Xu, D. (Zhu & Xu 2010). The article demonstrated how successfully Shanghai Disneyland incorporates entertainment, commerce, and social interactions in a highly immersive setting.

Nonetheless, the transition towards Disneyfication does not completely supplant McDonaldization. Instead, the Disneyfied model demonstrates a complex interplay between standardization and efficiency (Lee & Fung 2013). The phenomenon of customized flower delivery services in Chinese cities exemplifies this fusion. By combining McDonaldization with Disneyfication, these services provide a standardized yet personalized experience. This is demonstrated in a 2002 book by Chua and Beng Huat, which revealed that the majority of respondents valued the predictability of the delivery process in conjunction with personalized selection and packaging (Chua 2002).

Due to the complexity and interconnectedness of these processes, urban space developers, residents, and policymakers confront a variety of challenges and opportunities. This section will examine these complexities and suggest potential navigational strategies for transforming urban spaces.

2.1 *In-depth analysis of McDonaldization*

To fully grasp the evolution of urban development in Chinese cities, it is crucial to conduct a comprehensive analysis of McDonaldization. McDonaldization is characterized by the dominance of large-scale standardized production, leading to uniform consumption patterns. It is rooted in the principles of the industrial period.

During the early stages of urbanization, McDonaldization appealed to urban residents due to its alignment with the ethos of the industrial era, which prioritized efficiency, predictability, calculability, and control. These characteristics were evident in urban planning and design, which aimed to establish transparent and replicable blueprints for economic operations.

Based on this model, urban landscapes were constructed with a high level of predictability and uniformity. The imprint of standardization was deeply embedded in the fabric of urban development, as manifested by the prevalence of identical high-rise buildings, retail spaces, and public areas.

Furthermore, McDonaldization exerted a significant influence on the social fabric of cities. A culture of uniformity and predictability shaped consumer behavior, resulting in limited options for consumers. This had far-reaching effects on various aspects of society, including accommodation, employment, recreation, and consumption patterns (Ram 2012).

However, it is important to acknowledge that McDonaldization also presented challenges. The emphasis on standardization and efficiency often disregarded individual preferences and needs, leading to feelings of alienation and homogeneity. The pursuit of economic efficiency frequently came at the expense of cultural diversity and social cohesion. These obstacles, combined with shifting socioeconomic conditions, paved the way for the emergence of Disneyfication as an alternative model for urban development (Strzelczak 2015).

Therefore, the McDonaldization phase in China's urban development has profoundly impacted its cities, establishing a benchmark against which the transition to Disneyfication can be evaluated. By understanding McDonaldization and its consequences, we can gain insights into the causes and effects of Disneyfication.

2.2 *In-depth analysis of Disneyfication*

With the evolution of the urbanization narrative, a new approach to urban development has emerged as a stark contrast to McDonaldization. Known as Disneyfication, this characteristic of the postindustrial era embodies diversity, individuality, and consumer engagement, effectively moving away from the uniformity that McDonaldization represents (Paterson (n.d.)).

Disneyfication is transforming urban spaces into platforms that offer diverse and distinctive experiences, breaking away from the old and predictable models. Chinese cities have witnessed this transformation through various methods. Urban spaces are now designed to provide a wide range of unique experiences, reflecting different themes and narratives (Xiangning 2019). The emphasis is on creating immersive spaces tailored to individual tastes and preferences, where retail spaces have evolved from mere points of sale into arenas for experiences. Shopping centers, for example, integrate retail, entertainment, and social interaction, offering not just a distinct shopping experience but also evoking specific moods and themes.

This transformation has also brought about significant changes in the socioeconomic landscape. The shift towards experience-based consumption has created new employment opportunities in industries such as leisure, tourism, and entertainment. However, it has also given rise to challenges, such as blurring boundaries between reality and fantasy, leading to cognitive dissonance among city residents.

While Disneyfication differs significantly from McDonaldization, it is not completely independent of its principles. Standardization and efficiency still play a role in the operation of Disneyfied urban spaces. Processes within theme parks and franchised entertainment venues, for instance, reflect the ethos of McDonaldization within the new framework.

To sum up, Disneyfication signifies an evolution in urban development, transitioning from uniformity to individuality and from efficiency-driven processes to personalized environments. To fully understand the complexity of the transition from McDonaldization and its implications for the future urban development of Chinese cities, it is necessary to comprehend the principles and effects of Disneyfication.

3 CHALLENGES AND IMPLICATIONS OF DISNEYFICATION

As the process of Disneyfication gains momentum in urban areas of China, it gives rise to a range of challenges and implications that warrant careful scrutiny. Each of these obstacles necessitates a comprehensive analysis of their societal and economic effects, as well as considerations for future growth (Strzelczak 2015).

One notable challenge in Disneyfied urban spaces is the blurring of boundaries between reality and illusion. While this design aims to create an immersive and entertaining experience, it can lead to significant mental and emotional complications. Urban residents live their daily lives in distinct social realities, and the sudden transition into a fantasy world can induce a sense of disorientation (Reborel 1993). For instance, individuals residing near theme parks or immersive shopping malls may find the constant thematic atmosphere overwhelming, resulting in stress or feelings of alienation.

Despite its intention to provide unique experiences, Disneyfication runs the risk of creating a new form of uniformity akin to McDonaldization, particularly in the case of themed urban spaces. While each thematic park or immersive retail space may have its own distinct theme, the use of similar elements such as narratives, characters, and architectural designs can give visitors a sense of predictability and familiarity. As a result, the experience becomes monotonous and standardized, contradicting the disruptive nature that Disneyfication was originally meant to bring. This raises crucial concerns regarding the preservation of uniqueness and novelty within these spaces.

Furthermore, Disneyfication contributes to social stratification and inequality. As these immersive, themed spaces are often costly to develop and maintain, pricing strategies tend to target middle-class consumers with disposable income (Artz *et al.* 2003). Consequently, lower-income groups may be unable to afford admission to amusement parks or the prices in immersive retail environments. This marginalizes these groups and restricts their access to these urban spaces, thereby reinforcing socioeconomic disparities.

Consequently, Disneyfication, despite reflecting a transition towards a society with evolving consumption patterns and expectations, poses significant challenges. These issues, spanning from psychological effects to social inequality, necessitate a thorough investigation. By examining these obstacles in depth, we can derive informed conclusions and gain valuable insights for the future. The ultimate objective is to strike a balance between the benefits of Disneyfication and these factors in order to promote inclusive, sustainable, and healthy urban development.

4 POTENTIAL SOLUTIONS AND FUTURE DIRECTIONS

To tackle the challenges identified, it is crucial to explore potential solutions and analyze the future trends of urban development in Chinese cities. The research findings underscore the necessity of adopting a more balanced, inclusive, and nuanced approach to the Disneyfication process. A viable solution lies in strategically combining principles from both McDonaldization and Disneyfication. While Disneyfication aims to offer unique and immersive experiences, it could be advantageous to incorporate certain standardized elements from the McDonaldization model. For instance, implementing standardized processes in areas such as ticketing, park maintenance, and food services could enhance efficiency, accessibility, and affordability. These strategies would help mitigate the risk of social stratification and promote inclusiveness. However, it is crucial to exercise caution and ensure that this approach does not compromise the diversity and individualization that Disneyfication brings to the urban landscape.

Moreover, it is imperative to include affordable spaces within Disneyfied cities to ensure inclusivity. Typically, these urban areas cater primarily to the middle class, who can afford the immersive experiences (Artz *et al.* 2003). Hence, it is vital to design and incorporate spaces that are accessible to low-income residents. One potential strategy worth exploring is “inclusive gentrification,” wherein rundown urban areas are transformed into more desirable localities. Nevertheless, it is essential to ensure that this transformation does not result in the displacement of the original, lower-income residents. Retaining affordable housing and facilities for existing residents is a critical aspect of inclusive gentrification.

Lastly, measures must be taken to address the psychological impact of Disneyfied cities, particularly the blurring of boundaries between reality and illusion. Residents and visitors may experience cognitive dissonance due to the stark contrast between real-world and fantastical experiences. To tackle this issue, urban planners and policymakers could establish transition zones between Disney-themed areas and conventional urban spaces. These zones could incorporate progressively varying architectural designs, signage, or spatial organization to facilitate a more seamless transition between the two distinct environments.

The shift toward the Disneyfication of urban spaces holds promise but requires a deliberate and inclusive approach to urban development. The exploration of potential solutions forms a vital component of this study, laying the foundation for future research and discussions in the field of urban planning and development (Rebori 1993).

5 CONCLUSION

Chinese cities have undergone a significant transformation from McDonaldization to Disneyfication in terms of urban development, indicating a notable shift in social and consumer culture. This transition has been thoroughly examined, focusing on the unique opportunities for immersive and personalized experiences offered by Disneyfication, as well as the challenges it presents.

Given these challenges, it is crucial to address the potential increase in standardization and exacerbation of social disparities. The research highlights the importance of

harmonizing the principles of McDonalidization and Disneyfication to navigate these complexities successfully. The findings underscore the need for a hybrid approach that strategically incorporates the efficiency and predictability of McDonalidization into the diverse and individualistic model of Disneyfication.

This balanced approach has the potential to create vibrant and inclusive urban spaces that cater to a range of public needs while stimulating economic growth. It may be possible to integrate standard amenities into Disneyfied cities, making them more accessible to lower-income groups without compromising their unique and immersive qualities.

By providing a comprehensive analysis of this transformative process, this study contributes to a deeper understanding of contemporary urban development trajectories and encourages further discussions on the future of urban landscapes in post-industrial societies. Future research should explore the practical application of this hybrid paradigm and its potential socioeconomic impacts.

In conclusion, the transition from McDonalidization to Disneyfication in Chinese cities goes beyond a mere replacement of models. It represents a complex evolution that requires a nuanced and integrated strategy. This study emphasizes the significance of this transition in shaping future urban spaces that are not only economically productive but also socially inclusive and diverse.

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Gender differences and its moderating effect in moral reasoning and moral judgment

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ABSTRACT: Prior studies have done a lot of research on understanding human morality; among these, moral reasoning and moral judgment are two of the most significant fields of study. Till now, gender has long been considered a significant factor in understanding the complexities of moral decision-making, as it intertwines with gender roles, societal expectations, and moral values. This paper examines the effects of gender on moral reasoning and moral judgment. The paper traces back to early theories, such as Kohlberg's Moral Development Theory and Carl Gilligan's criticisms of Kohlberg's theory and her care theory. By delving into two separate studies on gender differences in moral reasoning and moral judgment, the paper discussed the moderating effect of gender. The result of two studies shows that gender has no moderating effect on moral reasoning when facing dilemmas, and the moderating effect only exists when individuals face personal dilemmas in the experiment of moral judgment.

Keywords: Moral Reasoning, Moral Judgment, Gender Differences, Moderating Effect

1 INTRODUCTION

Moral reasoning, which is the cognitive process that happens when individuals make ethical decisions, plays a very important role in forming human behaviors and shaping human societal norms. On the other hand, moral reasoning is the essential process for individuals to reach their moral judgment (Oswald 2019). Thus, understanding factors that contribute to an individual's moral reasoning is essential for promoting societies' fairness, justice, and overall moral development. Throughout history, one of the factors that has been discussed a lot in both academic and real-world contexts is the gender differences in moral reasoning and moral judgment. As a significant factor in shaping humans' ethical decision-making, gender can provide a way to learn the complex interplay between gender roles, societal expectations, and moral values. Furthermore, a number of domains, such as education and social policy, are also deeply interrelated with gender and moral reasoning and judgment. For example, studying gender influences can give people insight into educational programs that promote moral and ethical development among gender groups.

This paper will first trace back to those early theories and examine the work of impactful theorists. Kohlberg's Moral Development Theory, for example, builds a foundation for the formation process of moral reasoning. On the other side, Carl Gilligan criticized his theory for ignoring the gender differences in this model. Only based on these fundamental theories, the successors can investigate more on this topic. Furthermore, by summarizing other

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research done in the past, this paper can dive deeply into the study of gender differences in these two moral domains. And providing valuable references for the subsequent studies will be taken in this area.

2 INTRODUCTION OF MORAL REASONING AND MORAL JUDGMENT

2.1 *Definition of morality, moral reasoning, and moral judgements*

To begin with, as the fundamental components of human behavior and cognition, morality and moral reasoning influence people's ethical judgments and direct their behavior in a variety of settings. According to Kohlberg, moral reasoning is the judgment of humans about what is right or wrong. It is the process by which individuals weigh the morality behind their possible actions, thus trying to avoid potential outcomes. While morality can be a list of rules that are formed from a series of codes of conduct like specific philosophy theories, religious beliefs, or cultural values (Stanford University 2011), it can also be derived from personal values (Stanford University 2011). For moral judgment, it is classified into 4 classes: evaluation, norm judgment, wrongness judgment, and blame judgment (Malle 2021). Each of those four classes, respectively, corresponds to one typical object. Evaluation could be applied to anything; normal judgment is related to intentional action that has not been performed yet; wrongness judgment, although similar to normal judgment, is toward the performed intentional action; and finally, blame judgment (Malle 2021).

2.2 *Kohlberg's moral development theory*

In his book that illustrates the several moral stages, Kohlberg presents his Moral Development Theory, which offers a thorough framework for comprehending how people acquire their capacity for moral reasoning (Kohlberg 1981). According to this idea, moral development occurs in stages, and each is distinguished by varying degrees of moral thinking.

Kohlberg contends that moral growth starts early in life and continues all the way until adulthood. He postulated three stages: pre-conventional, conventional, and post-conventional. Each of those stages contains six phases of moral reasoning. Individuals' moral judgments are rooted in self-interest and deference to authority at the pre-conventional level. At this point, avoiding punishment and obtaining rewards are the main concerns. As people get to the conventional level, their moral judgment broadens to take into account societal norms and expectations. Moral decisions are influenced by upholding social norms and meeting other people's expectations. Post-conventional, the final level, represents a more principled and abstract approach to moral reasoning. At this level, people make judgments based on universally applicable moral principles like fairness, equality, and human rights. For instance, if society's rules and norms run counter to their personal values, they are willing to confront them. However, since it is very difficult to reach this level, not everyone exhibits this level of moral reasoning (Kohlberg 1981).

The importance of cognitive growth in moral reasoning is emphasized by Kohlberg's thesis. He thought that people may reason about moral difficulties in more sophisticated and intricate ways as their cognitive powers grow. Additionally, social interactions and exposure to moral conundrums that contradict people's preexisting moral convictions have an impact on moral development.

According to Kohlberg's theory's detractors, cultural and contextual influences on moral growth may not be sufficiently taken into account. However, his theory has significantly influenced moral psychology and offered insightful information about the evolution of moral thinking.

3 GENDERS' ROLE IN MORAL REASONING AND MORAL JUDGMENT

3.1 *Carl Gilligan's critics toward moral development theory*

Carl Gilligan, the psychologist who contributed to the study of women's morality, focuses on feminist moral theory, which is heavily influenced by theories of moral cognitive development, psychoanalytic theory, and gender identity theory (Xia 2021). Gilligan refutes Kohlberg for incorrectly suggesting that women's lack of morality is because they tend to comprehend moral matters emotionally (White 1999). She also asserts that Kohlberg's stages presuppose the masculine justice perspective, which is impersonal (White 1999). Based on the previous research, Gilligan argues that they emphasize justice and autonomy but ignore the development of women's caring morality. Their research treats men's moral development as humans' moral development and the differences between men's and women's moral development as women's inadequacy, ignoring women's psychological development (Gilligan 1982). So, Gilligan summarizes the differences between men and women based on her research and pays more attention to women's experiences.

Care theory, which is proposed by Gilligan, was originally developed to show a female perspective of morality in contrast to Kohlberg's moral development theory. Care theory is a contrary tendency among women, mostly but not exclusively, to view the moral issue as one of obligation and care in relationships rather than rights and laws (Ikechukwu & Ndubisi 2023).

3.2 *Research in moral reasoning*

The research on gender differences in moral reasoning is primarily based on Carl Gilligan's hypothesis that women pay more attention to care in moral dilemmas, whereas men focus more on justice and personal rights (Rothbart *et al.* 1986). Participants in this research are college students between the ages of 18 and 25. A total of 50 subjects—25 males and 25 females—were questioned. Those students represented a range of different socioeconomic backgrounds and academic majors. Each participant took part in an audio recording of an open-ended interview. Before being questioned about their academic plans, subjects initially completed a brief questionnaire.

Three moral dilemmas will be assigned to the participants to answer. The first one was the famous Heinz dilemma that was designed by Kohlberg, which provided a straightforward justice scenario, including laws and values. Then, since the circumstances directly dealt with issues of interpersonal connections, the second question focused on the topic of how an individual makes judgments regarding the concerns of physical intimacy, which naturally leads to a possibly care-oriented response. Participants were invited to describe a particular moral dilemma from their own lives in the last trial. It allowed the researcher to know what situations were thought by the subjects to be moral dilemmas.

Table 1 of the findings shows that care and justice responses were both processed by men and women. Individuals who only use one of the methods accounted for 4% of the population. And no subject ever failed to employ both orientations when answering the interview questions.

Table 1. Means and standard deviations for proportion of statements with a justice orientation (Rothbart *et al.* 1986).

	Dilemma 1		Dilemma 2		Dilemma 3	
	M	(SD)	M	(SD)	M	(SD)
Female	.65	(.22)	.35	(.17)	.41	(.17)
Male	.70	(.16)	.38	(.23)	.54	(.20)

3.3 Research in moral judgment

The experiment of The Effect of Gender Difference on Moral Judgment tests the effect of gender difference on moral judgment under three different moral dilemmas (Zhang 2019). The participants were 60 undergraduates from a college. Dividing into two groups, the first group was composed of 30 female students, and the second group was composed of 30 male students, both of whom will participate in the three dilemmas. Three dilemmas are classified into three types of situations: impersonal, intermediate, and personal dilemmas.

The specific circumstances are:

(1) Trolley Dilemma (impersonal):

Five employees are being struck by an out-of-control tram as it travels down the rails; if the tram continues on its present path, all five will die. A single individual by the name of A is standing next to a switch that directs the tram onto a different track. Turning the tram onto the opposite track, which has just one worker on it, is the only chance to save the lives of these five employees. This worker will die if A switches the tram to the opposite track, while the other five employees will survive.

Subjects were then asked to answer whether they thought A would turn the switch or not.

(2) Trap Dilemma (intermediate):

Five workmen are being struck by an out-of-control tram, all of whom would perish if the tram kept going in the same direction. Between the oncoming tram and the five employees, there is a person by the name of B sitting on a footbridge across the railroad lines. A stranger, who also happens to be extremely huge, is standing next to him on this footbridge. The only option to save the five workers is to depress a switch that causes a flap to open, dropping the stranger onto the track below, where his or her substantial body will halt the tram. The visitor will perish if B accomplishes this, but the five employees will live.

Subjects were then asked to answer whether they thought B would flip the switch or not.

(3) Footbridge Dilemma (personal):

Five workmen are being struck by an out-of-control tram, all of whom would die if the tram kept going in the same direction. Between the oncoming tram and the five employees, there is a person by the name of C sitting on a footbridge across the railroad lines. The stranger, who happens to be extremely huge, is standing next to C on this footbridge. Pushing the stranger off the bridge and onto the track below, where his or her substantial bulk will stop the tram, is the only option to save the five workers. The visitor will die if C accomplishes this, but the five employees will live.

Subjects were then asked to answer whether they thought C would push the stranger or not.

The process of the experiment is as follows: sixty subjects of both sexes were randomly assigned equally to the three moral dilemmas and divided into a total of two groups. Subjects were required to sit in front of a laptop computer for a total of approximately 10 minutes to complete the experiment.

As a result, the data shows that under the Footbridge Dilemma, female students make more deontological choices than male students. For the rest of the two experiments, the gender difference was smaller (see Table 2).

Table 2. Descriptive statistical table of scores under different moral dilemmas (M±SD) (Zhang 2019).

	Trolley dilemma	Trap dilemma	Footbridge dilemma
Male	1.37±0.49	1.57±0.50	1.57±0.50
Female	1.34±0.38	1.57±0.50	1.80±0.41

4 GENDER'S MODERATING EFFECT

The first experiment of gender differences in moral reasoning reveals that the interaction of dilemma \times gender is not significant ($F=2.81$, $df=1/48$, $p < .10$), plus the fact that both genders use care and justice orientations as a way of reasoning, demonstrating gender has little to do with the moderating effect in moral reasoning. However, in the second experiment of moral judgment, one of the three dilemmas—the Foot Bridge Dilemma (personal dilemma)—indicates that there is a gender difference. Therefore, gender's moderating effect exists in moral judgment when an individual faces a personal dilemma.

5 DISCUSSION AND SUGGESTION

Based on Carl Gilligan's concept, intriguing findings concerning the connections between gender and moral judgment have come from studies on the differences between genders in moral reasoning. These results imply that, regardless of gender, people have the ability to use a variety of reasoning techniques when confronted with moral difficulties. The lack of substantial interaction between the issue and gender shows that gender has a consistent impact on moral reasoning in all situations. Understanding gender disparities in moral reasoning depends critically on these findings. It challenges the traditional notion that women prioritize care and men emphasize justice and personal rights, as proposed by Gilligan (Gilligan 1982).

Afterward, this paper will discuss the research on moral judgment. This study was designed to look into how gender influences moral judgment. The results shed important light on how gender may affect moral judgments, particularly when faced with personal choices. Further research is needed to better understand the underlying causes of the observed differential in deontological decisions made by female students as opposed to male students. Differences in moral socialization and cultural norms may be a contributing factor to female students' increased propensity for deontological decisions. However, it is important to recognize that both studies have certain limitations. The fact that both trials were carried out at a college meant that the sample size was rather modest.

Additionally, it is crucial to investigate how societal norms for moral conduct and gender roles influence people's moral judgments. Investigating the effects of other sociocultural factors, including religious convictions or upbringing, may aid in explaining the gender inequalities that have been discovered. Focus groups and interviews are also two qualitative research methods that can provide participants' mental processes and the reasons behind their moral judgments with a better understanding. Future studies should strive to include people from a variety of backgrounds, spanning various age groups, occupations, and cultures, to create a more representative sample to solve this problem.

6 CONCLUSION

In conclusion, there has been considerable discussion and interest in the subject of gender variations in moral reasoning and moral judgment for a long time. The intricacies of moral reasoning and the impact of gender have been illuminated by Gilligan's critique of Kohlberg's Moral Development Theory as well as its proponents. The existence of gender variations in moral reasoning and moral judgment has been further supported by several studies. Given the complexity of moral decision-making across genders, these findings motivate future researchers to look into more variables and broaden the scope of their research. It is important to take into account cultural, sociological, biological, and socialization elements to comprehend gender's moderating effect. Exploring these linkages and their consequences for encouraging moral growth and ethical behavior will require more research.

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Spiritual struggle in moral injury among veterans

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ABSTRACT: Moral injury is a multidimensional concept generally understood as transgressive actions to one's moral principles, causing moral dissonance and psychological/existential/spiritual distress in combat veterans. The pathway between moral injury and spiritual struggle needs closer examination. As the link between them solidifies, it will assist in integrating spiritual care and moral injury treatment. It will also help to increase moral injury's definitional clarity in the future. This article reviewed the concurrent predictors of moral injury and the mechanisms underlying moral injury and spiritual struggle. Spiritual struggle appeared to be a predictor of moral injury's occurrence. Potentially morally injurious events (PMIE) and other psychological symptoms like anxiety and posttraumatic stress disorder (PTSD) were also mediated by spiritual struggle. In addition, other factors like altruism and cognitive appraisal of one's actions were also examined. Lastly, this review included a qualitative study in spiritual care and an intervention study for morally injured veterans, revealing potentially effective healing modalities and limitations.

Keywords: Moral Injury, Spiritual Struggle, Underlying Mechanism, Potentially Morally Injurious Events, Intervention

1 INTRODUCTION

1.1 *Defining moral injury*

This review article addressed three impactful definitions of moral injury in chronological order. It is worth mentioning that although initially conceptualized within the context of combat veterans, moral injury extends beyond military personnel; civilians can also suffer from moral injury, given the circumstances. This review article focused merely on veterans. In the 1990s, Veterans Affairs psychiatrist Jonathan Shay coined the term "moral injury" to capture his observation of the profound psychological impact of transgressive acts and moral dilemmas during wars on Vietnam veterans (Shay 1994). In 1994, he defined moral injury as, in a high-stake event, the perfidy of going against one's moral principle by those in place of legitimate authority (Shay 1994). While Shay's definition laid the groundwork for moral injury, his definition accentuated those in leadership in the military and neglected soldiers' individual actions. Since moral injury was initially incepted, it has been increasingly researched and studied in recent years following the Iraq and Afghanistan wars. Literature suggests that post-traumatic stress disorder (PTSD) is a psychological disorder linked with the experience of potentially traumatizing events and often induced by fear. Unlike PTSD, moral injury is inflicted by violating and transgressing one's deeply held moral beliefs to an extent where one's moral foundation, moral framework, and personal integrity are destabilized (Drescher *et al.* 2011). Researcher Litz proposed to define moral injury in 2009 as committing immoral actions as a participant or a bystander to a severe or subtle extent. It also entails learning about others' behaviors that breach their moral beliefs and sincerely held expectations. Individuals' reflection upon these experiences in the aftermath contributes to recognizing moral transgression (Litz *et al.* 2009). Litz's definition elevates the importance of including examinations around the

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individual actions of combat veterans beyond just those who hold authority. Brock and Lettini put forward a more holistic conceptualization of the term by building upon the development and complex insights into moral injury. They proposed that moral injury is a wound to the soul, where the injury extends to the existential state of being (Brock & Lettini 2012; Pargament *et al.* 2013a). In other words, after combat, moral injury is not a psychological disorder like PTSD but rather the consequence induced by the infraction of the soldiers' morality and the cruelty of killing, violence, and war (Brock & Lettini 2012; Pargament *et al.* 2013a). Brock and Lettini's definition intends to underscore moral injury as a human and existential predicament rather than attempting to pathologize or medicalize human suffering.

Compared to PTSD, moral injury abandons the word "disorder," adding its strength in capturing the opacity and complexity of human experiences in ways a diagnostic label and criteria cannot. Simultaneously, "moral injury" encapsulates a certain level of polyvalence, which welcomes various studies and conceptions across disciplines (e.g., theology, philosophy, psychology, medicine, sociology, etc.), challenging definitional clarity. Moral injury can be dissected into morality and injury, where "morality" encompasses social, individual, cultural, environmental, political, existential, and spiritual dimensions. Morality can be approached both ontologically (as a state of being) and deontologically (of duty and obligation). "Injury" includes various injuries (e.g., psychological, ontological, and spiritual injuries). Several revisions and reconceptualizations to Shay's initial definition have been made based on the researcher's professional background and clinical engagements. Despite the development and growing interest in researching the topic, consensus on a uniform definition of moral injury has not been reached, pointing to the theoretical richness and difficulties.

1.2 *Spiritual struggles*

The bio-psycho-social-spiritual model is one of the new leading clinical preferences for the intervention of moral injury, aiming at a holistic and cross-disciplinary approach to the phenomenon. This paper situated the latest added "spiritual" as an inseparable aspect of understanding moral injury. At the end of the Iraq and Afghanistan wars, the U.S. military included "spiritual fitness" in a larger scale of assessments to determine soldiers' fitness. Chaplaincy plays a significant role within the military, where chaplains are often deployed to the frontline with the troops, constituting soldiers' first line of psychosocial support. Beyond Christianity and Catholicism, spirituality and religious beliefs intimately connect with shaping and upholding one's moral foundation, framework, and personal integrity. After the war, many veterans experience committing and witnessing morally transgressive actions that also decenter their spiritual beliefs and identities. In addition, spiritual struggles are meticulously interrelated with psychological afflictions (Brock *et al.* 2012). Maintaining the whole-person approach to treating veterans requires essential steps to contextualize the role of spirituality and religious belief in conjunction with moral injury. Drawing upon Pargament's delineation and the American Psychological Association (APA) handbook, spirituality refers to the exploration or concern for something sacred, which may or may not incorporate spiritual practices from a particular religion (American Psychological Association 2023; Pargament *et al.* 2013b). Spiritual struggle is generally defined as the tension to what one holds as sacred (American Psychological Association 2023; Pargament *et al.* 2013b). According to APA, spiritual struggle comprises three categories: interpersonal conflicts about spiritual issues (e.g., distress caused by disagreement or conflict with others regarding spiritual beliefs), struggles concerning supernatural deities (e.g., spiritual attacks caused by a demonic figure), and inner conflicts about one's morality, spirituality, and meaning of life (e.g., questions regarding whether or not one lives up to their moral standard, the possibility of making a difference in this lifetime, questions around closeness with God or a higher power, etc.) (Brock *et al.* 2012) (American Psychological Association 2023; Pargament *et al.* 2013b).

1.3 *Current study*

It has become apparent that the current complicated landscape and interdisciplinary nature of moral injury and spiritual struggles pose challenges for many researchers. Identifying

moral injury symptoms from other co-occurring symptoms of psychological disorders makes contextualizing clinical approaches strenuous. It is worth noting that although moral injury symptoms overlap with other psychological disorders in psychology literature, moral injury also transcends and emerges as a distinct construct. In existing definitions of moral injury, inadequacy was indicated in capturing the multi-layered and co-occurrent existential/spiritual/emotional consequences the soldiers experience (e.g., anguish, shame, guilt, the loss of identity/faith). With the increasing definitional variations of moral injury, recent research emerged from a broad spectrum of perspectives that often can be traced back to the researcher's professional background. The studies ranged from positioning moral injury similar to a psychological syndrome like PTSD to conceptions centered around the inner consequences caused by morally transgressive actions. While initial attempts at a holistic approach like the bio-psycho-social-spiritual model have been made, the approach is situated primarily within the clinical realm. Still, the challenge remains—there is a lack of collaboration across disciplines during the research process. While clinical treatment and psychological symptoms matter, moral injury cannot be reduced to mere pathology. Investigations beyond the scope of one discipline ensure a more human and well-rounded understanding of moral injury that transcends its cognitive/pathology-laden impression in psychology. For example, philosophical ethicists have made limited attempts at clarifying what morality in moral injury entails, whether it is a system of laws, a cluster of principles, rules, or virtue, etc. The link between spirituality and morality could also potentially impact future understanding of what is being transgressed. There will be no moral injury without morality. Current delineations leave many of these nuances underexplored, often leaving out or marginalizing the role of spirituality, potentially generating blind spots in defining moral injury. In research, the absence of definitional consensus also generates ongoing inconsistencies in data, decenters spirituality as a vital facet in treating morally injured veterans, and hampers the coherence of the current body of knowledge on spirituality's role in moral injury. This review examined the role of spiritual struggles in moral injury, relevant factors, and potential underlying mechanisms. Chaplains' understandings of moral injury and the effectiveness of a specific community-based spiritual peer-support group were also discussed.

2 SPIRITUAL STRUGGLES, MORAL INJURY, AND RELEVANT FACTORS

2.1 *Common impact of spiritual struggles on moral injury symptoms*

Existing literature reflects an elevated possibility that veterans are potentially more spiritual than average civilians. The current review included three research with relatively larger sample sizes roughly a decade apart. Researcher McLaughlin's work in 2010 drew a sample of 670 veterans from outpatient settings to investigate the desirability of spiritual intervention in managing stress. The results suggested that 91% of this population believed in God, higher than general U.S. citizens (McLaughlin *et al.* 2010). More recently, similar findings have been established through Currier's study on veterans' inclination to include spirituality in their psychotherapy treatment. From a combined sample of 1,124 veterans, approximately 80% indicated associating with a formal religion, surpassing the average percentage of spiritual civilians in the U.S. (Currier *et al.* 2018). Sharma's study in 2017 drew on an exponentially larger sample size of 3,151 veterans, showing that nearly half are religious or practice spirituality weekly (Sharma *et al.* 2017). These three sets of data point to the increased risk of spiritual struggles veterans might face. Currier and Foster's study examined the association between veterans' spiritual struggles and the severity of moral injury symptoms. Using latent profile analysis, the researchers drew upon two community-based samples of soldiers with histories of war deployments. Their moral injury scale assessed immoral actions directed at oneself and others. The spiritual struggle section also assessed various types of spiritual suffering (as mentioned in the introduction). The results revealed three subgroups with distinctive patterns. The first group reported no moral injury-related symptoms and no religious or spiritual struggles. The second profile showed some moral injury-related symptoms and equivalent spiritual struggles. The third group with the severest moral injury

symptoms showed the most spiritual struggles. The result identified that moral injury-related outcomes were strongly correlated with greater severities of spiritual struggles across the two samples (Currier *et al.* 2019). The quantitative data presented from this research only points to the correlational relationship between moral injury outcomes and spiritual struggles in subgroups. Still, no causal or predicting relationship between the two has been established.

In an attempt to crystalize various conceptual elements involved in moral injury, clinical psychologist Litz introduced the term—potentially morally injurious events (PMIE), presented as a potential stressor of moral injury. PMIE refers to the events that breach one's moral principles and beliefs, whether one is the participant or a witness in such events. A strong association has been found between PMIE and the occurrence of moral injury, along with other psychological disorders. It is worth highlighting that moral injury often co-occurs with other psychological sufferings, like substance abuse, PTSD symptoms, suicidality, etc. Literature suggests that PMIE encompasses three categories, including events around bearing witness to another's wrongdoing as a bystander or a victim, experiencing treachery committed by a person or an organization in trust, and one's own participation in immoral actions (Currier *et al.* 2019). Exposure to PMIE does not guarantee the development of moral injury, similar to the mechanism underlying PTSD and potentially traumatic events. Symptoms and PTSD diagnosis are not warranted after occurrences of potentially traumatic events.

Religious or spiritual beliefs may guide veterans in a morally challenging dilemma, encouraging them to act according to their moral compass. On the other hand, strict religious and spiritual teachings emphasizing punishment and transgression might lead to greater spiritual and moral suffering. To better understand spirituality's two-fold impact on moral injury, this review probed into the possibility of spiritual struggles as more than merely correlational to moral injury. Wilt's study investigated whether other factors could predict moral injury among veterans (Wilt *et al.* 2018). As the definition of moral injury varies from literature to literature, Wilt's research only adopted the definition that moral struggle is the tension arising from the inconsistency between one's ethical principles and actions, leading to potential psychological distress. With self-reported scales, multiple analytic strategies were utilized after drawing upon a veteran sample of 178. Lower self-esteem, attributions of spiritual struggles to military or self, and higher religiousness concurrently predicted moral struggles. In addition, six months later, lower self-esteem appeared as another predictor. Based on path analysis, elevated scores in PMIE, religiousness, and attributions to self/military were associated with moral struggles positively (Wilt *et al.* 2018). The study demonstrated the direction of the relationship between spiritual struggles and moral injury. However, the mechanism underlying this relationship is still unclear.

From 2002 to 2016, Hodgson and Carey's review of key literature on moral injury identified 17 different definitions. Only Litz's (in 2009) and Nash's (in 2010) definitions mentioned "spiritual struggle" (Hodgson & Carey 2017). The majority of researchers were not inclusive of acknowledging spirituality as a factor in their definitions. This review did not argue the importance of accentuating spiritual struggles for all soldiers with moral injury but advocated for veterans who experience spiritual struggles as core symptoms. In the latent profile analysis, two subgroups appeared to suffer from co-occurring spiritual struggles and moral injury. In addition, Wilt's path analysis results showed that higher religiousness and spiritual struggle triggered the occurrence of moral injury. Considering the percentages of veterans who identified as spiritual, this paper intended to highlight that these subgroups (whose spiritual distress and moral struggles are concurrent) exist at a potentially high ratio among the general veteran population. Spiritual struggles must be addressed to increase these veterans' overall well-being. Acknowledging the positive correlation and the direction of the relationship between spiritual struggles and moral injury is essential. Researchers have the formidable task of redefining moral injury for these veterans so that the dynamic between spiritual struggle and moral injury can be captured, reflected, and legitimized. Without delving into the spiritual domain, treatments for these veterans may remain stagnant and confined to the realm of psychotherapy, where spiritual needs often ride on the backseat.

2.2 Mechanism underlying spiritual struggles and moral injury

The possibility of someone living with and making suitable psychological adjustments in the aftermath of PMIE bestows both the potential for growth and the surfacing of various inner sufferings. PMIE exposure may elicit spiritual struggles when the event is incongruent with one's spiritual belief and identity, potentially exacerbating all spiritual, moral, and psychological distress. On the other hand, one's spiritual beliefs can also potentially provide comfort, healing, and guidance in the aftermath of PMIE, given the specific spiritual teaching. It is unclear whether spiritual struggles and moral injuries are both outcomes of PMIE. Or if spiritual struggles play an essential role in developing moral injury after PMIE. Further investigation is warranted to reveal the underlying mechanism of spiritual struggles and moral injury. Moral injury symptoms often co-occur with psychological symptoms like PTSD, anxiety, and depression. Thus, exploring spiritual struggles' impact on psychological distress after PMIE is also vital. This article reviewed Evans and Fletcher's study on PMIE exposure, spiritual struggles, and psychological distress in a diverse veteran sample. After completing initial screenings, full assessments on PMIE exposure, spiritual struggles, PTSD, and depressive/anxiety symptoms were administered by clinicians. Higher spiritual struggles positively correlated to more severe psychological distress. PMIE appears to predict psychological and spiritual struggles in this sample strongly. The impacts of PMIE on anxiety symptoms and PTSD was fully mediated by spiritual struggles (Evans *et al.* 2018).

In addition, findings from Lancaster and Miller's study in 2019 investigated the relationship between spiritual struggles and moral injury-related symptoms, more specifically by considering other relevant factors (Lancaster & Miller 2020). The study examined the appraisal of one's actions in moral reasoning, religious strains, and altruistic traits as potential mediators between moral injury symptoms and transgressive acts. This study's definition of "religious strains" overlapped with the definition of spiritual struggle utilized in this review. The researchers recruited a post 9–11 deployment sample of military veterans (N=120) via an online survey screening. The study utilized self-reported scales to measure all relevant factors. The data reflected that the proposed model was supported—appraisals of one's experience mediated actions and moral injury symptoms. In addition, religious strain significantly predicted moral injury symptoms. It also mediated between appraisal and acts. Altruism significantly moderated transgressive actions and the moral appraisal of these actions (Lancaster & Miller 2020). The quantitative results showed that the relationship between cognitive appraisal and transgressive acts is determined by religious strain, and altruistic traits influence its intensity.

Previous studies show that spiritual struggles and moral injury symptoms are elicited by PMIE exposure. Fletcher's study reflects that spiritual struggles could fully mediate the effect of PMIE on psychological symptoms. Within this sample, it indicates that if an individual shows no spiritual struggles after experiencing PMIE, they are not likely to show psychological symptoms. They will likely show intensive psychological symptoms if they experience severe spiritual struggles after PMIE exposure. Lancaster and Miller's study further clarified the underlying mechanism between spiritual struggle and moral injury. Religious strains mediated the relationship between transgressive acts and cognitive appraisal within this sample. It indicates that if the individual experiences no religious strain after conducting morally transgressive acts, they are more likely to rationalize their actions than deem them inherently immoral. Therefore, inner conflict is likely to be minimum due to rationalizing their acts. If an individual struggles with severe religious strain after the acts, they tend to judge their acts as immoral and experience severe inner conflicts during cognitive evaluation of these actions. In addition, individual characteristics, such as altruistic trait, are also contributing to the variation of the effect of religious strains. The current findings suggest that as a significant mediator, spiritual struggles should be considered an essential component of intervention.

3 CURRENT SPIRITUAL INTERVENTIONS FOR MORALLY INJURED VETERANS

In reviewing various papers that primarily focus on "spiritual struggles and moral injury," more quantitative studies are available in the current field—a considerable number of papers

are concerned with the potential exposure to PMIE and associated factors. However, exponentially fewer qualitative studies discussing spiritual care for veterans were conducted. Due to the lack of consensus on a uniform definition, it is crucial to understand what the providers mean when referring to moral injury in examining the current spiritual care available. In this case, qualitative methods will provide a more in-depth exploration of care providers' understanding of moral injury. Military chaplains have a long history in the U.S. helping veterans seeking psychosocial support. This paper reviewed Drescher and Currier's qualitative examination of Veterans Affairs chaplains' understanding of moral injury and preferred interventions by obtaining a web-based survey from a Veterans Affairs chaplain sample in the U.S., including full-time and part-time chaplains (N=543). Based on thematic analysis, three differentiating categories of their accounts of moral injury's definition appeared: morally injurious events, mechanisms of moral injury, and signs and symptoms of moral injury. Most chaplains (45.3%) described morally injurious events as taking actions against moral beliefs. Another 33.5% of chaplains focused merely on witnessing others' morally transgressive behaviors. The second category of moral injury's mechanism is understood by 35.9% of chaplains as disruptions to their moral compass, resulting in losing direction and meaning in life. The mechanism of moral injury as internal conflicts regarding one's spiritual and religious beliefs is stated by 19.6% of chaplains. For the final theme, 15.9% of chaplains identified moral injury's main signs and symptoms as guilt and shame (Drescher *et al.* 2018). Data from this sample provided a landscape of definitional subcategories.

For the intervention portion, the data showed that chaplains utilized three main approaches in treating moral injury with soldiers: therapeutic presence, therapeutic procedures, and therapeutic processes. Most chaplains (52.7%) recognized being in the moment with veterans and cultivating a non-judgmental space as essential to building pastoral/ therapeutic presence. For the therapeutic procedures theme, closer to half of chaplains (47.3%) used psychotherapy in their interventions to some extent (e.g., cognitive therapy at 14.7%, narrative therapy at 13.9%, emotional processing at 10.6%, etc.). Roughly a quarter (24.9%) of chaplains assessed the spiritual backgrounds of the veterans. Most chaplains in this subtheme (22.4%) stress the importance of evaluating soldiers' moral/spiritual distress. The final theme revealed that 21.2% of chaplains recognized pastoral care as helpful. More than half (13.1%) utilized spiritual counseling in pastoral intervention. Following that, 5.7% believed in prayers, and 3.7% endorsed rituals (Drescher *et al.* 2018). From this set of results, most chaplains encountered and bridged the limitations in traditional chaplaincy care by incorporating psychotherapy interventions. They also used other strategies in psychotherapy, like demographic and psychological assessments.

Interestingly, only one in five chaplains assessed the veteran's spiritual background within the sample. Even fewer chaplains assessed moral/spiritual distress. Traditions and teachings associated with different spiritual orientations can drastically impact one's spiritual/moral system, thus, influencing the tangible struggles. Further analysis is needed to understand chaplaincy's nuances and potential limitations in addressing the diversity of veterans' spiritual backgrounds. This previous study's overall constellation of approaches speaks to the demand for looking beyond one discipline when treating morally injured veterans. Spiritual care alone is often not enough. With smaller percentages of data not included in this review, the chaplains' other interventions include art therapy, bibliotherapy, brief therapy, etc. (Drescher *et al.* 2018). More insights into chaplaincy may also help other practitioners understand the potential benefits of integrating clinical care with spiritual care. For example, many Native American veterans partake in indigenous rituals after combat. Different rituals can be found in different cultures and spiritual traditions. Despite only 3.7% of chaplains using spiritual rituals in this sample, frequently, various rituals employ a wide range of senses and mediums that connect with individual and community healing, like visual art, poetry, fragrance, music, touch, etc. (Dewar *et al.* 2023; Papadopoulos & Brock 2020). Evidence-based treatment like Dialectical Behavioral Therapy (DBT) also contains skills that activate the five senses. Poetry and visual art carry tremendous potential in situating oneself in telling stories and making meanings from them, paralleling narrative therapy. In addition, spiritual rituals often come from rich histories and encapsulate meanings beyond what is

comprehensible in psychology literature today, opening opportunities for cross-cultural and interdisciplinary alliances between professionals.

Besides psychotherapy and chaplaincy, other forms of support can also help to address the needs of morally injured veterans. Allowing veterans to explore and incorporate alternative ways to address their spiritual and moral struggles opens new paths to healing. This article reviewed a specific project called “Heroes to Heroes” (a community-based spiritual peer-support group) to explore other healing modalities. Each support group under “Heroes to Heroes” had 10–12 veterans, centering a 10-day trip to Israel consisting of traveling to sacred sites and participating in community activities and rituals to cultivate spiritual growth (Currier *et al.* 2023). The group was led by one veteran who had previously completed a trip to Israel serving as a “coach,” who was responsible for connecting, guiding, and supporting the newcomer before, during, and after the trip to Israel. After Israel, the coaches and psychotherapists at the organization provided diverse activities to the veterans (like retreats, group sharing, educational sessions regarding mental health and moral injury, etc.).

Empirical data are needed to confirm the effectiveness and potential outcomes of said approach in addressing spiritual struggles with morally injured veterans. The quantitative data were collected one month and one year after the trip. For the qualitative portion, an initial survey was administered before the trip. Then online surveys with short-response questions were administered at 3 points throughout the year (one month upon returning, six months after the initial survey, and one year after the initial survey). Other than surveys, focus groups were conducted. Each group of 6–8 members was extensively interviewed, and corresponding follow-up questions were posed based on their responses. Thematic analysis was utilized with surveys and interview transcripts.

The latent growth modeling analysis indicated reduced spiritual struggles and moral injury outcomes, reflecting elevated effectiveness in decreasing spiritual, psychological, and moral injury symptoms. Four themes emerged from the qualitative data: a sense of connectedness with fellow veterans, engagement in spiritual practices, spiritual healing/transformation, and embracing diverse cultures. All focus group members reported all four themes during the interview as outcomes (Currier *et al.* 2023). According to the survey data, most veterans identified gaining social connections due to the support group (survey 2 = 78%, 3 = 70%, 4 = 64%). Roughly 40% of the veterans (survey 2 = 44%, 3 = 43%, 4 = 42%) reported having opportunities to participate in rituals and other spiritual practices during the support group. Across three surveys, above a quarter of veterans (survey 2 = 29%, 3 = 39%, 4 = 26%) recognized spiritual growth within the year. For the last theme, around 20% (survey 2 = 23%, 3 = 22%, 4 = 18%) of veterans indicated appreciation for different spiritual and cultural traditions in the group. Due to the limitations (i.e., lack of chances for asking follow-up questions) around the short-answered survey, percentages across four themes are significantly lower compared to interviews conducted with focus groups. Nonetheless, the qualitative data gave in-depth insights into the outcomes of “Heroes to Heroes,” suggesting that this spiritual peer-support group effectively initiated interpersonal and spiritual growth in this study.

Community projects like “Heroes to Heroes” help to open opportunities for those who cannot/do not respond to clinical treatment due to the stigma around mental health or the lack of access. Connecting with other veterans may also help to decrease the social isolation they often face. Additionally, this project simultaneously reached into many domains (e.g., social, spiritual, cultural, psychological, etc.), bridging the limitations of psychotherapy. Generally, psychotherapists have received extended clinical training and can provide interventions/skills to help reduce veterans’ psychological suffering. However, most of them are also civilians. The weight of lived experiences is not easily translatable to those without military training or war deployment. Many veterans also face adjusting to the loss/distancing of their conglomerate when they return home from the military. This peer-led model allows veterans further in their recovery to support/discuss with others who share lived experiences and differences/commonalities in their spirituality, applying skills from psychotherapy to real life, potentially cultivating emotional support and healing. From a statistical standpoint, qualitative and quantitative data from this proof-of-concept study showed that the “Heroes to Heroes” project addressed and reduced several aspects of spiritual and moral injury

symptoms with enduring effects in this group of veterans. Implementing support to both peer leaders and fellow participants within the peer-support framework is essential to ensure the overall operation. For example, there should be clear guidelines and agreements between the organization and the peer leaders regarding responsibilities, cases of emergencies, expectations, psychological/spiritual support, and screening processes. The organization should provide ongoing additional training and psychological support to the peer leaders so that their recovery/stability will remain the priority while accompanying others. There should also be active steps to prevent burnout for the peer leaders within the process and training around conflict resolution. Research around the supporting aspect of community-based intervention will further solidify its long-term effectiveness. Similar community-based healing modalities could be an alternative or complement to traditional psychotherapy in treating co-occurring struggles (e.g., spiritual, interpersonal, and psychological distress) with morally injured veterans.

4 CONCLUSION

The pathway between spiritual struggles and moral injury was closely examined. As previous studies show, spiritual struggles were closely related to moral injury and predicted moral injury's occurrence. Along with spiritual struggles, lower self-esteem, attributions of spiritual struggles to the military or self, and higher religiousness are concurrent predictors of moral injury. Spiritual struggles fully mediated the impact of PMIE on anxiety and PTSD symptoms. From reviewing current spiritual interventions, roughly 50% of the chaplains incorporated some psychotherapy strategies while treating morally injured veterans, elucidating that spiritual intervention alone is insufficient. Differences in spiritual traditions could also affect the overall intervention of spiritual distress. Surprisingly, only a quarter of chaplains assessed the veterans' spiritual backgrounds in the previous study, pointing to the potential gap between available spiritual care and veterans' spiritual needs. On the other hand, unlike traditional individual or group psychotherapy, the community-based project "Heroes to Heroes" integrated spiritual, social, and clinical domains outside a traditional clinical space, pointing to new paradigms in the healing process of moral injury. The qualitative data from this study showed that a significant percentage of participants established social connections, experienced some form of spiritual growth and rituals/practices, etc. Quantitative data from the same study reflected a long-lasting effect on reducing concurring spiritual and moral struggles.

However varied the definitions, moral injury remains a cross-domain, complex, existential, and human construct. Spirituality's role is often minimized within these predominately psychopathological/cognitive conceptions. Moral injury as a human experience can be dated back to ancient times. Greek mythologies like *Odyssey* and *Iliad* documented anger and internal fuel arising within soldiers after the war. However, the field of moral injury is still at its relatively new stage in this contemporary setting. While more and more researchers are actively exploring this topic, conceptualizing moral injury in its entirety without reducing it to pathology can be a provocative/foreign notion to some. One's understanding of moral injury may significantly impact their approach to providing care. Although the themes reported by the chaplains mentioned above were interrelated, they emphasized different aspects of moral injury and varied considerably in definitions. The variations in defining moral injury can generate room for miscommunication when conceptualizing or giving care. The complexity of moral injury demands holistic approaches beyond the confinement of one field of study. Qualitative studies on other providers' understanding of moral injury were minimal during this review. Additional research is needed to reveal potential sub-themes emerging from other professionals' definitions. Regardless of their assignments and war-zone deployments, soldiers have fought in various ways and given what they could. Comprehensive care that is not narrowed to one treatment paradigm may provide the catalyst for veterans' healing and growth. Likewise, researchers from different professions should attempt to situate moral injury in various domains (e.g., philosophy, theology, sociology, etc.), communicating and incorporating each other's bodies of knowledge to

bridge the gap toward consensus on a more well-rounded definition of moral injury. It will serve as a foundation for effectively building external support systems and developing clinical/non-clinical approaches to meet soldiers' needs. This review can aid future research in locating the importance of spiritual struggles after combat in relation to moral injury, as well as urging future collaborations between researchers and providers of diverse professional backgrounds.

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Impulse control disorders and moral responsibilities: A systematic review of the moral responsibilities of ICD patients and their rationale

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ABSTRACT: Impulse control disorder (ICD) is a class of psychiatric disorders in which patients have difficulties controlling emotions and behaviors or cannot resist an urge or temptation, and the consequence always leads to the violation of societal rules or the rights of other people. Different subtypes of ICD have different kinds of difficulties with impulse control. People with ICD often exhibit criminal patterns driven by uncontrollable impulses. They are often aware of the incorrectness of their actions, but they simply cannot restrain their desire to do wrong. In this case, according to M’Naghten’s rule, the offender is not absolvable. Because when people with ICD commit criminal acts, the “uncontrollable degree” of their impulses cannot be accurately measured. However, ICD patients do have the same brain lesions and hormonal abnormalities as other psychiatric patients. This paper explores whether ICD patients should perform the same moral obligations and receive the same moral judgment as ordinary people. From the point of view of pathology, ICD patients cannot align with the same standard as ordinary people in moral judgment because of their behavior disorder. However, from the perspective of morality and free will, ICD patients are not impaired in their ability to make their own moral decisions and therefore need to be treated the same as others. Looking at the moral responsibilities of ICD patients from different perspectives ultimately returns to how to better treat ICD and help ICD patients fulfill their moral responsibilities.

Keywords: Impulse control disorder, M’Naghten’s rule, Moral responsibility, Neurological

1 INTRODUCTION

1.1 *Overview of different types of ICDs and their characteristics*

Impulse control disorder (ICD) is a classification of disorders within the DSM-5 Disruptive, Impulse-Control, and Conduct Disorder (CD) category. These disorders are characterized by challenges in regulating impulses and engaging in repetitive rule-breaking behaviors. This group encompasses various disorders such as oppositional defiant disorder (ODD), intermittent explosive disorder (IED), CD, pyromania, kleptomania, other specified disruptive, impulse-control, and CD, as well as unspecified disruptive, impulse-control, and CD (American Psychiatric Association 2013). The occurrence rate of ODD is approximately 3.3%, while CD ranges between 1.5% and 3.4%. IED has a one-year prevalence of 2.7% and a lifetime prevalence of 7%. Pyromania is prevalent in around 1% of individuals in the United States (American Psychiatric Association 2021). On the other hand, kleptomania affects approximately 0.3% to 0.6% of the general population (American Psychiatric Association 2019). ICD is manifested by impulsivity and behavioral addiction. Numerous psychiatric disorders exhibit impulsivity, such as disorders related to substance abuse, addictive behaviors,

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attention deficit hyperactivity disorder (ADHD), antisocial personality disorder, and borderline personality disorder. In the case of ICDs, these clinical characteristics are commonly observed: 1) persistent and repetitive engagement in the problematic behavior despite negative outcomes; 2) gradual decline in the ability to regulate the behavior; 3) a strong desire or craving before initiating the behavior; and 4) a sense of pleasure associated with its execution.

Among the various types of ICDs, kleptomania, pyromania, and CD are more likely to commit crimes. Kleptomania is characterized by a repetitive, uncontrollable urge to steal, in the form of shoplifting. Pyromania is characterized by compulsive and obsessive interests to commit arson. These two types of ICDs are not crimes themselves but are legitimate compulsive mental disorders linked to illegal behavior. While CD is not linked to illegal behaviors directly, patients with them could have a high risk of engaging in aggressive behavior, which leads to criminal acts when outbursts occur.

1.2 *Typical criminal behavior in ICD patients*

Theft, injury to animals, acts of violence, arson, and destruction of property are the main forms of crime in ICD (American Psychiatric Association 2021). Among them, the crimes caused by CD, ODD, and IED are often caused by an impulse caused by uncontrollable anger that leads to destructive behavior. However, kleptomania and pyromania are more similar to behavioral addictive disorders. It is a strong feeling of excitement formed by patients to satisfy their irresistible desires, which drives patients to commit criminal behaviors, and they will feel release and might as well feel guilt after doing them. The willingness of ICD patients to control their criminal impulses varies from person to person, and whether they will feel strong guilt afterward also varies. However, among them, CD patients often have no subjective willingness to control their criminal behavior independently, showing a behavior pattern of committing crimes simply because of impulse, and they may even deny or downplay their behaviors.

1.3 *Etiology of ICDs*

There has been no clear explanation of the etiology of ICD. However, it has been shown that impulsivity can be impaired by chemical or structural differences in the brain. The pathophysiology of ICDs is believed to involve disrupted monoamine neurotransmission, which encompasses several neurotransmitter systems such as serotonin, dopamine (DA), norepinephrine, and opioids. Patients with ICDs exhibit reduced gray matter volumes in the hippocampus and dorsolateral prefrontal cortex (dlPFC), as well as in the ventromedial prefrontal cortex (vmPFC). When performing tasks related to controlling aggression, ICD patients also show decreased activation in the dlPFC compared to controls. Moreover, there are two interrelated brain systems that interact and vie with each other to influence behavioral results. The impulsive system, which is centered around the amygdala, is associated with immediate gratification, whereas the reflective system, encompassing the vmPFC, takes into account the long-term ramifications of behavioral decisions. Impulse control difficulties arise from an imbalance between these two systems, whereby the reflective system fails to inhibit the impulsive system's urge for immediate action (Brewer & Potenza 2008). This imbalance can also be influenced by various genetic and environmental factors.

In terms of behavioral etiology, young ICD patients have certain deficits in social processing and problem-solving. They often misinterpret social cues and interpret others' actions as intentional and malicious. In addition, they have trouble solving social problems and get positive reinforcement from aggressive behavior.

Attachment theory and parenting style also play important, albeit inconsistent, roles in the etiology of ICD. Biological parents, adoptive parents, or family members with substance use disorder, depression, bipolar disorder, schizophrenia, and ADHD all increase the risk of a child having an ICD (Virginia Commission on Youth 2017).

A number of social factors are also associated with the onset of ICD, including poverty, community violence, and dysfunctional family environments. Factors that elevate the likelihood

of ICD in adolescents encompass experiencing parental neglect, insufficient supervision, the absence of positive parenting, and enduring harsh treatment, which may include instances of child abuse. Those young people with dysfunctional peer relationships are also at greater risk of being diagnosed with an ICD because they may have learned abnormal behavior in abnormal peer relationships and also reinforced abnormal behavior patterns in those relationships.

2 PREVIOUS RESEARCH ON THE MORAL RESPONSIBILITIES RELATED TO ICDS

The primary legal defense for insanity, adopted by most jurisdictions worldwide, is known as the M'Naghten rule. According to this rule, defendants are generally considered mentally sound unless they can provide evidence that, at the time of the criminal act, their mental state led them to either of the following: (1) be unaware of their actions, or (2) be aware of their actions but not understand that they were acting wrongly (Penney 2012). Certain psychiatric disorders, such as schizophrenia, psychotic depression, and bipolar affective disorder, can lead to a distorted mental state that meets the criteria for claiming the defense of insanity, according to the M'Naghten rule. These disorders, known as psychoses, impair an individual's comprehension of morality and diminish their capacity for moral reasoning. As a result, individuals with these disorders are considered not morally responsible for their actions. Conversely, there is another group of mental disorders characterized by irrational desires, including pathological gambling, obsessive-compulsive disorders, and psychosexual disorders such as exhibitionism, voyeurism, pedophilia, and certain fetishes (Downie 1997). Mental disorders under such a category do not destroy a person's judgment of what is right from wrong but leave their abilities to control impulses of doing wrong undermined. ICD belongs to the second category, as patients' mechanisms of impulse control are impaired due to an obsessive desire for irrational concepts like fire-setting or pilfering. It is uncertain whether it is appropriate to apply the logic of the M'Naghten rule to cases involving patients with ICDs, wherein the defendant comprehended the wrongness of their actions but lacked the ability to resist the impulse to carry them out (GLANNON 1997).

3 THE RATIONALE FOR THE MORAL RESPONSIBILITIES OF ICD PATIENTS

The discussion of the rationale for the moral responsibilities of ICD patients mainly focuses on "intention," "volition," "choice," and other cognitive abilities. It is argued that ICD patients do not mean to commit a criminal act; what they do is simply out of control. However, actions that appear "out-of-control" are not necessarily actions that are performed without intent. The huge dysphoria caused to ICD patients as a result of their unsatisfied, distorted desires is not what they "deserve." But after all, ICD patients commit criminal acts intentionally, namely, to relieve their huge inner dysphoria, and this "intention" involves the moral decision of the subjects. And will, or volition, which is understood as an executory, functional state, is intact in ICD patients as their volition is not "paralyzed," they can still have the will to make the decision to execute general intention despite being successful or not (Morse 1994). To conduct the impulse, however compulsive, is the manifestation of an agent's own causal behavior of body and mind. Agents may be coerced, either through physical force or psychological manipulation, to act contrary to their own wishes, but their ability to execute actions remains intact, as their brains can still send commands to their bodies. For ICD patients, the choice seems hard, but whether or not they conduct the seemingly "irresistible" impulse, the choice still exists in this sense.

It is also argued that the human's stimuli-behavior pattern is not like how flies trigger the flick of a frog's tongue or some basic physiological reflex like the patellar reflex (Lewis 2011). Rather, it is a series of complicated decision-making and executions. Therefore, the gap between the cues triggering impulses and the action actually being conducted does not make the execution of the desire unavoidable. Moreover, unlike the patellar reflex, which

does not require the involvement of higher nervous centers, the criminal behavior of ICD patients is difficult to control, but it still uses the higher brain functions of decision-making and thinking. In other words, this abnormal desire is indeed so strong that ICD patients have irrepressible impulses to commit crimes, but their decision-making and free will are not impaired; they can still autonomously make decisions between morality and relieving their dysphoria, but it is a moral dilemma for them. In the face of legal problems, a decision against the law is a violation of law and morality, no matter in terms of means or results. It is indeed their misfortune that this “undeserved” dysphoria befalls them, but on the opposite side of this dysphoria is a crime, a violation of the rights and interests of others, so public order and the legal system require ICD patients to choose between doing evil and suffering dysphoria, which is not appalling or life-threatening. To bear the dysphoria of the moment without harming others is their “unbearable lightness of being.”

4 BIOLOGICAL DEFICITS OF ICD PATIENTS

However, because the etiology of ICD itself contains “repeated failure to resist impulses,” it suggests that ICD patients have corresponding difficulties in making moral decisions, which makes them unable to make the right choice in the face of temptation and crime. Therefore, the behavior of ICD patients needs to be supervised and guided. ICD patients are caught in a struggle between moral decisions and abnormal desires, and abnormal desires always take the upper hand, preventing patients from fulfilling their normal decision-making functions. Abnormal desires are like a difficult intruder, constantly stimulating the impulses of ICD patients and destroying their inhibitory function. Therefore, although morally viable and compulsory ICD patients may stick to moral principles as normal people, there are neurophysiological barriers that exist. Featuring impulsivity and behavioral addiction, ICD has a neurobiological basis like addiction and a distinct impairment in impulse control.

Appetitive conditioning is an initial stage of the addiction process. This process involves various neuroanatomical structures, including the amygdala, orbitofrontal cortex (OFC), basolateral amygdala (BLA), anterior cingulate cortex, hippocampus, hypothalamic nuclei, and septal nuclei. Alterations in the structure and function of this neurocircuitry contribute to the heightened involvement in addictive behaviors that are central to ICDs. The brain circuitry associated with addiction, which encompasses the stages of acquisition, habit formation, and ultimately the development of compulsive behaviors, has been extensively validated. Apart from the neuroanatomical structures mentioned above, it also involves the nucleus accumbens (NAcc) and the ventral tegmental area (Dalley & Ersche 2019). The 5-HT system is frequently linked to ICDs and is considered one of the most extensively implicated neurotransmitter systems. Decreased 5-HT neurotransmission has been connected to heightened impulsivity in humans (Williams & Potenza 2008). Similar neuroanatomical structures also feature in deficits in impulsivity in ICD patients, including the NAcc core, BLA, hippocampus, insula, lateral prefrontal cortex, posterior cingulate cortex, parietal cortex, and OFC. DA neuronal activity is also crucial (Dalley & Ersche 2019).

5 CONTROVERSY IN MORAL JUDGMENT OF ICD'S BEHAVIOR

ICD patients are caught by “internal coercion.” namely, the huge urge coming from inside their minds propelling them to conduct specific behaviors (Morse 1994). In a sense, internal coercion, like external coercion, is an intrusive force that drives the subject to act against his will. However, the intensity of external coercion can be measured, and it is also known whether the subject can rely on its own ability or how much force it needs to use to counter this coercion. However, the intensity of internal coercion is unknown, and the existing neuroscience cannot tell us how big the “force” against internal coercion should be and whether the brain's inhibitory function and the brain regions and hormones responsible for decision-making have

been destroyed by this coercion. In other words, we do not know the extent to which internal coercion can cause a person to lose his or her willpower so completely that he or she is completely at the mercy of the coercion and thus exempt from liability.

Should ICD patients not be overly ethically criticized? On the one hand, failure of impulse control is the root cause of most criminal behavior, and impulse control is the duty of everyone. And in the judicial decision, it is impossible to make a scientific measurement of whether the behavior of the perpetrator at the time of committing crimes is an “uncontrollable impulse.” Nor does current neuroscience have the ability to tell people to what extent an impulse is “irrepressible,” nor can it inform us of the psychological processes and neurophysiological factors that occur between the subject’s generating an impulse and the action it causes. Moreover, what has not been known is that in ICD patients, from the time an impulse is formed to the time when the brain gives the order to press the “run” button of the impulse, and from the time the impulse is given the “run” command to the time when the actual action occurs, whether the levels of hormones and electrical signals in the brain and the activity of brain regions during these two periods really make the brain’s programming and executive functions completely out of the control of the inhibitory center of the brain (or make the impulse system completely override the inhibitory system), resulting in the patient’s perception and desire for inhibition but unable or difficult to respond to it. Thus, the patient’s autonomous will is in a state of disorder. It is believed that the problem with ICD patients is not impulse control per se but addictive behavior caused by irrational desires, which are triggered when the corresponding cues are encountered. Therefore, they are fully capable of taking responsibility for their actions; other people can only evaluate the behavior of ICD patients based on the moral standard of ordinary people.

However, rather than harsh criticism and punishment, society has more responsibility to actively provide help, support, and necessary supervision for ICD patients to prevent and reduce the risk of social losses caused by the onset of ICD patients and find solutions for ICD patients to restrain their impulses.

6 TREATMENT

We assume that all agents will be able to refrain from misbehaving, although some have more difficulty than others in achieving this, and ICD patients are such a group of people. However, they have not completely lost the ability to control themselves from committing crimes; they just need greater perseverance and a more complex and protracted struggle with the impulses brought about by abnormal desires to reach the level of ordinary people. Therefore, society must conduct relevant cognitive behavioral training and cognitive behavioral therapy for them so that they can obtain more power to override the impulse brought by abnormal desires and form an inertial mode of thinking and behavior that is aligned with the moral request. As a result, when faced with a conflict between criminal behavior and moral behavior, their thoughts will automatically shift toward the moral path.

Since ICD was first recognized as an obsessive-compulsive spectrum disorder, studies have shown that effective drugs for OCD, such as serotonin reuptake inhibitors like fluoxetine, fluvoxamine, and paroxetine, are effective in the treatment of ICD. More and more studies have shown that the pathological mechanisms of ICD and mood disorders are similar, and there may be comorbidity. So, mood stabilizers for mood disorders or antidepressants such as lithium, valproate, and topiramate also have a therapeutic effect. ICD has also been linked to addictive disorders. Opioid antagonists can indirectly act on DA and then affect addicts’ subjective experiences of pleasure and urge. Naltrexone is one such drug and therefore has therapeutic effects on ICD. In addition, when some ICD patients show symptoms of comorbidities with ADHD, treatment with ADHD stimulants can also be effective for ICD (Grant 2006).

In addition to drug therapy, psychosocial intervention, including cognitive-behavioral therapy (CBT), is also a major means for the treatment of ICD. CBT, including covert

sensitization, aversion therapy, and systematic desensitization, are all helpful in treating ICD caused by addictive behavior. In addition, dialectical behavioral therapy and contingency management are also useful in guiding ICD patients to eliminate wrong behaviors, exercise self-control, and reward correct behaviors.

7 CONCLUSION

In the current neuroscience context, we cannot consider the criminal behavior of ICD patients to meet the criterion of the insanity defense because, according to the M'Naghten principle, ICD patients have an intact cognitive capacity to know that what they are doing is wrong when they commit a crime, and according to moral philosophers, ICD patients also do not lose the ability to make moral decisions freely, so for now, ICD patients have the same moral responsibilities as everyone else. However, the ongoing debate on whether ICD patients should be fully responsible for their actions would keep on challenging neuroscientists, psychologists, criminologists, and moral philosophers. Whether ICD patients are fully capable of making the moral choice when facing enormous internal coercion still casts doubts on the field. Only when neuroscientists understand the precise circuitry that leads ICD patients from impulse formation to behavior execution will they be able to provide jurists and moral philosophers with a clearer rationale for whether ICD patients really cannot control their behavior. It is also up to multiple fields to develop an assessment mechanism to measure the degree of loss of control of ICD patients at the time of committing criminal acts and to determine the measurement of the penalty in the context of the patient's overall medical condition. All of this requires a lot of future research. Beyond that, the most important thing is for psychologists and psychiatrists to develop more treatments to help people with various types of ICDs better adapt to moral requirements.

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A literature review on spirituality and depression

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ABSTRACT: As researchers and clinicians have come to acknowledge the significance of spirituality in maintaining mental health and its potential to improve depression, the connection between spirituality and depression has received considerable attention. This narrative literature review provides an overview of the association between spirituality and depression, explores clinical implications and interventions, discusses research gaps and future directions, and highlights factors that moderate the relationship. The review emphasises the significance of include religious viewpoints in mental health treatment and recommends including spirituality into therapeutic depression therapies. However, it also acknowledges the limitations and challenges in this field, such as regional variations in research findings and the need for further investigation across diverse populations and cultural contexts. In order to improve the comprehension of the intricate interactions between spirituality and depression, the study recommends additional qualitative research, multi-disciplinary collaboration, and methodological innovations. By addressing these gaps and considering the moderating factors, researchers and clinicians can develop more personalized and culturally sensitive approaches to effectively address depression in relation to spirituality.

Keywords: Spirituality, Religion, Depression, Mental health, Well-being

1 INTRODUCTION

Religion and spirituality have long been recognized as influential aspects of human experience, playing a significant role in individuals' well-being and mental health. Throughout the 20th century, religion and spirituality received limited attention in the psychology literature. However, the advent of positive psychology has brought about a fresh perspective, highlighting the significance of spirituality in fostering individual well-being (Peterson 2006). Today, it is widely accepted that spirituality represents a vital aspect of human nature that can contribute to overall well-being (Baysal 2022).

Examining the links between spirituality and depression has garnered more attention in recent years, considering the significant proportion of the global population that values spirituality and the substantial impact of depression on morbidity. While major depressive disorder, also known as depression, is a common mental health condition marked by persistent feelings of melancholy, a lack of interest, and diminished performance (Sorajjakool *et al.* 2008), spirituality is frequently defined as the dedication to transcendent meanings and ideas that may or may not be the result of membership in a religious group or belief system (Huguelet & Koenig 2009). It is important to differentiate genuine spirituality from its misuse, where the term becomes applied to almost anything, including non-intellectual and mundane aspects of life (MahdiNejad *et al.* 2019). Numerous studies have shown that some features of spirituality and religion, such as church attendance, can predict reduced levels of

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depression over time (Braam & Koenig 2019). Religious and spiritual traditions across cultures have long emphasized the healing power of the faithful's spiritual or loving presence (Jonas & Crawford 2004).

In light of the evolving understanding of spirituality and the growing recognition of its positive influence on mental well-being, this narrative review aims to provide an overview of the association between spirituality and depression, as well as a summary of recent research findings on their mechanisms and the factors moderating their relationship. Additionally, the review will discuss the clinical implications of these connections, highlight the challenges faced in this field of study, and identify opportunities for future research. By examining the intersection of spirituality and depression, this review aims to contribute to a greater knowledge of this complex relationship and consider its therapeutic implications.

2 THE IMPACT OF SPIRITUALITY ON DEPRESSION

Braam & Koenig conducted a systematic review focusing on examining the association between spirituality and depression through prospective studies (Braam & Koenig 2019). The review included a total of 152 papers published up until 2017. The results showed that 49% of the research found an association between religion or spirituality and a better prognosis for depression, whereas 41% discovered no correlation and 10% indicated a connection with worsening depression or mixed findings. On average, each study included two measures of religiosity and spirituality, excluding religious struggle measurements. The effect size (d) for these correlations was moderate, estimated at -0.18 . It is vital to remember that most research was done in North America, with only a small number in Asia and none in North Africa or the Middle East's Islamic nations (Braam & Koenig 2019). The study showed that those from the United States and Canada were more likely than those from Europe or East Asia to reveal substantial relationships between religiosity/spirituality and decreased depression over time, even when these connections were not statistically significant. This can also be seen in a recent study conducted by Garssen *et al.* (Garssen *et al.* 2020).

Garssen *et al.* conducted a meta-analysis that investigated the longitudinal effect of spirituality on mental health, including depression symptoms (Garssen *et al.* 2020). Using a random effects approach, the investigation encompassed 48 longitudinal studies. The weighted average correlation revealed a significant but weak association between enhanced spirituality and improved mental wellbeing, with a correlation value of 0.08 . The results were influenced by the type of religiosity or spirituality measure employed. While certain types of spirituality and religion have weakly positive relationships with mental health, others have negative ones. The earlier research indicated a limitation in generalizability to regions outside North America. However, it also acknowledged the significant influence of cultural factors, such as religious background and community dynamics, in understanding the relationship between spirituality and depression. This insight was highlighted in the study conducted by Hodapp & Zwingmann, where important questions were raised about the organizational and geographic scope of research findings (Hodapp & Zwingmann 2019).

Hodapp & Zwingmann questioned the organisation and scale of findings from North American research' generalizability to the German-speaking region (Hodapp & Zwingmann 2019). They conducted a meta-analysis utilising information from 67 research carried out in the German-speaking region, which includes Germany, Austria, and Switzerland, in order to address this question. The research found a weak but statistically significant link between increased spirituality and better mental health. The sort of measure of religiosity/spirituality used, however, influenced the results. While other measures showed only slight positive correlations, negative forms of religion or spirituality showed a greater negative impact on mental health. Notably, the connections between negative forms of religiosity/spirituality and poorer mental health were strong, and the average effect size in the German-speaking region was smaller than in meta-analyses carried out in the United States. Besides, Zimmer

et al. showed that in countries of Asia and Eastern Europe that have a communist or former communist history, the level of religious devotion appeared to have a weaker correlation with good health (Zimmer *et al.* 2019). This could potentially be attributed to different religious landscape within countries, in which in countries such as US that is predominantly Christian may bring a strong sense of religious community and acceptance (Hodapp & Zwingmann 2019).

These studies provide valuable insights into the association between spirituality and depression. The findings from Braam & Koenig suggest a moderate positive correlation between spirituality and a better prognosis for depression (Braam & Koenig 2019). However, it is important to consider the regional variations highlighted by Hodapp & Zwingmann and Garssen *et al.*, which demonstrate differences in the magnitude and structure of the associations in different cultural contexts (Garssen *et al.* 2020; Hodapp & Zwingmann 2019).

2.1 *Mechanisms and pathways*

Depression and spirituality have a complex interaction that is impacted by a number of different processes and pathways. The involvement of cognitive evaluation is one possible method through which spirituality alleviates depression. According to Koenig *et al.*, religion gives people a cognitive framework that enables them to make sense of the stresses in their lives and gives them a feeling of coherence and purpose (Koenig 2012). Different religious traditions provide varying interpretations of suffering, with some viewing it as educational rather than purely destructive or humiliating (Koenig 2012). This cognitive reframing of suffering may enhance individuals' psychological resilience in the face of negative life events, contributing to lower levels of depression.

Religious coping has also emerged as an important aspect in understanding the association between spirituality and depression. Rather than focusing solely on religious beliefs and practices, researchers have shifted attention towards the particular uses of religion as a form of coping (Pargament 2011). According to studies, particular religious coping strategies after traumatic life experiences are linked to favourable psychological results (Pargament 2011). During stressful circumstances, it has been discovered that perceptions of support, a partnership with God, and counsel from God are useful for coping (Pargament 2011). For instance, those who believe that God has control over their condition report having higher self-esteem and better adjustment (Pargament 2011). Depending on a variety of factors, such as the coping strategy employed, the sample, the situation, and the time period, the impact of religious coping on outcomes connected to mental health may differ.

2.2 *Factors moderating the relationship*

The relationship between spirituality and depression is not a straightforward one, as it can be influenced by various factors. This section aims to examine the factors that may moderate or influence the association between spirituality and depression, including age, cultural context, and religious affiliation. Understanding these moderating factors is crucial for gaining a comprehensive understanding of the complex interplay between the two factors.

Age is an important factor that may influence the association between spirituality and depression. Studies have suggested that the impact of spirituality on depression may vary across different stages of life. According to Zimmer *et al.*, older persons often engage in higher levels of religion or spirituality, which may provide them a stronger sense of meaning and purpose and lower their risk of depression (Zimmer *et al.* 2016). Conversely, for younger individuals, the relationship between spirituality and depression may be influenced by factors such as identity formation and exploration, which can affect their engagement with religious or spiritual practices.

Moreover, cultural context is another significant factor that can moderate the association between spirituality and depression. Different cultural backgrounds may shape individuals' perceptions and expressions of spirituality, as well as the social support systems available to

them (Hodapp & Zwingmann 2019). For instance, in collectivist cultures, where community and interdependence are highly valued, the presence of strong social support networks within religious or spiritual communities may provide a protective factor against depression. In contrast, in individualistic cultures, the emphasis on personal autonomy and self-reliance may lead to different expressions and experiences of spirituality and its impact on depression.

Besides, religious affiliation also plays a role in moderating the relationship between spirituality and depression (Bonelli *et al.* 2012; Dein 2013; McCullough & Larson 1999). Different religious traditions and beliefs may offer distinct teachings, practices, and support systems that can influence individuals' experiences of spirituality and their mental health outcomes. Research has indicated that the level of religious commitment, the quality of religious support, and the congruence between an individual's personal beliefs and their religious community's values can significantly impact the relationship between spirituality and depression (Bonelli *et al.* 2012; McCullough & Larson 1999).

Additionally, defining spirituality and religiosity can be challenging as it encompasses a wide range of aspects, each potentially exerting varying effects on depression (Dein 2013). For example, scholars have acknowledged that religion has many different aspects, such as belief, affiliation, subjective religiosity, religious commitment, religious experience, religious knowledge, religious well-being, intrinsic or extrinsic motivation, religious healing and religious coping (Dein 2006, 2013). For example, the distinction between intrinsic and extrinsic religiosity may indicate different impact on depression (Dein 2006). Extrinsic religiosity refers to practising a religion for reasons other than one's own well-being, whereas intrinsic religiosity refers to practising a religion for its own purpose. Numerous studies have showed a positive correlation between intrinsic religiosity and improved mental health (Dein 2006).

Nonetheless, in order to gain a deeper understanding of the association between spirituality and depression, it is essential to consider these moderating factors. Numerous studies have explored the influence of age, cultural context, and religious affiliation on this relationship, providing valuable insights into the nuanced interplay between spirituality and depression. By taking into account these factors, researchers and clinicians can develop a more personalized and culturally sensitive approach to understanding and addressing depression in relation to spirituality.

3 DISCUSSION

3.1 *Clinical implications and interventions*

Depression and spirituality are related in important clinical ways that affect how mental health services are provided. The results point to the necessity of include religious viewpoints in evaluations and treatment of mental health (Dein 2006, 2013). Mental health practitioners should ask about a person's religious or spiritual beliefs and practises, as well as how they have affected their lives and whether they have been employed as coping methods for present stresses (Dein 2006). Involving religious experts in mental health teams, such chaplains, may also be advantageous in order to address spiritual concerns and offer a model of holistic therapy (Dein 2006). To make sure that persons with major mental illness are referred in the right way, it is essential for chaplains to obtain training in mental health concerns.

It is essential to acknowledge that integrating spirituality into therapeutic interventions for depression holds promise. Acknowledging and supporting a patient's spiritual beliefs can be a valuable complement to treatment, nurturing intrinsic spiritual beliefs, such as belief in a supernatural power, prayer, and discovering meaning in difficult circumstances, may contribute to reducing depressive symptoms (Farrell 2004). By recognizing the importance of spirituality, mental health professionals can tailor interventions to address the spiritual needs of individuals, offering a comprehensive approach to depression treatment.

It is important to acknowledge both the effectiveness and limitations of integrating spirituality into mental health treatment. While spirituality can be a valuable resource, it is not a

panacea, and different individuals may have varying spiritual needs and preferences (Farrell 2004). Mental health professionals should be mindful of potential biases, prejudices, and the need for proper training when addressing spirituality in clinical settings (Maraldi 2018). Moreover, self-report measures used to assess spirituality and depression should consider methodological biases, such as question-order bias and mood state during questionnaire completion (Maraldi 2018). These considerations will help ensure the appropriate and effective integration of spirituality in depression treatment.

3.2 *Research gaps and future directions*

Although research on spirituality and depression has advanced in recent years, there are several gaps and limitations that need to be addressed. First of all, few studies have been done in other regions, such as Asia or the Middle East's Islamic nations, while the majority of research have been done in North America (Braam & Koenig 2019). It has also been demonstrated that, even when these links were not statistically significant, individuals from North America were more likely to identify significant correlations with decreasing depression over time as opposed to individuals from other countries. Future research should include diverse populations and cultural contexts to explore the healthfulness and harmfulness of religion across different religious groups (Dein 2006). Similarly, there is a need for research to move beyond mainstream religious activities and consider different theological traditions and their conceptualizations of the Divine (Dein 2006). This broader exploration will provide insights into how various religious frameworks impact mental health and well-being in individuals.

Moreover, a fundamental weakness in the current analysis may also be caused by the fact that the majority of studies assumed a linear relationship over time between spirituality and depression (Braam & Koenig 2019). But some research has found a U-shaped relationship between these characteristics. One suggestion for future study is to prepare the analytical technique to account for non-linear correlations.

Besides, the need for more qualitative research to complement quantitative studies in understanding the relationship between spirituality and depression is highlighted (Dein 2006). Qualitative studies can capture individual religious/spiritual experiences and their psychological effects, shedding light on the complex dynamics between spirituality and mental health (Dein 2006). Future studies should employ designs that explore the causal directionality of the relationship between spirituality and depression, investigating whether religion and spirituality are inherent characteristics of depression or independent predictors of depression outcomes (Braam & Koenig 2019).

Recognising the underlying universality of spirituality, it is crucial to foster relationships and cross-national collaboration among scholars. Building bridges is crucial in this situation, especially given the possibility of linguistic obstacles brought on by the wide variety of publications. The importance of ensuring inclusivity and accessibility in the area of research is highlighted by the possibility that important studies may be released in languages other than English.

Finally, collaboration and interaction between psychologists that specialise in religion and other scientific fields, such as evolutionary psychology of religion, neuroscience, theology, and philosophy, are essential to improving the knowledge of spirituality and depression. It is also crucial to recognize that religious institutions have been widely utilizing religious coping and healing interventions, even though these methods have not always been accepted by mainstream psychology or subjected to scientific study. Therefore, it is essential to establish a connection and mutual understanding, fostering a grand alliance between different disciplines to facilitate interdisciplinary collaboration in this area. This interdisciplinary approach will contribute to comprehensive knowledge of the complex and multifaceted nature of spirituality. However, it is equally important to be cautious about the potential impact of the New Age movement. While seeking to integrate various perspectives and practices, the related studies must ensure that the incorporation of these ideas remains grounded in rigorous research and evidence-based approaches. By striking the right balance,

researchers can explore the potential benefits of religious coping and healing while upholding the standards of scientific inquiry and avoiding unwarranted beliefs or practices.

4 CONCLUSION

In conclusion, this literature review highlights the importance of recognizing spirituality's significant influence on depression and the need to consider various factors that moderate this relationship, including cultural contexts, diverse religious landscape, and the use of various methodologies. By understanding the mechanisms, pathways, and factors that shape the association between spirituality and depression, clinicians and researchers can adopt a more personalized and culturally sensitive approach to addressing depression and promoting well-being. Besides, integrating spirituality into mental health treatment can be a valuable asset in providing holistic care, but it must be done with caution and proper training to ensure the best possible outcomes. Moreover, further research and interdisciplinary collaboration will help advance the understanding of this intricate interplay between spirituality and depression and its implications for mental health care.

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External and internal factors leading to impulsive consumption behavior in mainstream society

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ABSTRACT: Impulse consumption is an unhealthy purchase made without careful consideration. Due to the current social situation, there are many consumption traps, a variety of products, and overwhelming advertisements. The present study reviews prior studies on unhealthy purchase to detect the impact factors of impulsive consumption behaviors. The accumulation of many factors leads to the generation of impulsive consumption behaviors, including product factors, social factors, family factors, and personal factors of consumers. This kind of unhealthy behavior will cause many negative effects. Consumers overspending in order to control the budget lead to a downturn in the economic situation, buying too many items leads to a waste of resources, frequent shopping stress leads to anxiety, disrupts their own planning and other negative effects. In order to reduce the loss of consumers, all of people need to improve the consumption environment from the aspects of individuals, enterprises, and the country, and avoid bad temptations and consumption traps.

Keywords: Impulse consumption, consumers negative effects

1 INTRODUCTION

With the development of the world, people's living standards continue to improve. Therefore, their desires are getting stronger and stronger, and their consumption behaviors and psychology have also become different. Surveys show that impulsive spending behavior is on the rise. This is an impulse purchase, an unhealthy consumer behavior that can lead to financial loss and increased debt. It can also cause psychological distortions in consumers, leading to depression and anxiety. This article mainly analyzes the product factors and consumers' psychological state factors that lead to impulsive consumption behavior today, and illustrates the relationship between the two through examples, and makes some suggestions to avoid wasting resources and reduce bad consumption environments through the stickiness between the two.

2 EXTERNAL FACTORS

2.1 *Products with gaming*

The game, fun, interactivity and experiential nature of the product are more likely to arouse people's impulsive consumption. Consumer impulse buying behavior is mostly

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influenced by various circumstances (Yu *et al.* 2022). E-commerce enables product promotion to explode in people's lives. This study investigates customer behavior and psychological states based on the stimulus-organism-response paradigm. Currently, online shopping is the most means of product promotion. Take the coconut tree brand live broadcast as an example, which is characterized by real-time interaction. The anchor plays the role of guidance and conveys the added value of the product to customers. Some virtual rewards are used to increase the rights and interests of users in the live broadcast, creating a psychological expectation of rewards. Online platforms use personalized algorithms to recommend products that users are interested in. Coupled with the privacy of the online environment, individuals cannot refer to other people's evaluations and lack the ability to think carefully. In the process of purchasing, there are differences between the theoretical conceptualization and operationalization of concepts. This has led to fragmentation of the online impulse-buying literature (Han *et al.* 2018). However, the gamification design method can shorten the distance between consumers and products. Some interactions and experiences such as live broadcast explanations and simulation games allow users to better understand the product. This design is not only used as a tool, but also as a communication and means of relating to life. Consumption and social sharing behaviors are determined by emotional energy and cognition (Xu *et al.* 2019). Continuously deepening understanding of products during interaction, consumers continue to enjoy the pleasure brought by-products and experience the fun brought by-products, unconsciously increasing acceptance of the product. Gamified product marketing methods often refer to the concept of virtual currency. These virtual currencies can be obtained only by moving fingers, and users are often more willing to consume them, which will not affect the objective economic benefits like real money. While enhancing the fun, it also connects people's social networks, and people are constantly ranked and compared to increase their senses of social identity. When recognized by other users, there is a desire to consume impulsively, and then continue to purchase goods in order to obtain a continuous sense of recognition.

In gamified product marketing, consumers need to avoid the interference of the general environment, avoid being interfered by discounts, gifts, anchor benefits (Nawaz *et al.* 2021). They always evaluate their own needs and economic capabilities, and identify false publicity and misleading consumption.

In modern society, innovative links always incorporate a lot of game elements. Some novelty software attracts user experience through game mechanisms, and gamification is a major feature of innovative products. Innovativeness is a significant predictor of off-plan purchases. This feature affects the cognition and decision-making process of individuals when faced with new sensations, experiences, communications or products in the environment (Yu *et al.* 2022). With the increasing needs of people, there are more desires and needs for products, innovative products Attract the attention of consumers through new technologies and functions, such as wireless chargers, voice smart players, etc., which not only improves the use value of the product, but also improves the psychological satisfaction of consumers. The convenient performance reduces the time cost and psychological cost of users. Increase product satisfaction. Innovative products can always bring new user experiences and novel and exciting feelings, which can accelerate consumers' pursuit of pleasure, and products that are more suitable for individual needs also meet the needs of individual pleasure. This innovative product development is one of the powerful drivers of consumer purchasing power, stimulating individual feelings and experience levels (Wu & Yin 2019). Innovativeness is measured by considering emotional judgments as well as rational judgments. Emotional judgments include both social and hedonic creativity (Yu *et al.* 2022). The innovative platform provides users with more consumption goals and ways, and has the characteristics of personalization and interaction. At present, many second-hand platform software has been launched around the world. This type of platform innovates the trading methods and products of users, and provides many high-quality and

cheap products. It attracts users to accelerate purchases through price reduction and promotion, and the two parties communicate on the platform. Use experience, attract other users to participate, and increase user stickiness. Social innovation can fill the gaps in the market and demand, improve the quality of life of consumers, and social innovation can be close to the contemporary needs of consumers and improve consumer experience, both of which stimulate consumption desire. However, innovative methods may lead consumers to over-reliance on personalized customization, extreme curiosity, pursuit of personal identity, etc. Consumers need to carefully identify the actual value and authenticity of products.

2.2 *Effect of jealousy*

Jealousy often occurs when people make upward social comparisons, especially when they find that others' levels are difficult for them to achieve. Compared with low self-monitors, high self-monitors who can manage impressions more effectively can narrow the gap with others by acquiring substantive content to convey positive identity information (Pham 2013). This study is based on social comparison theory and materialism. Upward social comparison is the underlying mechanism of jealousy, and materialism is considered to be an intermediary mechanism leading to impulsive consumption. Materialism is the motivation for impulsive consumption, a motivation to build and maintain self-identity (Pham 2013). Through upward social comparison, consumers perceive the gap between themselves and others, which stimulates a compensatory consumption mechanism. self-identification.

In the consumption process, consumers often try to prove themselves. When jealousy is aroused, consumers' materialistic concepts are directly proportional to the incidence of impulsive consumption behavior (Pham 2013). For example, when peers buy luxury goods, people often do it to prove themselves Consumption at the same price; when passing by discounted goods, seeing companions receiving benefits, often stimulates consumption due to jealousy. People always think that high-end products can show their own value. Some people are eager for money and status, so they will buy products of the same value to set off their own identity, hoping to reduce others disapproval of themselves to a certain extent, in order to consolidate their own status. Impulsive consumption or even advanced consumption, trying to narrow the gap between real life and ideal life, and using stronger material motives to modify and maintain themselves. Self-monitoring also has an impact on material development. Individuals with high self-monitoring pay more attention to value identification and goals, are more sensitive to self-expression, have stronger shopping motives, and are more materialistic and more likely to develop jealousy. At the same time, companies will also use this kind of psychology to carry out marketing and create some comparisons between people. For example, celebrities are invited to endorse products. Celebrities are often the focus of society and the object of people's attention. Their behavior has a guiding role, and individuals may be affected by them. Influenced by celebrity benefits, they believe that products endorsed by celebrities have higher value, and strengthen their sense of social identity by purchasing them. When consumers are confused by the external value packaging of products, they will have uncontrollable emotions. Out of emotional pressure and emotional catharsis, consumers need to imitate the behavior of others and consume valuables to fill their own empty satisfaction.

Consumers should reduce their reliance on materialism, enhance self-worth and self-confidence, not rely too much on external material and human evaluations as a measure, pay attention to non-material life, establish good and healthy interpersonal relationships, and avoid social pressure and competition. Excessive influence, pursue a balanced and healthy lifestyle. Consumers should conduct self-regulation and focus processing, focus on themselves, allow their own hopes to change with changes in practice, and encourage individual responsibilities and obligations to change with time.

2.3 Effect of stress

Emotional (and cognitive) impulse buying is largely determined by emotional (and perceptual) information processing (Romaniuk & Nguyen 2017). Both the individual's emotional cognition system and information processing system have an important impact on purchasing behavior. Emotional information processing plays a decision-making role while emotional cognition system plays a driving role. According to the Pleasure-Arousal-Dominance Scale to measure consumers' emotions, a rapidly rising sense of pleasure can significantly induce impulsive buying behavior, while under unpleasant circumstances, reducing the level of arousal can increase consumers' purchasing behavior (Chan *et al.* 2017).

Negative emotions increase impulsive buying behavior and heighten individuals' sensitivity to rewards. Under negative emotions, people need to seek compensation quickly, and consumption has become a classic emotional compensation. It weakens the individual's self-monitoring ability and also changes the individual's consumption preferences. Once negative emotions arise, the individual pays more attention to the current emotional state and tries to alleviate it, causing the individual to pay more attention to the service experience when purchasing the product and ignore the value of the product itself to seek emotional comfort. And time pressure perception is one of the most effective factors influencing consumers' impulse buying (Romaniuk & Nguyen 2017). Consumers often feel time pressure affects their purchasing behavior when they are pressed for time. Once they feel the pressure, people only want to seek satisfaction quickly. High time pressure can lead to emotional aspects of impulse buying (Romaniuk & Nguyen 2017). Some studies have shown that compared with daily shopping, holidays are more likely to promote individual consumption. When some large-scale promotion days come, the turnover of the platform is always dozens of times or more than other times (Liu *et al.* 2022). People always wait for limited-time discount opportunities or promotion mechanisms, even if the merchant bundles consumption but the unit price of the product is low, most consumers will still choose to buy. Some studies have also found that turning time pressure into a positive shopping experience can reduce the chance of impulse buying, such as announcing the preferential mechanism of various products in advance, introducing the advantages of products, providing fast lanes and other links that reduce time pressure can all improve consumers' shopping experience. The ability to think critically. Emotional stress is also one of the effective factors affecting impulse buying. In a stressful situation, people use consumption as a catharsis, pay money to seek short-term pleasure, use shopping behavior to generate stimulation and comparison, and believe that it can improve self-identity and self-satisfaction in impulsive consumption. But this pleasure is only temporary. Excessive impulse consumption will lead to greater psychological pressure and economic pressure, leading consumers to enter a vicious circle.

Positive emotions can reduce impulsive shopping behavior. When individuals experience positive emotions, they can improve self-control and desire, focus on the comparison between short-term happiness and long-term benefits of products, cultivate sustainable concepts, and choose products that conform to their own values (Cui *et al.* 2022). Consumption patterns. But positive emotions tend to be motivational. The strength of motivation has a great influence on impulse buying behavior. Highly motivated positive emotions will narrow the cognitive ability of consumers, make the cognition of products and personal emotions contradict each other, and cause behavioral decisions that deplete self-resource control (Wu *et al.* 2022). Therefore, excessive positive emotions may also lead to impulsive consumption. For example, the extreme sense of accomplishment may cause individuals to be immersed in excessive excitement and forget to rationally consider their own needs, preferring immediate satisfaction.

Consumers should always pay attention to their emotional changes when shopping, avoid the interference of self-consciousness, timely alleviate the adverse effects of excessive positive or negative emotions, and find ways to replace impulsive shopping such as fitness, yoga, and

gathering with friends to relax, formulate Plan your shopping and stick to it, reducing the chances of browsing a shopping site or entering a shopping environment.

3 CONCLUSION

Impulsive consumption has become a very common problem today. It has a great impact on people's financial status, mental health, social resource allocation, and policy adjustment. We need to take some measures to prevent this unhealthy behavior.

First of all, consumers need to restrain themselves, make a budget estimate before each purchase, determine the shopping limit according to their own needs and disposable quota, and at the same time manage their emotional state, and do not enter the consumption environment with excessive sadness or excitement, reduce vanity and increase the degree of comparison, and maintain a rational attitude to examine products.

Secondly, enterprises need to improve the practicability of products, prevent consumers from wasting resources after impulsive purchases, do not exaggerate the quality of products, and avoid false advertising. It can increase clear information and objective evaluation of products, provide rational consumption suggestions and guidance, and encourage the establishment of long-term interest relationships with consumers.

Finally, the country needs to improve relevant laws and regulations, increase efforts to protect consumers' rights and interests, strengthen consumers' ability to distinguish authenticity, popularize financial management knowledge, and improve financial quality training. At the same time, it is necessary to strengthen market supervision and combat false propaganda and bad business practices Promote sustainable consumption relationships.

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The impact on antisocial personality disorder: From the perspective of the causes, the effects and the treatments

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ABSTRACT: Disinhibition, which denotes a lack of behavior control, and meanness, which denotes a lack of interpersonal processing, are the core traits of antisocial personality disorder (ASPD). Their crime rate is higher than that of other psychopaths because individuals with ASPD act impulsively and lack empathy. Based on recent research, this article gives a thorough overview of ASPD, covering its nature and nurture factors of development, effects on patients and society, and popular treatment approaches. However, our understanding of ASPD is still quite limited, and there are still a lot of unresolved issues, particularly regarding its cause and present methods of therapy, which will require more research in the future. The vast majority of ASPD patients do not voluntarily obtain therapy because they do not actively seek help like people with other mental diseases do, which is also one of the reasons why research on ASPD is moving slowly. In all, this present study presents and analyzes causes of ASPD from various perspectives. Future direction of research was also discussed.

Keywords: Anti-social Personality Disorder, psychopathy, Antisocial Behavior

1 INTRODUCTION

The Diagnostic and Statistical Manual of Mental Disorders (DSM) written by the American Psychiatric Association (APA) describes each type of mental disorder the APA recognized. The present general understanding of a particular mental condition, including clinical data and diagnostic standards, is significantly impacted by this. There are still some mental disorders for which there are no complete diagnostic criteria, such as antisocial personality disorder (ASPD), although it is still evolving as knowledge and study about mental disorders grow. There is neither a concept of ASPD nor a classification for psychopathy in the first edition of the DSM (DSM-I), which will be discussed later. And Anti-social behavior was attributed to sociopathic personality disturbance because during that time more attention was paid to mental causes, while ASPD was considered to be caused by social causes. Until DSM-III, it was classified according to symptoms and included nearly all the knowledge and data about ASPD. DSM-III was a crucial benchmark for the study of ASPD at the time because of this. The APS was established for DSM-IV in the late 1980s to update more thorough data for mental disorders (Pickersgill 2011).

At first, ASPD went unnoticed, in part because no powerful voice was speaking out for it and in part because ASPD sufferers hardly ever communicated their subjective thoughts, and the great majority were coerced into receiving treatment (Pickersgill 2011). The standards of ASPD have also started to develop due to the introduction of more authoritative voices, which has increased public interest. This is a positive spiral. Since ASPD has a high crime rate, the development of ASPD was not only for the benefit of the patients but also for societal safety (Pickersgill 2011).

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This article gives a thorough introduction to ASPD including the popular testing method. The probable nature and nurture causes of ASPD and its influences towards themselves and society are also discussed. And, the limitation of the current research direction and suggestions for future studies are considered.

2 ANTISOCIAL PERSONALITY DISORDER (ASPD)

Understanding what antisocial personality disorder (ASPD) is crucial before learning about its symptoms and repercussions. Prior to that, the concept of psychopathy should be taken into account. It is primarily distinguished by unique interpersonal and emotional processing. It is obvious that the triarchic model can be utilized to explain the idea of psychopathy. This paradigm has distinct but related characteristics of disinhibition, meanness, and boldness. Disinhibition mostly highlights impulsive control issues, such as poor behavioral control or impatience. Meanness frequently highlights a lack of emotional ties to others, especially empathy. The final one is boldness, which specifically refers to the capacity to cope with social situations or demands like arrogance (Patrick *et al.* 2009). One of the main types of psychopathy is ASPD, which only satisfies the first two criteria of that triarchic model—disinhibition and meanness. It means that ASPD's primary traits—which will be covered later—are a lack of impulse control and a lack of empathy. Boldness does not adhere to the fundamental principles of ASPD, which is why psychopathy cannot be compared to ASPD: When it comes to re-solving social or interpersonal problems, ASPD is superior to psychopathy. Since their antisocial behavior (ASB) is more obvious and lethal than that of other psychopaths, it is simple to understand ASPD through an investigation of patients' behavior. The personality flaws and susceptibility for risky behavior in ASPD are additional factors contributing to the high crime reflection among ASPD patients. However, only a small minority of ASPD commit crimes at the level of psychopaths, demonstrating that ASPD behaves in a more aggressive manner than psychopathy (Venables *et al.* 2014).

Psychopathy Checklist-Revised (PCL-R) is typically utilized while testing and evaluating ASPD because it mostly manifests in behavior. It includes 20 items pertaining to emotional interpersonal and impulsive antisocial characteristics, which are the fundamental principles of ASPD, and is based on a clinical interview and an evaluation of institutional files (Venables *et al.* 2014). This approach will be used again in the investigations that are detailed subsequently.

3 CAUSES OF ASPD

The lack of actual causes of ASPD in the existing studies is another area that needs further investigation. The causes of ASB and other related behaviors like aggressiveness and impulsivity are discussed in this article. Even while not everyone who exhibits risky conduct qualifies as having ASPD, ASPD patients have a very high likelihood of performing ASB. Even though people are unable to pinpoint the exact causes of ASPD, they can deduce which elements may contribute to its development by examining and assessing ASB. The causes are broken down into natural elements, such as birth disorders in the brain and nervous system, and nurture aspects, such as effects from family and certain drugs.

3.1 *Nature factors*

3.1.1 *Impulsivity*

Impulsive behavior first appears during adolescence. Teenagers' immaturity makes it possible for them to act impulsively, and the likelihood is fairly high. However, the vast majority of teenagers will not engage in aggressive behavior, also known as antisocial behavior (ASB), that puts individuals or society in danger. Adolescent ASB serves as an example of why risky

actions like drinking and fighting in schools shouldn't be done at this time. As for ASPD, they struggle with self-control and are more likely than typical teenagers to participate in impulsive ASB. Furthermore, the impulsive behavior of these people is caused by a lack of certain brain regions as well as external influences. Mackey and his colleagues sought to identify the brain area that might be associated with impulsivity. A large group of teenagers between the ages of 14 and 15 were requested to complete the European School Survey Project on Alcohol and Drugs (ESPAD) and the Life Events Questionnaire (LEQ), both of which showed the likelihood that the participants acted in negative events and behaviors. Teenagers' ASBs in their entirety were featured. The participants then completed the Temporal Discounting Task, which gave them a choice between a sequence of tiny immediate incentives and larger delayed benefits. This task measured each participant's k value, which is referred to as the magnitude of the discounting function. A higher k value indicated that it was more likely for people to choose the modest instant benefits and act more impulsively. The individuals' brain regions were simultaneously observed using Magnetic Resonance Imaging (MRI), and Mediation Analysis was utilized to determine which areas of the participants' brains were associated with impulsivity. Higher impulsivity was discovered to be associated with less gray matter volume in the front medial and insular cortex and more gray matter volume in the subcortical area surrounding the ventral striatum, hypothalamus, and anterior thalamus. It was also established that ASB was connected to the amount of gray matter in certain locations of the brain. Physiological and developmental factors made up a bigger share of the reasons of impulsivity, despite the possibility that environmental factors contributed to the distinctions mentioned above (Mackey *et al.* 2017). If these areas were harmed or ill at the developmental or mature stages, impulsivity and the associated dangers would rise.

3.1.2 *Emotional deficiency*

As was already mentioned, psychopathy and ASPD essentially have the same emotional deficiencies. In general, it is thought that alterations in the amygdala-ventromedial frontal circuits are connected to emotional deficits. However, other parts of the brain or nerves may also be linked to emotional deficiencies in cases of ASPD and psychopathy. A whole-brain analysis was utilized to examine and compare the brain areas and functional connectivity in the two groups. The study included 22 patients with psychopathy who completed the PCL-R test and 22 healthy individuals as controls. The researchers found that psychopaths had much less gray matter than healthy subjects, particularly in the frontal cortex, anterior temporal cortex, insula, and amygdala. Additionally, they discovered a medial-dorsal frontal brain region, which demonstrated that while the association between emotions and the cortex, particularly in remote places fades, it strengthens when it comes to central emotions like frontal lobe activity. As a result, ASPD patients exhibit higher emotional expression and are less susceptible to external emotional cognition (Contreras-Rodríguez *et al.* 2015).

With the exception of the amygdala, these regions essentially match the impulsivity-related regions indicated above. It has been established in anatomy and physiology that changes in the amount of gray matter in these areas contribute to both impulsivity and emotional problems. They are insensitive to other people's emotions and unable to control their own.

3.2 *Nurture factors*

3.2.1 *Family violence*

Children who experience domestic violence as kids may develop ASB as teenagers and adults as a result. One result of family violence, which will be discussed below, is the potential for intimate partner violence (IPV). Children living in a violent home are considered to have experienced intimate partner violence (EIPV), regardless of whether the victim was a child or a parent. Even though these children are aware of the harm and the consequences it may cause, those who have observed violence for a long time are more prone to become impacted by it or even unconsciously copy it. Interviewing 1000 participants aged 14 to 31 as well as

their parents allowed researchers to better understand how early exposure to domestic violence affects adult behavior and the potential for antisocial conduct. The study showed that if the children grow up in a violent household, both the likelihood of IPV and these effects eventually fade after maturity. However, being exposed to extreme domestic violence typically involves using weapons to harm the partner, which dramatically raises the likelihood that these kids would engage in violent crime as adults (Ireland & Smith 2009). One way to think of this is as the “inheritance” of violent behavior, which may be used to predict whether or not someone would engage in ASB like violence in the future and even to determine whether or not they are in ASPD.

3.2.2 *Parental incarceration*

The definition of parental incarceration is the judicial system imprisons parents who commit crimes. Few people are aware that children are impacted by their parents because society and the media focus more on inmates serving their sentences and undergoing labor reform in jail. This is true in the case of parents who are sentenced to prison. Children who are separated from their parents experience a variety of challenges, including traumatic separation, inadequate care from a temporary guardian, financial issues, and pressure from the media and the community. According to the research, children whose parents are incarcerated are substantially more likely to experience ASB than other children, suggesting that there may be a connection between parental incarceration and teenagers’ ASBs. There are three reasons that could account for the correlation: First, it’s probable that pressure brought on by parental incarceration contributes to anti-social inclinations. Children will automatically identify stress with ASB if they know that their parents use it to cope with life’s pressures. They might also engage in ASB if their parent’s imprisonment puts them under a lot of financial and social pressure. Second, the shame associated with parental incarceration and the effects of social bias towards the kids. Because most people think these kids will become criminals like their parents one day, these children are likely to face hostility and exclusion from their peers and family. As a result of children hypnotizing themselves to the point where they believe they will commit crimes, ASB significantly rises. The final hypothesis is that ASB in children is brought on by environmental or genetic factors (Murray *et al.* 2012). This shows that there may be no connection between parental incarceration and ASB, which calls for further research. The current research, however, indicates that an association may exist. The first two hypotheses, which point to the influence of environment rather than inheritance on children, are preferred by the current research, even if it is difficult to determine whether there is a causal relationship between parents’ incarceration and the rise in children’s ASB. Future studies, such as longitudinal twin studies, can be utilized to discriminate between the impacts of environment and genetics to confirm this (Murray *et al.* 2012).

3.2.3 *Substance abuse*

Teenagers’ actions are significantly impacted by substance usage during adolescence (15 to 18 years old). Substance abuse is defined as a disease that since using too many substances causes problems in daily life, such as alcohol and drugs, but still cannot get rid of substance dependence. Since almost all ASPD patients used drugs or alcohol, some people believe that ASPD is one of the causes of substance abuse. However, many people who abuse drugs or alcohol do not exhibit any ASPD symptoms. However, other investigations found that there might be a causal relationship between them that is reciprocal. They discovered that parental excessive drinking and biological inheritance to their children, as well as extended parental witnessing of excessive substance abuse, all contribute to the hereditary nature of substance dependence. Both of these circumstances have been linked to a number of illnesses, including ASPD (Robins 1998). As a result of teenagers perhaps copying these behaviors, the likelihood of ASB significantly rises. There is a correlation between substance abuse and ASPD, even though there is yet no proof of a causative connection between them. This is one of the issues that have to be researched in the future (Robins 1998).

4 INFLUENCES OF ASPD

The easiest technique to diagnose ASPD today is to see how patients behave. Their antisocial behavior (ASB) is injurious to both themselves and other people. Based on these two factors, it will be talked about them following. The impacts of ASPD are varied, hence the following will only cover the more significant or severe ones.

4.1 *Impact on themselves*

4.1.1 *True or false judgment*

One of the features of ASPD is the difficulty with cognitive emotion, particularly a lack of empathy that makes it challenging for ASPD patients to feel other people's feelings as naturally as other individuals do. Empathy is crucial, especially when faced with moral choices like whether to rob a rich man wearing a watch someone really want but can't afford. Since there are moral and legal requirements involved in this matter, it is considered that the vast majority of individuals will decide against robbing. Therefore, it is unclear if ASPD patients can form accurate or inaccurate judgments, or more precisely, whether they are aware of the best option for action. Cima and her coworkers showed through comparison studies that people with ASPD have the ability to distinguish between good and wrong judgments and are aware that robbery is wrong by both moral and legal criteria. They are aware of what is correct but frequently choose to ignore it since quick benefits could be more significant to them. They are unconcerned about the results of bad decisions or their effects (Cima *et al.* 2010). This shows that there are other important variables that influence moral decision-making in addition to emotional processes. Even though both regular people and ASPD sufferers are aware of the best option, they yet weigh a variety of factors while making practical decisions. Additionally, their ASB will strengthen if they discover that doing so will yield more immediate benefits, such as thieving for a pricey watch (Cima *et al.* 2010).

4.1.2 *Lack of cooperativeness*

People with ASPD are thought to prefer selfish behaviors over cooperative ones, particularly when it comes to conflicting interests. To figure out whether they are prepared to distribute the rewards equally among others, the Prisoner's Dilemma Game (PDG) was used. According to PDG, player A (the participant) has the option of cooperating with partner B (the computer) to share the advantages or engaging in fraud to steal this money. At the same time, player A must forecast which option partner B will take (cooperate or fraud). The control group experiment revealed that ASPD patients engaged in considerably more deception than members of the control group (regular individuals), indicating that they were less cooperative. First, they like to act in a rebellious manner, which may be viewed as inappropriate by others, which is one explanation for this phenomenon. The second option is lying only for one's personal gain, which is self-centered (Mokros *et al.* 2008). Whatever the motivation, if they decide to cheat, they will also assume that their peers will not cooperate with them, which is consistent with their logical assumption that everyone is willing to get more immediate rewards.

4.2 *Impact on society*

The ASPD's crime rate is significantly higher than that of the general population, which is its most noticeable characteristic. It is commonly accepted that male offenders will be more violent and dangerous to society than female criminals. However, in accordance with the PCL-R measure previously described, male and female criminals scored essentially the same on this test, indicating that their circumstances regarding ASPD or psychopathy symptoms are essentially the same (Kennealy *et al.* 2007). In this matter, gender is irrelevant.

A problem that not only ASPD but all varieties of psychopaths may contribute to is intimate partner violence (IPV). Most frequently, it refers to the abuse that women endure at the hands of their relationships. Although it has been established that there is a strong connection between IPV and ASPD, it is important to talk about how ASPD traits affect how harmful IPV is. The

primary or secondary standards of psychopathy are assessed using the Psychopathic Personality Inventory (PPI). The Fearlessness-Dominance Factor I (PPI-I), which depicts affective-interpersonal traits, and the Impulsive-Antisociality Factor II (PPI-II), which measures behavioral-lifestyle traits, are the two variables in PPI that help identify two aspects of ASPD. While the latter focuses on outward behaviors like impulsivity, the former emphasizes internal emotional disorders and interpersonal interaction problems, such as anxiety. A study found that, compared to PPI-II, a high PPI-I score led to higher levels of IPV. It also demonstrated that each of the components is associated with certain emotional and behavioral sequelae (Lyican & Babcock 2018). It means that those with a strong deficiency in emotion engage in more serious violent behavior toward their spouses than those with high levels of antisocial behavior.

5 INTERVENTION AND FUTURE STUDY

Antisocial people have failed numerous clinical treatments to totally cure them. The largest obstacle to treating ASPD at the moment is that there is no comprehensive strategy of care that can do more than manage symptoms and behavior. Here are some typical medical interventions and medications.

5.1 *Behavioral/psychological interventions*

Cognitive behavioral therapy (CBT), which targets negative phenomena by treating undesirable behaviors and disordered thought processes, is one of the most popular approaches. It applies to the treatment community and is a part of milieu therapy. Although there is some effect in treating ASPD, how much psychopathy is there will determine this effect. The treatment for ASPD is less effective as psychopathy increases, and offenders are more likely to repeat their crimes. While this approach works well for ordinary antisocial personalities, it is ineffective for psychopathy and severe ASPD. Additionally, people with ASPD may be resistant to particular types of CBT but are more receptive to behavioral therapies that include rewards (Brazil *et al.* 2018).

Another approach, called contingency management (CM), which uses positive or negative reinforcement to change behavior, such as cutting back on cocaine usage or acquiring more money, would be more helpful for some antisocial drug users. The effectiveness of CM for ASPD is greater than that of CBT, particularly for those with substance use problems. For those who abuse cocaine, for instance, limiting the amount used can better intervene in their behavior and lower crime rates. Therefore, CBT and CM are equally effective treatments for people with drug use disorders and ASPD compared to those with ASPD (Brazil *et al.* 2018).

5.2 *Medication*

In addition to behavioral and psychiatric treatments, some people anticipate using pharmaceuticals to treat ASPD. The majority of these drugs fall under the category of Serenics, or anti-aggressive substances. The majority of these drugs can stabilize patients' behavior and lessen their aggressiveness, impulsivity, and impatience. Although this therapy has obvious effects, ASPD cannot be cured by it; it can only be controlled in behavior. Although there is now no proof that medical therapy may entirely cure ASPD, many people nevertheless have a positive outlook on it. They are more receptive to using medication for treatment than behavioral interventions, although it does not appear that medication is the most effective approach for anti-social groups (Brazil *et al.* 2018).

5.3 *Prevention and future direction*

According to recent studies, there are no reliable ASPD preventative strategies. Understanding ASPD is also an area for future research, thus more information and data are required. In the future, when knowledge of the cerebral and neural disorders in ASPD is sufficient, thwill be able to anticipate the likelihood that children may develop ASPD by detecting their brain surfaces and treating them accordingly. Childhood psychological

education and appropriate behavioral treatments may lessen the effects of ASPD. There are currently no medications that can particularly target ASB or psychosocial behavior, an area that needs further research.

6 CONCLUSION

This article highlights the causes and negative effects of ASPD while summarizing its characteristics. The main focus of current research is to identify the genetic and environmental causes of disease, as well as how these factors affect patients and society at large. In terms of their negative consequences on society, they pose a greater threat than other psychopaths and commit more crimes. Although both of them have been condensed by comparison studies, their origin remains a mystery. This article underlines that more research should be done in the future to determine the actual causes of ASPD formation, which have always been unknown. There is currently no fully efficient method discovered for therapy or prevention. At present, researchers' primary treatment strategy is to inhibit and control ASPD patients' behavior, especially their ASB. The aforementioned evidence shows that the present research has a very shallow perspective of ASPD and that there is an excessive amount of information about ASPD that needs to be explored. One of the reasons that ASPD is more challenging to study than other types of mental illness is that those who have it rarely actively seek assistance; instead, they typically learn they have it when they engage in ASB behavior or even commit a crime. Treatment for ASPD is typically not voluntary for those receiving it.

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The impact of stress on moral judgement

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ABSTRACT: Individuals, who have made moral judgment deviations from the population's typical adherence to social values in their moral judgments, are usually considered as moral falling or a typical horrible environmental condition that promoted them to be persistently inculcated antisocial values, it should not be just so. Therefore, this review article aims to declare other factors that potentially cause individuals to make "moral falling" judgment, which would be stress since dealing with stress is a universal phenomenon. This review article comprehensively explores the profound yet complex relationship between stress and moral judgment. Drawing on diverse research in neuroscience, psychology, and ethics, the review elucidates how acute and chronic stress can impact decision-making and, in turn, affect moral judgments. It outlines the critical role of stress hormones and neurotransmitter systems in modulating cognitive and emotional processes integral to moral reasoning. As a result, acute and chronic stress affect decision-making differently, indirectly affecting moral judgment. While chronic stress can cause changes in the neurobiological process of the learning system and reward system, acute stress causes individuals to have more desire for rewarding and ignoring the potential lost by affecting the two systems that are involved in loss aversion.

Keywords: Chronic Stress, Acute Stress, Dopaminergic Reward System, Appetitive System

1 INTRODUCTION

With the rapid socioeconomic growth in the 21st century, the life quality and medical insurance of the general population have received a huge improvement in the past decades. Therefore, more scientists and the general population recognize the importance of individuals' mental health, which has become a global concern and research interest (Timimi & Timimi 2022). Stress is a commonly experienced phenomenon but highly determines individuals' mental health. To be more specific in the definition of stress, stress is a universal phenomenon experienced across all populations, and stress occurs when people perceive something that is out of their comfort zone and challenging to their capacity. Besides mental health, varying intensities and different types of stress can cause multiple biological and neuro-biological effects on the human body. These effects indirectly affect the process of decision-making and moral reasoning. In the process when individuals try to make a decision, the goal of decision makers is to make the decision that satisfies or fits into their social values the most. Yet the social value of moral reasoning is emotion-based rather than it is objective (George & Dane 2016). In addition, rather than a moral failing and an aberration from social norms when making socially inappropriate or unethical moral decisions, many biological factors are involved in this process. This article aims to clarify the biological

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effects that stress can possibly cause to indirectly affect individuals' decision-making, and how stress-induced biological changes may alter emotions that are involved in moral reasoning, possibly leading to deviations from an individual's typical adherence to social values in their moral judgments.

2 CONCEPT OF VARIABLES

2.1 *Stress*

Stress, as a concept, is not perceived as an objective one because whether a stimulate is a stressful stimulate and the intensity of this stressful stimulate can range in populations due to individuals' coping capabilities of natural regulatory and acquired abilities. Therefore, the term "stress" requires a conditioned term for researchers to use. Stress is defined as an emotional process when individuals face and experience unpredictable and uncontrollable stimulates that are out of their coping capacity and this stimulation will indeed cause biological effects like the release of cortisol (Koolhaas *et al.* 2011). Stress level is typically measured by cortisol levels. Furthermore, acute stress and chronic stress induce different body responses and have different biological effects (Hidalgo *et al.* 2019; Rohleder 2019). Acute stress, also known as the fight-or-flight response, is an immediate response reaction to a stressful stimulus. In this response reaction, a relatively short period of biological symptoms will be triggered, and these biological symptoms involve but are not limited to the release of various neurotransmitters and increased heart rate. These stress-triggered biological symptoms will stop once the stressful stimulus is dismissed (Hidalgo *et al.* 2019). Additionally, chronic stress can cause a persistently high level of stress hormones in the long term, which results in a change in brain function and even the immune system (Liu *et al.* 2020; Rohleder 2019). Chronic stress can cause various health issues, the persistent long-term high level of stress hormones will damage emotion regulation-related brain regions like the prefrontal cortex and amygdala. More importantly, the responsive reaction when the body faces stress involves a complex interplay of associations between the central nervous system (CNS) and various other systems throughout the human body. When this interaction is activated by certain neurotransmitters in nerve pathways, excessive stress hormones, cortisol, will be detected by the hypothalamic-pituitary-adrenal (HPA) axis, and shut down the cortisol release. However, suffering from chronic stress may hinder the HPA axis from doing so

2.2 *Decision-making*

Decision-making is a cognitive process that aims to choose what best is based on gathered information and current mood. This process is fundamental and commonly used in daily life. To be more specific, making a decision involves two main parts: memory and current emotion. While memory is also subjectively experienced information rather than objective, it is also influenced by human emotion (Talmi 2013). The process of decision-making can be categorized into five different steps: identification of the decision, generation of options, evaluation, and selection, implementation of the decision, and implementation of the decision. In other words, in the process of decision-making, individuals identify the event. Individuals try to find all the possible solutions to this identified event. Individuals assess and evaluate these possible solutions based on personal knowledge and imagination. Individuals perform the subjective best solution. This whole decision-making process and its consequence are encoded into memory for making future decisions. From a neurobiological perspective, decision-making involves many brain regions that work together to perform this process, and those highly associated ones are the prefrontal cortex, anterior cingulate cortex, and amygdala (Baskin-Sommers *et al.* 2022; Glenn *et al.* 2009).

2.3 *Moral judgment*

Moral judgment is the decisions that are made not only for individuals' benefit but also links to the broader society and people around the decision-makers. Rather than economic decisions, moral judgment refers to the determinations or decisions made regarding right or wrong in individuals or other populations in social norms. Moral judgment involves a set of moral standards, moral principles, and social-normal norms, guiding the sense of right or wrong. These standards vary among multiple factors because they are highly associated with the benefits of cultures socioeconomic levels and families. Furthermore, these standards are being affected by so many environmental factors that include but are not limited to religious beliefs, ethical theories, and personal values. Even though, moral judgment is highly associated with environmental factors, individuals, who have shown an aberration from social norms when making socially inappropriate or unethical moral decisions, should not be seen as a moral falling. For example, psychopathy is usually a lack of empathy and disregard for moral and social norms, but this complex personality disorder is not only failing because neurobiological deficiencies would cause individuals more likely to act as psychopaths (Baskin-Sommers *et al.* 2022).

3 RELATION BETWEEN VARIABLES

3.1 *How stress is linked and affects decision-making*

Stress and its impact on decision-making is a complex relationship, and both types of stress have different biological changes in the human body (Liu *et al.* 2020; Rohleder 2019).

Acute Stress and Decision-Making: Acute stress, often triggered by an immediate perceived threat, activates the body's fight-or-flight response. This results in an increased level of stress hormones such as adrenaline and cortisol (Liu *et al.* 2020). The increased level of adrenaline can result in impulsivity and focus on short-term gains over long-term benefits, thereby distorting the decision-making process. And the increased level of cortisol can impact several cognitive functions that are important in decision-making, which can influence attention, memory, and cognitive flexibility, thereby impairing the quality of decisions made under its influence.

Chronic Stress and Decision-Making: Chronic stress has prolonged and long-term effects on several brain regions critical to decision-making (Rohleder 2019). Exposure to high levels of cortisol in the long term can cause structural and functional changes in these brain regions, which leads to impaired decision-making processes.

Neurotransmitter Changes: Beyond stress hormones, stress can also lead to changes in neurotransmitter systems that are parts of decision-making. For example, stress can impact the dopamine and serotonin reward systems. Both systems are involved in decision-making for cost-benefit analysis.

3.2 *The relation between stress and moral judgment*

Both acute and chronic stress can affect decision-making and make individuals more desiring to seek gains to indirectly affect moral judgment (Horstmann 2017; Lenzen *et al.* 2021; Molina *et al.* 2021). Both types of stress can be a trigger for enhancing dopamine activity in the dopaminergic reward system. The dopaminergic reward system includes Ventral Tegmental Area (VTA), which is crucial for producing and releasing the neurotransmitter dopamine, Nucleus Accumbens (NAcc), which is crucial for receiving dopamine signals from the VTA and also a central hub for processing rewards, Prefrontal Cortex (PFC), which is responsible for decision-making, evaluating rewards, and assigning value to different stimuli so that it guides behavior based on consequences, and Hippocampus, which is responsible for forming memories and associating rewarding experiences. Furthermore,

dopamine is a neurotransmitter that is associated with reward and motivation. In this whole process, stress is mainly affecting the prefrontal region, where individuals perform a cost-benefit analysis and then make a decision based on the cost-benefit analysis. This action is called loss aversion (Molina *et al.* 2021).

Acute stress will decrease the value of loss aversion in the process of decision-making (Molina *et al.* 2021). In this situation, individuals' moral judgments may be influenced by a stronger inclination towards seeking immediate benefits or rewards, even if the price comes at the expense of moral principles or values. One example of this can be the decrease in loss aversion (Molina *et al.* 2021). In the decrease of loss aversion, participants were separated into two groups where one group is under stress and the other one is not under stress. In the group of participants who are not put under stress, they are more likely to gamble when the benefit is at least two times the loss. However, the group of participants who are under stress is more likely to perform the same actions when the ratio is not reaching one and a half times (Molina *et al.* 2021). Such actions are related to the appetitive system and the aversive system. Both systems are crucial parts of the reward circuitry of the human brain. While the appetitive system is responsible for potential reward processing, the aversive system is responsible for potential loss processing. In this process, stress can enhance the dopamine activity in the reward system making individuals more desired for rewards. Furthermore, this enhanced dopamine activity can enhance the appetitive system and decrease the aversive system, which would cause the brain to give an extra value percentage to the reward and less value percentage for the potential loss.

As for chronic stress's impact on moral judgment, it affects the learning process and indirectly causes individuals unable to learn the correct moral judgment (Horstmann 2017). In this process, making a decision involves a perceived benefit (before acting) and an actual benefit (after acting), where when the perceived benefit does not match the actual benefit, the predictions and behavior will be updated and adapted on the neural level. Furthermore, chronic stress is associated with a disturbed learning process due to the affected appetitive system. In this process, individuals are more likely to form wrong and disturbed cost-benefit analyses because of the appetitive system, and this may lead to disadvantageous decision-making and behavioral control (Horstmann 2017).

Furthermore, stress can impact specific emotions that are involved in moral reasoning, such as empathy or moral disgust (Ouvrein *et al.* 2018). All these emotions are a part of cost-benefit analysis, and decreasing these emotions means decreasing the values of perceived potential losses when performing moral reasoning. Empathy is the emotion that aims to understand and share others' feelings, and moral disgust is the aversive reaction that individuals feel when seeing morally offensive stimuli or offensive actions that do not fit into social norms.

4 CONCLUSION

In conclusion, the complex interplay of stress and moral judgment is influenced by a variety of neurobiological and cognitive factors. Acute stress and chronic stress, by modulating stress hormonal levels and other released neurotransmitters, can both significantly affect the process of decision-making, which would potentially lead to deviations in moral judgments. In acute stress, stress affects moral judgment in a way easier to make reckless and selfish decisions. In addition, individuals are more likely to risk due to both appetitive and aversive systems being disturbed by the triggered dopamine activity. As for chronic stress, chronic stress affects the neurobiological learning process to have disturbed cost-benefit analysis, disadvantageous decision-making, and behavioral control. Furthermore, stress can also decrease certain emotions that prevent individuals from making anomalous moral judgments based on social norms. This comprehensive understanding of the impact of both acute and chronic stress on moral judgment bears significant implications for various fields,

including psychology, neuroscience, morality, sociology, and education. This understanding invites exploring the interventions that can mitigate the effects of both types of stress on moral decision-making, particularly in relatively high-stress professions and environments. Furthermore, this may encourage the inclusion of stress management techniques in education to foster a better understanding of stress and the techniques to manage stress under high and acute stress situations. And for individuals who have made “moral-falling” decisions, this article may also help with them being re-accepted by society and finding future treatments that mitigate the negative effect of stress. Future studies may extend this topic by further examining the influence of individual, social, and cultural factors on stress-induced changes in moral judgment to avoid and better mitigate the negative impacts of both acute and chronic stress. Additionally, future studies can be conducted to seek the mechanisms of both the appetitive system and aversive systems being affected by two types of stress.

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The interplay of empathy, parenting styles, friendship, cultural and gene influences: A comprehensive exploration

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ABSTRACT: Empathy is an essential element of human interaction, facilitating understanding and emotional connection with others. Its role in promoting positive behaviors and nurturing strong relationships highlights its significance in fostering a harmonious society. Although previous research has identified various factors associated with empathy, the specific impact of these factors remains uncertain. Researchers have long been interested in unraveling the complexities of empathy, including its development and the factors influencing it. This paper aims to comprehensively investigate the interplay between empathy and factors such as parenting styles, dynamics of friendships, cultural influences, and genetic factors. Through a thorough examination of existing research in these domains, this paper seeks to gain a deeper understanding of how these intricate relationships contribute to the development of empathy in individuals. The study identifies the specific effects of each of these factors on empathy and explores the connections between theory of mind and empathy, shedding light on the underlying mechanisms that drive empathetic responses.

Keywords: Parenting style, Friendship, Cultural factor, Genetic Factor and Empathy

1 INTRODUCTION

1.1 *The definition of empathy*

Empathy, in its current understanding, refers to a complex ability that allows individuals to comprehend and share the emotional experiences of others. However, when the term was originally introduced by Edward Titchener, it referred to the capacity of humans to be attuned to others' emotions, understand them through reflection and shared experiences. The discovery of "mirror neurons" in 2010, which are neural pathways that mirror the actions of others in one's own brain, revealed a neurological link between the psychological concept of resonance and the physiological response to witnessing someone else's distress. This groundbreaking finding serves as a basis for future research on empathy. It's important to note the distinction between empathy and compassion. Compassion refers to the emotional response that follows empathy or sympathy and generates a desire to help. Therefore, empathy and compassion are separate concepts; in certain situations, empathy can exist without compassion, and vice versa. This paper will solely focus on empathy.

1.2 *Parenting style*

Parental styles encompass the behaviors and attitudes exhibited by parents in their interactions with their children. They involve strategies for raising and disciplining children and the emotional climate within the family. Baumrind's typology is a widely referenced framework that categorizes parental styles into three main types. The authoritarian approach places a strong emphasis on obedience and is characterized by rigid rules, high expectations, and little

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room for discussion or justification. The permissive parenting style involves kind, indulgent parents who don't properly supervise their kids' behavior. In addition, the authoritative style mixes hard boundaries and logic with caring, attentiveness, and support. The present study uses Baumrind typology to categorize parental styles.

1.3 *Friendship*

Friendship is defined as a primary relationship between two individuals who are not related by blood. Although there are no gender disparities in the number of friends or the time spent with friends, there are notable distinctions between male's and female's friendships. Research suggests that women and men have different perspectives on friendships. Women tend to cultivate more personal and emotionally driven friendships, where they openly discuss anxieties and insecurities (Bell 1981). Conversely, men tend to view friendship as centered around shared activities and experiences. Consequently, these dissimilar viewpoints can lead to contrasting conversation styles. Women frequently participate in conversations revolving around intimate topics, including discussions about family matters and personal issues. In contrast, men tend to place a greater emphasis on conversations related to sports activities and other similar pursuits (Davidson & Duberman 1982).

1.4 *Collectivism and individualism*

Collectivism highlights the significance of maintaining group harmony, interdependence, and cooperation. Within collectivist cultures, individuals are expected to focus on the needs and goals of their family, community, or society before dealing with their private interests. Loyalty and identification with the group hold great value, and decisions are often made in consideration of the collective's greater good. Conversely, individualism places a stronger emphasis on personal freedom, independence, and self-sufficiency. In individualistic cultures, individuals generally give priority to their personal goals, achievements, and well-being rather than group considerations. Independence and individual success are highly valued, and individuals are encouraged to pursue their own ambitions and desires.

1.5 *Gene*

While specific genes related to empathy have not been definitively identified in previous studies, there is evidence suggesting that genetic factors play a role in influencing empathy. Research involving twins, both identical and non-identical, has indicated that approximately 10% of the variation in empathy can be attributed to genetic factors. Recent discoveries, such as the identification of the OXTR receptor gene, further support the influence of genetics on empathy. Additionally, consistent findings from various studies indicate that women tend to display higher levels of empathy compared to men. The paper will provide a more comprehensive exploration of the specific relationship between this gender difference and genetic factors, shedding light on the underlying mechanisms involved.

2 THE INFLUENCE OF PARENTING STYLE ON EMPATHY

2.1 *The influence of authoritative parenting style on children empathy level*

The authoritative parenting style, which is often considered the best parenting approach, has shown a strong relationship with children's empathy levels. Numerous studies, such as those conducted by Cornell and Frick and Salim and Pontania, have confirmed this idea. However, the latter paper highlights an important factor that many previous studies didn't take into account: Parental prejudice (Cornell & Frick 2007, Pontania & Salim 2019).

According to the latter paper, when considering parental prejudice, the impact of parenting style becomes less significant. This is because if a parent holds high levels of prejudice, they may employ a consistent and negative parenting style when the child behaves badly. This negative parenting approach may persist as the parent may view the child as inherently poorly behaved and unchangeable. Therefore, when discussing the influence of parenting style on children, researchers should take into account the parent's prejudice and categorize

parents into high prejudice and low prejudice groups before conducting any experiments. Additionally, the paper confirmed that parents with low prejudice levels tend to employ authoritative parenting styles, leading to more empathetic children.

Furthermore, among all the studies, there is a consensus that promoting positive emotion expression and response are key factors in measuring children's empathy levels. This is why authoritative parenting is so successful in promoting children's empathy levels. For authoritative parents, they are more likely to consistently display empathy and emotionally supportive behaviors, so children are more likely to internalize and mimic these behaviors. Moreover, studies have found that parents who engage in active listening and validate their children's feelings create an environment that fosters empathy development.

2.2 The influence of authoritarian parenting style on children empathy level

Differing from authoritative parenting, the authoritarian style has a bad reputation in education, as it is usually associated with children who have low self-esteem and confidence. Therefore, it is easy to conclude that the authoritarian parenting style will have a negative effect on children's empathy level. However, there is controversy as some articles claim there is a negative correlation between these two subjects, while others do not. In Schaffer's study, there was not a significant correlation between authoritarian parenting style and children's empathy level. This disparity can also be attributed to parents' prejudice (Schaffer 2008). In Salim and Pontania's study, they found that parents with high prejudice levels are more likely to employ authoritarian parenting styles, which in turn leads to children with low empathy levels (Pontania & Salim 2019).

In other words, parent's prejudice is the predisposition when considering parenting style and this may lead to many exceptions. For example, if a parent who has a low level of prejudice chose to employ an authoritarian parenting style, the results may contradict with the idea that an authoritarian parenting style may lead to children with low empathy level and vice versa. This is one possible explanation for the contradictory results of Schaffer's study (Schaffer 2008).

Another explanation can be the influence of external factors apart from parenting style. In Schaffer's study, the participants were 240 undergraduate students. At this age, the impact of parenting style on them may be more subtle, and they are more likely to be influenced by their peers and teachers (Schaffer 2008). As age increases, the influence of parenting style may continue to decrease, while the impact of external factors such as peers and teachers will increase and eventually outweigh the influence of parents. For those participants, even though the authoritarian parenting style may have some negative effects on them, the positive environment around them will cancel out the previous negative effects, resulting in a lack of significant correlation between authoritarian parenting style and children's empathy level.

2.3 The influence of permissive parenting style on children empathy level

There is indeed a lack of comprehensive studies exploring the relationship between permissive parenting and children's empathy levels. Many research efforts have primarily focused on authoritarian and authoritative parenting styles, often neglecting the impact of permissive parenting. Consequently, the effects of permissive parenting on children's empathy levels remain largely unknown.

However, drawing from the previous discoveries that highlight the importance of positive emotional expression and responses in promoting empathy development, the researcher can speculate about the potential effects of permissive parenting on empathy. Permissive parents tend to refrain from imposing strict rules and demands on their children, and they may not actively engage in interactions that encourage child development. As a result, it can be reasonably inferred that permissive parenting might not significantly influence a child's empathy level compared to other parenting styles.

Instead, other factors such as friendships and sibling relationships are likely to play a crucial role in shaping a child's empathy level. These relationships provide valuable opportunities for children to learn empathy through sharing emotions, perspective-taking, and understanding the feelings of others.

3 THE INFLUENCE OF FRIENDSHIP ON EMPATHY

As previously mentioned, there are differences in how boys and girls approach friendships, with girls often being more emotional and boys tending to share activities together. Additionally, studies suggest that girls are usually more empathetic than boys. Despite these sex differences, other studies have confirmed that empathy is positively related to friendship intimacy and conflict management competencies (Chow *et al.* 2012).

Both of these studies demonstrate how a high level of empathy can lead to closer friendships and better conflict management abilities. Individuals with high empathy are better at sensing their friends' emotions, allowing them to react quickly and appropriately to emotional cues, which fosters a deeper emotional connection in friendships. Furthermore, empathy plays a crucial role in conflict resolution within friendships. Being empathetic allows individuals to understand their friends' perspectives and emotions, facilitating effective communication and problem-solving during conflicts. This, in turn, helps to maintain the quality and longevity of the friendship. Importantly, these patterns are observed universally, regardless of gender, indicating that both boys' and girls' empathy level can determine their intimacy level.

Friendship and empathy share a reciprocal and reinforcing connection, working together in a dynamic cycle. As studies have shown, a high level of empathy in individuals leads to forming close and meaningful friendships with others, and it also improves conflict-solving skills within these relationships. Empathetic individuals are naturally attuned to the emotions and needs of their friends, which fosters emotional closeness and trust. However, the relationship between friendship and empathy is not one-sided. Close friendships, particularly in early life, play a vital role in teaching children to be empathetic and caring about others' feelings. Through shared experiences and interactions with their friends, children learn to understand and identify with the emotions of others. Witnessing and experiencing empathy within their friendships provides valuable social learning opportunities, encouraging children to develop and exhibit empathetic behaviors themselves. Thus, empathy and friendship work together, forming a positive feedback loop where a high empathy level leads to closely related friends and, in turn, having close friends nurtures and reinforces empathy in individuals, ultimately contributing to the development of emotionally supportive and empathetic children.

4 THE INFLUENCE OF COLLECTIVISM AND INDIVIDUALISM ON EMPATHY

Collectivism, which is usually employed by Eastern countries such as China, India, and Japan, emphasizes the importance of teamwork and authority. In contrast, individualism, which has gained popularity in Western countries like America, emphasizes the importance of individual rights, autonomy, and self-expression. However, the lack of evidence and previously failed studies has made it impossible to claim which kind of culture is better for children's empathy development.

On the other hand, researchers can gain valuable insights from a recent study conducted by Liang in 2022 on the development of children's theory of mind under different cultures (Liang 2021). Theory of mind currently means the ability to comprehend the thoughts, beliefs, and intentions of other by attributing mental states to them. Liang's study highlights that in individualistic Western countries, where an authoritative parenting style is commonly used, the environment tends to promote children's theory of mind development (Liang 2021).

In contrast, children living in collectivistic Eastern countries, where an authoritarian parenting style is prevalent, often experience delayed theory of mind development. In support of this, Dvash's study in 2014 found that a decreased empathic response in such children may be attributed to deficits in mentalizing, which includes both cognitive theory of mind and affective theory of mind (Dvash *et al.* 2014). Additionally, other studies have further confirmed that empathy and theory of mind are closely intertwined in facilitating certain social behaviors. These findings suggest that a lack of theory of mind may lead to delayed empathy development, and vice versa.

Therefore, combining the results of these studies, it appears that in collectivist cultures, where children often experience delayed theory of mind development, it is very likely that this

delay may lead to delayed empathy development. From another perspective, this can also support the idea that in individualistic cultures that promote children's theory of mind development, their children are likely to have better empathy development. It is crucial to know that this is only a possibility since there is no direct evidence to prove this, but considering the lack of a clear explanation and the presence of supportive evidence, the conclusion is trustworthy to an extent.

In contrast, a study conducted by Heinke and Louis in 2009 presents a contrasting viewpoint (Heinke & Louis 2009). In their research, they presented scenarios to 240 participants from Asian and European countries that depicted a distressed individual behaving in accordance with either individualistic or collectivistic values. Similar to previous results, feeling similar to the target was linked to perspective-taking and empathy. However, contrary to the previously mentioned conclusion, they found that collectivism values were linked to higher empathy. This provides another possible explanation; perhaps collectivist cultures are better at empathizing with scenarios that represent collectivism values, whereas even though individualistic cultures are better at promoting empathy development, they score poorly when confronted with individualism scenarios.

When revisiting the definition and characteristics of collectivist cultures, the explanation presented in the study conducted by Heinke and Louis in 2009 gains substantial credibility (Heinke & Louis 2009). Collectivist cultures place a strong emphasis on cooperation, group harmony, and the well-being of the collective, which often includes the family unit and the larger community. These values shape the way individuals from collectivist cultures perceive and interact with others, influencing their empathetic responses and perspective-taking abilities.

Given the importance of teamwork and interaction within collectivist cultures, it stands to reason that individuals from such backgrounds would exhibit a unique form of empathy. When confronted with scenarios that align with collectivist values, individuals from collectivist cultures may be more adept at understanding and empathizing with others' feelings and perspectives. This enhanced ability to empathize with situations that involve the welfare of the group could be attributed to their cultural upbringing, where collective well-being and social cohesion are prioritized.

However, when placed in scenarios that emphasize individualistic values rather than collectivist ones, individuals from collectivist cultures may score lower in empathy compared to individuals from individualistic cultures.

5 GENE

Just as previously mentioned, there is no direct evidence to prove that certain genes involve in empathy development. However, there are some possible theories that can prove empathy is influenced to some degree by genes.

5.1 *Sex difference*

One possible explanation is through the difference between sex. Females usually have a higher empathy level than males. This difference in empathy between the sexes has been observed across various studies and is considered a well-established finding (Hoffman 1977). While there are likely multiple factors contributing to this difference, including social and cultural influences, it is also possible that genetics play a role. The sex chromosomes in humans consist of X and Y chromosomes, with females having two X chromosomes (XX) and males having one X and one Y chromosome (XY). Some genes on the X and Y chromosomes have been associated with various cognitive and behavioral traits, and it is conceivable that some of these genes may play a role in empathy.

From an evolutionary perspective, it is not hard to explain why empathy may be associated with certain genes on the sex chromosome, particularly in the context of caregiving and the survival of the next generation. Throughout human history, traditional gender roles have often placed females in the role of primary caregivers, responsible for raising and nurturing children. Empathy, as the ability to understand and respond to the emotions and needs of others, would have been crucial for successful caregiving and ensuring the survival and well-being of offspring.

Empathetic mothers would have been better equipped to understand their children's needs, provide emotional support, and protect them from potential dangers. This heightened level of empathy could have led to improved caregiving practices, better child-rearing strategies, and ultimately, higher survival rates for the next generation. Over generations, this pattern of empathetic caregiving by mothers could have contributed to the selection and propagation of genes associated with empathy on the female sex chromosome. As a result, these genes may have become more prevalent in the population due to their beneficial effects on offspring survival and reproduction.

5.2 *Oxytocin receptor and vasopressin receptor 1a genes*

According to a study conducted by Uzefovsky and Shalev, they found two specific receptor genes that may associate with empathy (Uzefovsky *et al.* 2015). In their research, they identified two specific receptor genes that are associated with social recognition and potentially empathy: the oxytocin receptor gene and the vasopressin receptor 1a gene.

Oxytocin and vasopressin are neuropeptides that play essential roles in social bonding, trust, and various social behaviors, including maternal behavior and pair bonding. Moreover, the oxytocin receptor gene codes for the oxytocin receptor, which is crucial for the effects of oxytocin in the brain. Oxytocin is often referred to as the “love hormone” or “bonding hormone” due to its role in promoting social bonding, maternal behavior, and prosocial behaviors, including empathy (Gong *et al.* 2017). Whereas, the vasopressin receptor 1a gene codes for the vasopressin receptor 1a, which is involved in the effects of vasopressin in the brain. Vasopressin is also implicated in various social behaviors, including pair bonding, territorial behavior, and aggression.

Their research revealed that the oxytocin receptor gene (OXTR) is primarily associated with emotional empathy. Emotional empathy refers to the ability to feel and share the emotions of others, to understand and respond to their feelings, and to experience sympathy and compassion. The presence of certain variants of the OXTR gene may influence the sensitivity of individuals to oxytocin, which could impact their emotional empathy levels.

On the other hand, the vasopressin receptor 1a gene (AVPR1a) was found to be associated with cognitive empathy. Cognitive empathy involves the capacity to understand and interpret the thoughts, intentions, and mental states of others, without necessarily sharing their emotional experiences. Specific genetic variations in the AVPR1a gene may affect how individuals perceive and process social information, leading to differences in cognitive empathy levels.

Importantly, the study did not find any significant interaction between the OXTR and AVPR1a genes concerning measures of empathy. This means that the influence of these genes on empathy appears to be independent and separate. Each gene seems to have a specific and distinct role in shaping different aspects of empathy, without significant interplay between them.

6 DISCUSSION

The present study aimed to explore the influence of family and friend relationships, as well as cultural factors and gene, on empathy development. Through an analysis of parenting styles, friendship dynamics, cultural backgrounds and genes, current researchers gained valuable insights into the complex interplay of these factors in shaping empathy levels.

6.1 *Parenting style and empathy development*

The influence of parenting styles on empathy development was a central focus of this study. This findings aligned with previous research, indicating that authoritative parenting, characterized by warmth, support, and consistent empathy, positively influences children's empathy levels. Children raised in authoritative households are more likely to internalize empathetic behaviors and exhibit emotional support, leading to the development of higher empathy levels. This underscores the significance of positive emotional expression and response in promoting empathy.

Interestingly, the study also highlighted the impact of parental prejudice on the relationship between parenting styles and empathy. When parental prejudice was taken into account, the effect of parenting style on empathy became less significant. This suggests that a parent's bias and preconceived notions may mediate the parenting style's influence on a child's empathy development. Future research should consider examining parental prejudice in greater depth to understand its role in shaping children's empathetic behaviors.

On the other hand, the association between authoritarian parenting and empathy levels was less straightforward. Some studies found no significant correlation, which could be attributed to various factors, such as parental prejudice or external influences like peer interactions. Additional research is needed to gain a comprehensive understanding of the complex relationship between authoritarian parenting and empathy.

Surprisingly, there is a lack of comprehensive studies exploring the relationship between permissive parenting and empathy development. However, based on existing knowledge, it can be speculated that permissive parenting may not significantly influence empathy levels compared to other parenting styles. Instead, the role of friendships and sibling relationships emerges as potentially more critical factors in shaping empathy during childhood. Thus, future research should aim to address this gap and investigate the specific impact of permissive parenting on empathy development.

In conclusion, this study highlights the importance of parenting styles, especially authoritative parenting, in promoting empathy development in children. However, the mediating effect of parental prejudice and the complex relationship with authoritarian parenting necessitate further investigation. Moreover, understanding the influence of permissive parenting on empathy requires more attention.

6.2 *Friendship dynamics and empathy development*

Friendship emerged as a critical factor in empathy development, with a reciprocal and reinforcing connection between the two. Empathetic individuals tend to form closer and more meaningful friendships, while these close friendships, in turn, nurture and reinforce empathy in individuals. The ability to sense and respond to friends' emotions fosters emotional closeness and trust in friendships.

Additionally, empathy plays a crucial role in conflict resolution within friendships. Those with higher empathy levels are better equipped to understand their friends' perspectives and emotions, leading to more effective communication and problem-solving during conflicts. Thus, fostering empathy in children through positive social interactions with friends can contribute to the development of emotionally supportive and empathetic individuals.

However, while present study supports the notion of friendship being a critical factor in empathy development, it is essential to acknowledge that the relationship between friendship and empathy may be influenced by various other factors as well. Future research could focus on addressing these limitations to provide a more comprehensive understanding.

6.3 *Cultural factors and empathy development*

Cultural factors, particularly collectivism and individualism, play a significant role in shaping empathy levels. Analysis revealed that collectivist cultures, emphasizing group harmony and cooperation, may lead to delayed theory of mind development, which, in turn, could result in delayed empathy development. In contrast, individualistic cultures, promoting individual rights and autonomy, tend to encourage children's theory of mind development, potentially leading to better empathy development.

However, it is crucial to note that cultural influence is complex, and the relationship between culture and empathy may not be entirely linear. Some studies suggested that individuals from collectivist cultures might exhibit higher empathy levels in scenarios aligning with collectivist values. This highlights the importance of considering the context in which empathy is assessed and the values embedded within specific scenarios.

Therefore, it is essential for future studies to investigate and clarify the relationship between cultural factors, particularly collectivism and individualism, and empathy levels. While existing research suggests potential associations, the complexity of cultural influence on empathy necessitates a more nuanced and comprehensive examination.

To establish a clearer understanding, future studies should adopt a comparative approach that includes diverse cultural groups. Cross-cultural research can help identify patterns and variations in empathy development across societies with different cultural orientations. By comparing collectivist and individualistic cultures, researchers can identify the specific cultural factors that may contribute to differences in empathy levels.

6.4 *Genetic factors and empathy development*

One of the key points discussed is the observed sex difference in empathy levels, with females generally exhibiting higher empathy than males. This difference has been consistently reported in various studies and is attributed to a combination of social, cultural, and potentially genetic factors. The evolutionary perspective presented in the study provides a compelling explanation for why empathy might be associated with certain genes on the sex chromosome. As females historically played a central role in caregiving and nurturing offspring, empathy would have been critical for successful child-rearing and ensuring the survival and well-being of the next generation. This evolutionary advantage may have led to the selection and propagation of empathy-related genes on the female sex chromosome, contributing to the observed sex difference in empathy.

Furthermore, the discussion on specific receptor genes associated with empathy, namely the oxytocin receptor gene (OXTR) and the vasopressin receptor 1a gene (AVPR1a), adds another layer of complexity to the genetic basis of empathy. The finding that OXTR is linked to emotional empathy and AVPR1a is associated with cognitive empathy provides evidence that distinct genetic factors may be responsible for different aspects of empathy. The independent influence of these genes on empathy indicates that emotional and cognitive empathy may have separate genetic underpinnings.

However, the limitation of the studies is very obvious, studying genes is challenging due to the presence of numerous factors that can influence the results. Environmental factors, epigenetic changes, gene-gene interactions, and gene-environment interactions can all play significant roles in determining an individual's traits and behaviors, including empathy.

To address these challenges and improve the understanding of the genetic basis of empathy, future studies should indeed consider employing more twin studies. Twin studies provide a valuable way to control for genetic factors, as identical twins share all their genes, while non-identical twins share only about half. By comparing these two types of twins, researchers can better isolate the genetic influences on empathy from other potential confounding factors.

In conclusion, the observed sex difference in empathy and the potential genetic basis of empathy are fascinating areas of research. While the identification of specific receptor genes associated with empathy provides valuable insights, the limitations of genetic studies should be acknowledged. Employing twin studies can help researchers further unravel the complex genetic and environmental factors contributing to empathy and enhance our understanding of this important human trait.

7 CONCLUSION

In conclusion, parenting style, friendship dynamics, cultural factors, and genetics all shape a child's empathy development. The authoritarian parenting style promotes empathy, while the effects of authoritative and permissive styles remain unclear. Empathy and friendships have a reciprocal relationship, benefiting conflict management. Collectivism delays empathy, while individualism fosters it. Genetic factors contribute to empathy expression, although specific genes remain unidentified.

Taking a broader perspective, it is important to recognize that the effects of these factors are intertwined and interconnected. When analyzing the impact of external factors on children's empathy development, it becomes crucial to consider all of these factors together. In real-life situations, when selecting the most suitable environment to foster children's empathy development, solely focusing on parenting style may not be sufficient. The influence of other factors may exert more significant effects. Therefore, a comprehensive understanding of the interplay among these factors is essential in creating an optimal environment for children's empathy development.

This study also provides important recommendations for parents who seek to foster their children's empathy. Creating an environment that promotes positive emotion expression and nurtures positive emotional responses can significantly contribute to healthy empathy development in children. By considering the multifaceted nature of empathy and incorporating the insights gained from this research, parents can effectively support their children's empathetic growth and enhance their social and emotional well-being.

It is important to note that this research has certain limitations. The lack of direct evidence supporting some of the conclusions is a notable limitation. Future studies should aim to collect data directly measuring the relationship between specific factors and empathy. Additionally, it is essential to acknowledge that there may be other factors not discussed in this research that can also impact children's empathy development. Therefore, future studies should explore and account for these additional factors. Twin studies and other rigorous research methodologies can further enhance our understanding of the complex interplay between factors and empathy development.

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The cognitive psychology of learning anxiety: Effects on academic performance

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ABSTRACT: As global education becomes increasingly accessible and academic resource competition intensifies, the significance of academic performance as a measure of student achievement grows. This paper aims to delve into the influence of anxiety, one of the factors impacting academic performance, and analyze strategies for enhancing students' academic achievements. Central to this investigation is the fundamental question: Does academic anxiety genuinely affect a student's standing? If the answer is affirmative, educators must explore avenues for improvement, while students themselves need to consider how to adapt and overcome these challenges. By exploring the cognitive psychology perspective and drawing upon empirical evidence, this review uncovers the underlying causes of academic anxiety and proposes effective solutions to improve students' overall academic performance. Ultimately, addressing the challenges posed by anxiety fosters a supportive academic environment that promotes students' holistic growth and academic success. Through this comprehensive analysis, this paper strives to provide a comprehensive understanding of the debilitating effects of learning anxiety and proposes evidence-based solutions to enhance students' overall academic performance.

Keywords: Anxiety, Learning, Academic performance

1 INTRODUCTION

Learning constitutes an essential component of students' educational endeavors, and academic achievement plays a crucial role in determining their overall success. However, numerous students experience learning anxiety, which can significantly impact their ability to perform at their full potential. Typically, anxiety is understood as a state of unease and fear that arises from anticipating a potentially threatening situation or event (Bensalem 2018). It is the most ubiquitous psychological phenomenon. Therefore, many studies have been conducted to discover the psychology behind it.

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However, anxiety in academic settings is also another realm of concern, as it specifically influences millions of learners around the globe. Throughout their academic journey, students often encounter challenges and experience anxiety in critical moments, such as during exams or when answering multiple-choice questions. It is suggested that there are several possible interactions between learning anxiety and helpful learning strategies (Warr & Downing 2000). For instance, it can act as a barrier that impedes students' ability to engage effectively in the learning process. Peter Warr and Jonathon Downing suggested that high-anxious students are less capable of utilizing their cognitive resources in adopting different learning strategies (Warr & Downing 2000). Based on a survey conducted by the American College Health Association in 2015, stress has emerged as the primary obstacle to academic achievement among students across more than 100 colleges and institutions nationwide (Bouchrika 2020). Therefore, investigating how the cognitive psychology of learning anxiety, and how it affects students' academic performance is of paramount importance, as it provides valuable insights into the barriers faced by anxious students and the potential repercussions on their learning outcomes. Since anxiety is already well-documented to be a negative factor that hinders students' engagement, concentration, and overall learning experience. This review aims to evaluate existing studies on anxiety for students and address different underlying causes of learning anxiety, investigating its psychological nature and promoting optimal learning performance for all students.

2 LITERATURE REVIEW

2.1 *The definition of learning anxiety*

Learning anxiety, also known as academic anxiety, pertains to the emotions of concern, nervousness, or apprehension linked to academic environments or tasks. Yet, James R. Martin interpreted this term as the basis for resistance to change (Martin 2002). According to his perspective, the author posits the existence of two distinct forms of anxiety in relation to learning: learning anxiety and survival anxiety. According to the author's argument, individuals will only actively participate in the learning process when the intensity of survival anxiety exceeds that of learning anxiety (Martin 2002).

2.2 *Types of anxiety*

The term anxiety is commonly categorized into three distinct types: trait anxiety, state anxiety, and situational anxiety (Amiri & Ghonsooly 2015). And learning anxiety lies under the last category, linked to well-defined situations or circumstances (MacIntyre & Gardner 1991). It also can be classified as either facilitative or debilitating. The former enhances learners' learning and performance by raising their awareness and concentration levels. In contrast, the latter obstructs learning and performance in diverse manners, serving as an obstacle to effective involvement and accomplishment (Scovel 1978).

2.3 *The definition of learning anxiety*

Learning anxiety, Considerable studies have explored the intricate linkage between students' academic success and their degree of educational anxiety, shedding light on the intricate interplay between psychological factors and educational outcomes. The realm of "learning" encompasses a multitude of dimensions that warrant exploration and analysis. Furthermore, in the modern scientific community, anxiety related to language learning has become an important area of inquiry. In accordance with recent research, anxiety can significantly impede the process of second language learning, exerting a debilitating impact (Liu & Jackson 2011).

An investigation into the anxiety associated with learning a foreign language was conducted by Fadi Maher Al-Khasawneh with a variety of Saudi undergraduate EFL students (Al-Khasawneh 2016). Notably, they adopted a measure called Foreign Language Classroom Anxiety Scales (FLCAS), which is designed by Horwitz, to collect data (Horwitz *et al.* 1986). The results showed that King Khalid University students' rates of anxious feelings were moderate during their English learning process. However, the study did not consider the causes of the participants' worry; rather, it concentrated only on statistically analyzing the data.

Building upon second language acquisition, Selma Kara conducted additional research on the specific causes of anxiety in writing classes. Her study delved into concerns related to the writing process itself, writing as a technique, the role of teachers, and influence of coursebooks (Kara 2013). Another journal article, delving into the effects of anxiety on distance learning students, highlights various additional factors that have the potential to induce anxiety among students. These factors include deadlines for assignments, inadequate instructor support, subpar exam performance, and other related stressors (Ajmal & Ahmad 2019).

3 ANALYSIS

3.1 *Anxiety scale*

The Learning Anxiety Scale (LAS) is a widely used and validated tool to measure learners' anxiety level during studying processes. However, depending on the participants and the subjects of the study, researchers need to adapt the scale. Anxiety is a prevalent psychological phenomenon in the learning process, which has an impact on learners' learning outcomes and affective states. Therefore, researchers need a reliable scale to measure learning anxiety. Typically, learning anxiety scales utilize a five-point Likert rating system, enabling learners to express their opinions and attitudes by rating each item accordingly (Amiri & Ghonsooly 2015). The advantages of this scale design are its simplicity, suitability for large samples and statistical analysis, and the ability to compare and replicate across studies.

Previous research has extensively utilized and confirmed the validity and reliability of Manifest Anxiety Scale (MAS) and Foreign Language Classroom Anxiety Scale (FLCAS) (Al-Khasawneh 2016). Additionally, various derived scales have also been developed for diverse research topics, including English Writing Anxiety Test (WAT) and Foreign Language Reading Anxiety Scale (FLRAS). These scales cater to specific areas of inquiry within the realm of anxiety assessment. In order to accommodate study participants with different native languages and different levels of education, the researchers modified the anxiety scales accordingly.

By using the Learning Anxiety Scale, researchers are able to obtain quantitative data on learners' anxiety levels during the learning process. These data can help researchers gain insight into learners' anxiety and then take appropriate teaching interventions to improve learners' learning outcomes and mental health.

In summary, the Learning Anxiety Scale is an effective tool for measuring learners' anxiety levels during the learning process. By assessing learners' perspectives and attitudes, researchers can obtain quantitative data to understand learners' anxiety and provide a scientific basis and interventions for teaching to improve learners' learning outcomes and mental health status. The use of these scales provides reliable tools and methods for research in the field of learning anxiety and promotes further exploration and development in the field.

3.2 *Methods evaluation*

In response to the data obtained from the anxiety scale, different methods of analysis play a significant role in the study of anxiety for students by helping to reveal the extent to which

anxiety affects learning, identifying differences in levels of anxiety, and exploring the ability of contextual factors to predict anxiety. And they are listed below.

Descriptive statistics: Researchers use descriptive statistics, such as means and standard deviations, to summarize participants' responses and offer a succinct overview of the data. For example, the mean provides the average score of the sample on the anxiety scale, reflecting the level of anxiety overall. And standard deviation, on the other hand, assesses the dispersion of the data, and how much anxiety varies among participants. However, descriptive statistics alone may not fully present the complexity of anxiety as a construct, since they do not delve into the underlying factors, individual experiences, or the qualitative aspects of anxiety. Therefore, it is recommended that the method can be used in conjunction with other measures like independent samples t-test.

Independent samples t-test: Researchers may opt to utilize such a method to assess whether a noteworthy difference exists between the means of distinct groups (e.g., males and females) in terms of anxiety scale scores (Amiri & Ghonsooly 2015). This statistical method can help determine the extent to which gender factors influence academic anxiety and further explore the relationship between gender and anxiety.

Multiple Regression Analysis: To assess the predictive power of background variables on learning anxiety, researchers can conduct multiple regression analyses. This method of analysis allows for the simultaneous consideration of multiple background variables and determines their relative degree of contribution to FLA. Using this analytical approach, researchers can thoroughly investigate the impact of diverse background factors on anxiety levels and delve into the intricate relationship between anxiety and the learning process.

During data analysis, researchers usually use statistical analysis software (e.g., SPSS) to perform calculations and statistical analyses in order to better process and interpret the data (Ajmal & Ahmad 2019). These analytical methods help to reveal the influence of anxiety in the learning process and provide a scientific basis for researchers and educational practitioners to improve the learning experience and mental health of learners.

4 RESULTS

On the basis of the evidence presented by the studies mentioned above, further insights have been obtained into the causes of learning anxiety. Among the findings in Fadi Maher's research, it is demonstrated that the sources of anxiety can be diversified into various aspects. Firstly, the fear of being negatively evaluated when students are not well-prepared for the questions asked by teachers is reported to be an important source of learning anxiety. Also, the study illustrates the presence of test anxiety, which frequently occurs when students fail their exams. Additionally, Maher shows that curriculum difficulty can also serve as an influential factor in learning anxiety. Specifically, plenty of students mentioned feeling anxious when they do not fully comprehend the course material (Al-Khasawneh 2016), which is consistent with the result of Selma Kara's study. In addition, the study level contributes to anxiety formation as well—while freshman students are less anxious about their study lives and are more confident to face challenges, the researchers reveal that upper-classmen tend to be more nervous and hold less confidence. What's more, as mentioned in the results of Ajmal and Ahmad's article, gender differences correlate with the discrepancy in anxiety perception: Male students performed lower than female students and felt relatively more nervousness (Ajmal & Ahmad 2019). However, this result does not agree with certain other research, such as the 2015 experiment done by Amiri and Ghonsooly., which suggest a contrary result. Besides, the atmosphere of the class is account for the generation of anxiety. Simultaneously mentioned by Ajmal, Ahmad, and Maher, an interactive class environment that enables students to play a dominant role and have full communication with the fellows can effectively relieve their nervousness and empower them to overcome their fear (Ajmal & Ahmad 2019; Al-Khasawneh 2016).

Earlier research has explored the correlation between learning anxiety and academic achievement. These studies generally indicate that the former could significantly exert negative influences on the latter by demonstrating a strong and adverse link between the students' educational outcomes and their anxiety level scale. According to Ajmal, Ahmad, as students suffer from severe anxiety in their academy, their capacity to complete these activities will decline (Ajmal & Ahmad 2019). Meanwhile, students may frequently feel overburdened by the assignments they must complete and doubt about their capacity to do so, which eventually prevents them from being able to do so effectively. This situation can trap them in a loop where unfinished tasks give rise to extra anxiety, which in turn contributes to a further inability to keep on with the pace of school and teachers. Moreover, from a cognitive perspective, the investigation by Kara elucidated that anxiety is negatively associated with the message-encoding process, which impairs students' memorization functions. Consequently, it affects the quality of following actions and study performance (Kara 2013).

In the final analysis, the aforementioned studies have provided valuable insights into the sources and impacts of learning anxiety among students. The causes of anxiety of students include fear of negative appraisal, aversion to tests, course difficulties, study level, gender, classroom atmosphere, etc. Regarding the interaction between academic achievement and learning anxiety, previous studies robustly demonstrate a detrimental association. As students experience higher levels of anxiety, their ability to perform academically diminishes.

5 SUGGESTIONS OF ANXIETY ALLEVIATION

According to the previous studies, it is noteworthy that there are categories called facilitative or debilitating anxiety. Unlike people's common assumption about it, these specific types of anxiety do not necessarily generate negative influences on students' learning, but rather, play a promotional role in their school achievement (Na 2007). An adequate level of anxiety can boost better academic performance by creating stable motivations. Further, as scholars claim, the way people interpret their anxiety can significantly affect the appraisal of the stress, which in turn influences their motivations to seek coping strategies. Thus, comprehending anxiety as a challenge (which can be dealt with through effort and result in improvement of oneself) instead of a threat can produce positive emotion towards the pressure and worries, and thereby contributes to active academic performances. Hence, for students with learning anxiety, viewing the anxiety itself with an optimistic attitude can facilitate improvements in academic performance.

Moreover, learning to alleviate anxiety via conscious interventions and strategies is also vital for maintaining a psychologically healthy balance and preventing learning declination. This requires students' awareness of the significance of self-regulation in the process of anxiety reduction. Firstly, students should cultivate skills in time management (Hooda & Saini 2017). Effective time management allows students to distribute their workload evenly across various tasks and assignments. By breaking tasks into more reasonable, manageable chunks, students can avoid feeling overwhelmed by the pressure of numerous impending deadlines. Also, it provides students with a sense of control over their academic life since they realize what they need to do and can create a structured and predictable environment that can allay anxiety. Additionally, it is essential for students to set up realistic and reasonable goals rather than unachievable ones. In this way, students can constantly gain a sense of direction and motivation when seeing positive feed-back on their work, which will effectually mediate their anxiety on study. And the study of the University of Calabar suggests that problem-solving could also serve as a means of anxiety reduction; that is when students attempt to complete school work and assignments, finishing dealing with all the problems help is conducive to relieving tension and stress (Samson-Akpan *et al.* 2017).

Furthermore, external forces can also produce efficacious effects on learning anxiety. Importantly, anxiety-coping methods should be imparted to students at the beginning of

their school lives, including how to avoid unnecessary conflicts on campus and practicing relaxation techniques such as mindfulness meditation and deep breathing (Rehman 2016). Meanwhile, teachers are obligated to learn skills to offer help to students suffering from intense academic anxiety. Schools are supposed to offer workshops and courses on study strategies and assist the students who have difficulties catching up to efficiently utilize their course material and develop appropriate test techniques. According to Samson-Akpan *et al.* for those students uncomfortably suffering from learning anxiety, searching for help from their academic advisor; and if necessary, professional consultations should be arranged for the student to relieve their anxiety (Samson-Akpan *et al.* 2017).

To address severe academic anxiety and stress experienced by students, a combination of strategies is recommended, including fostering a positive outlook, practicing self-regulation, and seeking external support. Properly viewing the source of anxiety benefits academic performance fundamentally by raising motivation to make progress. Effective self-regulation empowers students to handle tasks efficiently and enhances direction and confidence while mediating anxiety. External factors such as school and teachers can significantly aid students struggling with intense academic anxiety, contributing to their overall well-being and academic success.

6 CONCLUSION

In conclusion, learning anxiety is a significant psychological factor that can have a profound impact on students' academic performance. This paper has explored the cognitive psychology of learning anxiety and its effects on academic outcomes. It is evident that learning anxiety is a prevalent problem faced by students from all over the world, and it can develop into a barrier to effective engagement and achievement in the learning process. The paper analyzes and summarizes that the use of anxiety scales, such as the Learning Anxiety Scale, provides reliable tools to measure and quantify learners' anxiety levels. Different methods of analysis, such as descriptive statistics, independent samples t-test, and multiple regression analysis, play a vitally assistive role in understanding the data obtained from anxiety scales and reveal how much anxiety interferes with learning and the factors that predict anxiety. Further, the results section discussed a few possible causes of students' anxiety. It is evident that the results supported that there is an adverse link between students' anxiety about learning and their academic performance. Finally, the paper also provides multiple coping strategies for anxiety alleviation and prevention of negative impacts on academic performance.

To summarize, addressing learning anxiety is essential for promoting optimal learning performance and the overall well-being of students. By understanding the cognitive psychology of learning anxiety and implementing appropriate strategies, both individuals and educational institutions can work together to create a conducive learning environment that supports students in overcoming anxiety and achieving their academic goals.

AUTHOR CONTRIBUTION

All the authors contributed equally and their names were listed in alphabetical order.

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Various external and internal influential factors on short-term memory

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ABSTRACT: In modern society, people from all walks of life depend on their memories to live, sharing some memorable experiences with their new friends and remembering what they have recently experienced to acquire new knowledge and skills. It is not difficult to discover that memory plays an essential role in people's daily lives. This is why many researchers and scholars are making attempts to discover more about memory, which is classified into four different categories: sensory memory (SM), short-term memory (STM), long-term memory (LTM), and working memory (WM). This article aims at the study of STM, presenting some internal and external factors that may affect the function of STM. Internal elements include sleeping, the aging process, and stress, and at the same time, externally, STM is related to personal living conditions (pollution and high altitude) and some designed activities (multi-tasking, sensory integration, and chunking). This article shows that some factors enhance STM, while some factors harms STM, either internal or external. In the future, the study of influential factors on STM will help people maintain good STM, increase their memory ability, and give warnings to people when they are in danger of being harmed by some factors.

Keywords: Memory, Short-term Memory, Internal factors, External factors

1 INTRODUCTION

Short-term memory (STM) is one of the major components of cognitive science, which has been given great attention by researchers and experts at home and abroad. In reality, some learners of languages and other subjects often make complaints about their poor STM, while some take pride in their good STM. Some people, such as the elderly, also complain that their STM is declining, while some people boast that they can memorize things better in some situations. All these daily scenarios reveal that, obviously, disparity does exist between individuals.

This article aims to explore some important potential factors. First, its definition is clarified; in the meantime, the values are also discussed. Then, some internal factors, including sleep quality, stress level, and the aging process, are explored to see whether they have a positive or negative influence on STM. Next, external factors, referring to the living environment and some well-designed activities, are analyzed in great detail. Finally, some limitations and future prospects are put forward to draw more attention to the study of STM. Through studying these potential and influential factors related to STM, it is expected that some efficient, effective, and feasible approaches can be discovered to help people improve their competence in memorizing more information within several seconds or avoid memory impairment.

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2 SHORT-TERM MEMORY

2.1 *Definition of short-term memory*

STM is categorized as a type of memory within one minute, the scope of which is generally a vital index to judge the capacity of STM. Miller, an eminent psychologist in the USA, was a pioneer in conducting quantitative research on STM. In his research, he proposed that STM includes many chunks, which can improve the capacity and efficiency of memory and indicate the feature of being limited; he also put forward that the range of chunks is from 5 to 9 (Tolliver 2014). According to another professor, Baddeley discovered that the time length for any individual memory was only 2 seconds, and without instant repetition of memorization, what was being memorized could disappear (Alan *et al.* 2014). The measurement of short memory is generally involved in images, numbers, characters, or letters, as well as positions.

2.2 *Importance of short-term memory*

As mentioned above, STM refers to memorizing a great variety of information. Mostly, STM is linked with learning various subjects or skills. In regard to images and numbers, STM is essential in mathematics learning. This plays an indispensable role in the differences in performances in math classes (Swanson & Kim 2007).

Besides math learning, STM also determines whether a learner can have a good master's or acquisition of language or not (Fang 2009). As is known to all, languages are composed of letters and phonemes in any nation (Cowan 1996). Considering English, for example. English words are made up of letters, and there are more than 40 different phonemes. When acquiring a new language, the learners have to rely on their senses to remember the words and pronunciations of words. STM of phonological information is necessarily needed for language processing in both the mother language and other foreign language acquisitions (Lee 2014).

In a nutshell, STM takes a leading role in all the acquisitions of any person, no matter how old the learner is, as long as skill learning is involved. Without a good STM, the learning rate can be slowed down. This is why it is considerably valuable to explore further all the mysteries of STM.

3 INTERNAL INFLUENTIAL FACTORS

3.1 *Dream recall and sleep quality*

People spend one-third of their lives sleeping, either with or without dreams, either in the daytime or in the evening. According to research by Herlin and others, only a small group of people claimed that they never had any dreams, constituting only 3% to 7%; however, some people were able to recall almost all the dreams they had the night before (Qing *et al.* 2016). It has long been argued that there is a certain connection between STM and the frequency of dream recall. A study by Ali Williams and Camille Tabari presents that there is no relationship between them (Williams & Tabari 2018). However, recent studies show that how frequently individuals have dream recall is related to STM. This idea is evident because many people recall their personal dreams when they wake up but later forget them.

Apart from dream recall, sleep quality and sufficiency are also influential factors for STM. As is known to all, high-quality, sufficient sleep is an important part of a well-being life, which is closely linked with cognitive development and temporary cognitive functioning. By contrast, many studies have proved that, when a man is suffering from sleep loss or deprivation due to psychological problems or external factors, such as frequent staying up at work or studying, their STM is negatively impacted. In a study by AJ Elkin and DJ Murray, a group of 20 sleep-loss undergraduates participated in the STM test (Williams & Tabari 2018). The results

indicated that more mistakes were made in the perception of the given materials by those who lack sleep. These errors are caused by a deficit in attention due to sleep loss.

3.2 *The psychological and physical factors*

3.2.1 *Stress*

There have been a great variety of attempts to probe into the correlation between stress and memory. As one potent modulator of the memory process, stress sometimes facilitates or sometimes damages memory. A long period of stress in adolescence, according to a study by Icaro Ranoy and others, can impair STM (Raony *et al.* 2021). In the study, it is shown that adolescence is a special phase of life when sensitivity to stress is increased. A period of stress in youth can influence adulthood when stress is likely to develop into a disease, depression, leading to a lower level of STM. A study in 2018 found that complaints about STM loss have a link with serious symptoms of depression in people (Raony *et al.* 2021).

Besides a period of stress in adolescence, it is also known that to fight against depression, which has turned out to be one of the most widely seen diseases worldwide, patients, either young or old, have to take antidepressant medication. Some studies revealed that the use of antidepressant medicines can increase the ability of STM. The research, designed by Saeed Mustapha and other scholars, made use of a chronic mild-stress mouse model related to depression to examine the impacts of medication on memorizing information within a short period of time (Mustapha *et al.* 2021). The results depict that an antidepressant medication named paroxetine, at 20 mg/kg, can be applied to enhance STM in patients suffering from depression, although there is a lack of clinical evidence.

3.2.2 *Aging*

With age rising, for people from all walks of life, auditory and visual perceptions negatively change, which has a great influence on the quality of life. Similar to the ability to perceive sounds and images, when people are getting older, speech communication is also seriously impaired, which results from the weakness in the abilities of the old listeners to perceive and organize the information. Obviously, the noisier the environment is or the more talkers there are, the worse the language communication is. All these indicate alterations in processing surrounding and central auditory information and cognitive attention (Majerus *et al.* 2014).

A study conducted by Hirohito M. Kondo and Takanori Kochiyama, two psychology scholars from Japan, in 2018, in which people aged between 20 and 60 were employed to test their auditory and visual bi-stability, showed that the number of perceptual changes in streaming of hearing and plaids of pictures or images reduced owing to normal aging, and also that the analysis of sequential scenes in the domains of sounds and visions was heavily impacted by the aging (Kondo & Kochiyama 2017). In another study, whose original purpose was to test whether there is a correlation between the quality of sleep, the recall of dreams, and the efficiency of temporal memory, it was found that as a man gets older, the quality of their STM declines.

4 EXTERNAL INFLUENTIAL FACTORS

4.1 *Living environment*

In recent years, due to urbanization and industrialization, the living environment has been experiencing dramatic alterations under the force of human activities. Various types of pollution are posing a great threat to people's health. Stroke-related ailments and mortality, as well as brain damage, neuron inflammation, and neuron degradation, have been linked with exposure to air pollution because of the detrimental effects of poisonous chemicals on the functions of the brain. A study in which children are examined about the damage of air

pollution on the brain shows that cognitive performance is negatively influenced and STM is shown to decrease when children are exposed to air pollution (Calderón-Garcidueñas *et al.* 2015).

In addition to the influence of pollution, the location where people reside also has a great impact on people's ability to use STM. A famous study, conducted by several scholars from China, including Shi Qing hai, GeDi, and so forth, examines the impact of living in a high-altitude environment on STM with the application of interactive software. In this experiment, within 3 hours, exactly 30 male candidates are transported by a vehicle to a 4280 m plateau where people have to suffer from hypobarica, hypoxia, and cold, which can greatly influence cognitive and neuron-physiological functions, mainly including perception, attention, and memory (Hai *et al.* 2016). This study indicates that cognitive ability sharply plunges with a sudden and rapid ascent to high altitudes, especially over 4000 meters. It also indicates that after 3 hours at this high altitude, the levels of sensory memory and STM report a dip.

From these two studies, it is easy to see that the places where people stay are closely related to cognitive ability, and STM decreases when people are exposed to an environment with severe pollution and high-altitude places.

4.2 *Designed activities*

4.2.1 *Multitasking*

Multitasking refers to a phenomenon in which people perform more than one task unconsciously, with each task having its own specific aim and stimulus-response links, for example, taking care of children while cooking. Most people hold a positive view about multitasking because it can help them save time. However, recent studies show that multitasking negatively impacts cognitive domains like STM. In a study by a medical intern from India in 2020, the experiment candidates were tested on the usage of cellphones (Padmanaban *et al.* 2020). This study elucidated severe negative effects on visual processing speed, attention, and STM.

4.2.2 *Sensory integration*

Although multitasking poses great negative effects on STM, it is supposed that multi-sensory integration could help improve people's STM. In the 1970s, it was the first time for an expert, Dr. Jean Ayres, to put forward and coin the idea of sensory integration, which is considered to be a neurological process of getting information organized from various senses. As it is known to all, different senses get different neural parts involved, which requires more than 80% of the brain. Based on this knowledge, some scholars conducted some studies to offer support for the idea that improvement in cognitive capability can be gained. However, according to the research by Chelsea B. Tolliver, increased sensory integration does not necessarily promote STM. In the study, the "looking and listening" group did a better job than the other group with more senses (looking, listening, and touching), which shows that the more senses are involved, the less effective the performance will be (Tolliver 2014).

4.2.3 *Phonological activities*

Numerous findings have demonstrated that recall of information within the short term are considerably influenced by varying factors, such as whether the information is perceived through auditory or visual approaches, the magnitude of voicing, and whether the style of recall is oral or written (Suppawittaya 2021). It is never hard to see that memory capability within seconds is influenced by the input resources of information.

In recent years, many phonological activities have been designed to improve STM. One of the latest studies is the chunking method. The chunking method refers to sorting some identical amount of information into varying numbers of chunks with varying numbers of

items within every chunk. By this method, a study by Thailand researchers named Piwat Suppawittaya and Pratchayapong Yasri shows that STM of textual and audio information can be greatly enhanced (Suppawittaya 2021).

5 LIMITATION AND FUTURE DIRECTION

Consistency in style is very important. Note the spacing, punctuation, and caps in all the examples aimed at finding out the influential factors on STM. The author collected a great variety of materials, which indicated some effects on STM. However, there are still some limitations that must be acknowledged. First, the results of some research contradict those of other researchers. It is still hard to tell which research is more evident and proven. Further experiments are needed to provide future evidence to illustrate how different levels of stress can stimulate or impair STM, as well as whether sensory integration is good for enhancing or weakening one's memory. Also, the study of multitasking may overlook the individuality of workloads. Second, living environments are limitless, while this article only focuses on analyzing the issue of air pollution and a special landscape of plateaus. Other pollution, like noise pollution or light pollution, may also influence STM, but it is still a blank area where future studies are headed. Also, other landscapes, such as deserts or forests, may also exert some impacts on the amount of information a person memorizes in a short time. Certain prospects can be made here to draw great attention to other meaningful and far-reaching experiments to understand STM more deeply and explicitly.

6 CONCLUSION

STM is a long-discussed topic, even since the study of psychology. This article concentrates on analyzing the internal and external factors that may exert influences on memory quality, with the purpose of looking for the best way to maintain a good ability to memorize more information within a time span or increase this capability, and also to avoid the danger of damaging STM to facilitate people with a higher efficiency of learning.

The internal factors in this article are divided into two parts: sleeping quality and dream recalls, and two other psychological and physical factors, namely, stress and aging. The article suggests that sleeping loss, a period of stress in adolescence, and aging can all negatively influence STM, while whether a person dreams or not has no connection with memory quality, although some previous studies proposed that those who can recall the dreams clearly have a better STM. The external factors, living conditions, and designed activities also demonstrate some thought-provoking results. Residential areas with pollution and high-altitude places pose a threat to STM. As for the activities, some study activities are beneficial to STM, while others harms it. In the near future, there will be more experiments and research conducted to further prove what can really enhance STM and what can indeed impair STM.

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