

Original Paper

A Three-Dimensional Analysis of Subtitle Translation in Animated Films from the Perspective of Eco-Translatology: A Case Study of *Nezha: Birth of the Demon Child* and *Ne Zha 2*

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Received: July 9, 2025

Accepted: July 20, 2025

Online Published: August 1, 2025

doi:10.22158/sll.v9n3p88

URL: <http://dx.doi.org/10.22158/sll.v9n3p88>

Abstract

*This paper explores the subtitle translation of Chinese animated films through the theoretical lens of Eco-Translatology, focusing on *Nezha: Birth of the Demon Child* (2019) and its sequel *Ne Zha 2* (2025). It examines how translation strategies operate across three dimensions—linguistic, cultural, and communicative—to mediate meaning between source and target languages. Through a comparative analysis of official subtitles and AI-generated translations, the study evaluates how effectively each renders culturally specific expressions, emotional tone, and contextual coherence. The findings suggest that while human translators generally outperform AI in managing culture-loaded and emotionally nuanced content, AI excels in fluency and efficiency for routine expressions. The paper advocates a human-AI collaborative model that leverages the strengths of both to improve subtitle quality. By offering a multidimensional framework and practical insights, this study contributes to the advancement of subtitle translation practices and the international dissemination of Chinese culture.*

Keywords

Eco-Translatology, subtitle translation, Chinese animation, cultural adaptation, linguistic strategy, communicative function, human-AI collaboration

1. Introduction

In recent years, China's growing national strength and international influence have attracted increasing global attention. This interest extends beyond economic and technological development to the country's rich historical and cultural heritage. As China actively promotes its cultural soft power, international

audiences have shown a rising interest in Chinese history, values, and cultural expression. Against this backdrop, film—an accessible and influential form of media—has emerged as a key channel for cultural exchange. Among the many factors contributing to the global reception of Chinese films, subtitle translation plays a crucial role by enabling audiences to engage with narratives across linguistic and cultural boundaries.

Nezha Movies serves as a representative case of contemporary Chinese cinema's efforts to "tell China's stories well". The first film, *Nezha: Birth of the Demon Child* (2019), offers a modern retelling of a classic myth, depicting the protagonist's transformation from a misunderstood outcast to a self-determined hero. The film's central message—"My fate is not decided by heaven, but by myself"—resonated with a wide audience, encouraging reflection on personal agency and resistance against prejudice. Ne Zha's struggle against both societal mistrust and divine suppression earned the film widespread acclaim for its thematic depth and emotional intensity.

The sequel, *Ne Zha 2* (2025), continues the narrative by focusing on Ne Zha's evolving relationship with his friend Ao Bing, and further explores themes such as self-identity, social expectations, and the pursuit of justice. Like its predecessor, it integrates elements of Chinese mythology with contemporary storytelling techniques, while continuing to reflect core cultural values. The series has garnered significant attention both domestically and internationally, sparking active discussions on social media regarding its cultural themes and subtitle translations.

The popularity of these films highlights the importance of high-quality subtitle translation in cross-cultural communication. Translators must balance fidelity to the source text with the need to make cultural references accessible and comprehensible to target audiences. This study adopts Eco-Translatology as its theoretical framework to examine how culture-specific elements in *Nezha Movies* are rendered in English subtitles. It analyzes translation strategies across linguistic, cultural, and communicative dimensions, while also comparing the respective strengths and limitations of human and AI-generated translations. By exploring the potential of a human-AI collaborative translation model, the study aims to provide practical insights for enhancing the quality and cultural sensitivity of subtitle translation, ultimately contributing to the advancement of Chinese film subtitle translation and the broader goal of effective intercultural communication.

2. Literature Review

2.1 Subtitle Translation

Subtitle translation, as a key mode of audiovisual translation, plays an essential role in the international dissemination of film and television works. It is characterized by multimodality, time-space constraints, and high communicative immediacy (Gottlieb, 1992; Díaz Cintas & Remael, 2007). Due to its reliance on synchronized visual and auditory channels, subtitle translation often requires concise expression, rapid processing, and cultural adaptability. It is widely applied in cross-cultural media contexts,

including international film distribution (Gambier, 2003), television broadcasting, and online streaming platforms such as Netflix and YouTube (Pedersen, 2018).

Academic interest in subtitle translation has steadily increased in recent years, positioning it as a significant subfield within translation studies. Early research focused on the linguistic and formal features of subtitles as a form of audiovisual language. Foreign scholars such as Henrik Gottlieb (1992) and Birgit Nedergaard-Larsen (1993) emphasized the polysemiotic nature of subtitles, which require the integration of sound, image, and text. They also highlighted challenges such as condensation, segmentation, and synchrony.

In the Chinese academic context, subtitle translation research began to gain momentum in the early 2000s, evolving in tandem with the country's growing cultural exports and global media presence. Early foundational studies, such as those by Qian Shaochang (2000) and Li Yunxing (2001), explored the linguistic features and communicative functions of Chinese subtitles, noting their immediacy, colloquial nature, and synchronization with audiovisual content. As Chinese films increasingly entered international markets, subtitle translation was gradually recognized as a crucial medium for cultural transmission.

The evolution of subtitle translation research in China can be broadly categorized into three developmental stages, each reflecting a shift in theoretical orientation and research priorities. The initial phase, emerging in the 1990s, was characterized by foundational discussions on the nature and basic principles of subtitle translation. Ma Zhengqi (1997, 2005), a pioneer in the field, approached subtitle translation from a communication studies perspective, highlighting the medium's unique constraints—such as limited space, time synchronization, and multimodality. He emphasized three core principles: accuracy, conciseness, and vividness, arguing that subtitle translation must ensure effective audiovisual delivery while maintaining linguistic accessibility for the target audience.

The second phase, beginning in the early 2000s, saw a growing emphasis on the treatment of culturally embedded content. Scholars such as Chai Meiping (2001) explored the reconstruction and transformation of cultural imagery in film translation, advocating strategies that balance fidelity to the source culture with intelligibility for international audiences. Gong Yuxing (2008) addressed the translation of cultural metaphors and traditional references, proposing adaptive strategies—such as substitution, metaphorical equivalence, and contextual reinterpretation—to mitigate cultural loss in the target text.

In the most recent phase, subtitle translation research in China has become increasingly interdisciplinary and theoretically informed. Functionalist approaches, Relevance Theory, and Eco-Translatology have been widely applied, reflecting a shift toward audience-centered and context-sensitive paradigms. For instance, Deng Wei and Meng Qingsheng (2010) analyzed the English subtitles of the sitcom *Growing Pains* through the lens of Skopos Theory, emphasizing the translator's agency in fulfilling communicative intent. Li Xia (2017) employed Eco-Translatology to explore the

three-dimensional adaptation of culture-specific items, suggesting that optimal subtitle translation requires dynamic coordination of linguistic, cultural, and communicative dimensions. Collectively, these studies mark a maturing field that continues to expand its methodological scope and contribute to the theorization of audiovisual translation in the Chinese context.

2.2 *Eco-Translatology*

The earliest study of Eco-Translatology started in 2001 when Professor Hu Gengshen from Tsinghua University was inspired by Darwin's theory of evolution and he introduced the concept "natural selection" into translation study. Hu proposed the approach of "translation as adaptation and selection", which is the fundamental theory of Eco-Translatology. Hu defines translation as "a selection activity of the translator's adaptation to fit the translational eco-environment". The theory has garnered significant international attention and it has been currently one of the most cited and influential translation theories globally. It integrates the concept of ecological holism with the ancient Chinese philosophical wisdom of "harmony between humanity and nature" combining translation studies with ecology (Hu, 2008b).

Based on Darwin's theory of natural selection (1859), Eco-Translatology posits that translation is a process of "survival of the fittest and adaptation through selection" (Hu, 2008b). The translator plays a central role, coordinating adaptive selection and transformation between the source and target texts, bridging the gap between the author and the reader (Hu, 2011). From the perspective of Eco-Translatology, the optimal translation is one with the highest "degree of holistic adaptation and selection (Hu, 2013)". During the translation process, the translator must follow the principle of multidimensional transformation, focusing on linguistic, cultural, and communicative dimensions. Therefore, translators must comprehensively consider various aspects of the translation process, making continuous adaptive selections to accurately reproduce the source text's content in the target text, thereby achieving harmony and unity within the translation ecosystem (Hu, 2013).

The translational eco-environment, as defined by Eco-Translatology, encompasses three dimensions: the linguistic, cultural, and communicative aspects of both the source and target languages.

2.2.1 Linguistic Dimension

At the linguistic level, due to inherent differences in vocabulary, grammar, and syntax between the source and target languages (e.g., the paratactic nature of Chinese versus the hypotactic structure of English), translators must adapt linguistic forms to ensure the accuracy and readability of the target text.

2.2.2 Cultural Dimension

Culturally, disparities in mythological symbols, folk traditions, and value systems between the source and target cultures necessitate the identification and adaptation of culture-loaded terms. Translators must possess not only profound linguistic competence but also a deep understanding of both cultures to accurately convey cultural nuances.

2.2.3 Communicative Dimension

The communicative dimension emphasizes the transmission of the original text's intent, emotional resonance, and contextual effects. Translators must prioritize the functional equivalence of communicative purposes, ensuring that the target audience experiences a response akin to that of the source audience.

Three dimensions of Eco-Translatology are interdependent, forming a dynamic and balanced ecosystem. The linguistic dimension serves as the foundational layer: accurate language conversion is a prerequisite for effective cultural transmission and communicative success. Grammatical errors or lexical mischoices, even if culturally rich, risk alienating the audience. The cultural dimension elevates linguistic accuracy into cultural intelligibility, bridging cognitive gaps through adaptive strategies such as cultural substitution or explanatory annotations. The communicative dimension acts as the ultimate goal, synthesizing the achievements of the first two dimensions to achieve cross-cultural empathy. Simultaneously, communicative priorities inversely influence the selection of linguistic and cultural strategies.

In subtitling practice, translators must dynamically prioritize these dimensions based on contextual demands:

High cultural-load scenarios (e.g., mythological terminology): Prioritize the cultural dimension while maintaining linguistic precision.

Emotionally intense scenes (e.g., character monologues): Emphasize the communicative dimension, permitting controlled deviations from literal meanings to preserve emotional impact.

Action or comedic sequences: Balance linguistic conciseness with communicative engagement to align with multimodal elements (e.g., visuals, pacing).

By flexibly navigating this triadic interplay, translators transform subtitles into a cultural bridge, ensuring that works like *Nezha* Movies resonate globally without sacrificing their cultural essence.

2.3 The Subtitle Translation of *Nezha* Movies

Recent scholarly investigations into the subtitle translation of *Nezha* Movies have primarily adopted various theoretical frameworks to explore the transmission of linguacultural elements embedded in dialects, idioms, folk rhymes, and other culturally specific expressions. Through micro-level analysis of representative dialogue, researchers have assessed how these theories inform subtitling practices and proposed strategies for enhancing cultural accessibility in audiovisual contexts.

Among the representative studies, Xi Man (2020), drawing on Newmark's Communicative Translation theory, demonstrated its effectiveness in facilitating cultural transfer when source-language expressions lack direct cognitive counterparts in the target language (Xi, 2020). She argued that communicative translation allows for smoother intercultural understanding by prioritizing viewer comprehension over rigid semantic equivalence. Qi Hongxia (2022), using the tripartite model of Eco-Translatology—which emphasizes linguistic, cultural, and communicative dimensions—proposed

a dynamic framework for subtitle translation (Qi, 2022). Through case analysis, she highlighted the importance of balancing these dimensions to ensure both cultural fidelity and target audience reception. Similarly, Yin Chengyao and Gu Xianhai (2023) applied Multimodal Discourse Analysis to *Nezha: Birth of the Demon Child*, analyzing subtitling strategies across four levels: cultural context, situational context, content plane, and expression plane (Yin & Gu, 2023). Their research offered a systematic methodology for promoting the international reach of Chinese animated films by integrating both verbal and visual semiotic cues.

A synthesis of these studies reveals two core principles in effective subtitle translation. First, subtitles must accommodate the specific constraints of the audiovisual medium, especially the need for temporal immediacy (requiring rapid viewer processing) and colloquial accessibility (ensuring natural and idiomatic expression). This calls for clear, viewer-oriented language rather than strictly literal translation. Second, for culturally rich works such as *Nezha* Movies, translators must adopt an integrative approach that considers both micro-textual features (lexis, syntax, rhetorical devices) and broader sociocultural factors (cultural distance, genre conventions, communicative intent). The ultimate goal is not only to convey meaning, but also to preserve the emotional depth and cultural resonance embedded in Chinese narratives, thereby advancing their international dissemination.

Despite these contributions, current research exhibits certain limitations. Most notably, existing studies remain focused on the 2019 release, with limited academic attention paid to the 2025 sequel *Ne Zha 2*, which may reflect evolving translation strategies and viewer expectations in franchise films. Furthermore, the role of artificial intelligence in subtitle translation—particularly in the context of film—has been largely overlooked. The application of AI technologies in areas such as translation assistance and post-editing remains underexplored and warrants further scholarly attention.

2.4 Research Design

This study is grounded in the three-dimensional adaptation framework of Eco-Translatology—encompassing linguistic, cultural, and communicative dimensions—and systematically examines the evolution of cross-cultural adaptation strategies in subtitle translation across *Nezha* Movies. It also explores the practical application of artificial intelligence in cinematic localization. The research focuses on three core questions:

- 1) How is the three-dimensional adaptation theory of Eco-Translatology applied and manifested in the subtitle translation of *Nezha* Movies, specifically in the linguistic, cultural, and communicative dimensions?
- 2) Compared to professional human translation, what strengths and limitations do machine translation systems exhibit in handling culture-specific elements, reconstructing emotional expression, and adapting to contextual constraints?
- 3) How can a collaborative model—human-led and AI-assisted—be effectively structured to enhance the efficiency and quality of film subtitle translation?

This study employs a qualitative and comparative methodology. A bilingual parallel corpus was systematically constructed using officially released Chinese and English subtitles from trailers and selected film sequences of *Nezha: Birth of the Demon Child* (2019) and *Ne Zha 2* (2025). Chinese source subtitles were processed through ChatGPT-4 Turbo and DeepSeek-R1 to generate machine translations. The author, informed by faculty-student discourse, conducted iterative comparative analysis grounded in native cultural competence and audiovisual translation expertise through the tripartite Eco-Translatology framework. Findings are classified into linguistic, cultural and communicative dimensions.

3. Result

3.1 Linguistic Dimension

Linguistic dimension transformation in Eco-Translatology emphasizes achieving adaptive selection between source and target languages at the formal linguistic level, encompassing vocabulary, syntax, and rhetoric. It seeks a balance among readability, fluency, and contextual appropriateness. In audiovisual translation, this necessitates accommodating the colloquial nature of dialogue, character portrayal, and synchronization with visual rhythm, which imposes higher demands on the translator.

Example 1:

Source Text (*Ne Zha 2*): 爹就跟吃了大补丸似的。

Reference Translation: Father's been full of energy.

ChatGPT Version: Dad's acting like he just took a mega-tonic!

This line is spoken by the character Shen Xiaobao, a leopard cub. The term “dabǔwán” (大补丸) in traditional Chinese culture refers to a herbal tonic known for replenishing qi and blood and strengthening the body. Taking such a tonic is believed to boost energy and vitality, vividly portraying the character's exceptional vigor. Since foreign audiences are unlikely to be familiar with this culturally specific reference, translators adopt a functional equivalence strategy: lexically, it uses the high-frequency and clear phrase “full of energy”, which suits the simplicity of childlike speech; syntactically, it abandons the original simile for a concise four-word declarative sentence, improving subtitle brevity and viewer comprehension. This aligns with the linguistic dimension of Eco-Translatology, emphasizing natural lexical choice and syntactic economy.

In contrast, the ChatGPT version “Dad's acting like he just took a mega-tonic!” retains the figurative simile but introduces lexical risks—the neologism “mega-tonic” carries polysemous potential (e.g., tonic water or hair product) and does not match the lexical simplicity expected of child speech. Moreover, official English subtitles typically follow line length limits of 37 to 42 characters per line, with a maximum of 75 characters per subtitle, and a recommended reading speed of 10 to 16 Characters Per Second (CPS) to optimize viewer comprehension (according to WeTranscriber guidelines). Although no absolute standard exists, the ChatGPT sentence's nine-word length is noticeably longer and closer to the

upper character limit than the official four-word phrase, potentially increasing cognitive load and hindering rapid understanding.

Overall, the reference translation demonstrates superior linguistic adaptation through more natural wording and streamlined syntax, better complying with subtitle length requirements to facilitate clear and efficient communication.

Example 2:

Source Text (*Ne Zha* 2): 谁吃了熊心豹子胆啦?

Reference Translation: who do you think you are?

ChatGPT Version: Who the hell do you think you are?

The original line appears when Ne Zha enters the territory of the groundhogs and is confronted by the second-in-command groundhog, who delivers this remark as a gesture of defiance. Literally, the phrase “吃了熊心豹子胆” means “having eaten a bear’s heart and a leopard’s gallbladder”, a Chinese idiom used to describe someone who is extremely bold or recklessly fearless, often with a negative connotation. Although there is no direct equivalent in English, certain idiomatic expressions such as “guts of steel” or “balls of steel” partially convey similar meanings, especially in terms of courage and audacity.

The reference translation adopts a strategy of paraphrasing for clarity and brevity but loses much of the original character’s tone and emotional intensity. The ChatGPT version attempts to compensate for this by inserting the emphatic phrase “the hell” to amplify the anger in the line; however, this over-intensifies the emotional register and risks misrepresenting the original intent. In the film’s context, the groundhog’s line is more of a taunt or rhetorical challenge than an outright insult.

In comparison, translations such as “Who’s got the guts?!” or “Who’s feeling fearless today?!” are more effective. They are simple, punchy, and colloquial, with strong rhythm and a humorous undertone that aligns well with a villainous tone. These renderings better capture the confrontational spirit and expressive nuance of the original, making them more suitable for the fast-paced, stylized atmosphere of an animated film.

3.2 Cultural Dimension

The cultural dimension refers to how well a translation accommodates and conveys the culture-specific elements embedded in the source text. These may include idioms, customs, historical references, values, and culturally loaded expressions. In subtitle translation, cultural adaptation is particularly important due to the target audience’s unfamiliarity with the source culture. Translators are expected to employ strategies such as substitution, explanation, or cultural reconstruction to ensure that the intended meaning is accessible and acceptable within the target culture. Successful adaptation at the cultural dimension enables audiences to understand the underlying context and appreciate the cultural nuances of the original work.

Example 3:

Source Text: 急急如律令!

Reference Translation (*Ne Zha*): Be quick to obey my command!

Reference Translation (*Ne Zha 2*): Swift and uplift!

The phrase “急急如律令” originates from Chinese Taoist culture and conveys the meaning of “immediate execution of a command, as inviolable as law”, or “carry it out without delay or error, or face consequences”. Taoism rose to prominence during the Han Dynasty, and official edicts and proclamations of that era frequently included the phrase “如律令” (lit. “in accordance with the law”), indicating that actions must be carried out according to legal mandates, often with the implication that violations would be punished. William John Francis Jenner, professor at the University of Leeds, rendered the phrase in his English translation of the Chinese literary classic *Journey to the West* (1896) as “to be dealt with urgently in accordance with the Statutes and Ordinances”. This translation highlights both the legal framework and the urgency implied in the original. In contrast, *Nezha Movies* adopts a more implicit translation strategy. *Ne Zha* uses a free translation that emphasizes the performative aspect of command-giving, while *Ne Zha 2* renders the phrase in a brief, powerful, and colloquial form that focuses on speed and immediacy, in line with the film’s pacing. However, this approach falls short in conveying the deeper cultural and religious dimensions of the original expression. From the author’s perspective, while these translations enhance accessibility for general audiences, they fail to fully represent the cultural richness and Taoist ritual connotations embedded in the phrase, which may be unsatisfying to viewers familiar with Chinese traditions. By comparison, the translation “By Heaven’s Command, now obey!” is more appropriate. The first part, “By Heaven’s Command”, introduces the concept of divine will, imbuing the phrase with a sense of religious and authoritative gravity. This resonates with the formulaic expressions found in Western fantasy literature, such as “By the King’s decree” or “By the gods!” The second part, “now obey”, is succinct yet forceful, effectively reflecting the commanding tone of the original. The phrase as a whole is rhythmically fluid and naturally rhymed (command/obey), making it well suited for dubbing and subtitling. It is particularly effective in scenes depicting spellcasting, divine intervention, or rapid shifts in narrative action. In conclusion, translation should strike a balance between fidelity to the source text and adaptation to the target audience. While cinematic translation allows for more flexibility, literary translation ought to emphasize semantic accuracy and cultural depth.

Example 4:

Source Text: 琼浆玉液

Reference Translation (*Ne Zha 2*): Elixir Reparo

“Qióngjiāng Yùyè” is a Chinese idiom that metaphorically refers to fragrant, mellow wine or a precious liquid. In *Ne Zha 2*, it denotes a divine potion used to restore the physical bodies of Nezha and Ao Bing, possessing healing properties and being extremely rare and valuable—obtainable only through rigorous

trials. The official translation, “Elixir Reparo”, adopts a highly adaptive strategy that is concise and rich with fantasy elements. “Elixir” corresponds to the concept of a divine or magical potion, commonly understood in Western contexts as a substance with restorative, empowering, or even life-extending effects. “Reparo”, derived from the Latin root *reparare* meaning “to repair”, is also widely recognized due to its use in popular fantasy literature such as Harry Potter. This translation employs cultural reconstruction by naturally embedding the Daoist notion of a sacred medicine into a Western magical framework, allowing target audiences to grasp its meaning and function without additional cultural burden.

Although the translation is concise and easily understandable, it inevitably diminishes the cultural aesthetic and the philosophical depth associated with the original Chinese imagery of “qióng” (divine jade) and “yù” (jade), which convey rarity and profound symbolism that ordinary people find hard to attain. From the perspective of Eco-Translatology, however, the translation achieves efficient condensation at the linguistic level and maximizes accessibility and acceptance through familiar fantasy terminology at the cultural and communicative levels. Thus, it effectively balances aesthetic loss with contextual adaptation, achieving an optimal dynamic equilibrium within the overall translation ecosystem. This reflects a successful application of the “function-first” principle in cross-cultural film translation.

3.3 Communicative Dimension

From the perspective of Eco-Translatology, the communicative dimension emphasizes the communicative function and effect of translation. Translation is viewed as a cross-linguistic communicative act, the primary goal of which is to facilitate the transmission and exchange of information. Therefore, the translator must take into full account the needs and expectations of both parties involved in communication during the translation process, in order to ensure the effectiveness and practicality of the translated text.

Example 5:

Source Text: 我等干效犬马之劳。

Reference Translation (*Ne Zha 2*): We’d be willing to serve you with all our might.

ChatGPT Version: We’ll do what needs to be done.

As a Chinese idiom, “犬马之劳” (*quǎn mǎ zhī láo*) carries strong connotations of humility and deference. It traditionally expresses a speaker’s willingness to serve with utmost loyalty and dedication, often in a formal or hierarchical context. In the context of the film, the line is spoken by the Dragon King of the West Sea during a negotiation with the Dragon King of the East Sea. As the latter’s sister, the West Sea Dragon King is portrayed as shrewd, intelligent, and politically astute. Having been imprisoned for a thousand years due to past conflicts, she now seeks to regain her freedom by offering to help resolve an urgent crisis. Her statement, while outwardly courteous, is in fact a calculated move—a strategic

utterance meant to display sincerity and secure advantage, rather than an expression of genuine submission.

From the perspective of the communicative dimension in Eco-Translatology, it is essential for the translator to grasp and convey the pragmatic intent behind the utterance, as well as the character dynamics. Misinterpreting the line as a straightforward declaration of loyalty would distort its dramatic function. In English, idiomatic expressions involving animals such as “work like a dog” or “be a workhorse” convey diligence and hard work but lack the Confucian undertones of social duty and loyalty embedded in the Chinese idiom. Thus, a literal translation would not achieve semantic or cultural equivalence, and an adaptive (or free) translation strategy is more appropriate in this case.

The reference translation—“We’d be willing to serve you with all our might”—does succeed in capturing the humble tone but comes across as overly polished and deferential. It risks misrepresenting the West Sea Dragon King’s calculated diplomacy and her subtle assertion of agency. By contrast, the ChatGPT version—“We’ll do what needs to be done”—is more concise and pragmatic. It effectively communicates willingness to cooperate without implying subservience. It also aligns better with the character’s composed, intelligent persona and strategic motivation.

In terms of communicative effect, the latter translation allows the target audience to more naturally perceive the character’s intentions, the power dynamics at play, and the tension in the scene. It demonstrates how a functional and audience-aware rendering can enhance narrative coherence and cross-cultural comprehension, aligning well with the goals of the communicative dimension in Eco-Translatology.

Example 6:

Source Text: 还轮不到你们在这儿幸灾乐祸!

Reference Translation (*Ne Zha 2*): you fools are in no place to gloat!

ChatGPT Version: It’s not your turn to gloat just yet.

In the translation of the line “还轮不到你们在这儿幸灾乐祸!” the reference translation—“You fools are in no place to gloat”—more effectively conveys the Eastern Sea Dragon King’s anger and sense of authority after his plan fails and he is mocked by the prisoners. Compared to ChatGPT’s version, “It’s not your turn to gloat just yet”, the reference translation not only preserves the original meaning but also intensifies the emotional impact through the use of the insult “you fools” and the authoritative phrase “in no place to”. This enhances the character’s emotional expression and reinforces his higher status, reflecting his fury and need to defend his dignity. In the context of a film, the official version is more communicatively effective, emotionally resonant, and pragmatically appropriate for the dramatic tension of the scene.

4. Discussion

4.1 Research Findings

This study analyzes the subtitle translation of *Nezha* Movies through the lens of Eco-Translatology's three-dimensional adaptation theory, demonstrating its application across linguistic, cultural, and communicative dimensions. Linguistically, the official subtitles are generally concise and accessible. Translators effectively restructure sentence patterns within the spatial and temporal constraints of subtitles to preserve the core message of the source text. Culturally, strategies of paraphrasing and substitution are frequently employed to reconstruct culturally loaded expressions using target-language equivalents that are familiar to the intended audience. This reduces cultural barriers and enhances the translation's cultural adaptability. On the communicative level, the translation prioritizes clarity and audience accessibility, while striving to convey emotional tone, character mood, and contextual nuance, thereby deepening audience immersion and engagement.

Despite these strengths, subtitle translation is inevitably constrained by limited screen time and character space. Expressions rich in national and cultural symbolism are often compressed or omitted, leading to a diminished aesthetic and emotional effect. Moreover, in some instances, paraphrasing is applied too liberally—though it enhances comprehension, it can compromise the cultural imagery and expressive intensity of the original.

Compared to professional human translators, AI demonstrates notable strengths in handling everyday dialogue, particularly in terms of syntactic fluency and linguistic diversity. It performs well when dealing with standardized and colloquial language, producing outputs that are often grammatically sound and natural-sounding. However, its ability to handle culture-specific elements, emotional nuance, and contextual appropriateness remains limited. Without a deep understanding of cultural context and human emotion, AI systems may misinterpret idioms, overlook tone and register, or render emotionally significant content inappropriately, leading to semantic inaccuracies or cultural distortion. These shortcomings are particularly evident in the cultural and communicative dimensions of translation.

Given this, a collaborative model that integrates human expertise with AI assistance should be pursued in subtitle translation practice. Human translators should retain leadership in handling culturally and emotionally complex segments, while leveraging AI's strength in generating fluent language and processing large volumes of text. This synergy between human insight and machine efficiency can help achieve a balance between translation quality and productivity, ultimately enhancing the effectiveness of subtitle translation as a tool for intercultural communication and cultural transmission.

4.2 Limitations and Suggestions for Future Studies

While this study has explored the subtitle translation of *Nezha* Movies from the perspective of Eco-Translatology and offered a multi-dimensional analysis of linguistic, cultural, and communicative adaptation, several limitations remain. First, the research lacks empirical support from large-scale audience surveys or reception studies, which would provide valuable insight into how subtitle

translations are perceived and interpreted by target viewers. Second, the scope of the corpus is relatively limited, which may restrict the generalizability and depth of the analysis.

To address these limitations, future research will aim to expand the subtitle corpus to include a broader range of Chinese animated films and conduct audience-centered investigations through questionnaires or interviews. This empirical supplement will allow for more data-driven conclusions and deeper exploration of audience response, emotional resonance, and cultural comprehension. By doing so, the research can better contribute to enhancing the quality of audiovisual translation, promoting effective intercultural communication, and ultimately facilitating the global dissemination and appreciation of Chinese culture through film.

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