A Study on the Translation Strategies of the Documentary Mills Explores Ecological China from the Perspective of Cross-Cultural Communication

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Abstract. The international dissemination of documentaries plays a crucial role in shaping national image and enhancing cross-cultural understanding. Taking the BBC documentary Mills Explores Ecological China as a case study, this paper analyzes its Chinese-English subtitle translation strategies through the lens of cross-cultural communication theory. Drawing on representative examples, the study focuses on culturally loaded expressions—such as plant names, symbolic imagery, and intergenerational knowledge transmission—and examines how translation techniques, including functional equivalence, cultural adaptation, and audience orientation, are employed. The analysis reveals that translators often adopt a hybrid strategy that combines domestication with explanatory foreignization. For instance, cultural metaphors like "见血封喉树" are translated into scientific terms like Antiaris toxicaria, supplemented with descriptive phrases such as "it's lethal" to retain communicative effectiveness while avoiding cultural misinterpretation. Similarly, expressions such as "文明与野性交界" are softened into "where wildlife meets humanity," aligning the narrative with global discourses of ecological harmony. These strategies reflect a balance between semantic accuracy and cultural acceptability, facilitating meaning reconstruction across different cultural contexts. This study contributes to the theoretical development of cross-cultural communication in ecological media contexts and offers practical insights for the translation of nature-themed documentaries. It highlights the translator's role not just as a linguistic mediator, but as a cultural negotiator. Ultimately, the research provides a foundation for enhancing the global communicability of China's ecological narratives through effective subtitle translation.

Keywords: subtitle translation, cross-cultural communication, ecological documentary, cultural adaptation, China's national image

1. Introduction

In an increasingly dynamic context of global communication, documentaries—serving both informative and cultural functions—have assumed an unprecedentedly important role. Unlike purely entertainment-focused films, documentaries, with their factuality and narrative depth, authentically portray a nation's natural environment, cultural landscape, and social evolution, making them vital

instruments in shaping the national image. Particularly, against the strategic backdrop of China's transition toward "green development" and "ecological civilization," ecologically themed documentaries have become not only windows showcasing natural beauty but also essential channels for promoting green values and ecological philosophies. The international acclaim garnered by documentaries such as Beautiful China and A Bite of China reflects the effectiveness of this medium in telling Chinese stories and shaping national identity abroad.

The global dissemination of documentaries relies not only on the audiovisual content itself but also—critically—on the accurate and culturally adaptive rendering of subtitles. As a bridge between source-language and target-language audiences, subtitles must transmit not only language but also cultural information, narrative style, and ideological nuances. High-quality subtitle translation enhances the documentary's international reception and comprehension, and more importantly, deepens foreign audiences' understanding and appreciation of China's ecological civilization. Translation, therefore, goes beyond a linguistic function; it serves as a key tool for cultural mediation and value transmission—especially salient in ecological documentaries.

Although scholarly interest in subtitle translation has increased in recent years, most studies focus on literary, animated, or historical content, such as multilingual subtitle analysis of Dream of the Red Chamber or translations of animated films like Ne Zha, offering insights into cultural resonance and narrative representation [1]. However, research specifically targeting ecological documentaries—especially from a cross-cultural communication perspective—remains scarce [2]. Existing literature largely emphasizes subtitle condensation and information efficiency, with limited exploration into how ecological values are embedded and conveyed through subtitles in cross-cultural contexts [3]. It is thus essential to focus on nature-themed documentary corpora and examine how subtitles function as cultural mediators in cross-cultural communication.

Theoretically, this study adopts cross-cultural communication theory as its analytical framework, focusing on the encoding, decoding, and adaptation mechanisms between Chinese and English cultural contexts [4]. This theory underscores the profound impact of contextual and cultural backgrounds on language comprehension and communication effectiveness, making it highly applicable for analyzing meaning transfer in documentary subtitles across cultures. The study concentrates on three core issues: first, the stylistic differences between high-context and low-context cultures; second, how audience-oriented translation strategies enhance communicative effectiveness; and third, how cultural harmonization techniques—such as cultural simplification, annotation, and substitution—boost acceptance among target-language audiences. Guided by this theoretical lens, the study aims to uncover the cultural logic behind subtitle translation strategies and provide scholarly support for the international dissemination of ecological values.

This paper selects the BBC-iQIYI co-produced documentary Mills Explores Ecological China as its research subject and, from a cross-cultural communication perspective, conducts a detailed analysis of its culturally embedded subtitle translation strategies. Through case-specific analysis and systematic classification, the study explores how subtitles can effectively disseminate and reshape China's ecological civilization narrative without compromising semantic accuracy. The research ultimately aims to reveal the role of subtitle translation in constructing national image and transmitting ecological values, offering theoretical and practical guidance for China's ecological storytelling on the global stage.

2. Data sources and research methodology

2.1. Data sources

The subtitle corpus used in this study is derived from the bilingual Chinese-English version of the BBC documentary Mills Explores Ecological China, officially introduced and broadcast by the iQIYI platform. The subtitles provided by the platform are of high linguistic accuracy and temporal alignment quality, offering a reliable data foundation for subsequent analysis of translation strategies and cross-cultural communication. The study clearly specifies the source and scope of the subtitles cited to ensure rigor in both methodological standards and research ethics. This aligns with Bennett's view that rigorous intercultural communication studies must be grounded in clearly defined data sources and contextual specificity to ensure relevance and integrity [5].

2.2. Research methodology

This research adopts a primarily qualitative analytical approach, encompassing close textual reading and comparative translation analysis. Each episode of the documentary was examined line by line to identify and extract culturally loaded expressions—such as names of traditional plants, descriptions of human-nature relationships, and symbolic natural imagery—and these were then analyzed in detail alongside their translated counterparts. This micro-level, comparative method resonates with Sanatifar and Ayob's call for detailed exploration of lexical and cultural gaps in intercultural subtitling to improve translation precision and narrative continuity [6]. In the process, the study employs cross-cultural communication theory to classify and annotate the translation strategies used, including literal translation, free translation, omission, annotation, and substitution. These diversified strategies echo Lü's framework for translating culturally specific Chinese terms in mobile media, where translators must balance accuracy, brevity, and resonance under time and space constraints [7].

Particular attention is given to contextual adaptation and pragmatic modulation mechanisms, exploring the relationship between linguistic forms, underlying cultural intentions, and audience reception. As Chen suggests, subtitle translation should go beyond linguistic alignment to consider emotional calibration and communicative intent, especially in intercultural contexts where viewer cognition may vary significantly [8]. By analyzing how subtitles function in meaning reconstruction, emotional calibration, and viewer cognition from a cross-cultural perspective, the study seeks to reveal the adaptive pathways of subtitle translation within an ecological cultural context. Furthermore, the research summarizes emerging patterns and trends in the application of various translation strategies in practice, and their potential contributions to the construction of China's ecological image and the global dissemination of green narratives.

3. Case analysis

Table 1. Translation strategy for culturally loaded botanical terms in ecological contexts: a case of functional substitution

Case 1	Cultural Metaphor and Functional Substitution
Original Sentence	这是见血封喉树
English Translation	And here we've got Antiaris toxicaria.
Source Location	Episode 2 "Tropical Rainforest," approximately 02:50–03:10

In Mills Explores Ecological China, the translation of "见血封喉树" (literally "blood-sealing upon contact tree") illustrates how subtitle translation achieves effective semantic adaptation in cross-cultural communication. See Table 1 for a detailed overview of this case. The original Chinese term carries strong cultural and experiential significance. It is not merely a colloquial name for a toxic plant, but also a reflection of Southern Chinese folk knowledge, conveying deep respect and fear for its lethality. The phrase "见血封喉" is a hyperbolic and cautionary metaphor, suggesting that even minimal exposure or ingestion can be fatal. It encapsulates a symbolic and emotional response to the dangers of nature, functioning both descriptively and culturally as a linguistic crystallization of folk ecological awareness. As Wang argues, such metaphorical naming represents a cultural coding process that should ideally be preserved or re-contextualized in translation to retain its ethnographic value [9].

Instead of opting for a literal translation like "Blood-sealing tree," the English subtitle uses the scientific Latin name Antiaris toxicaria, a functional substitution that retains scientific accuracy while avoiding potential cultural dissonance or emotional discomfort. The metaphorical meaning embedded in the original term is not directly translated; instead, the documentary later reinforces the plant's toxicity through phrases like "it's lethal," indirectly conveying the intended semantic function. However, it is worth noting that while the toxicity is communicated, the cultural background, folk wisdom, and symbolic meaning carried by the term "见血封喉" are not fully preserved. In other words, the target-language audience receives a scientific classification rather than the layered cultural and emotional narrative embedded in the source language. This practice is consistent with Chen's findings that functional substitution can be effective in cross-cultural subtitle translation when scientific clarity is prioritized without losing contextual meaning [8].

This translation strategy represents a hybrid approach combining "domestication" with "explanatory foreignization." On the linguistic level, the term is internationalized for ease of comprehension by the target audience; simultaneously, supplemental explanations help retain the source culture's intent to warn about the plant's dangers. For English-speaking viewers, the use of the Latin term lends scientific credibility and avoids misinterpretations or emotional alienation due to unfamiliar metaphors. It helps establish a rational and trustworthy framework for understanding this "dangerous yet real" tropical ecological phenomenon.

From a cross-cultural communication perspective, this strategy achieves semantic reconstruction. The cultural metaphor in Chinese is transformed into a globally intelligible scientific label, enabling effective transfer from local experience to global knowledge. Although the cultural background of "见血封喉" is downplayed or rendered invisible, the translation reinforces the scientific aspect and communicative intent of the term. Ultimately, it constructs a dual image—blending ecological mystique with scientific credibility—which not only enhances the documentary's cultural

accessibility but also stimulates foreign audiences' interest in and recognition of China's tropical ecosystems.

Table 2. Semantic softening and narrative reconstruction in translating human–nature boundaries

Case 2	Cultural Implication in Human–Elephant Conflict
Original Sentence	这里正是野性与文明的交界处
English Translation	So, this is where wildlife meets humanity.
Source Location	Episode 1 "Beijing," approximately 01:40–02:10

In Mills Explores Ecological China, the semantic contrast between "wildness" and "civilization" presents a classic example of cross-cultural communication in subtitle translation. As Table 2 shows, the original Chinese sentence constructs a binary opposition between "wildness" and "civilization" through the term "交界" (boundary), explicitly depicting the geographic and cultural frontier formed during human expansion into natural territories. This expression carries symbolic weight and rhetorical tension, highlighting the potential conflict between human development and ecological preservation. However, as Sanatifar and Ayob point out, direct cultural oppositions may be problematic in international media as they risk activating unintended political or historical associations in the target culture [9].The English subtitle avoids this direct oppositional structure by translating "交界" into the more neutral "meets." This translation choice reveals a clear intent to soften the semantic tone and adapt culturally, steering away from terms like "confrontation" or "conflict" that might evoke negative emotional responses. This is in line with Yang's observation that domestication strategies—particularly semantic softening—help subtitles resonate with audiences by replacing tension with familiarity and optimism [10].

Such a translation decision significantly impacts target audience reception. In Western contexts, a dichotomy like "civilization vs. wilderness" may trigger associations with colonial history, exploitation of nature, and other sensitive issues. Without proper modulation, it could diminish viewer trust or emotional resonance with the documentary's narrative. The use of "meets" instead frames the scene as an encounter between humanity and nature, conveying values of coexistence and harmonious development. This aligns with contemporary environmental discourses that emphasize "living in harmony with nature," helping to reduce cultural friction and enhance communicative affinity.

From a cross-cultural communication perspective, this translation strategy reconstructs the cultural framework of human-nature relationships at the semantic level. The original phrase evokes a symbolically charged and conflict-oriented structure—portraying a geographical boundary that reflects the narrative mode of human dominance over nature. While this may resonate in Chinese contexts by emphasizing humanity's conquest and control of nature, a direct transposition into English could unintentionally evoke Western colonial and extractive paradigms. The English subtitle, however, neutralizes such implications by replacing "boundary" with "meets," thereby creating a semantic field of contact and integration. This lexical shift maintains the coexistence implied in the source while mitigating ethnocentric or anthropocentric overtones.

Consequently, the original "human vs. environment" opposition—where nature is the 'other'—is transformed into a "human–environment symbiosis" framework. This not only increases the translation's cross-cultural adaptability but also better aligns with the target audience's environmental expectations, which favor ecological symbiosis, cultural inclusivity, and human–nature harmony. Ultimately, this subtitle translation achieves a re-encoding of semantic units and a transformation of narrative structure. It preserves the core informational content while effectively

reconstructing the cultural meaning of human–environment relationships, enhancing both its global communicability and cultural inclusiveness.

Table 3. Translation of intergenerational knowledge transmission in ecological discourse: a case of cultural succession

Case 3	Expressing and Translating the Inheritance of Ecological Cultural Knowledge
Original Sentence	祖父传授给父母。 父母再传给我。 我是第三代传人。
English Translation	My grandfather taught my parents. Then my parents taught me. So I am the third generation.
Source Location	Episode 7 "Shangri-La," approximately 53:10–53:30

In Episode 7, the documentary presents a brief yet emotionally resonant dialogue to depict the generational transmission of herbal knowledge: "祖父传授给父母，父母再传给我，我是第三代传人." See Table 3 for a detailed example of this translation case. The original Chinese expression is compact and rich in meaning, not only outlining a temporal sequence but also emphasizing the cultural authority and identity inherent in being a "传人" (successor). The English translation adopts a parallel sentence structure: "My grandfather taught my parents. Then my parents taught me. So I am the third generation." Though concise, it clearly conveys the generational sequence and familial relations. Zhang emphasizes that representing intergenerational succession in subtitled documentaries is essential to building empathy and cultural authenticity in the eyes of foreign viewers [11]. The phrase "I am the third generation" explicitly conveys the identity embedded in "传人," serving both as a factual statement and a declaration of cultural succession. This translation strategy combines literal translation with supplementary explicitation, faithfully reconstructing the informational structure while reinforcing the sense of continuity in traditional knowledge. As Chen notes, cultural metaphors that lack clear equivalents should be unpacked through narrative restructuring rather than forced lexical equivalence, to retain cultural significance while promoting accessibility [8].

For international audiences, the concept of generational inheritance is crucial to understanding Chinese traditional medicine and indigenous ecological wisdom. A simplified version, such as "taught by parents" or "learned from my family," would flatten the hierarchical structure of the transmission, diminishing its cultural depth. In contrast, the current translation enumerates the three generational links, allowing viewers to intuitively perceive a cohesive "family–knowledge–culture" triad. This concrete and structured expression fosters emotional resonance and encourages respect for traditional ecological wisdom, while also enhancing accessibility.

From the perspective of cross-cultural semantic reconstruction, the Chinese term "传人" conveys strong clan-based imagery and cultural identity. However, its English counterparts like "heir" or "successor" are typically used in legal or familial inheritance contexts, and are rarely applied to the transmission of ecological knowledge. Thus, the translation deliberately avoids these culturally mismatched terms and instead uses plain language to describe the generational pathway. This strategy softens the "clan-centric" narrative and emphasizes a more "lifestyle-based" logic, transforming a culturally metaphorical expression into one that aligns with everyday storytelling in the target culture. Ultimately, it achieves a semantic shift from "cultural symbol" to "familial educational process," preserving the core meaning while enhancing the translation's adaptability and affinity in global communication.

4. Conclusion

This study takes the BBC documentary Mills Explores Ecological China as its research subject and, from the perspective of cross-cultural communication theory, systematically analyzes the subtitle translation strategies related to ecological culture. Through close textual reading and comparative analysis of representative subtitle cases—combined with contextual adaptation, audience reception, and cultural connotation transformation—this paper reveals the linguistic pathways and cultural mechanisms that enable effective dissemination of ecological documentaries in cross-cultural contexts.

The findings show that subtitle translations of ecological content frequently adopt a hybrid strategy combining "domestication" with "explanatory foreignization." For example, the Chinese term "见血封喉树" (lit. "blood-sealing tree") is translated as the Latin botanical name Antiaris toxicaria, supplemented with a phrase like "it's lethal." This not only preserves informational functionality but also avoids potential cultural misinterpretation. Such a shift from cultural metaphor to functional label facilitates the transition from local knowledge to global understanding, while enhancing the translation's scientific credibility. Similarly, expressions with cultural tension, such as "文明与野性交界" (the boundary between civilization and wildness), are rendered into more neutral terms like "meets" in English, effectively softening semantic intensity and constructing a narrative of coexistence. This demonstrates that subtitle translators are not merely converting language but are constantly navigating between cultural adaptation and communicative effectiveness, striving for cross-cultural compromise and semantic reconstruction.

The theoretical contribution of this research lies in its enrichment of cross-cultural communication theory within the context of ecological documentaries. It also supplements existing practical explorations of linguistic adaptation and meaning construction in nature-themed visual texts. On a practical level, the study highlights the dual role of subtitle translation as both a cultural intermediary and a strategic communication tool. This is especially important in constructing the image of a "Green China" and advancing the international dissemination of China's ecological civilization values. Subtitle translation of ecological documentaries not only facilitates cross-linguistic communication but also serves as a key link in the global transmission of ecological values. Future research may further expand the types of corpus and media platforms analyzed, exploring the linguistic adaptation mechanisms and audience reception pathways of ecological communication in the new media context.

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