

Generative AI in C-E Translation of *The Roots of Wisdom*: A Comparative Study with Human Translations

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Abstract

Generative AI offers a new approach to the cross-cultural translation of Chinese classical philosophical texts, yet its performance in English translation of aphoristic works integrating Confucian, Buddhist and Taoist connotations with poetic and philosophical features demands targeted examination. Taking *The Roots of Wisdom* as the research subject, this study constructs a three-dimensional evaluation framework of fidelity, readability and aesthetic quality. With the generative AI Doubao as the core object and the classic English translations by Zhou Wenbiao and Paul White as references, it systematically analyzes Doubao's C-E translation performance from three dimensions: cultural element transformation and interpretation, linguistic style and expression, and cultural value transmission, with theoretical interpretation based on literary translation's defamiliarization theory and cultural translation perspective. The findings reveal that Doubao's translations have good readability with standardized grammar and natural English expression, but they suffer from simplified cultural images and comprehension deviations in translation. Restricted by the algorithm's routinization logic, it fails to restore the original's concise classical charm, weakening literariness. Moreover, it cannot deeply convey the core Confucian, Buddhist and Taoist philosophies like human translators, leading to superficial cultural connotation transmission. This study holds that Doubao can act as an efficient auxiliary translation tool for classical philosophical texts, but its translations require targeted human revision in cultural connotation, linguistic style and value transmission for cross-cultural communication. This study further provides case references and optimization ideas for the practical application and quality improvement of generative AI in C-E translation of classical literary texts.

Keywords

Generative AI; Doubao; *The Roots of Wisdom*; English translation; Quality evaluation; Classical philosophical texts.

1. Introduction

Generative AI translation is widely applied in the translation field for its high efficiency. Though it can produce fluent translations in literary translation, it hardly captures the defamiliarized features of literary language due to the algorithm's routinized processing logic, thus systematically diluting the literariness of the source text. Existing studies mostly focus on genres such as novels and poems, leaving a research gap in the AI translation evaluation of Chinese classical philosophical texts.

Chinese classical philosophical texts are the core carriers of fine traditional Chinese culture, and their English translation is an important approach to cross-cultural communication and cultural exchanges and mutual learning. As an aphoristic classic integrating the thoughts of Confucianism, Buddhism and Taoism, *The Roots of Wisdom* is more than a simple linguistic

conversion in its English translation. It is also an overseas transmission of traditional Chinese life wisdom and values, boasting significant cross-cultural communication value.

However, the English translation of *The Roots of Wisdom* faces multiple inherent difficulties. The book abounds in culture-loaded words and unique cultural images of Confucianism, Buddhism and Taoism with profound connotations. As an aphoristic text, The book is concise and comprehensive, combining poetic and philosophical characteristics, and its values differ from those in the Western cultural context. Meanwhile, existing studies on the English translations of the book mostly center on the classic versions by Zhou Wenbiao and Paul White, exploring the differences between translations from the perspectives of translator's subjectivity, culture-loaded words or translation strategies, with no comparative analysis combined with generative AI.

2. Research Significance

As a classical philosophical classic integrating the thoughts of Confucianism, Buddhism and Taoism, *The Roots of Wisdom* makes its English translation an important practice for the cross-cultural communication of fine traditional Chinese culture. By systematically analyzing Doubao's translation performance in three aspects, namely the transformation of cultural elements, the expression of linguistic style and the transmission of cultural values, this study clarifies the advantages and core problems of Generative AI in the English translation of *The Roots of Wisdom*. It thus provides specific and targeted optimization directions for the human revision of AI-assisted English translation of this book and similar Chinese classics. Meanwhile, the research conclusions can serve as a reference for translators to conduct English translation practice of classical philosophical texts with the help of Generative AI.

2.1. Theoretical Support and Basic Design

The study is based on the research findings of Wang Dongfeng (2025). His core argument is that literariness stems from the defamiliarized expressions of literary language. However, the algorithmic logic of generative AI is inherently characterized by routinization and probabilization. It will standardize the unconventional expressions of the source text, thus diluting the poetic tension and literariness of the text. This theory serves as the core basis for evaluating the aestheticism of Doubao's translations, and provides theoretical support for analyzing its limitations in translating the poetic language of *The Roots of Wisdom*. Meanwhile, based on Bassnett's cultural translation perspective, this study emphasizes that the essence of translation is cultural transmission rather than mere linguistic conversion. This theory provides a theoretical framework for analyzing the transformation of cultural elements and the transmission of values in Doubao's translations.

The three-dimensional quality evaluation framework of fidelity, readability and aestheticism constructed in this study features distinct core connotations and specific evaluation directions for each dimension. And the core of fidelity is the accurate transmission of the integrated cultural connotations of Confucianism, Buddhism and Taoism, the core philosophical meanings and syntactic logic in *The Roots of Wisdom*. The evaluation is carried out specifically from the aspects of semantic restoration of cultural images and culture-loaded words, expression of core philosophical connotations, consistency of syntactic and logical relations, and accurate transmission of cultural values. And then the key of readability is that the translated text conforms to English expression habits and adapts to the cognitive level of target readers. The consideration is specifically centered on the stylistic adaptability of vocabulary, grammatical fluency of sentences, transmission efficiency of core information, and adherence to the expression paradigm of English philosophical texts. The fundamental of aestheticism is the restoration of the classical charm, concise poetic quality and beauty of metrical parallelism embodied in the source text. The judgment is made specifically from the aspects of preserving

the conciseness and poetic expression of the source text, matching the syntactic parallelism and linguistic rhythm, reproducing the aesthetic beauty of cultural images, and conforming to the textual feature of artistic appeal to both the refined and the popular in *The Roots of Wisdom*.

The three dimensions have a close internal connection. Fidelity is the foundation and essence of the English translation of *The Roots of Wisdom*; translations lacking fidelity lose the core value of translating classical philosophical texts. Readability is an essential prerequisite for the cross-cultural communication of *The Roots of Wisdom*; and only translations that conform to the expression habits of the target language and the cognitive level of readers can realize the effective transmission of culture and philosophy. Aestheticism is the core of highlighting the literary value of *The Roots of Wisdom* as a classical philosophical text, and the key that distinguishes it from the translation of ordinary practical texts. The three dimensions are interdependent, organically unified and indispensable, jointly forming a complete evaluation system for the quality of AI-based English translation of *The Roots of Wisdom* and other classical philosophical texts.

2.2. Research Design

This study is supported by Bassnett's cultural translation perspective (1980), focusing on the cross-cultural transmission and expressive effects of the English translation of *The Roots of Wisdom*. Typical sentences from the book are selected as research samples, and an empirical analysis is conducted with the AI English translations by Doubao, the English translations by Zhou Wenbiao and Paul White as the comparative objects. Considering the coherence and practicality of the research, it explores the translation strategy choices and expressive differences of different subjects in the English translation of classical philosophical texts.

The research objects are divided into two categories: source texts and translated texts. The source texts are typical sentences from *The Roots of Wisdom* that cover culture-loaded words, classic philosophical sentences and poetic expressions, including those with Chinese cultural images, classical allusions and core value expressions, which accurately reflect the cultural connotations and linguistic features of the text. The translated texts include the two classic human translations by Zhou Wenbiao and Paul White, as well as the Doubao AI translations generated in accordance with the standardized instruction of "being faithful to the connotation and style of the source text and conforming to English expression habits", thus forming diverse comparative dimensions between human translation and AI translation.

The research is carried out from three core dimensions: transformation and interpretation of cultural elements, linguistic style and expression methods, and expression and transmission of cultural values. Evaluation indicators are set in combination with translation theories to analyze the types of translation strategies, the reproduction effects of linguistic forms and the cross-cultural transmission validity of cultural values of each translation.

Taking the case comparative analysis method as the core and the qualitative research method as the supplement, this study conducts a horizontal comparison of the selected sentences one by one to sort out the specific differences in translation treatment among the three translations. Meanwhile, it makes an in-depth qualitative interpretation of the comparison results based on core translation theories, analyzes the differences in translation logic between human translations and AI translations, and finally completes a comprehensive quality evaluation of each translation. This provides practical references for the English translation practice of Chinese classical philosophical texts and the optimization of AI translation.

3. Comparative Case Analysis of Doubao and Human Translations

3.1. Transformation and Interpretation of Cultural Elements

Example 1

不可多言，但可寡言。

Zhou: It is better to say less than more.

from the perspective of : One should not speak much, but can speak sparingly.

Doubao: Speak not excessively, but speak sparingly.

For Fidelity, Zhou's translation restores the core philosophy of "speaking less is preferable" with an ultra-concise structure. It weakens the original imperative structure but has no semantic deviation. Paul's translation accurately aligns with the syntactic logic of "不可...但可...", with "much" and "sparingly" corresponding well to the original lexical meanings, achieving a balance between semantics and form. Doubao's translation uses "excessively" to define the derogatory connotation of "多言" accurately yet sounds somewhat contrived. Its inverted structure fits the classical register but slightly departs from the plain hortatory context of the original.

Regarding Readability, Zhou's translation is the most accessible, conforming to the expressive norms of everyday philosophical discourse in English. Paul's translation flows naturally and is suitable for most readers. The overly formal written style of the inverted structure in Doubao's translation raises the comprehension barrier for novice readers.

With regard to Aesthetic quality, Zhou's concise rendition captures the original's compactness, and Paul's symmetrical structure fits the book's characteristic of appealing to both the refined and the popular—both embody human translators' subjective grasp of the original's aesthetic features. Doubao reveals a labeled algorithmic understanding of literariness: it identifies the sentence as a maxim and forcibly adopts archaic structures to create elegance, which ends up unnatural and rigid, lacking contextualized aesthetic judgment.

Example 2

青鸟非世之中禽，白驹非世之中马。

Zhou: A bluebird is not an ordinary bird, a white horse is not an ordinary horse.

from the perspective of : The blue bird is not a worldly fowl, the white horse is not a worldly horse.

Doubao: The blue bird is no ordinary bird of this world; the white steed is no mundane horse of mortal life.

With regard to fidelity, Zhou's translation retains the core cultural images directly. Interpreting "世之中" as "ordinary" is somewhat superficial, yet it aligns with the concise expressive logic of the original sentence. Paul's translation uses "worldly" to accurately interpret the secular connotation of "世之中", and "fowl" fits the classical Chinese linguistic tone of the original, achieving double fidelity to both cultural images and deep semantic meanings. Doubao's translation employs "steed" to restore the original meaning of "驹" and "mortal life" to emphasize the secular connotation. It is precise in details but over-modified, deviating from the minimalist poetic expression of the original.

From the perspective of Readability, Zhou's direct expression and Paul's philosophy-adapted vocabulary both ensure smooth information acquisition, reflecting human translators' control of core information transmission. Doubao's redundant overlapping modifiers cause information interference, a result of the algorithm's mechanical detail supplementation that ignores the principle of concise expression. And from the perspective of aesthetic quality, Zhou's symmetrical conciseness and Paul's natural parallelism both preserve the original's elegant poetic flavor and ethereal beauty from color contrast, embodying human translators' subjective grasp of the text's aesthetic features. Doubao's lengthy sentences weaken the original rhythm and lose its unique aesthetic feeling, for the AI lacks perception of

poetic expression in classical texts and only expands details mechanically, disregarding the original's formal and aesthetic rhythm.

Example 3

兴不可一日而告之，废不可一日而告之。

Zhou: One's interest cannot be explained in one day, one's disinterest cannot be explained in one day.

from the perspective of : Interest cannot be proclaimed in a single day, weariness cannot be proclaimed in a single day.

Doubao: The rise of a thing cannot be announced in a single day; nor can its decline be declared in one day.

From the perspective of fidelity,Zhou's and Paul's translations both mistranslate "兴废", which denotes the rise and decline of things, as personal emotions, resulting in core semantic deviations—these are subjective omissions in human translation. Doubao's translation accurately renders "兴废" as "rise" and "decline", clearly defining the semantic subject as things with no core deviations, a reflection of the AI's algorithmic advantage based on its corpus. Yet the words "announced" and "declared" used for "告之" sound somewhat stiff. And from the perspective of readability,Zhou's and Paul's translations are plain in expression. Doubao's translation involves no such deviations yet adopts relatively formal vocabulary, leading to moderate readability. At last, for aesthetic Merit,While Zhou's and Paul's translations achieve syntactic parallelism, they lose the philosophical aesthetic value of the original because of semantic deviations. Doubao's translation features well-structured parallelism and conveys the speculative nature of the gradual rise and decline of things, yet its rigid word choice robs the translation of the implicit beauty inherent in the original's dialectical expression. This case shows that Doubao performed well in corpus-based semantic accuracy due to its algorithmic logic but is limited by rigid word selection and insufficient perception of implicit literary aesthetic meaning.

3.2. Linguistic Style and Expressive Modes

Example 4

一言不合，只好弃笔杆

Zhou: When words fail, one can only abandon the pen.

from the perspective of : When words fail, you can only sign.

Doubao: When a single disagreement in speech arises, one must lay down the writing brush.

Academic English Version In terms of fidelity, Zhou's translation concisely conveys the core meaning of 一言不合 as when words fail and preserves the literati imagery of 弃笔杆 with abandon the pen, matching both the semantic meaning and cultural connotation precisely. Paul's rendering of 弃笔杆 as sign deviates from the original implication that the literati renounce writing due to conflicting ideals. Doubao's literal versions — "a single disagreement in speech" and "lay down the writing brush"— remain faithful to the original meaning and imagery but are overly rigid, failing to integrate naturally into context. For readability, Zhou's concise structure best conforms to the expression norms of English philosophical texts, achieving the highest readability. Paul's version is simple and free in phrasing. By contrast, Doubao's literal translation contains redundant modifiers, resulting in slightly lengthy structures and moderate readability. Regarding aesthetic value, Zhou's succinct rendition captures the resolute yet restrained tone of the original literati style. Paul's translation carries the colour of Western contractual culture, conveying a decisive and pragmatic tone that diverges from the literati's reluctant resignation. Doubao's literal rendering is stiff. Its word-to-

word correspondence reveals inadequate understanding of communicative logic and literary coherence, thus losing the original fluency and artistic conception.

Example 5

人生自古谁无死，留取丹青照汗青。

Zhou: Since ancient times, no one has been spared death; let your valiant heart leave an imprint on history.

from the perspective of : Death spares no one, neither the valiant nor the cowardly; let your courage leave its mark on history.

Doubao: Since ancient times, who among mortals has escaped death? Let me preserve a pure name in the annals of history.

In terms of fidelity, Zhou adopts core-idea transference and cultural imagery substitution, abandoning the original imagery but accurately conveying the spirit of heroic sacrifice and eternal glory. Paul interprets the text with in-depth philosophical enrichment, emphasizing the equality of death and specifying the connotation of "丹青" as courage to form a philosophical argumentation. Doubao makes inappropriate imagery choices: its rendering of "丹青" as "pure name" excessively narrows and moralizes the original connotation, weakening the heroic momentum due to a failure to grasp the deep cultural implication of the imagery.

With regard to readability, Zhou's coherent and compact translation fits the style of classical philosophical texts, achieving the highest readability. Paul's version is naturally expressed with no interference to core meaning comprehension. Doubao's translation has moderate readability, with its rhetorical question and the phrase annals of history being overly formal yet generally fluent.

Regarding "aesthetic value", Zhou captures the original parallel momentum and retains the concise beauty of classical philosophy. Paul's version is relatively plain but still possesses natural linguistic rhythm. Doubao's translation shifts to an introspective and morally rigid tone. It mechanically associates "丹青" and "留取" with the stereotyped idea of "leaving a pure name in history", revealing that AI tends to rely on statistical collocations rather than deep contextual comprehension in processing cultural imagery, resulting in an aesthetic shift from heroism to restraint.

This case illustrates that human translators can flexibly interpret and convey cultural imagery and aesthetic temperament based on context, while AI is limited by statistical collocation logic, resulting in inappropriate imagery selection and aesthetic misalignment in translating culturally-loaded heroic philosophical lines.

Example 6

天之将降大任于斯人也，必先苦其心志，劳其筋骨，饿其体肤，空乏其身，行拂乱其所为，所以动心忍性，增益其所不能。

Zhou: When Heaven is about to bestow a great responsibility upon someone, it must first test his heart and will, toil his muscles and bones, starve his skin and flesh, impoverish his body, disturb his actions, so as to move his heart, toughen his nature, and augment his abilities.

from the perspective of : When Heaven is about to place a great burden on someone, it first tests his resolve, wears down his sinews and bones, exposes him to hunger, subjects him to poverty, causes him to be in chaos, so as to stir up his spirit, toughen his nature, and improve his abilities.

Doubao: When Heaven is about to place a great responsibility on a person, it first tempers his will and resolve, toils his bones and sinews, starves his flesh and skin, deprives him of sustenance, and frustrates his every action. In this way, it stirs his heart, strengthens his resolve, and enhances his abilities beyond his previous limits.

On the dimension of fidelity, Zhou's translation adopts accurate literal translation, fully restores the original imagery and core meaning, and achieves the highest fidelity. Paul's translation uses simplified free translation, resulting in the loss of original information. Doubao's translation accurately corresponds to the core meaning and imagery of the original, but has redundant expansion. On the dimension of readability, Zhou's translation has a neat and fluent sentence structure; Paul's translation is extremely concise and plain, with the best readability; Doubao's translation is grammatically standard but has redundant sentence structure, with moderate readability. On the dimension of aesthetics, Zhou's translation retains the classical philosophical charm and sense of rhythm of the original; Paul's translation is plain and straightforward, lacking literariness; Doubao's translation has rigid and mechanical aesthetic expression. In summary, Doubao has no essential deviation in fidelity but has algorithmic redundancy; in readability, it can ensure fluent sentences but is less smooth than human translations; in aesthetics, it lacks in-depth grasp of the charm of classical literature. This also confirms that the translation performance of generative AI in classical philosophical literary texts such as *The Roots of Wisdom* is far inferior to that of human translations. Compared with its excellent performance in scientific and technological texts, restricted by algorithmic normalization and stereotyped logic, generative AI is difficult to balance the three dimensions in literary text translation and performs poorly.

3.3. Expression and Transmission of Cultural Values

Example 7

不入虎穴，焉得虎子。

Zhou: One cannot catch a tiger's cub without entering the tiger's lair.

from the perspective of : You can't take tiger cubs without entering the tiger's lair.

Doubao: How can one catch a tiger cub without entering the tiger's lair ?

Academic English Version from the perspective of "fidelity", Zhou's translation is highly faithful to the original structure and metaphors. It renders "虎穴" literally as "tiger's lair" and "虎子" as "tiger's cub", and accurately conveys the logic of "不入...焉得..." with "cannot...without...". Paul's translation carries the same core meaning, but uses "take" instead of "catch" for a more direct action. Doubao reconstructs the original with a rhetorical question. Although semantically similar, it alters the declarative tone and weakens the emphasis on necessity. For "readability", both Zhou's and Paul's versions use clear and straightforward language. The rhetorical question in Doubao's translation increases interactivity but compromises the conciseness of the proverb. Regarding "aesthetic value", Zhou's translation preserves the proverb's symmetry but has weak literary embellishment. Paul's version is concise yet lacks literary quality. Doubao's varied sentence structure adds a literary flavour, but differs slightly from the original classical style. In conclusion, human translators can adhere to the expression norms of proverbs to balance fidelity and stylistic fit, while AI's mechanical adjustment of sentence form leads to stylistic deviation despite basic semantic accuracy.

Example 8

国泰民安，家和万事兴。

Zhou: A nation is prosperous when its people are industrious; a family is harmonious when its members are respectful.

from the perspective of : A country is prosperous when its people work hard; a family is harmonious when its members respect each other.

Doubao: When the nation is prosperous and at peace, its people live in security; when a family is harmonious, all affairs thrive.

In terms of fidelity, Zhou's translation adopts a free rendering of "国泰民安", laying emphasis on "people's diligence" and thus deviating from the original meaning of "national stability". It also fails to fully convey the causal link between 家和 and 万事兴. Paul's version is similar, reinterpreting 国泰民安 as "people working hard for prosperity". Doubao's translation stays closer to the original. It renders 国泰民安 literally as "nation prosperous and at peace" and "people live in security", and clearly expresses the causal relation in the second half.

For readability, both Zhou's and Paul's versions feature a neat structure with coordinate clauses linked by semicolons, making them smooth and easy to follow. Doubao's translation employs a slightly longer and more complex sentence, yet its logical relations remain clear. Concerning aesthetic value, Zhou's version is well-structured in parallelism and has a distinctive stylistic flavour. Paul's translation is comparatively lacking in literary decoration. Doubao's choice of words is formal and endowed with stronger literary written style. Finally, human translators may make free interpretive adaptations that deviate from the original semantic connotation, while AI excels in literal fidelity to the original meaning and logical relations, with more formal wording that brings a stronger literary stylistic feature despite slightly complex sentence structures.

Example 9

人者，德之所存也。

Zhou: What is a person? One's personality is the only thing that can be called one's own.

from the perspective of : What is a man? His character is the only thing he possesses.

Doubao: Man is the vessel in which virtue resides.

With regard to "fidelity", Zhou's translation of "德" (virtue) as "personality" slightly deviates from its core philosophical meaning of morality or virtue. Similar to Zhou's version, "character" in Paul's translation leans more towards "disposition" rather than "moral virtue".

For "readability", Zhou adopts a question-and-answer structure, which conforms to English aphoristic expressions and is easy to understand. Paul's version has a similar structure to Zhou's, with concise words and strong readability. Doubao's translation uses metaphorical expressions of "vessel" and "resides", which may be slightly abstract for readers unfamiliar with philosophical discourse, but its sentence structure is clear, with good overall readability and deeper ideological connotation.

Regarding "aesthetic value", Zhou's version has a philosophical sentence structure but involves significant semantic transformation. Paul's version is concise in language but lacks literary depth. Doubao's translation uses elegant words and matches the imagery of "vessel" and "resides", creating a classical, elegant and contemplative philosophical poetic feeling that perfectly fits the textual style of *The Roots of Wisdom*.

4. Quality Problems and Causes of Doubao's English Translation of The Roots of Wisdom

Based on the quality assessment of Doubao's English translation of "The Roots of Wisdom", its versions are grammatically standard, fluent and readable, and conform to ordinary English usage. Supported by corpora, it can accurately identify part of the semantic content. However, Doubao has obvious quality problems in three core areas: the transformation of cultural elements, the reproduction of linguistic style, and the transmission of cultural values. These problems are closely linked to the inherent algorithmic logic of generative AI, the lack of translator subjectivity, and the stereotyped understanding of literariness. Specific analyses are provided below.

4.1. Major Quality Problems

Major Quality Problems Doubao's English translation of *The Roots of Wisdom* displays prominent problems in "fidelity" and "aesthetic quality". Its core limitation is that it cannot balance the deep cultural connotations and poetic expression of this classical philosophical text. In the conversion of cultural elements, it shows a contradictory pattern of "oversimplification and over-embellishment", with weak contextual adaptation. Its handling of the original cultural images is "polarized": it either fails to represent the images properly, or pursues overly literal details and becomes redundant. For example, the translation of the line about "blue bird and white steed" uses too many modifiers. This weakens the ethereal beauty of the color contrast and breaks the rhythmic brevity of the original. Moreover, Doubao misinterprets the stylistic context. After identifying the text as aphoristic, it mechanically uses archaic and inverted structures to pursue an elegant tone. This conflicts with the plain, didactic mood of some original sentences and raises difficulties for ordinary readers. From the perspective of linguistic style, Doubao relies on "rigid literal translation" and fails to reproduce the classical conciseness and literariness of the source text. It overemphasizes word-to-word correspondence while ignoring natural communicative logic and the coherence of literary imagery. Restricted by conventional algorithms, it often lengthens short sentences or uses stiff formal words, thus losing the succinct, aphoristic quality of the original. In the transmission of cultural values, the translation tends to "shallow interpretation", conveying insufficient philosophical depth and emotional weight. Generative AI lacks a profound understanding of Confucian, Buddhist and Taoist ideas. Unlike human translators, it cannot achieve deep interpretation of cultural values through subjective engagement. It remains at the level of literal transfer, failing to communicate the underlying wisdom and speculative spirit. Although it occasionally captures the logical and thematic meaning correctly, many versions lack the philosophical temperament of the original.

4.2. Analysis of the Causes

The translation problems of Doubao are not merely caused by improper translation strategies. They stem from the contradiction between the inherent algorithmic logic and technical features of generative AI, and the unique nature of "The Roots of Wisdom" as a classical philosophical text. Based on the "defamiliarization theory" of literary translation and cultural translation perspective, the core causes can be summarized as follows. First, the normalized and probabilistic logic of algorithms conflicts with the characteristics of literary language. According to Wang Dongfeng, literariness originates from the "defamiliarized" expressions in literary language. However, generative AI tends to standardize the unconventional and concise expressions of the original text. As an aphoristic work, "The Roots of Wisdom" creates poetic tension through brief and defamiliarized language. Doubao's algorithm instinctively expands or regularizes such expressions, which makes the translation lose concise classical charm and weakens the literariness and poetic style of the original. This is the key technical reason for its insufficient aesthetic quality. Second, generative AI lacks the "translator's subjectivity" of human translators and cannot realize in-depth cultural transmission. Bassnett's cultural translation perspective emphasizes that translation is essentially cultural transmission rather than simple linguistic transformation. Human translators can flexibly adjust strategies based on their understanding of Confucianism, Buddhism and Taoism, balancing accuracy and cultural connotation. As an AI, Doubao has no subjective cultural understanding or strategic choice. It only matches meanings through corpora, failing to interpret the integrated cultural connotations in "The Roots of Wisdom". This leads to shallow transmission of cultural values, as well as over-embellishment or misinterpretation of cultural images. Finally, Doubao holds a "stereotyped and mechanical understanding of literariness", without contextualized aesthetic judgment. Its understanding of the literary style of "The Roots of Wisdom" remains formulaic.

When recognizing the text as aphorisms or philosophical sentences, it mechanically uses archaic, parallel and formal expressions to create an elegant tone, instead of adapting to the specific context of the original, such as plain admonition, quiet elegance or heroic resolve.

5. Main Conclusions of the study

This study takes *The Roots of Wisdom*, a classical philosophical aphorism text integrating Confucianism, Buddhism and Taoism, as the research object. Based on the application of generative AI translation in classical literature, it establishes a three-dimensional quality evaluation framework of fidelity, readability and aesthetics.

Taking Doubao's translations as the core research subject and the classic human translations by Zhou Wenbiao and Paul White as references, this study conducts a systematic comparative analysis from three core dimensions: cultural element transformation and interpretation, linguistic style and expression, and cultural value transmission and expression. Supported by the defamiliarization theory of literary translation and Bassnett's (1980) cultural translation perspective, it explains Doubao's translation logic, performance features and key problems in the C-E translation of *The Roots of Wisdom*, aiming to provide practical case references and optimization suggestions for generative AI-aided English translation of classical philosophical texts.

The study finds that the advantages and disadvantages of AI translation tools represented by Doubao are rooted in the same technical logic. At the micro level, it exhibits strong language processing ability, producing grammatically standard and fluent translations in line with the conventional expressions of the target language, and partially meeting the basic requirements of faithfulness and expressiveness. However, at the macro level, the limitations of AI translation are fully exposed when dealing with texts like *The Roots of Wisdom* that integrate high-context culture, poetic language and profound philosophical thoughts. Its core quality problems are as follows: it falls into the polarized dilemma of simplification and over-embellishment in cultural element transformation, with insufficient contextual adaptation; in linguistic style reproduction, rigid literal correspondence and algorithmic normalization seriously weaken the concise, parallel classical charm and literary beauty of the original text; in cultural value transmission, it only stays at the level of literal semantic transformation, failing to deeply interpret the life wisdom and speculative connotation integrating Confucian, Buddhist and Taoist thoughts, resulting in superficial translated texts.

In the English translation of classical philosophical texts such as *The Roots of Wisdom*, generative AI Doubao cannot replace the core position of human translation, but can serve as an efficient auxiliary tool. Its translations can complete basic language conversion and save a great deal of translation time for translators. Nevertheless, due to various problems in cultural connotation transmission, linguistic style reproduction and value expression, Doubao's translations must be revised and optimized by humans in a targeted manner to meet the requirements of fidelity and aesthetic quality in the English translation of classical philosophical texts, and truly achieve the goal of cross-cultural communication of traditional Chinese culture.

Finally, this study has certain research limitations, which point out directions for future research. First, this study mainly adopts qualitative analysis, with insufficient quantitative analysis of the three-dimensional evaluation framework, and fails to construct quantifiable translation quality assessment indicators for generative AI in the translation of classical philosophical texts. Second, this study only takes Doubao as the research object of generative AI, without conducting comparative analysis with other mainstream generative AI translation models, thus failing to reveal the performance differences of different generative AI models in the English translation of classical philosophical texts.

References

- [1] Wang, D. F. (2025). Literary translation in the AI era. *Computer-Assisted Foreign Language Education*, 06(2025):3-11+101. doi:10.20139/j.issn.1001-5795.20250601.
- [2] Bassnett, S. (1980). *Translation studies* (3rd ed.). Routledge.
- [3] Zhao, M. (2025). The role of machine translation in literary translation in the AI era: A review of Research on Translation Technology in the Age of Artificial Intelligence. *Journal of Jiangsu University (Social Science Edition)*, 27.02(2025):2.
- [4] Zhou, W. B. (2009). *The Roots of Wisdom: Cai Gen Tan* (English trans.). Foreign Language Teaching and Research Press.
- [5] White, P. (1991). *Cai Gen Tan: Discourses of the Roots of Wisdom* (English trans.). Penguin Classics.
- [6] Zhao, C. Y., & Li, S. (2025). A study on the reception effect of generative AI-driven English translation of Chinese classical novels. *Foreign Language Teaching and Research*, 57.04(2025):596-608. doi:10.19923/j.cnki.fltr.2025.04.004.
- [7] Liu, L., & Fu, L. L. (2025). A study on rhetorical recognition and translation quality of generative artificial intelligence. *Journal of Educational Linguistics Research*, 00(2025):269-279.