

Would Longer Sentences Lead to More Faithful Translation? Effects of Linguistic Features on Metafunctional Translation Equivalence in Chinese Classics

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Abstract—Systemic functional linguistics offers translation studies with a metafunctional view, but research on metafunctional translation equivalence remains limited. This study quantifies translation equivalence through a metafunctional framework, focusing on the impact of linguistic features on the translation of Chinese classics. Using the metafunctional equivalent-shift cline as a tool for measurement, this study examines how sentence length, antithesis, and subject ellipsis impact translation equivalence, based on the *Bairenbaiyi* corpus. The results reveal that translations generally maintain equivalence across the three metafunctions—ideational, interpersonal, and textual—with interpersonal function exhibiting the highest degree of equivalence. Longer sentences correlate with stronger equivalence, while antithesis and subject ellipsis negatively affect equivalence. These findings underscore the critical role of linguistic features of the source text for achieving translation equivalence, supporting Matthiessen's assertion that translation involves decision-making that requires compromises across the metafunctional spectrum.

Index Terms—translation equivalence, systemic functional linguistics (SFL), metafunction, Chinese classics

I. INTRODUCTION

Equivalence is a central goal in translation. Nida's (2004) theory of dynamic equivalence conceptualizes translation equivalence across four dimensions: lexical, syntactic, textual, and stylistic. Through his study of the Bible, Nida argued that translators should prioritize these aspects to faithfully reproduce the cultural connotations of the source language in the target language. While this theory has both theoretical and practical significance, it has also faced critiques. Theoretical objections include its reliance on Indo-European linguistic structures, which limit its applicability to translations involving non-Western cultures (Sun, 1997). Additionally, dynamic equivalence claims to apply universally across all text types, which has been shown to be a limitation (Zhu, 2004). On a practical level, critics have highlighted the challenges in measuring reader responses (Qian, 1988) and the challenges of achieving comprehensive equivalence (Al-Kenani & Banda, 2018).

The theory of metafunctional translation equivalence, grounded in Systemic Functional Linguistics (SFL), offers an alternative framework that defines translation equivalence through metafunctional choices. Pioneered by Halliday (2001), SFL conceptualizes translation as the re-creation of meaning in context through choices made by translators, with meaning construed through three metafunctions: ideational, interpersonal, and textual. This theory emphasizes the cross-cultural adaptability and applicability of translation (Huang & Chen, 2014; Hu et al., 2017, p. 3; Liu & Li, 2022). Matthiessen (2014) expanded the practical application of SFL in translation, proposing that equivalence and shift in translation are inherently linked to equivalence and shift in metafunctions. He introduced the concept of the cline from "translation equivalence" to "translation shift" (Matthiessen, 2014, p. 280) and developed a methodology for analyzing these shifts in terms of metafunctions. However, many empirical questions, such as the effects of translators' choices within metafunctions and common features for metafunctional shifts, still need to be addressed through extensive research (Matthiessen, 2018). Thus, this study aims to investigate the equivalence-shift cline in translation via

metafunctions to enhance the fidelity of translated classical texts, focusing on the factors that impact the equivalence between the source text (ST) and the target text (TT).

The degree of translation equivalence is largely determined by the genre of the source text (Kulchytskyi et al., 2018). Non-literary texts are often considered more straightforward to translate, while poetry is frequently deemed untranslatable, as Robert Frost (1995, p. 896) stated, 'Poetry is what gets lost in translation'. Since genres are realized through specific linguistic features (Hohl & Quassdorf, 2010), these features consequently influence translation equivalence to a great extent. Although such influences have been studied across several languages (Pallavi & Mojibur, 2018; Pang & Wang, 2018; Ryu et al., 2023), certain genre-specific features in ancient Chinese texts, such as sentence length (Huang & Shi, 2022), the frequent use of antithesis (Zhang, 2021) and subject ellipsis (Huang & Wang, 2013), remain underexplored. This gap raises the question: would longer sentences, or specific manifestations of other linguistic features, lead to more faithful translation?

This study therefore focuses on sentence length as a fundamental linguistic feature, along with antithesis and subject ellipsis, to examine the effects of linguistic features on equivalence and shift of metafunctions in translating Chinese classical texts into English. Drawing on a parallel Chinese-English bilingual corpus of classical text translations, this research seeks to address the following questions:

1. To what extent do translations in the classical text translation corpus exhibit tendencies toward metafunctional translation equivalence?
2. What is the effect of sentence length on metafunctional translation equivalence?
3. What is the effect of antithesis on metafunctional translation equivalence?
4. What is the effect of subject ellipsis on metafunctional translation equivalence?

II. METAFUNCTIONAL TRANSLATION EQUIVALENCE

A. Translation From a Metafunctional Perspective

Matthiessen (2014) views translation as the re-creation of meaning in context through choices, both in the interpretation of the original text and the choice in the creation of the translated text. The term "choice" in this context refers to the selection made by translators among various meaning potentials—the range of meanings that can be expressed by language users through certain expressions, in both the source language and target language.

Systemic Functional Linguistics (SFL) suggests that such meaning can be analyzed through three metafunctions: ideational, interpersonal, and textual. These functions are realized through distinct systems and structures (Halliday & Matthiessen, 2013, p. 30).

The ideational function within SFL consists of experiential and logical functions. The experiential function involves the linguistic expression of various experiences in individuals' physical and mental worlds, whereas the logical function interprets the relationships between two or more units of meaning. The experiential function categorizes human behavior into six process types: material, mental, relational, behavioral, verbal, and existential processes. Each process is carried out by Participants and may be linked to specific Circumstances. The interpersonal function refers to the language's capacity to express the identity, status, motivations, and attitudes of the author or speaker. It also conveys inferences and evaluations about people or things. The interpersonal function is made up of three systems. The Polarity system is employed to describe positive and negative oppositional categories. The Mood system is employed to describe the syntactic features of clauses, such as declarative, interrogative, and imperative moods. The Modality system realizes interpersonal meanings related to personal desires, obligations, or propositional validity. The textual function, taking discourse as the semantic unit, manifests the meaning and communicative purposes of discourse through the theme-rheme structure, the information structure concerning new and old information, and cohesive devices.

Translation, therefore, is a process of simultaneous choices among options in the logical, experiential, interpersonal and textual systems, and a translated text is the result of all these choices.

B. Metafunctional Translation Equivalence and the Equivalence-Shift Cline

The units of translation in a given text represent specific combinations of ideational, interpersonal and textual choices. However, one or more of these choices could have been made differently, leading to shifts in translation with respect to metafunctions. When examining the choices translators make in terms of the metafunctions, one inevitably encounters various degrees of translation shifts.

It is reasonable to assume that shifts involve choices within corresponding metafunctions in both the source and target languages. Consequently, during the translation process, translators may choose equivalence in one metafunction while opting for a shift in another. These shifts can be represented on a cline extending between "translation equivalence" and "translation shift", represented by "metafunctional translation equivalence" and "metafunctional translation shift" across the three metafunctions. This cline, known as the cline of translation equivalence and shift in terms of metafunctions (Matthiessen, 2014, p. 280), is guided by the equivalence/shift of metafunctions.

It is evident that translation often involves trade-offs in choices across the metafunctional spectrum. All choices in translation arguably constitute shifts in meaning; however, it is useful to recognize that such shifts occur along a continuum. When we examine the choices translators make in terms of the metafunctions, we will undoubtedly observe various degrees of translation shifts in terms of metafunctions and their indices.

III. METHODOLOGY

A. Corpus Building

The corpus was collected from the *Bairenbaoyi* WeChat public account, which includes over 500 quotations from Chinese classics. Each quotation has been contributed by over 20 translators, and these translations have undergone evaluation and votes by both English-speaking and Chinese-speaking judges. Collaborative voting involving 15 translators was employed to select 230 representative quotations from Chinese classics. From this subset, 60 quotations and their corresponding translations were selected, taking into account three linguistic features: sentence length, antithesis, and subject ellipsis.

There were 566, 511, and 476 translations for short (≤ 8 characters), medium-length (9-14 characters), and long sentences (≥ 15 characters), respectively. Regarding antithesis, there were 759 translations for antithetical sentences and 763 for non-antithetical sentences. Regarding subject ellipsis, it was found that in the source text there were 12 non-subject sentences and 48 sentences with subjects.

B. Measurement of Linguistic Features

The linguistic features, including sentence length, antithesis, and subject ellipsis, were manually annotated and then measured through the assignment of numerical values. For further statistical analysis, each linguistic feature for Chinese classics was assigned a numerical value. Short sentences were assigned the value of 1, medium-length sentences the value of 2, and long sentences the value of 3. Regarding antithesis, non-antithetical was assigned the value of 1, indicating instances where structural symmetry is absent, while antithesis was assigned the value of 2, indicating the presence of balanced and mirrored elements within the sentence structure. Additionally, instances with a subject were assigned the value of 1, whereas non-subject sentences were assigned the value of 2.

C. Measurement of Translation Equivalence

In this study, translation equivalence was measured in terms of metafunctions. According to Matthiessen (2014, p. 279), translation shifts can be measured in various degrees, and both equivalence and shift of translation are on a cline. Therefore, it is reasonable to quantify such degrees by calculating the average of the metafunctional indices. Initially, seven metafunctional indices were annotated for both sentences in Chinese classics and their translations. These indices include Process, Circumstance, and Participant in ideational function; Polarity, Mood, and Modality in interpersonal function; and Theme in textual function. It's worth noting that due to the inherent limitations of single-sentence translation, where contextual discourse is lacking, indices and cohesive features revealing inter-sentential relations were not chosen for textual function. Annotations for English were conducted using the UAM Corpus Tool 6.3, a tool supporting metafunctional annotation for English corpora, supplemented by manual verification, while Chinese ones were annotated manually.

Subsequently, based on this annotation, each index in the translation was manually annotated for the methods of equivalence, transformation, omission, or addition, in order to determine the equivalence or shift of metafunctions. Among these translation methods, the latter three represent translation shift: transformation signifies that corresponding elements in the source text are reflected in the translation, albeit with differences in form or content; omission indicates that the translation excludes elements present in the source text, while addition involves supplementing the translation with elements not present in the original.

Finally, the equivalence of metafunctions in total (E_{mt} hereafter) was calculated by considering the degree of equivalence of all metafunctional indices in the translation process. The formulas are as follows:

$$E_{mt} = \sum_{i=1}^n \frac{E_m}{n} \quad (1)$$

$$E_m = \frac{E}{M_s + M_a} \quad (2)$$

The abbreviation E_m denotes the degree of equivalence of each metafunctional index (Participant, Process, Circumstance, Polarity, Mood, Modality, and Theme). E denotes the total number of equivalents in a single sentence pair, M_s the number of the metafunction indices in the source text, and M_a the number of additions of the metafunction indices in the translation.

D. Correlation and Regression Analyses

This research aimed to unravel the intricate dynamics between linguistic features and translation equivalence through the lens of metafunctions. As linguistic features are nominal variables, while E_{mt} is a continuous variable, both Spearman correlation analysis and regression analysis were employed to reveal the relationship between these factors. The Spearman correlation analysis was used to discern patterns and associations between linguistic features and metafunctional translation equivalence, while the regression analysis was conducted to predict the influence of these factors as such.

In summary, this quantitative approach was adopted to contribute a detailed understanding of the interplay between linguistic features and metafunctional translation equivalence. The chosen methods are poised to capture the multifaceted dimensions of the translation process, providing a robust foundation for subsequent analyses and discussions within this scholarly inquiry.

IV. RESULTS AND DISCUSSION

A. Equivalence of Metafunctions

Table 1 displays the translation equivalence and shift with respect to metafunctions, and Emt for all translations. It can be observed that the *Bairen baiyi* group of Chinese classics' translators tends to maintain equivalence in choices of metafunctions, indicating a preference for literal translation. This inclination is consistent across ideational, interpersonal, and textual metafunctions; all three metafunctions show a tendency toward equivalence, the degree of which varies slightly. The interpersonal function demonstrates the highest degree of equivalence. Regarding the seven specific indices, the equivalence of Mood is the highest (0.87), while the equivalence of Process is the lowest (0.61).

TABLE 1
EQUIVALENCE OF METAFUNCTIONS

Equi of ideational function			Equi of interpersonal function			Equi of textual function	Emt
Participant equi	Process equi	Circumstance equi	Polarity equi	Mood equi	Modality equi	Theme equi	
0.75	0.61	0.66	0.82	0.87	0.64	0.75	0.72
0.67			0.81			0.75	

Note: equi=equivalence

B. Overall Effects of Linguistic Features on Metafunctional Translation Equivalence

As the results of correlation analysis of linguistic features and Emt show, all three linguistic features significantly influence metafunctional translation equivalence. Sentence length is positively correlated with Emt ($r=0.473$, $p<0.01$), indicating that the longer the sentence is, the more equivalent translations for Chinese classics tend to be present. Antithesis is negatively correlated with Emt ($r=-0.407$, $p<0.01$), suggesting that when the original text has an antithetic structure, the translator tends to shift the metafunctions in TTs, leading to translation shifts, and vice versa. Subject ellipsis also has a negative correlation with Emt ($r=-0.449$, $p<0.01$), indicating that when the original text is a subjectless structure, the translators are inclined to alter the meaning and style of translation in terms of metafunctional shifts, while the translators tend to be faithful when the original text has a subject.

Furthermore, in the results of correlation analysis of linguistic features and the degree of equivalence metafunctionally, it can be observed that as sentence length increases, there is a significant improvement in both the equivalence of ideational function ($r=0.278$, $p<0.05$) and textual function ($r=0.345$, $p<0.01$). Conversely, subject ellipsis exerts a significant negative impact on the interpersonal function ($r=-0.298$, $p<0.05$). However, although antithesis is generally negatively correlated with Emt, it seems to have no significant correlations with the equivalence of each metafunction ($ps>0.05$).

C. Effects of Sentence Length on Metafunctional Translation Equivalence

As indicated by the preceding results, the influence of sentence length on metafunctional translation equivalence primarily manifests in the ideational function and the textual function. Specifically, with increasing sentence length, translators tend to lean toward equivalence in terms of the ideational function and the textual function. Conversely, for shorter classical sentences, translators are more inclined to shift the the ideational and the textual functions of the source text. Further analysis reveals that, this metafunctional shift is predominantly characterized by shifts in Participant ($r=0.299$, $p<0.05$), Circumstance ($r=0.271$, $p<0.05$), and Theme ($r=0.345$, $p<0.01$).

(a). Choices in Participant

In the distribution of equivalence and shift of Participant in different groups of classical sentences based on sentence length, it can be observed that as the sentence length increases, the equivalence of Participant also gradually increases, while Participant shift decreases gradually. Transformation (16.29%) and omission (8.85%) are the primary scenarios of Participant shift, and with the increase in sentence length, both the ratios of Participant transformation and omission have decreased. The following analysis uses specific examples to discuss what Participant transformation and omission represent for the translation of Chinese classics, and why changes in sentence length lead to corresponding changes in Participant equivalence/shift.

Participants refer to the agents or carriers of actions in clauses, and the shift or equivalence of Participants means the shift or equivalence of the entities described in the translation compared to the original text. Through an overview of the corpus, it can be observed that short and medium-length sentences in the original text often use concrete objects as images to illustrate ideas through analogies. Consequently, Participants in short and medium-length sentences mostly exist in figurative imagery (73.9%), while Participants in long sentences tend to be more abstract, with clauses featuring

abstract concepts accounting for 59.1% of long sentences. Due to the differences between Chinese and English, translators of Chinese classics tend to translate figurative imagery into abstract concepts. Therefore, in terms of Participant, as sentence length increases, Participant shift decreases. Participant shift mainly manifests through transformation and omission, as seen in Example 1:

Example (1)

ST: 月满则亏，水满则溢。(short sentence)

Gloss: Moon full will wane, water full will spill.

TT1: A full moon tends to wane; a full water bowl tends to spill.

TT2: Too much water drowned the Miller.

TT3: When reaching their limit, things begin to turn around.

This short sentence is excerpted from *The Book of Changes*, using the phases of the moon and water as imagery to express that everything flourishing will eventually decline. In this example, TT1 is a typical equivalent translation, preserving the figurative imagery intact in the translation, rendered as "moon" and "water". Conversely, TT2 and TT3 both involve Participant shifts. TT2 replaces the entire classical sentence with a more familiar English proverb, retaining only the imagery of "water" while omitting the "moon", but conveying the same implication as the source text. TT3 then abstracts the figurative Participants 月(yue 'moon') and 水(shui 'water') into "things", merging two figurative images into one single abstract Participant. Notably, Participant transformations often accompany Participant omissions. Similar phenomena also occur in medium-length sentences. For example:

Example (2)

ST: 投我以木桃，报之以琼瑶。(medium-length sentence)

Gloss: Throw me with a peach, repay it with precious jade.

TT1: Receiving your peach as a gift, I repay you with my gem.

TT2: A favour owed is to be returned.

Example 2 is from the earliest collection of Chinese poetry, *Book of Songs*, emphasizing the need to reciprocate kindness from others. TT1 restores the original text by translating the Participants 木桃(mu tao 'peach') and 琼瑶(qiong yao 'precious jade') equivalently as "peach" and "gem", with only the addition of one circumstantial element "as a gift." TT2, on the other hand, transforms the original Participant 木桃 into "a favour owed" and omitted 琼瑶, abstracting and refining the specific meaning of the original text.

Similarly, for abstract Participants more commonly found in long sentences, translators tend to retain them. For instance:

Example (3)

ST: 天之道，损有余而补不足。人之道则不然，损不足，奉有余。(long sentence)

Gloss: The way of sky, diminishes the abundance to compensate the deficiency. The way of man is not, it diminishes the deficiency, supports the abundance.

TT1: The way of Heaven is based on the balance between everything, but the way of the human being is different, which makes the poor poorer and the rich richer.

TT2: Nature is governed by the principle of equality, while man, the principle of equity.

This sentence is from the Taoist classic *Tao Te Ching*, which provides concise descriptions of abstract concepts such as 天道(tian dao 'the Way of nature') and 人道(ren dao 'the Way of human being'). TT1 typically translates these two abstract Participants into the abstract concepts of "the Way of Heaven" and "the Way of the human being" respectively. TT2 also retains the abstract concepts of 天(tian 'sky; nature') and 人(ren 'human being'), while interpreting the abstract concept of 道(dao 'the Way') using the verb "govern", thereby restoring the original text in an equivalent way, a translation style more commonly observed in long sentences.

(b). Choices in Circumstance

The Circumstance is another ideational element that influences metafunctional translation equivalence. As the results show, similar to Participant, as the sentence length increases, Circumstance equivalence gradually increases, while shift decreases; addition (15.93%) and transformation (13.50%) are the main cases of Circumstance shift. With the increase in sentence length, the proportion of Circumstance addition gradually decreases, and the proportion of Circumstance transformation in short and medium-length sentences remains significantly higher than that in long sentences.

Circumstances are often realized by adverbial groups or prepositional phrases, which provide supplementary information related to time, location, manner, or cause (Halliday & Matthiessen, 2014, p. 312). In short and medium-length Chinese classics, Circumstances are relatively fewer or even non-existent, consistent with Chinese classics' characteristic of conciseness. Thus, Circumstances serving as supplementary information are typically omitted unless their inclusion is necessary to avoid ambiguity. However, it can be observed from this study that translators often make implicit information explicit in the translation process, which is evident in the explicitation of Circumstances within the ideational function. From the systemic functional perspective, explicitation can be categorized into three types: addition, explanation, or reconfiguration (Huang & Yu, 2015). In this case, "addition" corresponds to the addition of Circumstances, while "explanation" and "reconfiguration" correspond to the transformation of Circumstances, as

seen in Example 5.

Example (4)

ST: 利不可独，谋不可众。(short sentence)

Gloss: Profits cannot be alone, strategies cannot be in numbers.

TT1: Profits should be shared among people and strategies should be kept in secrets.

TT2: Profits are better to be shared to as many people as possible; too many proposals often spoil a plan.

Example 4 is extracted from *Military Quotes of Zeng Guofan*, succinctly describing the principles of military governance of his army. The sentence contains two Circumstances: 独(*du* 'alone') and 众(*zhong* 'in numbers'). Both translations shift the Circumstance in their respective clauses. TT1 converts the negative form of the source text into a positive one. Along with this Polarity shift, the Circumstances in the translation also undergo a transformation, where 独 is rendered as "among people", and 众 is translated conversely as "in secrets", providing a clearer explanation compared to the original text. Similarly, TT2 transforms the Circumstance component 独 into its negative form "as many people as possible" and explicitly expresses 不可众(*bu ke zhong* 'cannot be done in numbers') through reconfiguration as "too many proposals". It is implied through these two translations that cultural backgrounds or cultural information can be better portrayed by transforming Circumstances.

Meanwhile, in short and medium-length sentences, it is also essential for translators to add Circumstances, reflecting shifts towards translation. For example:

Example (5)

ST: 一文钱难倒英雄汉。(short sentence)

Gloss: A penny beats a heroic man.

TT1: A penny puts a hero on the spot.

TT2: Without a penny, nothing can be achieved by a hero.

Example 5 originates from an anecdote of the first Emperor of the Song Dynasty, using the lack of money as a metaphor to illustrate that powerful individuals sometimes can be constrained by minor difficulties. In the sentence, 一文钱(*yi wen qian* 'a penny') represents the smallest unit of currency in ancient China. The entire sentence constitutes a single material clause, with 一文钱 and 英雄汉(*ying xiong han* 'a heroic man') as Participants, and 难倒(*nan dao* 'beat') as the material process. TT1 and TT2 both shift through different approaches to Circumstance addition. TT1 replaces the original process component 难倒 with the colloquial expression "put...on the spot", cleverly restoring the original meaning by adding the Circumstance "on the spot". Likewise, TT2 brings out the implied meaning of the Participant 一文钱 which implies "being penniless", by adding the Circumstance component "without a penny", thereby visually translating the context for the readers and showcasing a shift in the translator's choices towards metafunction.

Conversely, long sentences in the source text typically contain a certain number of Circumstances. In such cases, the information needing to be made explicit by the translator is relatively less, resulting in fewer additions and transformations of Circumstances, leading to a situation of metafunctional equivalence. Example 7 is a good illustration of this.

Example (6)

ST: 合抱之木，生于毫末；九层之台，起于垒土。(long sentence)

Glos: A one-hug-thick tree is born from a little bit; a nine-layer platform rises from piling earth.

TT1: A tree thick to hug with hands grows from the seedling; a high pedestal of nine layers starts from the soil accumulating.

TT2: A giant tree grows from a tiny seedling; a towering platform rises from piled-up earth.

Example 6 is extracted from Chapter 64 of *Tao Te Ching*, using the growth of trees and the construction of a foundation as a metaphor to emphasize the importance of daily accumulation. The entire sentence contains two Circumstances: 于毫末(*yu hao mo* 'from a little bit') and 于累土(*yu lei tu* 'from piling earth'). In most translations of Chinese classical quotations that are relatively longer in sentence length, translators tend to retain the equivalence of Circumstances, as seen in TT1 and TT2 in this example. In these two translations, 于毫末 is translated literally as "from the seedling" or "from a tiny seedling", while 于累土 is rendered as "from the soil accumulating" or "from piled-up earth", demonstrating their commitment to equivalence in translation and the translator's fidelity to the original text.

(c). Choices in Theme

In SFL, the textual function gives the clause its character as a message, and the structure that carries this line of meaning is the theme-rheme structure, with Theme serving as the point of departure of the message (Halliday & Matthiessen, 2014, p. 88). In our study, the Theme in the translation is generally equivalent to the original text (63.67%), and the degree of equivalence increases with the increase of sentence length. Theme shifts are directly manifested as Theme transformations, with significant occurrences in short sentences (39.93%) and medium-length sentences (30.53%).

Though in the annotation of metafunctions and measurement of metafunctional translation equivalence, Theme shifts were categorized into three types, transformation, omission, and addition, it's worth noting that the addition and omission of Themes actually represent the addition or omission of clauses, as there is always a Theme in each clause. Transformation of Themes mainly stems from two situations: (1) the translator supplements the omitted subject, resulting in a change from Process to Participant as Theme; (2) the nominalization of Circumstance or Process leads to a change in the Theme element from Process or Circumstance to Participant. For example:

Example (7)

ST: 静如处子，动如脱兔。(short sentence)

Gloss: Stay like a virgin, move like an escaping hare.

TT1: Stay in position like a quiet maiden, move swiftly like a darting hare.

TT2: An army should keep as still and quiet as a virgin, and move as agile and fast as a rabbit.

Example 7 is from *The Art of War* by Sun Tzu, where the graceful posture of a damsel and the swift movement of a hare are metaphorically used to describe the actions of an army. Although both metaphors are used for describing the army, the subject is omitted in the sentence, which may cause difficulty for readers to understand without context from the source. TT1 restores the original style of Theme with Processes "stay" and "move" as Theme, while TT2, by supplying the subject "an army", brings the implicit subject into focus, making it clear and straightforward for comprehension. This addition is quite common when translating shorter sentences, since subject ellipsis is predominant in the source text, accounting for 76.7% of short and medium-length sentences in the corpus.

Another type of Theme transformation occurs when the Process or Circumstance constituents are nominalized into Participant and put first as Theme. Examples 9 and 10 illustrate these two cases respectively.

Example (8)

ST: 读书破万卷，下笔如有神。(medium-length sentence)

Gloss: Read books over ten thousand volumes, write as if there is a god.

TT1: Read over thousands of books, ideas flow down like brooks.

TT2: Excellent writing stems from extensive reading.

Example 8 is extracted from a poem written by Du Fu, "the sage of poetry" in Tang Dynasty, emphasizing the importance of extensive reading for outstanding writing. Two Themes for the two clauses in this classical sentence, 读书(*du shu* 'read books') and 下笔(*xia bi* 'write'), are both Processes. In this example, TT1 maintains Theme equivalence in the first clause by using "read" as the Theme, while TT2 condenses the two clauses into one and employs a Theme shift through nominalization, transforming the Theme from Process to Participant, "excellent writing". Nominalization, also known as nounification, is the process of metaphorically transforming the process originally represented by a verb or the quality represented by an adjective into a noun, which functions as a "thing" within the noun phrase of the clause (Halliday & Matthiessen, 2013, p. 729). Specifically, it refers to the process of transforming Circumstance and Process into Participant or the Thing element. Here, through the means of nominalization, TT2 enhances the information density of the clause, resulting in a straightforward and concise translation.

Example (9)

ST: 当仁不让于师。(short sentence)

Gloss: In benevolence, do not give way to your teacher.

TT1: As to kindness and morality, you don't need to be after your mentor.

TT2: Benevolence overrides respect for your teacher.

Example 9 is from *The Analects*, and its meaning coincides with a famous saying by Aristotle: "Plato is dear to me, but dearer still is truth." In this sentence, 当仁(*dang ren* 'in benevolence') serves as Circumstance. Unlike the Theme equivalence in TT1, TT2 nominalizes the Circumstance into a Participant "benevolence" and puts it first as Theme, making the sentence's structure more in line with English conventions.

D. Effects of Antithesis on Metafunctional Equivalence

Although the influence of antithesis on metafunctional equivalence did not show significant relevance across various metafunctions, further correlation analysis of various metafunctional indices revealed a significant negative correlation between Participant equivalence and antithesis ($r=-0.330$, $p<0.01$). This means that the more antithetical a sentence is, the more likely translators are to shift the Participant in the translation, thereby reflecting a shift in metafunctional choice. Transformation (18.90%) and omission (10.20%) are the main cases of Participant shift in antithetical sentences.

The influence of antithesis on metafunctional equivalence primarily stems from the difference in emphasis on symmetrical structure of texts between Chinese and English. Compared to English, which emphasizes asymmetric structure and avoiding repetition, Chinese, especially ancient Chinese, greatly values textual symmetry and strives for equal lengths and similar meanings in sentences, with strict requirements on pronunciation and tones. Therefore, compared with non-antithetical sentences, translators tend to translate antithesis sentences into non-antithetical forms considering the acceptance of English readers. In this translation process, the most direct change is in the Participant element, as shown in Example 10:

Example (10)

ST: 上下同欲者胜，风雨同舟者兴。(antithesis)

Gloss: Greater and lesser people holding the same desire win; people in the same boat under wind and rain thrive.

TT1: Those with desire to fight through the ranks triumph; those who stick together through storms thrive.

TT2: Groups of shared mind and wills go far.

Derived from the classic Chinese military treatise *The Art of War* by Sun Tzu, Example 11 is often cited to emphasize the importance of unity and cooperation. Sentences with antithetical structures in Chinese classics usually contain a pair of closely related images to elucidate the same principle, such as 上下同欲者(*shang xia tong yu zhe* 'people with the same desire regardless of ranks') and 风雨同舟者(*feng yu tong zhou zhe* 'people going through thick and thin') in this sentence. In the translation process, merging these images to change the sentence structure more closely aligns with the habits of English readers, as shown in TT2. Unlike TT1, which translates 上下同欲者 into "those with the desire to fight through the ranks" and 风雨同舟者 into "those who stick together through storms", TT2 condenses these two closely related Participants into "groups of shared mind". This approach adopts methods of Participant transformation and omission, which are common translation methods for antithetical sentences in Chinese classics.

Participant shifts often accompany Process shifts, as shown in Example 11:

Example (11)

ST: 聪者听于无声，明者见于未形。(antithesis)

Gloss: People with good hearing can hear from the soundless; people with good eyesight can see from the formless.

TT1: Good ears fore hear it where soundless; good eyes foresee it where formless.

TT2: Foresight and insight make a Solomon.

Example 11, from *The Book of Han*, uses 聪者(*cong zhe* 'people with good hearing') and 明者(*ming zhe* 'people with good eye-sight') as Participants to explain the importance of foresight. TT1 is a typical literal translation, using "ears" and "eyes" to metaphorically represent these Participants respectively. In contrast, TT2 is a typical case where Participant and Process shifts occur simultaneously: the translator extracts the commonality of the two Participants in the original text and substitutes them with the representative of Western wisdom "Solomon". Together with the presence of transformation and omission in Participants, the two mental Processes in the original text also transform into a single relational Process; 听(*ting* 'hear') and 见(*jian* 'see') merge into the relational Process "make".

E. Effects of Subject Ellipsis on Metafunctional Equivalence

The influence of subject ellipsis on metafunctional equivalence mainly manifests in the interpersonal function; with subject ellipsis, translators tend to shift the interpersonal function. Further analysis indicates that for the interpersonal function, the metafunctional shift manifests as Mood shift ($r=-0.229$, $p<0.05$). When translating sentences without subjects, compared to sentences with subjects, translators tend to shift the Mood, mainly through transformation (12.32%).

The differences in linguistic features between Chinese and English determine their distinct subject properties: English emphasizes the subject-verb-object sentence structure, with almost no subject ellipsis, and sentences without subjects are mostly imperative. In contrast, subject ellipsis is quite common in Chinese, and sentences without subjects do not always express imperative meanings. Therefore, when translating Chinese subjectless sentences into English, translating them equivalently as the same type of sentence without subjects would lead to the addition of imperative Mood out of nowhere, causing confusion in meaning. To better translate the original meaning, translators need to add appropriate subjects in the English translation, leading to the shift into declarative Mood during the translation process, as seen in Example 12.

Example (12)

ST: 老当益壮，宁移白首之心？穷且益坚，不坠青云之志。(long sentence)

Gloss: When older, you should be stronger, why waver your white head's heart? Poor but firmer, do not give up high-cloud-like will.

TT1: White-headed but haler, I keep my heart unchanged still; time-outcast yet tougher, I won't discard my lofty will.

TT2: Years may wrinkle my skin but never my soul; tough situation only toughens me to hold up my lofty ideal.

Example 12 is extracted from an essay of *A Tribute to King Teng's Tower* written by Wang Bo, a talented poet in the Tang Dynasty. This sentence inspires people to strive upwards even in adversity or old age, urging them not to forget their original intentions. Throughout the entire sentence, there is no explicit mention of 人(*ren* 'person'), yet the implication of it is pervasive, constituting a case of vague subject ellipsis. TT1 and TT2 demonstrate two methods that translators employ when faced with vague subject ellipsis: adding the logical subject, or using nominalization, employing another component in the source text as subject. Both methods involve a shift from imperative Mood to declarative Mood. In TT1, the translator fills in two logical subjects of "I", whereas TT2 nominalizes the Circumstance elements 老(*lao* 'old') and 穷(*qiong* 'poor') as "years" and "tough situation" respectively, using them as subjects to vividly interpret the original meaning. Both methods of shift demonstrate practicality in addressing the readers.

As for subject ellipsis in Chinese classics conveying the imperative meaning, translators typically render them into equivalent imperative sentences. For instance:

Example (13)

ST: 不在其位，不谋其政。

Gloss: If not in position, do not prepare for the duty.

TT1: At your post, do your duty.

TT2: If you hold not an office, you needn't interfere in others duties.

This sentence originates from *The Analects of Confucius*, using discussions about rulers to advise the public not to overstep boundaries and to behave themselves. TT1 employs imperatives to maintain the imperative Mood, while TT2, by supplying the subject "you", alters the original imperative Mood, mitigating the strong admonishing tone of the source text. This shift emphasizes the underlying principle contained within the classical sentence, which implies translation shift based on audience considerations.

V. CONCLUSION

This study quantitatively investigated translation equivalence from a metafunctional perspective, examining the factors influencing it. Utilizing the equivalent-shift cline as a measure for translation equivalence and using the equivalence/shift of metafunctions between the source and translated texts as the evaluation method, it first examined the degree of equivalence in the translations by the *Bairenbaoyi* translator group, followed by the measurement of the effects of linguistic features in quotations from Chinese classics, including sentence length, antithesis, and subject ellipsis, on the relevant translation equivalence. Overall, the translation tends to maintain equivalence, which is reflected in all three equivalences of ideational, interpersonal, and textual metafunctions, with the interpersonal metafunction exhibiting the highest degree of equivalence.

This study highlights the significant influence of three linguistic features in Chinese quotations on translation equivalence. An increase in sentence length correlates with stronger equivalence in translation, while antithesis and subject ellipsis are negatively correlated with equivalence. Specifically, longer sentences tend to improve equivalence in the ideational and textual functions, while the absence of antithetical structures enhances equivalence in the ideational function. Conversely, subject ellipsis negatively impacts equivalence in the interpersonal function. The metafunctional indices most affected by these linguistic features are: Participant and Circumstance for sentence length; Participant for antithesis; and Mood for subject ellipsis.

Regarding sentence length, in shorter sentences, translators focus on clarifying the text by adding or transforming Participants and Circumstances, thereby affecting the Theme. This pattern reverses with longer sentences, where most metafunctional indices are preserved in the translation. For antithetical structures, translators tend to opt for non-antithetical translations, enhancing fluency and readability through Participant transformation and omission. In the case of subject ellipsis, translators often add or reveal subjects hidden in the source text, resulting in the transformation of Mood, usually to declarative moods. These observations underscore the significant impact of linguistic features on translators' decisions regarding translation equivalence, reflecting a balance between domestication and foreignization approaches by consciously or unconsciously adjusting the degree of metafunctional equivalence or shift between the translated text and the original text. The findings of the present study align with Matthiessen's (2014, p. 279) perspective that "translation often involves trade-offs in choices across the metafunctional spectrum", where linguistic features play a crucial role in guiding translator choices.

Furthermore, it can be revealed that all effects of linguistic features on translation equivalence have their underlying cultural motivations. Sentence length significantly influences the translation of imagery, in the form of Participants, which are more likely to be turned into abstract ones in shorter sentences. Such variation stems from the high context dependency of Chinese, where contextual elements are often missed in short sentences, prompting translators to abstract or clarify meanings for English readers. Additionally, the cultural preference for symmetry leads to the preference for four-character structures in Chinese classics, while English emphasizes variation in words and styles. Retaining or transforming antithetical structures to fit remains challenging for translators, and more translators opt for the latter for reader acceptance. Furthermore, Choices regarding subject ellipsis reflect underlying philosophical differences: Eastern philosophy, namely Taoism, encourages the omission of man as an individual through the "harmony between nature and human", whereas Western individualism leads to the explicitation of subjects, resulting in metafunctional translation shifts.

The main contribution of this study is providing answers to two of Matthiessen's questions about translation equivalence in a metafunctional perspective: "what degree of systemic separation do choices produce in translation — minimal 'equivalence' or maximal 'shift'; and what are common shifts in metafunctional modes of meaning—are there favoured directions of shift such as the experientialization of meaning?" (Matthiessen, 2014, p. 322). By introducing a quantitative approach to measure translation equivalence through metafunctional indices, this study presented a detailed analysis of the choices made within the same metafunction and shifts between different metafunctions. Additionally, by using parallel corpus of quotations from Chinese classics as the target, this study also revealed the common features for metafunctional shifts specific to this genre and the cultural motivations for such shifts. These findings will not only contribute to the production of high-quality translations but also facilitate a deeper understanding of quotations from Chinese classics in ancient Chinese prose and poetry, which, in turn, enhances effective communication between diverse cultures.

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REFERENCES

- [1] Al-Kenani, T. A. S. M., & Banda, F. (2018). Translating Yemeni cartoons into English: A Systemic Functional Linguistics approach. *Stellenbosch Papers in Linguistics Plus*, 55(1), 47-75.
- [2] Frost, R. (1995). *Collected Poems, Prose, and Plays*. Library of America.
- [3] Halliday, M. A. K. (2001). Toward a Theory of Good Translation [M]. In E. Steiner and C. Yallop (Eds.). *Exploring Translation and Multilingual Text Production: Beyond Content* (pp. 13-18). Berlin: Mouton.
- [4] Halliday, M. A. K., & Matthiessen, C. M. (2013). *Halliday's introduction to functional grammar*. Routledge.
- [5] Hohl Trillini, R., & Quassdorf, S. (2010). A 'key to all quotations'? A corpus-based parameter model of intertextuality. *Literary and Linguistic Computing*, 25(3), 269-286.
- [6] Hu, Z. L., Zhu, Y. S., Zhang, D. L., & Li, Z. Z. (2017). *Xi tong gong neng yu yan xue gai lun* [An Introduction to Systemic Functional Grammar] (4th ed.). Peking University Press.
- [7] Huang, G.W., & Chen Y. (2014). Fan yi yan jiu zhong de 'yuan gong neng dui deng' ['Metafunctional equivalence' in translation studies]. *Zhong guo wai yu*, 11(02), 97-102.
- [8] Huang, L. B., & Shi, X. Y. (2022). A corpus-based investigation of the English translations of Mao Zedong's speeches. *Frontiers in Psychology*, 13, 1071064. <https://doi.org/10.3389/fpsyg.2022.1071064>
- [9] Huang, P. X., & Wang, Y. H. (2013). A critical history of English translation of ancient Chinese poetry. In *3rd International Conference on Applied Social Science* (pp. 537).
- [10] Kulchytskyi, I., Tsiokh, L., & Malaniuk, M. (2018). Quantitative equivalence level in poetry translation. In *2018 IEEE 13th International Scientific and Technical Conference on Computer Sciences and Information Technologies (CSIT)* (Vol. 2, pp. 51-54). IEEE.
- [11] Liu, Q. N., & Li, X. L. (2022). Reproducing experiential meaning in translation: A systemic functional linguistics analysis on translating ancient Chinese poetry and prose in political texts. *Frontiers in Psychology*, 13, 1029187. <https://doi.org/10.3389/fpsyg.2022.1029187>
- [12] Liu, X. H., & Zhu, Y. (2019). Han yu su yu dui ou ci ge ying yi de jia zhi gou jian yu guo bie shu xing —— Yi han xue jia Han Nan de Ming Qing xiao shu fan yi wei li [Value construction and national identity projection in the translation of the Chinese figure dui-ou: with sinologist Hanan's English rendition of folk sayings in Ming and Qing novels as a case in point]. *Zhong guo fan yi*, 40(2), 130-138.
- [13] Matthiessen, C. M. (2014). Choice in translation: Metafunctional considerations. In Kunz, K., Teich, E., Hansen-Schirra, S., Neumann, S., Daut, P., & Steiner, E(Eds.). *Caught in the middle—language use and translation: A festschrift for Erich Steiner on the occasion of his 60th birthday* (pp. 271-333). Saarland University Press.
- [14] Matthiessen, C. M. (2018). The notion of a multilingual meaning potential: A systemic exploration. In Fontaine, L., & Sellami-Baklouti, A. *Perspectives from systemic functional linguistics* (pp. 90-120). Routledge.
- [15] Nida, E. A., & Taber, C. R. (Eds.). (1974). *The theory and practice of translation* (Vol. 8). Brill Archive.
- [16] Pallavi, K., & Mojibur, R. (2018). A preliminary pragmatic model to evaluate poetry translation. *Babel*, 64(3), 434-463.
- [17] Pang, S. Z., & Wang, K. F. (2018). Tou guo fan yi de yu yan jie chu yan jiu: Fan yi wen ben de "xian hua" te zheng dui yuan sheng wen ben de li shi ying xiang [On language contact through translation: diachronical effect on source text of the 'explicitation' of translated text]. *Wai yu jiao xue yu yan jiu*, 50(2), 253-267.
- [18] Qian, L. S. (1988). Du zhe de fan ying neng zuo wei ping jia yi wen de biao zhun ma? —— Xiang Jin Ku, Nai Da liang wei xue zhe qing jiao [Could readers' response be taken as a standard for judging translation?—consulting on Di Jin and Nida]. *Zhong guo fan yi*, (02), 42-44.
- [19] Qiang, X. (2021). Cong han ying wen ben ge zha cha yi kan dui ou ju de ying yu yi xie [Adaptation of the textual grid in translating Chinese couplets into English]. *Shang hai fan yi*, 159(4), 69-74.
- [20] Ryu, J., Kim, S., Graesser, A. C., & Jeon, M. (2023). Corpus stylistic analysis of literary translation using multilevel linguistic measures: James Joyce's Dubliners and A Portrait of the Artist as a Young Man and their Korean translations. *Target*, 35(4), 514-539.
- [21] Sun, Z. L. (2020). Guan yu wo guo fan yi jian she de ji dian si kao [Thoughts on the construction of contemporary Chinese translation theories]. *Zhong guo fan yi*, (2), 10-12.
- [22] Tang, G. J. (2020). Ye tan ru he fan yi han yu de si zi ge ci yu —— Ji yu MTI ke tang jiao xue de guan cha suo de [On the translation of Chinese four-character words—based on the observation of MTI teaching]. *Shang hai fan yi*, (1), 71-75+95.
- [23] Wu, Y., Gao, Y. F., Zhao, S. M., & Wang, S. P. (2019). Chang shi xing zhi shi he yu pian yu jing dui dai ci zhi ren de ying xiang [Influence of common sense knowledge and textual context on pronoun resolution]. *Xin li xue bao*, 51(3), 293-303.
- [24] Zhao, L. X., & Liu, Z. Q. (2015). Chuan tong zhe xue ying xiang xia de han yu qing zhu yu te zheng [The feature of subject ellipsis in Chinese influenced by traditional philosophy]. *Dong yue lun cong*, 36(12), 114-118.
- [25] Zhang, L. X. (2021). Parallelism and antithesis: Structural principles in the mind and in literature from a Chinese perspective. *European Review*, 29(2), 274-284.
- [26] Zhu, Z. Z. (2004). Lei xing yu ce lue: Gong neng zhu yi de fan yi lei xing xue [Types and strategies: translational typology in a functional view] *Zhong guo fan yi*, (03), 5-11.



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