

E-C Translation Strategies for Long and Complex Sentences in Evidence-based Medicine Texts

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Abstract

This paper presents a comprehensive analysis of the translation strategies for long complex sentences (LCS) found in Evidence-based Medicine (EBM) texts. The study identifies four main approaches to translating such sentences in English-to-Chinese (E-C) EBM translation. Firstly, relative words can either be omitted or replaced with antecedents or pronouns. Secondly, parallel structures can be preserved in the translated sentence or rendered as compound-complex sentences in Chinese. Thirdly, nominalization structures can be transformed into equivalent clauses in Chinese. Finally, passive voice structures can be translated as passive voice sentences in Chinese or transformed into active voice sentences. The authors hope that these translation strategies will serve as valuable references for other translators.

Keywords: Medical texts, Evidence-based medicine, Long and complex sentences, Translation strategies

1. Introduction

Evidence-Based Medicine (EBM) represents a western approach to optimizing medical decisions by utilizing the most reliable, research-based evidence currently available. This evidence is often disseminated through systematic reviews, which provide comprehensive summaries and analyses of existing clinical research focused on a specific medical issue. These reviews, emblematic of high-quality healthcare, are published in English by

internationally renowned organizations such as Cochrane. The Cochrane Sinicization Project plays a pivotal role in enabling audiences worldwide to transcend language barriers and effectively understand EBM knowledge. Therefore, the translation of EBM texts should prioritize not just linguistic accuracy but also practicality, ensuring the translated content is as impactful and effective as the original text.

As a contemporary healthcare trend, EBM is becoming increasingly significant in the context of China's health reforms, the modernization of traditional Chinese medicine, and the enhancement of health research capabilities. In recent years, driven by the "Healthy China" initiative, we've observed a burgeoning convergence of medical science with disciplines such as linguistics and translation studies. Underpinning the "Healthy China" strategy is the principle that health is of paramount importance, an ethos which fundamentally shapes the approach to medical translation. This encourages translators to view their work not merely as linguistic conversion, but as a means of contributing to global well-being, which in turn fosters a sense of social responsibility among them. Their dedication can significantly aid in realizing the objectives of "Healthy China" and in elevating the nation's overall health standards.

However, there is a conspicuous gap in the research around English-Chinese (E-C) translation of EBM. Given this, the urgency for the translation and dissemination of EBM knowledge has never been more pressing. It's clear that fostering better understanding through the effective E-C translation of EBM has become a necessity.

As a constituent member of the Cochrane Collaboration, Beijing University of Chinese Medicine established an EBM center responsible for orchestrating the Cochrane Sinicization Project in mainland China. This initiative prioritizes the dissemination of healthcare knowledge to a broad spectrum of audiences, including both professionals (doctors, nurses, caregivers) and nonprofessionals (patients, their families, and the general public), through means such as podcasts and systematic reviews. The authors have been working in the Cochrane Sinicization Project as translation volunteers for many years. Drawn from extensive translation experience, the authors have observed that EBM texts frequently feature sentences of considerable length and complexity, often with intricate and hierarchical modifying relationships between their components. The challenging nature of these sentences can pose difficulties for translators; improper handling may result in translations that are insufficiently effective at facilitating the communication of healthcare information. Despite these complexities, there is a notable scarcity of research dedicated to the translation of EBM texts (Xiao et al., 2021). As such, there is a pressing need for dedicated studies on translation strategies for these long and complex sentences within EBM texts. Such research could provide valuable guidance for practitioners tasked with translating this highly specialized type of text, thereby contributing to the broader field of EBM translation studies.

2. Strategies for Translating Medical Texts

Medical texts, a subset of scientific and technical literature, exhibit distinctive lexical and syntactic features such as rich vocabulary, polysemous words, and a high frequency of long and complex sentences (Fu, 2009). Translating these intricate sentences poses a significant

challenge for many translators, necessitating the adoption of appropriate strategies to decipher sentence structure and grammatical relationships between components. Effective translation strategies play a vital role in advancing the goals of the Cochrane Sinicization Project.

Generally, translation strategies are purpose-oriented, focusing on manifesting the text's function within specific contexts to achieve the desired impact in the target language (Fang, 2021). From a variety of theoretical perspectives, the analysis of medical texts via translation strategies is predominantly approached through four key lenses: Equivalence Theory, Text Typology, Cross-Cultural Communication Theory, and Construal Theory. In terms of Equivalence Theory, eminent scholars such as Wang (2005), Shen & Yuan (2010), and Shang (2014) have critically examined the implementation of functional equivalence theory in medical translation at both lexical and syntactical levels. They aim to encapsulate the contributory factors that affect the pursuit of equivalence within medical translation. Adopting the perspective of Text Typology, Yao posits that medical translation has the essential responsibility of disseminating advanced medical information. To achieve standardized, fluid, and accessible translations, he suggests that the guiding principles of “faithfulness, expressiveness, and elegance” should be harmonized with semantic and communicative translation methodologies within the scope of text typology (Yao 2014: 966).

Under the purview of Cross-Cultural Communication Theory, Dou (2019) asserts that the application of this theoretical framework is instrumental in accounting for cultural variances, thereby ensuring the accuracy of translated medical literature. From the vantage point of Construal Theory, Sun (2016) examines the translational nuances of Chinese medical terminology in the *Huangdi Neijing*. Sun's inquiry extends to four aspects: scope and background, perspective, salience, and specificity, providing rationale for the distinctive considerations within these domains. Moreover, during the translation process, Sun highlights the significance of adhering to the principles of optimal relevance, interpretive resemblance, and cognitive increment.

The target demographic for the Chinese rendition of Evidence-Based Medicine (EBM) texts dictates numerous facets of the translation milieu, encompassing elements such as audience profile, temporal factors, geographic location, occasion, mode of communication, and anticipated function (Nord, 2001). In crafting an efficacious translation, it is incumbent upon translators to adopt appropriate strategies, integrating a myriad of elements like communication modalities and audience attributes.

Furthermore, EBM translations should exhibit both readability and acceptability, signifying that the translation should possess internal consistency and be readily intelligible to a Chinese audience. To this end, translators must endeavor to bolster the coherence of the translated text, satisfying the necessary coherence requisites intrinsic to specific communicative circumstances. While ensuring precision is paramount, translators must concurrently weigh the text's readability and coherence. This harmonious balance ensures that the Chinese recipient, whether a reader or listener, can swiftly, accurately, and fluidly grasp the kernel of the message.

3. Long Complex Sentence and Its Translation

Currently, there is no universally accepted definition of long and complex sentence (LCS), although several scholars have proposed interpretations. Peng (2017) pointed out that a sentence can be defined as a long sentence when it has more than 30 words in one sentence. LCS usually consists of more than one subject-predicate construction and many modifiers from the perspective of sentence components. Nordquist (2018) believed that a complex sentence refers to a sentence including a main clause (or independent clause) and at least one subordinate clause (or dependent clause). Guan (2013) held the view that LCS may contain several clauses, and the relationship between clauses and clauses may be inclusively nested, possibly juxtaposed, or parallel. Zhang (2010) argued that a long and complex English sentence might include many phrases, many parallel components, many additional components, many parallel sentences, and many clauses.

To logically organize and accurately emphasize pertinent components within these sentences, translators must employ various grammatical devices such as emphasis, inversion, omission, and parallelism. This can render sentences even more challenging to comprehend, thus generally correlating sentence length with translation difficulty (Wu, 1997). In this paper, a provisional definition for long and complex sentences is proposed. The term 'long' pertains to the word count within a sentence, setting a threshold of at least 25 words. The 'complexity' refers to the structure or components of the sentence, signifying the inclusion of one or more phrases, parallel components, additional elements, parallel sentences, or clauses.

Translation sub-strategies, operating at a linguistic level, reflect the translator's position, translation competence, and habitus (Fang, 2021). These strategies, grounded in language characteristics, ultimately determine translation quality. He (2010) proposed that when translating a long sentence, the translator must clarify the syntactic structure of the original English text first and then analyze the logical relationship between modifiers. Six translation methods were proposed for LCS, including synchronizing, reversing, division, embedding, inserting, and recasting. Zhang (2018) posited that a translator embarking on the task of translating extended English sentences into Chinese should adhere to a four-step approach: 1) elucidation of syntactic structures; 2) identification of the core idea and its ancillary clauses; 3) analysis of the logical interconnections between the principal and subordinate clauses; 4) rendition of the English text's meaning based on the idiosyncrasies of Chinese language, rather than a strict adherence to the syntactic pattern of the source text.

However, in the course of translation practice, particularly when grappling with lengthy and complex sentences (LCS) in Evidence-Based Medicine (EBM) Reviews, these aforementioned techniques may appear overly broad. There is a palpable need to underscore the significance of more meticulous and precise translation strategies tailored for EBM Reviews. The subsequent discourse will focus on the strategies for English-to-Chinese translation of extended and intricate sentences within the framework of EBM texts.

4. Translation Strategies for LCS in EBM Texts

Relative words, parallel structures, nominalization, and passive voice are the most frequently

encountered components in EBM's long and complex sentences. To ensure objective structuring, EBM texts often incorporate multiple parallel structures within a singular, extended arrangement, contributing significantly to sentence length. From a stylistic perspective, nominalization increases the abstraction and comprehension difficulty of the source sentences, thereby amplifying the distance between the author and the reader (Ye, 2007). Passive voice, a defining characteristic of scientific and technical texts (Sun, 1998), is also prevalent in EBM texts. The English and Chinese languages present significant structural differences, and translating passive structures requires fidelity to the source. However, this can't be accomplished through word-for-word or sentence-for-sentence translation. It is, to a considerable extent, these nominalization and passive voice structures that add complexity to sentences. Long and complex sentences often include various subordinate clauses with intricate relationships among them, which may be inclusive, nested, juxtaposed, or parallel. This adds to the length and structural difficulty of the sentences. These four components will be discussed further, accompanied by relevant examples.

4.1 Translation of Relative Words

There's no dispute that words form the fundamental building blocks of a sentence. Consequently, careful consideration of individual words is imperative when translating long and complex sentences. In grammatical terms, relative words are utilized to introduce relative clauses and have three primary functions: substituting antecedents, serving as sentence components in attributive clauses, and linking antecedents and attributive clauses. It's critical to note that translators need to employ varied approaches when dealing with relative words in the translation of long and complex sentences in EBM texts. The choice of method hinges upon the specific function and context of the relative words within the sentence.

4.1.1 Omission of Relative Words

The semantic structure of Chinese sentences is notably characterized by verb conjunctions (Wang, 2005), while the semantic structure of English sentences is principally defined by relational conjunctions (Lu, 1996). In essence, Chinese stresses meaning, linking sentences based on their internal logical relations, while English places emphasis on morphological agreement, depending on various linguistic forms for the seamless connection of sentences. This difference often results in some English relative words, such as "which", "that", and other pronouns, lacking direct Chinese equivalents (Pinkham, 2000). To facilitate a fluid and coherent translation, when the relative clause is rendered as a minor sentence juxtaposed with the main clause, the strategy of omitting relative pronouns can be utilized. This approach aids in maintaining the structural integrity and natural flow of the translated text.

Example 1

ST (source text): Our standard practice is to provide short inflations, which mimic a normal baby's breathing efforts; but sustained inflation, lasting more than 5 seconds, has been suggested as a way to expand the lungs more rapidly and allow them to exchange oxygen and carbon dioxide sooner. (CD004953)

TT: 标准做法是提供短暂的通气, 模仿正常婴儿的呼吸活动; 建议进行持续 5 秒以上

的持续通气，使肺部更快扩张、从而更快地交换氧气和二氧化碳。

The source text (ST) in Example 1 mainly outlines the standard practice of prolonged lung inflation for resuscitation of newborns, a topic that falls within the research methodology of EBM text. The antecedent of this sentence is “short inflations”, with the relative pronoun “which” introducing a non-restrictive attributive clause and replacing the antecedent as the subject in the clause. A detailed analysis of this sentence reveals the challenge of interpreting the relative pronoun “which” and identifying an appropriate translation strategy. Without careful dissection and strategic planning, misunderstanding could potentially arise. Relying solely on grammatical rules to translate the relative pronoun “which” may result in superfluous translation, potentially leading to reader confusion. Additionally, Chinese is a paratactic language capable of expressing implicit logical relationships through word order, contrasting English's hypotactic nature.

Given these linguistic differences, the relative word “which” in the original sentence should be omitted to convey the potential logical relationship. Consequently, the entire sentence is directly translated into “模仿正常婴儿的呼吸活动” as demonstrated in the target text (TT). This approach aligns with Chinese expression habits, thereby enhancing the translation's readability.

4.1.2 Translating Relative Words Into Antecedent or Pronouns

In the context of a restrictive clause, the relative word serves as a grammatical component (e.g., the subject) within the subordinate clause. When such a clause is translated into a complete Chinese sentence, omission of relative words is no longer suitable. In essence, the translation must accommodate these relative words. Under such circumstances, relative words are often converted into their antecedents or respective pronouns. This approach serves to reference previously mentioned entities, aiding in avoiding verbosity or unnecessary complexity in the translation. It's a strategy that enhances the readability of the translated text while ensuring accurate conveyance of the original meaning.

Example 2

ST: We also found that incentives might continue to have a significant impact on sustained smoking cessation, even after the incentives have finished, which is a new finding in this update. (CD006936)

TT: 他们还发现，激励措施即使结束了，也可能继续对戒烟产生显著影响，这是本次综述更新后的新发现。

The source text in Example 2 comes from a research that investigates the efficacy of motivational interviewing as a means to encourage smoking cessation. It's worth noting that translating “we” into “他们” represents an instance of “deliberate mistranslation,” necessitated by the need to adjust the speaker's persona during podcasting. In this context, “we” denotes the researchers. In the sentence at hand, the relative word “which” serves as the subject of the non-restrictive attributive clause, referencing the preceding statement that “incentives might continue to have a significant impact on sustained smoking cessation even

after the incentives have concluded". To maintain intratextual coherence, it is judicious to translate the relative word "which" into the pronoun "这", referring back to the previously mentioned content. By employing this strategy, the resultant sentence avoids becoming excessively lengthy or logically convoluted, rendering the translation "这是本次综述更新后的新发现" more fluid and semantically congruent. This translation approach ensures a more accurate and reader-friendly conveyance of the original message.

4.2 Translation of Parallel Structure

According to Nordquist (2020), a parallel structure involves the utilization of two or more words, phrases, or clauses that are similar in length and grammatical form. However, the process of translating lengthy, complex sentences from English to Chinese requires shifting from a hypotactic language structure to a paratactic one. At times, the markers of parallel structures may not be readily apparent, potentially leading to ambiguity during the translation process. As posited by Quirk et al. (1972), the constituents of a parallel structure operate at the same level. Consequently, this study seeks to explore the strategy of preserving the structural integrity of parallel structures within the source text by translating them into Chinese compound-complex sentences.

4.2.1 Preserving the Sentence Structure

In the source text, numerous parallel structures consist of two or more phrases or clauses. These structures exhibit marked similarities in terms of their configuration, content, and tonality. Parallel structures are often employed to underscore the subject of the source text or to imbue a unique linguistic ambiance. In order to replicate the effects of parallel structures and effectively convey the original content, translators can employ the strategy of maintaining the initial sentence structure. More specifically, translators can first identify and replicate the structural marker, then ensure that the parallel components in the target text are preserved in a balanced structure. This approach strives to ensure the accurate conveyance of the intended message while respecting the original text's syntactic nuances.

Example 3

ST: It will also be important for future randomized trials to enroll infants who are at higher risk of morbidity and mortality, to present data for different gestational age groups and to measure long-term neuro-developmental outcomes. (CD004953)

TT: 同样重要的是, 今后的随机对照试验应纳入发病率和死亡率较高的婴儿, 应提供不同妊娠年龄组的资料, 应测量长期的神经发育结局。

The original sentence is drawn from the EBM Review titled "Prolonged Lung Inflation for Resuscitation of Babies at Birth." This review suggests potential strategies for future randomized trials, specifically the use of sustained or standard inflation techniques to assist newborn babies experiencing breathing difficulties. In the ST, three parallel verb phrases—"enroll infants," "present data," and "measure outcomes"—are employed to underscore the tasks future randomized trials should undertake. The marker of parallel structures, the preposition "to" preceding the infinitive form of verbs, appears three times, in

association with the verbs "enroll," "present," and "measure." During the translation process, the decision was made to preserve the sentence structure of the original text. The parallel "to" clause was translated as "应.....". Moreover, the "应....." structure was reiterated three times to emphasize the rhythm and intent of the original parallel structure. This method proved instrumental in preserving the source text's parallel effects and enhancing the acceptability of the translation to a Chinese-speaking audience. This approach ensures both fidelity to the source text and a fluent, coherent rendition in the target language.

4.2.2 Translating Into Chinese Compound-Complex Sentence

According to Zhang (1980), a Chinese compound-complex sentence comprises two or more parallel clauses. These clauses, interconnected in meaning, typically describe multiple elements, various situations, or distinct aspects of a single entity. In the source text, parallel structures often serve to elucidate the diverse effects of different trial regimens. In other words, these parallel structures embody related meanings and provide multifaceted views of a singular topic, closely aligning with the purpose of a Chinese compound-complex sentence. Therefore, in the process of translation, it is beneficial for translators to render parallel structures as Chinese compound-complex sentences. By doing so, they preserve the logical meaning inherent in these parallel structures and maintain the coherence of relations in the target text. This strategy contributes to a translation that is both faithful to the original text and understandable to the target audience.

Example 4

ST: Evidence from 19 trials involving 5214 women suggest that supplementation with 601 IU/d or more of vitamin D during pregnancy may reduce the risk of gestational diabetes but may make little or no difference to the risk of pre-eclampsia, preterm birth, or low birthweight compared to women receiving 600 IU/d or less.

TT: 来自 19 项试验、涉及 5214 名女性的证据表明, 女性在妊娠期间补充 ≥ 601 IU/d 的维生素 D, 可降低妊娠糖尿病风险, 但与补充 ≤ 600 IU/d 相比, 先兆子痫、早产或低出生体重的风险几乎没有差别。

The ST is from a systematic review that delves into the impact of varying vitamin D regimens on pregnancy and neonatal health outcomes, serving as a vital part of the systematic review's evidence base. The original sentence pairs "reduce the risk of gestational diabetes" with "make little or no difference to the risk of pre-eclampsia, preterm birth or low birthweight," linked by the conjunction "but." As defined by Merriam-Webster, "but" serves to introduce an contrasting point or alternative, frequently used to connect coordinated elements. Given this, it is incumbent upon the translator to accurately reflect the original logic by rendering the initial parallel structure into a corresponding Chinese compound-complex sentence. Such an approach aids Chinese readers (or listeners) in quickly apprehending key information and conclusions. Furthermore, the translator leverages the conjunction "但" to underscore the divergent outcomes associated with the supplementation of different doses of vitamin D during pregnancy.

4.3 Translation of Nominalization Structure

Nominalization, a prevalent linguistic phenomenon, has been defined by numerous scholars. Bussmann (2000) posits that nominalization refers to the process or outcome of forming a noun or noun phrase from a clause or verb. In line with this, Richards (1992) identifies nominalization as the grammatical conversion of other parts of speech, primarily verbs or adjectives, into nouns. Fu (2005), acknowledging nominalization as a crucial tool for condensing information, described it as an incongruous method for expressing processes or events. Consequently, it's crucial to unpack the experiential meaning in translation by presenting a more congruent parallel analysis.

In English nominalization structures, arguments are typically presented as nouns or corresponding adjectives that modify the nominal headword, taking the form of s-genitive and of-phrases. Newmark (1988) suggests that translators might supplement some referential information based on the needs of their readership. Reflecting on the author's own experience, unpacking and restoring nominalizations while reading medical texts significantly aids reader comprehension. English nominalization structures, often found in long and complex sentences, can be typically translated into Chinese clauses, articulating the implicit argument explicitly to reduce the cognitive effort required by readers. Moreover, transforming the nominalization structure into a verb, adjective, or other parts of speech in accordance with the central word's meaning and the target language's idiomatic preferences can be an effective strategy.

4.3.1 Information Expansion

Thompson (2014) asserted that nominalized metaphors may occasionally obscure participants or circumstances, potentially diminishing the original process. In such cases, nominalization could heighten translation difficulties, especially when numerous modifiers exist within the sentence. Hence, unpacking the condensed content embedded within the nominalization process can be an effective strategy to circumvent opaque translations. To put it another way, translators should aim to explicate the implicit argument or circumstantial element hidden within the nominalization to reduce readers' cognitive load.

Example 5

ST: Physical activity has long been advocated as an alternative and we did this review to get a better understanding of the conflicting evidence on its effectiveness, and have found that it is probably worth trying. (CD004142)

TT: 长期以来,人们一直主张将体育锻炼作为一种选择, 因为目前对于运动是否有效的证据是相互矛盾的,所以综述作者开展本综述的目的是了解这一证据,并发现了此方法很可能值得一试。

Example 5 is from a systematic review about the benefits of exercise for alleviating dysmenorrhea. In the original sentence, "We did this review to better understand the conflicting evidence on its effectiveness" contains condensed information. Should the translator opt for a literal translation of "conflicting evidence" into Chinese as "相互矛盾的

证据", it could disrupt the logical flow of the sentence. In other words, readers might question why the evidence is conflicting and why researchers are seeking to deepen their understanding of this conflicting evidence. The intent behind the review is to clarify that the evidence surrounding the effectiveness of exercise is contradictory, and the review was conducted to foster a more comprehensive understanding of this evidence.

Therefore, the author chose to elucidate the meaning concealed within "conflicting", augmenting the information contained in the nominalization by incorporating "因为" and "所以" based on the contextual backdrop. In this manner, comprehensive information can be accurately conveyed, simultaneously reducing the cognitive effort required of readers.

4.3.2 Shifting Part of Speech

Heyvaert (2003) posited that nominalization allows a word to inherit the attributes of a noun while concurrently maintaining certain properties of its origin class. EBM texts often favor nominal structures, yet their target language, Chinese, tends to prioritize verb structures. Consequently, shifting the part of speech presents a viable strategy for handling nominalization. This shift transforms the meaning of a word from an abstract notion to a more tangible action or attribute, thereby enhancing comprehension and readability.

Example 6

ST: Also, when thinking about COVID-19, there is an additional challenge because the included studies tested what happened when video calls were added to normal contact opportunities, while, with the prevention of such opportunities due to COVID-19, the key question now is whether video calls can help when social isolation prevents normal contact.(CD013632)

TT: 同样, 在新冠肺炎疫情影响下还有一个挑战, 因为所纳入的研究测试的是在正常联系方式之外增加视频通话将会发生的情况。然而, 疫情隔离导致受试者无法使用正常联系方式, 现在的关键问题是在此情况下, 视频通话是否有益。

The ST is extracted from a systematic review that addresses the impacts of utilizing video calls to mitigate social isolation and loneliness in elderly individuals during the COVID-19 pandemic. As shown in Example 6, the underlined segment constitutes a noun phrase, composed of the words: "the", "prevention", "of", "such", "opportunities". In this endocentric construction, "prevention" serves as the grammatical fulcrum. The nominalized structure "the prevention of such opportunities" engenders a verb-object relationship between "prevention" and "opportunities". The noun "prevention" warrants conversion to the verb "prevent", as it encapsulates the action embodied by "such opportunities". This process of demetaphorization reinstates the dynamism of the original action, thereby aligning more closely with Chinese linguistic expression. Additionally, the word "such" in "such opportunities" serves as a referent to the previously mentioned situation, namely, regular contact. When rendered in Chinese, the implicit argument "participants" within "the prevention of such opportunities" should be explicitly stated to clarify the logical relationship and reduce the cognitive burden on the reader.

Consequently, the translator morphs the noun structure "the prevention of such opportunities" into "受试者无法使用正常联系方式" to delineate the respective action. Adopting this approach ensures the target text conforms to the linguistic norms of the target language. It's worth noting that some nominalizations already possess established expressions in the target language. In such instances, translators should adhere to these pre-existing formulations to facilitate message reception by the target audience.

4.4 Translation of Passive Voice

The passive voice is a frequent feature of EBM texts, utilized for its precise and standardized language. Typically, passive voice structures in EBM texts can be bifurcated into two categories: (1) passive structures with an agent, where an agent refers to an individual or an object, predominantly highlighting the agent or its actions; (2) passive structures devoid of an agent, employed chiefly to describe a phenomenon or a process. Owing to the disparate linguistic structures of English and Chinese, as well as the conventional English passive voice sentence patterns, it is imperative to contemplate the nuances of Chinese expression and potential translation strategies during the translation process. The translator can accordingly select an apt translation strategy based on these two structures.

4.4.1 Transforming Passive Structures Into Active Ones in Chinese

In Chinese, active voice sentences are preferred due to their inherently positive connotations. Moreover, the inherent logical relationships within Chinese sentences can be manifested through word order. In contrast, English sentences necessitate a high degree of accuracy and formal completeness. Thus, achieving equivalence in both meaning and form during the translation process can present a significant challenge. Consequently, the translator often aims to preserve semantic equivalence and convert English passive voice sentences into Chinese active voice sentences.

Example 7

ST: Physical activity has long been advocated as an alternative and we did this review to get a better understanding of the conflicting evidence on its effectiveness, and have found that it is probably worth trying. (CD004142)

TT: 长期以来，人们一直主张将体育锻炼作为一种选择，因为目前对于运动是否有效的证据是相互矛盾的，所以综述作者开展本综述的目的是了解这一证据，并发现了此方法很可能值得一试。

In Example 7, the ST does not explicitly specify an agent, while "physical activity" is identified as the receiver. Yet, in Chinese, animate entities are frequently used as agents. To uphold both the precision and style of the source text, thus ensuring the communicative and informational functions of the medical text, the author has rendered "has been advocated" into active voice in line with Chinese expression conventions. Specifically, the passive construction "has been advocated" is translated into active voice with the addition of "people" (人们) serving as the subject.

4.4.2 Retaining Passive Voice in Chinese Translation

Passive voice sentences are often employed to enhance the objectivity and precision of the source text. Although the passive voice is less prevalent in Chinese than in English, it remains an appropriate approach to translate English passive sentences into Chinese passive counterparts when the emphasis is on the recipient. Throughout the translation process, translators can incorporate Chinese passive markers such as "被" and "为.....所.....". This approach helps retain the original meaning of the source sentence without losing its original form and attracts the attention of Chinese readers.

Example 8

ST: Convalescent plasma and hyperimmune immunoglobulin, which come from patients who have recovered from the infection, have been used in the past to treat a variety of infections when no other effective treatments are available. (CD013600)

TT: 过去没有其他有效的治疗方法时,病愈者的恢复期血浆和超免疫球蛋白被用于治疗多种感染。

Example 8 is selected from a systematic review that investigates the use of plasma from individuals who have recovered from COVID-19 as a treatment for those currently infected with the virus. In the ST, "convalescent plasma" and "hyperimmune immunoglobulin" form parallel subjects, and the phrase "have been used" indicates passive voice. The focal point of this sentence lies in "the utilization of convalescent plasma and hyperimmune immunoglobulin in patient treatment." To facilitate readers' rapid comprehension of the crucial information, the translator can employ expressions or words with distinct passive connotations in Chinese to accentuate the passive meaning inherent in the sentence. Specifically, "have been used" can be translated as "被用于" to highlight "the application of convalescent plasma and hyperimmune immunoglobulin in treating various infections." This translation method not only precisely conveys the original text's content but also avoids subjective interpretation, achieving a balance between the ST and TT.

5. Conclusion

This study provides a comprehensive examination of the translation of elongated complex sentences in EBM texts, with the subsequent delineation of corresponding translation strategies. Firstly, for relative pronouns, when non-restrictive attributive clauses are translated into clauses parallel to the main sentence, relative pronouns are often elided. Conversely, during the translation of restrictive clauses into fully-realized sentences in Chinese, these pronouns are transformed into the antecedent or the corresponding pronouns, signifying the entities previously referred to. Secondly, for parallel structures, it is incumbent upon translators to identify and mirror the markers within these structures. The aim is to sustain a symmetrical structure in the translated text, thereby faithfully emulating the uniformity of the source sentence. Thirdly, with respect to nominalization structures, these can often be rendered into a verb, an adjective, or other parts of speech, contingent on the semantic content of the core word, or even translated into Chinese clauses. Any inherent arguments that are not explicitly stated should be clearly articulated. Lastly, concerning passive

structures, when it is not feasible to preserve an equivalency in both meaning and form, these structures can be translated into sentences in the active voice in Chinese. Nonetheless, when the emphasis is on the recipient and the topic, English sentences in the passive voice should be translated to retain the passive voice in Chinese.

The quartet of translation strategies have proved to be significantly advantageous when translating intricate and extended sentences within EBM texts. Much more complex translation examples within this area can be added into the future research. At present, the translation of EBM texts continues to be a relatively unexplored domain within the broader field of medical translation research. Concurrently, machine translation presents itself as a promising avenue for future inquiry (Lai, 2021). Nevertheless, current machine translation algorithms predominantly rely on corpus-based translation, prioritizing word meaning verification and semantic feature manipulation. This focus may inadvertently result in a diminution of both reliability and accuracy in machine translation outputs—particularly when handling complex and extensive sentences in medical texts. Therefore, future research should look at ways to enhance the effectiveness of machine translation, ensuring it can effectively cope with the demands of sophisticated and long sentences within EBM texts.

This study, by delving into translation strategies for long complex sentences in EBM texts, aims to shed light on the intricacies of the task and provide useful insights for fellow translators. Furthermore, it seeks to contribute to the theoretical underpinnings of machine translation algorithms dealing with extensive and convoluted sentences in EBM localization projects. Future research on the E-C translation strategies employed in EBM texts can be further enhanced by expanding the scope of data analysis in relation to the four aspects mentioned.

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