

Analysis of Translation Strategies for Medical English Sentences

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Abstract: With the advancement of globalization, medical English translation not only facilitates the global sharing of medical knowledge but also enhances international medical cooperation, benefiting more developing countries. Medical English extensively employs complex sentences and passive structures, characterized by intricate sentence structures, rigorous logic, rich content, and numerous terms, which may lead to ambiguities during translation. This paper focuses on the challenges and the corresponding strategies for translating medical English sentences. By analyzing the linguistic features of medical English and adhering to the translation principles of faithfulness to the original text along with clarity and conciseness in the translated version, it summarizes practical translation techniques for sentences of medical texts. The study aims to address common issues encountered by translators, further explore effective translation strategies for medical English, and provide references for professionals in related fields.

Keywords: Medical English; Sentence Translation; Translation Strategies.

1. Introduction

With accelerating pace of intensifying international medical collaboration, English has emerged as the lingua franca for cross-border communication. Medical translation acts as a critical conduit for advancing global medical development. However, medical English sentences are characterized by the use of specialized terminology, lengthy syntax, and complex structures, posing significant challenges to translation. Ambiguities in translation may distort source-text semantics, thereby jeopardizing the accuracy of medical information. Functioning as core textual components, medical vocabulary plays a dual role in textual coherence and translation fluency. Zhang Haixia (2021) emphasizes that structurally intricate and semantically dense medical terminology not only forms the cornerstone of medical discourse but also directly impacts the comprehensibility of translated texts. Scholarly investigations in medical translation have predominantly centered on lexical analyses, whereas sentence-level complexities remain under-explored. Medical sentence translation necessitates a systematic analysis of linguistic divergences between English and Chinese, particularly in handling passive constructions and complex sentences. Xie Yu and Hu Bin (2009) delineate syntactic disparities between the two languages, advocating for adjustments in word order during English-to-Chinese translation to align with target-language conventions. This is exemplified by the prevalence of passive voice in medical English to convey neutrality, contrasting with Chinese's predisposition toward agent-focused active constructions. Translators should possess a thorough understanding of these linguistic traits to adeptly restructure sentences and produce target-oriented translations. Lu Lu and Zhou Yumei (2013) further note that medical English sentences often exhibit extended syntax with embedded clauses (e.g., adverbial or attributive clauses) to accommodate dense informational content and maintain factual precision. This paper examines the challenges inherent in medical English sentence translation, with a focus on passive voice and complex syntactic structures. By proposing targeted translation

strategies, the study aims to enhance practitioners' competency in rendering medically accurate, stylistically appropriate, and linguistically natural translations.

2. Translation of Passive Sentences and Complex Sentences in Medical English

Medical translation poses unique challenges due to its informational density, terminological specificity, and syntactic formality. The main difficulties often lie in the translation of passive sentences and complex sentences. This article mainly focuses on the translation methods of these two types of sentence structures. Analyzing the characteristics of passive sentences in Chinese and English is beneficial for summarizing the translation strategies of passive sentences in medical English. Cao Xinyu (2025) identified that in Chinese, passive meanings are often expressed using words such as "被"(bèi), "给"(gěi), "叫"(jiào), and "让"(ràng). This expression method reflects the focus on the recipient of the action rather than the action itself. In contrast, in English, passive sentences are typically constructed using the form "be + past participle", which is direct and easy to identify. The process of translating medical English sentences can take advantage of the differences between passive sentences in English and Chinese, and apply corresponding translation techniques to adjust the structure and order of the translated sentences and add words to make the logic between sentences more coherent. Medical English articles also contain a large number of complex sentences, which have complex sentence structures and often include multiple clauses within a single sentence, along with many medical terms, resulting in a large amount of information. Translators may encounter difficulties in fully understanding the precise meaning of the sentences during the translation process, leading to inappropriate expressions or even translation errors. Yin Ruoxi (2020) pointed out that translators need to clarify the grammatical relationships within long sentences, distinguish the main clauses and subordinate clauses in complex sentences, and thereby effectively translate a sentence. Analyzing the

sentence structure, extracting the subject and predicate, is an important approach to solving the translation of complex sentences. This article starts from the difficulties of complex sentences and passive sentences, uses multiple examples for analysis, and provides translation strategies for translators, aiming to improve their translation efficiency.

2.1. Passive Sentence Translation

Passive sentences are quite common in medical literature. They are usually composed of "be + past participle", and sometimes "get + past participle" structures are also used. Medical English emphasizes objectivity, and passive voice more strongly emphasizes the research subjects and patients, highlighting the subjectivity of the action receiver. While active voice can make the sentences more direct and clearer. However, excessive use of passive voice can make the sentences sound obscure and lengthy, lacking coherence and smoothness. Therefore, in the translation process, the use of conversion techniques in passive sentences can improve the fluency and accuracy of the sentences, and flexible use of these two voices and good conversion skills are also the abilities that translators need to possess.

Medical application focuses on professionalism and logic. Over-simplification can easily lead to inaccurate information transmission. Therefore, when using conversion techniques, it is also necessary to grasp the scale. Appropriately converting the voice can improve the translation quality and help readers better understand the text information. When dealing with passive sentences in medical English, there are three translation methods for passive sentences: adding the subject, converting the subject, and converting to Chinese passive sentences. These methods can effectively improve the translator's translation efficiency.

2.1.1. Adding the Subject

The method of adding the subject belongs to the augmentation technique. During the translation process, based on the semantic or cultural background requirements, words that are not present in the original text but are indispensable in the target language can be added to enhance the accuracy and fluency of the translation.

In English, there are many passive sentences. In such sentences, the agent of the action is often absent. Using objects as the subject emphasizes objectivity, while the active voice is more subjective. However, Chinese often uses the active voice. Therefore, when the translator is familiar with the background information before and after the text and the lack of a subject leads to incomprehensible sentence meaning, the method of adding the subject can be adopted to improve the fluency of the translation.

Example 1: In this animal experiment, two scenarios (superficial anastomosis and deep anastomosis) were design.

Translation: 在此次动物实验中,研究员设计了两个实验场景(浅层吻合和层吻合)。

Analysis: When a passive sentence uses an object as the subject, it can appear fair and objective. However, if the sentence is translated using the literal approach, it would be rendered as “在此次动物实验中,两个实验场景(浅层吻合和深层吻合)被设计。” This translation reads awkwardly and does not conform to the natural flow of English expression. Therefore, the translator chose to add a subject to make the sentence more fluent and smoother. When translating passive sentences, the translator can identify the implicit actor of the action in the context of the text and

complete the translation by adding a subject. This way, the sentence becomes more logical and readable.

2.1.2. Subject Conversion

The expression habits of English and Chinese are different. In Chinese, people are often used as the subject, and the active voice is frequently employed, with the focus on the doer of the action. In contrast, English emphasizes objective facts and often uses objects as the subject, with the focus on the recipient of the action. Based on the differences between the two languages, the method of subject conversion can be used. By analyzing the sentence structure to identify the logical subject, the passive voice can be transformed into the active voice through subject conversion.

Example 2: Cumulative probabilities of no PSA failure, PSA-PFS and PFS were also estimated using the KM method.

Translation: 也使用KM方法估计了无PSA失效、PSA-PFS和PFS时的累积概率。

Analysis: If this sentence is translated literally, it would be “无PSA失效、PSA-PFS和PFS时的累积概率被估计了通过使用KM方法。” Such a translation does not conform to the expression habits of Chinese and is awkward and unsmooth to read. One can adopt the method of converting the subject. Here, the cumulative probabilities are estimated. The person who initiates the action should be the researchers who operate, but the researchers are not the focus of this sentence. If we use the method of adding a subject, the focus will be deviated. By converting the subject, we can put "using the KM method" as the logical subject earlier through the method of converting the subject. By converting the subject, we can ensure the objectivity and accuracy of the translation while improving the fluency and readability of the translation.

Example 3: For deep anastomosis, operators were required to perform vascular anastomosis within a 5 cm depth.

Translation: 深层吻合术要求操作人员在5cm深度内进行血管吻合。

Analysis: The subject of the sentence is "operators", and a direct translation should be “对于深层吻合术,操作人员被要求在5cm深度内进行血管吻合”。 A direct translation would make the sentence awkward and hard to read. We can adopt the method of converting the subject to "deep anastomosis" to make the sentence logical and coherent. The subject is changed to “深层吻合术” while retaining the meaning of the predicate verb "required". The translation is more readable while maintaining the fidelity of the original text.

2.1.3. Converting to Passive Structures in Chinese

Xie Jingzhi (2004) holds that passive sentences in English can also be translated into passive sentences in Chinese. Chinese speakers seldom use the “被” word and tend to use the active voice in language. When the semantic emphasis of an English passive sentence lies on the meaning of the predicate verb itself, the translator usually needs to translate the English passive sentence into a Chinese passive sentence. When the subject is the recipient of the predicate verb, to highlight the relationship between the subject and the predicate verb, the English passive sentence can be appropriately translated into a Chinese passive sentence. Words such as “由”, “遭”, “让”, “为……所” can be used to replace the “被” word, making the text more fluent and rigorous.

Example 4: This appears to suggest that the cardiovascular risk in patients treated with degarelix may be driven by

normal aging.

Translation: 这似乎表明,接受地加瑞克治疗患者的心血管风险可能是由正常老龄化引起的。

Analysis: "may be driven by" is in passive voice. If we use "被" before it, it might be translated as "被正常老龄化推动的", but using "由" can also express the cause. Moreover, translating "driven" as "引起" makes the translation more fluent and natural.

Example 5: The surgical procedure was performed by the second author (S.P.), who has substantial experience in transpalpebral approaches for orbital tumors and orbital reconstruction.

Translation: 该手术由本文第二作者(S.P.) 主刀, 该医生在由经睑入路切除眼眶肿瘤和眼眶重建领域有丰富的经验。

Analysis: In the sentence, the subject is "The surgical procedure", and "was performed" is in passive voice. The first half of the sentence can be directly translated as "该手术被第二作者 (S. P.) 实施了". Using "被" would result in an overly formal translation style. To avoid this, we can convert it to a passive sentence in Chinese, changing "被" to "由", which makes the sentence more fluent, readable, and in line with the style of medical English papers.

2.2. Translation of Complex Sentences

Qin Yalin (2021) summarized that a complex sentence is one that contains one or more subordinate clauses. When dealing with such sentences, it is necessary to first analyze their structure, identify the conjunctions, and apart from the main clause, analyze the role each sentence type plays in the entire sentence and the part it modifies. Medical English complex sentences involve many professional terms and various grammatical environments. Their content and form are complex, and most sentences also contain various subordinate clauses and modifying components, which are diverse and intricate. Therefore, during the translation process, it is essential to accurately identify the subject and predicate in the structure of medical English complex sentences, translate the content and meaning of the words in medical English complex sentences, and at the same time maintain the integrity and rigor of the sentence structure. It is also necessary to understand the structural characteristics of English sentences, clarify the structure of complex sentences, distinguish the main components of the sentence, and then identify other modifying components. Nouns, adverbial clauses, objects, and attributive clauses are frequently used in medical English papers, which can make the content expression clearer and more abundant, but they also increase the complexity of the sentences and affect the accuracy of medical translation. If they are ignored in translation, it is easy to cause confusion in the translation content and deviate from the original meaning. The translation of complex sentences is also a difficult point in medical English translation. When translating complex sentences, two translation methods can be adopted: sentence segmentation and recombination, and the method of converting static expressions into dynamic expressions. Translators can also adopt reasonable addition and omission without deviating from the original text to produce readable translations.

2.2.1. Sentence Recombination

Wang Jianshi (1987) pointed out that the positions of the sentence's focal point in English and Chinese are different. Generally, the focal point in English sentences is placed at the

beginning, while in Chinese sentences, it is at the end. In some complex sentences in medical translation, the sentences translated by the method of breaking the sentence and translating it in sequence conform to the Chinese expression habits. However, most of the complex sentence structures are more complicated. The sentences translated in sequence are not smooth, stiff and awkward, and do not meet the requirements of translation. Therefore, the method of breaking the sentence and reorganizing it can also be used. After analyzing the sentence, it is broken down according to semantic groups and arranged according to the logical order of the sentence to improve the fluency and readability of the translation.

Example 6: The results from this randomized open-label comparative study demonstrated/ that degarelix once-a-month dosing regimen/ was efficacious and non-inferior to once-a-month goserelin/ in achieving and maintaining testosterone suppression at castrate levels/ with an acceptable safety profile/ in Chinese patients with prostate cancer.

Translation: 这项随机分配且开放标签的比较研究结果表明,在中国的前列腺癌患者中,每月一次的地加瑞克用药方案,在实现和维持睾酮激素达到去势水平方面同样有效,且与每月一次的戈舍瑞林用药方案相比具有非劣效性,其安全性也可以接受。

Analysis: This sentence has a total of 41 words and no punctuation marks, so the translator needs to spend some time on comprehension. When analyzing the sentence, it is necessary to break it down according to the meaning, dissect the main clause, subordinate clauses, and modifying components layer by layer in a certain logical order, grasp the logical relationship between each component, adjust the word order, and then use the method of adding translation to make the sentence smooth and accurate. The phrase "in Chinese patients with prostate cancer" is placed at the end of the sentence in the original text, which does not conform to Chinese expression habits. Therefore, it is placed after the result is indicated, limiting the scope and conforming to Chinese expression habits.

2.2.2. Transfer from Static Expression to Dynamic Expression

In the process of translating compound sentences, we will encounter the common nounization structure in English, the multi-static expression in English and the multi-dynamic expression in Chinese. Luo Hongxia (2015) pointed out that translation should not follow the surface language form of English, but flexibly convert some parts of speech in the original text to other parts of speech in the target language on the premise of accurately reproducing the information of the original text, which is conducive to the effective translation practice. If you directly translate the noun structure in English into Chinese, the sentences will be abstract and difficult to understand, too long, and the logic is unclear. Therefore, in the process of translation, if the structure of "the+ noun/noun phrase +of" is encountered, the form of the noun can be changed into a verb, and the sentence is more in line with the expression habits of the target language.

Example 7: It is thus clear that the best approach should ensure adequate visualization of the intraorbital muscular and neurovascular structures and the lesion, minimizing manipulation of the former.

Translation: 明确的是,最佳的手术方法需确保能充分地观察到眼眶内的肌肉、视神经结构和病变的具体情况,尽量减少对前者造成损伤。

Analysis: If “visualization” translated as“可视范围”can express the meaning of the sentence, but the translation is cumbersome and not clear and concise. The structure can be modified to the adverb + verb form, so the word "visualization " can be translated into “充分地观察到”, which is significantly more concise.

3. Concluding Remarks

English and Chinese belong to different language systems, and the two languages involve different cultural carriers and ways of thinking. The complexity of medical English sentences is a challenge for translators because of their unique language structure, many technical terms and large amount of information. Compound sentences in medical English papers may superimpose multiple clauses, which should be handled carefully in translation, otherwise information may be lost or errors may be caused, so the medical translation work needs more time for translators to deliberate. In view of this phenomenon, this paper analyzes and summarizes the characteristics of medical English sentences, analyzes the corresponding translation methods used in compound sentences and passive sentences, and uses some conversion techniques to improve the fluency and readability of sentences, so as to ensure the accuracy of the translation while making the sentences more coherent and smooth. The passive sentences can be translated by adding subjects, changing subjects, translating into non-subject sentences and Chinese passive sentences, and the compound sentences can be translated by broken sentences and static expression to dynamic translation, which can effectively improve the efficiency of translation and the fluency of translation. Medical science is very difficult. Translators should not only have a strong bilingual ability in Chinese and English, but also take into account the logic and professionalism of medical papers. The above methods can help translators better complete medical translation projects. However, in the final analysis, in order to do a good job in medical translation, translators need to continuously improve their bilingual expression ability in Chinese and English, learn a wide range of medical related professional knowledge, truly enter the medical industry, and reach the professional level of

translation.

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