A Study on the English-Chinese (E-C) Translation of Medical Texts Under the Guidance of Function Plus Loyalty Theory

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Abstract: As one of the most important branches of English for science and technology, medical English has unique lexical, syntactic, and textual features. Whenever translating medical English into Chinese, the translator must be responsible for the original author, faithful to the original text, and aware of the target audience. Developed by German functionalism master Christiane Nord, “function plus loyalty” theory is an important translation theory, standing on two pillars: function plus loyalty. From the lexical, syntactic and textual levels of E-C translation of medical texts, this paper draws on the perspective of function plus loyalty theory to explore the applicability of the theory to the translation practice, and proposes translation methods at different grammatical levels to provide a reference for relevant translation practices of such texts.

Keywords: E-C translation, Medical texts, Function plus loyalty theory.

1. Introduction

With the increasingly frequent academic exchanges between the West and China and the continuous strengthening of communication in the medical field, medical translation is playing an increasingly important role as a bridge. Compared with the translation of other scientific English, medical English has distinct characteristics and unique requirements. How to deal with the translation of such texts is a common problem in translation practice. Translators should consider two aspects when translating: how to achieve accuracy and readability at the level of language conversion, and how to implement the translator’s sense of responsibility. German functionalist translation theory is one of the widely studied and recognized translation theories in modern translation theory. Its first generation of theories mainly includes Katharina Reiss’s Text Typology, Hans J. Vermeer’s Skopstheorie, and Justa Holz-Mäntäri’s Theory of Translation Action. Its second-generation theory is mainly Christiane Nord’s Function plus Loyalty theory. Functionalist translation theory has distinct purpose-oriented features, and medical translation has a certain purpose and function, so the former is applicable to guide the latter. Based on the features of medical English and its Chinese translation requirements, this paper studies the application of this theory in the E-C translation of medical texts from the lexical, syntactic and textual levels.

2. Features of Medical English and the E-C Translation Standard

2.1 Features of Medical English

Medical English has unique lexical, syntactic and textual features. At the lexical level, medical English widely uses professional terms, semi-medical words, foreign words and abbreviations. As medical English contains many sub-disciplines and is highly professional, there are a large number of unified specific words and expressions in the subject, namely professional terms. Semi-medical words refer to the special meaning of some common English words for medical majors, which is a polysemous phenomenon [1]. Medical English contains a large number of foreign words, mainly from Greek and Latin, and other sources include French, Arabic, German and Chinese [2]. It uses a large number of professional abbreviations to reduce complexity, which is conducive to language simplicity and communication. At the syntactic level, medical English frequently uses passive voice and long, complex sentences [3]. As a branch of English for science and technology, medical English widely uses the passive voice, highlighting the objectivity and standardization of narration. Medical texts often use long and complex sentences to demonstrate logical rigor and accuracy. At the textual level, the professionalism of medical texts determines the particularity of their discourse. It has rigorous logic, formal language, clear semantics, a close structure, and a complete system of internal cohesion.

2.2 Differences Between English and Chinese

Due to the different ways of thinking, there are so many differences between English and Chinese expressions. It is important to focus on the differences between hypotaxis and parataxis, the differences between impersonal and personal styles, and the differences between the passive and active voice in medical English translation [4]. The difference between hypotaxis and parataxis refers to the fact that English features hypotaxis, puts form first, pays attention to formal structure, and needs linguistic forms such as relational words, conjunctions and prepositions to express grammatical meaning and logical relationship. While Chinese features...
parataxis, stresses meaning and semantic logic, and usually does not require language form connection. The latter mainly expresses semantic or logical relations through sentence order and sentence relationship. Therefore, English has many long and complex sentences, while Chinese has many shorter and simpler sentences. The difference between impersonal and personal styles refers to the fact that English emphasizes the object and often uses inanimate objects or abstract concepts as subjects (i.e. inanimate subjects), while Chinese emphasizes the subject, and commonly uses animate or concrete things as subjects, such as people, organizations and institutions (i.e. animate subjects). The difference between the passive and active voice refers to the fact that in English, syntactic passive sentences are commonly used, while notional passive sentences are less common, but in Chinese, notional passive sentences are common, while syntactic passive sentences are less common.

2.3 Translation Standard

The standard of medical English translation into Chinese can refer to Chuanying Li and Chengli Pan’s statement that the translation must be responsible to the source language author, faithful to the original text, and accurately convey the ideological content of the original text, including viewpoints, arguments, facts, data and style. At the same time, the translation should be responsible for the target readers, and the standard target language should be used to make the readers know the information in the original accurately and quickly. [5] In other words, the standard of E-C translation of medical texts can be understood as faithfulness, smoothness and practicality.

3. Overview of Function plus Loyalty Theory

Nord’s concept of “function plus loyalty” was first proposed in the German Textanalyse und Übersetzen: Theoretische Grundlagen, Methode und didaktische Anwendung einer übersetzungssrelevanten Textanalyse [6]. In 1991, the first English version of the book was published [7]. Nord mainly focused on Holz-Mäntäri’s translation theory. [8] Holz-Mäntäri regards the text as a pure tool to realize the communicative function and believes that its inherent value is completely subordinate to its purpose. The translator only needs to be responsible for the purpose environment, and the target text can be completely independent of the original text. Nord argues that free rewriting does not belong to the category of translation, so she argues that “without the original, there is no translation”. The translator should be responsible for both the source text and the target text environment and for the original message sender (or) initiator and the target reader. She calls this responsibility “loyalty”.

Nord is a leading figure in German translation studies, graduating from Heidelberg University in 1967, and majoring in Spanish and English. She received her doctorate from Heidelberg University in 1983. She taught at the University of Heidelberg, Germany (1967-1994), the University of Vienna, Austria (1991-1992), the University of Hildesheim, Germany (1994-1996), and the University of Innsbruck, Austria (1996) successively. Since 1996, she has been Director of the School of Translation and Professional Communication at the University of Applied Sciences in Madburg, Germany, where she was Vice-President from 1998 to 2000. As a translator, teacher and translation researcher, Nord has published about 80 papers and monographs on translation teaching and research. Her works mainly involve discourse analysis in translation, translator training, translation functional categories, etc. [9]

In the 1980s and 1990s, the German school of functionalist translation emerged with landmark theories: Katharina Reiss’s Text Typology, Hans J. Vermeer’s Skopstheorie, Justa Holz-Mäntäri’s Theory of Translation Action, and Nord’s Function plus Loyalty. Reiss, Vermeer, and Mäntäri are the first-generation representatives of the German functional school, and Nord is the second-generation representative. Her theory is developed on the basis of the first-generation theory. Nord believes that functionalist theory can cover all types of translation and is particularly important for translation teaching. Functionalist theory regards “function” as “effect” focusing on how language/discourse functions in different contexts, that is, how intention and meaning are reflected through language. The focus is on how the context in which the translation is produced (including text type, translation initiator, client, publisher, translation user, etc.) affects the translator’s translation strategy.

Nord’s functionalist methodology is based on two pillars: function plus loyalty [10]. The combination of these two principles is particularly important. Function refers to the factors that make a target text work in the intended way in the target situation. Loyalty refers to the interpersonal relationship among the translator, the source-text sender, the target-text addressees and the initiator. The concept of function is widely used in all functionalist translation theories. Nord’s theory is deeply influenced by his teacher Reiss’s text typology [11]. Nord classifies text into four functional categories: referential function, expressive function, apppellative function, and phatic function. The referential function includes indicating objects and phenomena in the world or in a virtual specific society. The expressive function refers to the speaker’s attitude towards world objects and phenomena. The apppellative function is used to guide the recipient to respond in a specific way. The phatic function is used to establish, maintain or terminate a connection between the sender and receiver of a discourse. The loyalty principle limits the functional scope of the translation of a certain source text and increases the negotiation between the translator and the client. [4] The concept of loyalty, a moral category, incorporates the conventions of specific cultures into the model of functionalism [12]. Loyalty is a requirement for the translator with regard to the target-text readers, the client, the source-text author and last, but not least — with her or himself [13]. The translator’s loyalty to himself is always to submit his best translation [14]. The core concepts of Nord’s function plus loyalty theory are translation brief, source text analysis and classification of translation problems [15].

Nord points out that the translation brief, the requirements of the translation client for translation, is used to define the communicative purpose of the translation. The ideal translation brief expresses or implies the following information: the expected function of the translation, the
target readers, the media, the time and place of publication, and, if necessary, the motivation to create or publish the translation. An ideal translation brief can help translators choose appropriate translation strategies.

Nord’s original analysis includes both extratextual and intratextual factors. Extratextual factors involve information sender and its intention, receiver, media/channel, communication place, communication time, communication motivation, text function, intertextuality, and so on. The intratextual factors include the theme from words, sentences, and paragraphs to content. Nord argues that the analysis of the source text guides the translation process and provides a basis for the translator to make the following decisions: whether the translation task is feasible; what information in the source text is related to functional translation; what kind of translation strategy can be adopted to make the translation conform to the translation brief.

Nord points out that translation problems can be divided into pragmatic, cultural, linguistic and textual problems. Pragmatic translation problems arise from the differences between the original situation and the translated situation and can be determined by analyzing some extra-language factors. The problem of cultural translation is caused by the differences in the norms and conventions of language and non-language use between the two cultures. Translation problems may also arise from the institutional differences in lexical, syntactic and supra-segmental features of the two languages. Translation problems also occur in the translation of a particular source text, such as some speeches, new words or puns. Nord points out that in functional translation, translation problems should be dealt with in a top-down manner. That is to say, the process of functional translation should start from the pragmatic level, first determine the target function of translation, and then distinguish between the functions that need to be reproduced in the original text and those that must be adjusted according to the target reader’s background knowledge, psychological expectations, communicative needs, media conditions and indicative needs.

Meifang Zhang believes that function plus loyalty is Nord’s unique translation theory, or more precisely, her ideal. In practice, it is not easy to be loyal to the client, the author and the reader at the same time. If the purpose of the translation is the same as that of the original text, function plus loyalty seems to be no problem [11]. However, as Tianzhen Xie points out, in practice, it is more difficult to be loyal to all parties, especially when the purpose of the original text is different from that of the translation. What’s more, Nord is deeply influenced by Reiss and uses the mode of discourse analysis, which undoubtedly makes her unable to get out of the limitation of equivalence [16].

4. The E-C Translation of Medical Texts Under the Guidance of Function plus Loyalty Theory

Mengzhi Fang defines applied translation as “the translation of all texts except literary texts and pure theoretical texts”, including government documents, notices, scientific papers, news reports, legal documents, business letters, product descriptions, manuals, advertisements, technical texts, popular science books, travel guides and other texts [17]. Thus, medical text translation belongs to applied translation. Bing Xiong adopts this definition and points out that functionalist translation theory has distinct purpose-oriented characteristics, while applied texts often have clear purposes and functions. Therefore, functionalist translation theory has good applicability to applied text translation [18]. As is known, the function plus loyalty theory belongs to the functional theory. Therefore, it is theoretical that function plus loyalty theory can guide the translation of medical texts.

Based on the textual function in translation, Nord further summarizes two translation strategies: documentary translation and instrumental translation. Documentary translation aims to reconstruct the communicative activities between the sender and the reader of the original text under the condition of the source language culture. According to the reproduction of the original text in the translation, documentary translation can be divided into four types: interlinear translation, literal translation, philological translation and exoticizing translation. The instrumental translation aims to create a new communicative tool for the sender in the source language culture and the receiver in the target language culture with the source text as the model. According to different degrees of functional equivalence, it can be divided into equifunctional translation, heterofunctional translation and homologous translation [10]. It can be seen from the translation standard that the purpose of medical translation is often to enable the target readers to obtain the function of the source text, that is, the target text has the same referential function as the source text. Therefore, the translator needs to adopt the equifunctional instrumental translation strategy and implement it throughout the translation process and focus on the functional unit of the source text in the translation process. Nord believes that discourse is regarded as a ‘super-unit’ composed of multiple functional units that are not constrained by hierarchy, and each functional unit can appear anywhere and at any level of the discourse in a linguistic or non-linguistic situation. Based on the equifunctional instrumental translation strategy, in order to achieve the purpose of translation, translators will adopt specific ways, steps and means, namely translation methods, and implement and apply the required techniques, namely translation skills, to complete the whole translation. Next, combined with specific cases, the applicability is to be elaborated from the aspects of lexical meaning selection, syntactic structure transformation and textual style unity.

4.1 The Selection of Lexical Meaning

According to the theory of function plus loyalty, loyalty means that the translator should become a responsible and trustworthy partner of the original author, and the purpose of the translation should conform to the intention of the author. In order to make the function of the target text equal to that of the original text, the meaning of the sentence should be faithfully conveyed first. Word meaning is the basis of sentence meaning. Therefore, at the lexical level, it is necessary to understand the original text accurately and choose the appropriate translation according to the context or convention.

Eg1
Source text (ST): Patients should be warned not to have heavy food.

Target text (TT): 应告诫患者不要吃难消化的食物。

The original text tells what patients should pay attention to. To achieve the communicative purpose and realize the original author’s intention, the translator closely follows the context and common sense to judge and chooses the appropriate medical definition for “heavy”, and translates the common word meaning into the medical term “难消化的”.

Eg2

ST: Gram’s method
TT: 革兰氏染色法

To enable the target readers to obtain the same reading experience as the original readers, the translator should follow certain conventions in translation. Here, the commonly accepted translation of “Gram’s method” in the biomedical field is “革兰氏染色法”, which needs to be translated according to conventions, rather than “革兰姆式染色法”.

Eg3

ST: Calcitonin (CT), produced by the thyroid gland, inhibits osteoclastic activity and accelerates calcium absorption by bones, while parathormone (PTH), synthesized by the parathyroid glands, increases the number and activity of osteoclasts. PTH also releases calcium and phosphate from bones into blood, transports calcium from urine into blood, and transports phosphate from blood into urine [5].

TT: 降钙素(CT)由甲状腺产生，抑制破骨细胞活动，并促进骨钙吸收，而由甲状旁腺合成的甲状旁腺素(PTH)能增加破骨细胞的数量和活动，PTH释放骨钙及骨磷酸盐入血，转移尿钙入血，并将血中磷酸盐转移至尿液[5]。

The translation of abbreviations should not only be accurate and faithful to the original author but also be concise and readable, taking into account the reading habits of the target readers. In the translation, the English abbreviation PTH is introduced in the back brackets when “甲状旁腺素” appeared for the first time, while the latter is replaced by PTH when appeared again.

4.2 The Transformation of Syntactic Structure

According to the theory of function plus loyalty, the translator must consider the expectations of the target readers and achieve equivalent translation, so that the translation is smooth and the readers have a good reading experience. In the process of translation, the expression differences between the two languages, especially the difference between hypotaxis and parataxis, should be taken into account and transformed flexibly to adapt to the reading habits of the target language environment.

Eg4

ST: Septicemia was defined in the past as the presence of microorganisms or their toxins in the blood.

TT: 过去人们定义败血症为病原菌侵入血液并产生毒素。

Due to the differences in the use of passive sentences between English and Chinese, translators need to consider these differences in translation to meet the expectations of the target cultural groups. In E-C translation, it can be processed into Chinese active sentences, Chinese passive sentences or sentences with “把”, “使” or “由” as needed. Here, the original is a passive voice, it can be handled in the active form according to Chinese expression habits.

Eg5

ST: The physician is not a disembodied instrument that can be passively shaped by the profession (i), but rather a human being with innate strengths and weaknesses that must be recognized (ii) in order to meet the expectations of patients and of profession, not least of which are those standards established for oneself (iii) [19].

TT: 医生不是被职业塑造没有血肉的工具(i)，而是天生具有优缺点的人类，为了满足患者期望和职业要求，尤其当这些因人而异(iii)时，他们必须意识到自身的优缺点(ii)。

In the target culture, the translator’s responsibility is to make the work fully accepted, which requires the translation to conform to the expression habits of the target language. The original text is a circular attributive clause, including two restrictive attributive clauses and one non-restrictive attributive clause. For the smoothness of the translation, the first two short attributive clauses can be translated before the antecedents, and the non-restrictive attributive clause can be translated after the antecedent. At the same time, the translator adjusts the order of clauses according to the logical order of Chinese and gets a smooth translation.

Eg6

ST: Similar results were found in several studies with porcine models that investigated the effects of temperature of the coolant (water) and the duration of cooling [20].

TT: 以猪为研究对象开展了几项动物研究，调查了冷却剂（水）温度和冷却持续时间对伤口的影响，发现了类似的结果。

The attributive clause here is grammatically analyzed as a restrictive attributive clause, but from the perspective of use, it is not smooth to translate according to the modification and restriction. Therefore, the attributive clause is used here as a grammatical means to make the sentence more compact. Translation starts with dividing the sentence into sense groups. The original sentence contains three meanings: similar results were found; several studies with porcine models; and studies that investigated the effects of temperature of the coolant (water) and the duration of cooling. Then the order of clauses is arranged according to the Chinese logical order of time, and
a smooth translation is obtained.

4.3 The Unity of Textual Style

According to the theory of function plus loyalty, the translation should conform to the environment in which a particular function should be performed, and the linguistic or non-linguistic features of the text are determined based on communicative situations. In terms of the language form, a translation, with a language style close to the original, should conform to the target language habits and general writing rules. It manifests not only in the unity with the original style but also in the unity with the target language conventions.

Eg7

ST: Watch for these signs and symptoms: fever, coughing and shortness of breath or difficulty breathing. If you develop fever or any of these symptoms, call your healthcare provider right away [21].

TT: 注意以下体征或症状：发烧，咳嗽，呼吸短促或呼吸困难。若出现发烧或任何其他症状，立即拔打医院或医护人员[21]。

The principle of English writing is that the whole paragraph explains a theme, and the whole paragraph and each sentence revolve around the theme sentence. To be loyal to the original author, the translation must be consistent with the original text in these aspects. Here, the use of the pronoun “these” in ST is an important manifestation of textual logic. It is used to refer to the various symptoms mentioned above. In the TT, it is translated into “以上”，which enhances the context cohesion and is rigorous and concise.

5. Conclusion

To sum up, for the task of English-Chinese translation of medical texts, Nord’s function plus loyalty theory can be used to guide the translation process, determine translation strategies and solve translation problems. In this way, the purpose of the original text can be accurately conveyed at the functional level, and the interests of all parties can be fully considered at the loyalty level, so that the function of the translation can be fully utilized in the target context. For the task of E-C translation of medical texts, when the intention of the sender is not only to the recipient in the source language culture but also to the target language culture audience, the equifunctional translation strategy can be used and persisted in the translation process. When translating, attention should be paid to the functional units of the original text, so that the target language audience can obtain the function of the original text. Translation problems are mainly caused by the differences in vocabulary and syntax between the two languages. The translation process is to use appropriate methods and techniques to transform the language on the basis of these differences. The translator’s loyalty should be carried out all the time. It is important for the translator to keep in mind the reasonable interests of all parties involved in the translation process, including the original author, the translation initiator, and the target audience. When any conflict of interests occurs, the translator should intervene in coordination and seek the consensus of all parties when necessary. The translators’ loyalty is also reflected in their commitment to themselves, which means producing the best translation possible to ensure that the work is fully accepted by all parties.

References


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