The English-Chinese Translation of Scale from the Perspective of Translator Behavior Criticism

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Abstract. With the development of high-quality assessment tools in the medical field, the awareness of copyright in the pharmaceutical industry, the increasing clinical demand for medical scales, and the gradual introduction of foreign authorized scales in China, domestic pharmaceutical companies have purchased the required genuine medical scales from online platforms such as ePROVIDE, EuroQol and Cardiff University Medical Resources. Translator behavior criticism is an evaluative theoretical tool simply used for post-evaluation, a dynamic evaluation model that provides a comprehensive and objective guide to translation criticism to ensure the reliability and validity of the scales. In this paper, 20 medical scales are collected. Combined with "in-translation" and "out-of-translation" scales and guided by translation examples in the framework of “truth-seeking-utility-attaining” evaluation, the model will be discussed in detailed translation problems to solve the reliability and validity of the scales, and to provide strategies for improving the quality of the scales.

1 Introduction

Domestic research on the translation of medical scales in nursing focuses on: cross-cultural linguistic differences, cultural adaptability of the translation, reliability of the scale, and consistency of the scale content. Guo Jinyu and Li Zheng elaborated on the introduction process and evaluation criteria of medical scales [1]. Liu Zhunzhun et al. based on the cross-cultural adaptation guidelines proposed by Beaton et al. for the BFS scale for cancer ensured the translation quality of the scale through S-TV1 and I-TVI index analysis and expert review [2, 3]. Li Li et al. studied Cronbach's α coefficient with statistical EpiData software according to FACIT translation principles, with the aim of assessing scale content consistency [4]. Domestic applications of the theory of translator behavior criticism mainly analyze the successes and failures of Chinese literary translations from the perspective of the translator's behavior. For example, Dai Wenjing studied the identity of translators in The Literary Mind and the Carving of Dragons, and Zhou Xuanfeng et al. analyzed the translation behavior of missionaries [5, 6]. Tang Lei and Zhao Guoyue studied the English translation criticism of "vernacular language" [7]. But no one has applied this theory to the study of the translation of medical scales yet.

Medical scales require a high degree of reliability, validity, content consistency, and cultural adaptability of their content. Previous researchers in nursing have translated medical scales mostly at the semantic level, ignoring the subjective initiative of the translator. Translator behavior criticism theory views translation as a dynamic process in which the translator adjusts to the translation of the scale in conjunction with the social dimension. From the perspective of the translator's subject identity, the author combines "truth-seeking" in translation and "utility-attaining" out of translation. The "truth-seeking" level in translation is from syntactic translation, terminology translation, and translation method, to improve the content validity and consistency of the translation of medical scales, At the level of "utility-attaining" is analyzed in terms of the original language factor, the reader factor, and the cultural factor, to solve the problem of cross-cultural adaptability of medical scales. With this theory, the translation of medical scales is comprehensively evaluated and modified to solve the problems of low quality, readability, and validity.

The innovation of this paper is that the author starts from the translator's identity, gives full play to the translator's subjectivity, and borrows the translator's behavior criticism theory from the perspective of translation science and the pragmatic level. In addition, there are relatively few studies on the translation of medical scales in China, and there is a single method to detect the quality of scales. Translator behavior criticism theory is chosen as a translation evaluation tool with a novel perspective that provides a new research perspective for the selection of materials and is of great significance for enriching the relevant studies of medical scales translation.
2 Literature Review

Zhou Lingshun proposed the theory of translator behavior criticism which is used for post-evaluation and is an evaluative theoretical tool [8]. "Truth-seeking-utility-attaining" is the core structure of translator behavior criticism theory; "truth-seeking" is the basis and balanced with "utility-attaining". It is the standard scale of translator behavior that "utility-attaining used and balanced with truth-seeking". As the basis of "utility-attaining, truth-seeking" is the root of ensuring translation itself. "Truth-seeking" is balanced with "utility-attaining", and "utility-attaining" is the basis of translation. "Truth-seeking" and "utility-attaining" consider with each other while "utility-attaining" is higher than "truth-seeking", and the two are combined to pursue "truth-seeking" and "utility-attaining". The balance between "truth-seeking" and "utility-attaining". The theory mainly includes three elements, namely, the degree of textual truth-seeking, utility-attaining, and the degree of reasonable translator behavior, which are mutually constrained [8].

In the 1950s, the predecessors of translation studies, such as Mao Tun, had already paid attention to the translator's subject in translation criticism. Berman focused on the issue of translation standpoint, and conducted an in-depth analysis of the translation subject from three aspects: translation standpoint, translation scheme and translation vision [9]. In 2003, the idea of translator behavior criticism began to sprout, and Zhou Lingshun explored the continuous characteristics of English translations of corporate foreign missions, laying the foundation for the idea of "continuum" in the theory of "translator behavior criticism" [10]. Zhou Lingshun first proposed the concept of "translator's behavior", but did not define and analyze it [11]. Yang Xiaorong began to explore the relationship between translators and translation criticism from a theoretical perspective but limited to the comparative analysis of translation styles, without changing the translator's position on translation [12]. Zhou Lingshun discussed the issue of translator subjectivity [13]. In 2010, he elaborated on the principle of the "truth-seeking-utility-attaining" continuum evaluation model which was later defined as "translator behavior evaluation" [14]. Zhou Lingshun put forward the concepts of "in-translation" and "out-of-translation" from a sociological perspective, arguing that it was not enough to adhere to the principle of fidelity, but more important to concentrate on the translator's volition and sociality, and the sociality and socialization of translation, to view the problems in translation dynamically [8].

According to Zhou Lingshun, when translators carry out translation activities, there are five basic elements of translators' behavior, namely, the subject of behavior (translator), the object of behavior (original text), the environment of behavior (objective environment at the time of translation), the means of behavior (translation strategy and translation method), and the result of behavior (translation text) [8]. According to the above elements, the author's translation evaluation is divided into two dimensions, "in-translation" and "out-of-translation" to provide guidance to the translators. The former is dynamic, not just focusing on static criticism of the language, perceiving the translator as the subject of volition and observing the rationality of his or her behavior from the social perspective.

Under the "truth-seeking-utility-attaining" continuum evaluation model, Zhou Lingshun proposes the following codes of conduct for translators: truth-seeking is the basis, with utility-attaining at the same time; utility-attaining is pragmatic, with truth-seeking at the same time [8]. The translation goals truth-seeking (truthfulness) in the original text and utility-attaining (utility-attaining) in the translation. According to the different types of texts, Zhou Lingshun points out that the translation of applied texts is inclined to "utility-attaining", i.e., pragmatic translation. The author carries out translation practice under the guidance of his translator's code of conduct "seeking the utility of the translated text, not establishing without utility", to highlight the function of applied texts.

3 Case Study

3.1. Translator's In-translation Behavior in Medical Scale

While informative texts focus on the accuracy of the information conveyed in addition to specific terminology, applied texts which are pragmatic in nature focus on the "utility-attaining" of translator's.

According to Fang Mengzhi's specific summary of general scientific and technical styles that is less formal, the discourse purpose of the medical scale is mainly between doctors and patients, and the discourse style is mainly natural language with a few terms and flexible syntax [15].

Based on the above characteristics, and according to the differences between the scale and general questionnaires in view of content, structure, function, purpose, etc., "truth-seeking" in the terminology and other translation is used on the basis of the guidance of the translator's code of conduct. Besides, "utility-attaining" is used in the syntactic translation and translation method to improve the readability of the translations. The translation guidelines of "truth-seeking" and "utility-attaining" are considered, and a balance of truth-seeking, rationality, and utility-attaining is achieved as much as possible.

3.1.1 Syntax Translation

It means to follow the translation strategy of "utility-attaining", and the translation is based on "truth-seeking", meanwhile, the social uses of the scale should be taken into full consideration, both to achieve the purpose of clinical medical research and to meet the readers' needs of the reliability and validity of the scale, which ensures the consistency of the content by following the strategy of "utility-attaining and the pragmatic use of the translation".
Example 1:

Source text: Best Language: A great deal of information about comprehension will be obtained during the preceding sections of the examination. For this scale item, the patient is asked to describe what is happening in the attached picture, to name the items on the attached naming sheet and to read from the attached list of sentences. Comprehension is judged from responses here, as well as to all of the commands in the preceding general neurological exam. If visual loss interferes with the test, ask the patient to identify objects placed in the hand, repeat, and produce speech. The intubated patient should be asked to write.

Original translation: Best Language: A great deal of information about the patient's comprehension is obtained in the later parts of the examination. In this rating item, the patient is asked to describe what is happening in the attached pictures, name the items on the attached naming sheet, and read the sentences on the attached utterance sheet. Comprehension was judged based on the patient's responses to all instructions in the preceding comprehensive neurological examination and the answers given herein. If the visual deficit interferes with the test, the patient is asked to identify the item placed in the hand, repeat and produce speech. Patients with tracheal intubation were asked to write with their hands.

Analysis: There are many long sentences in the original translation, which do not meet the requirements of "utility-attaining" and cause reading difficulties to readers. According to the theoretical guidance of seeking pragmatic use and maximizing translation function, the following modification is made. Due to many long sentences which need to be clarified in terms of logical relationship before translation, it is not necessary to cross-reference word by word to make the meaning clear. The first sentence is adjusted owing to the primary and secondary logical relationship; "this scale item" refers to the same, so it is omitted and only one is turned over. There is a cause-and-effect relationship in the conditional sentence, so the translation is increased to clarify the logical relationship in the sentence and improve the consistency of the content.

Adapted translation: Best language: The next examination will yield a great deal of information about comprehension. This item asks the patient to describe what is happening in the picture, to name the items on the naming list, and to read the sentences on the list. Comprehension needs to be judged on the basis of the responses here and all the commands in the preceding neurological examination. If the test is hindered by poor vision, have the patient identify the object placed in his or her hand and repeat the expression. Ask the intubated patient who is unable to speak or to write.

3.1.2 Terminology Translation

The terminology of the medical scale is relatively homogeneous, mainly disease names, with some abbreviations that need to be translated for truthfulness, to avoid causing barriers to readers' understanding, and to seek truthfulness for the sake of utility-attaining. The translation of the terminology part is mainly checked and verified on the website of "Terms Online" to achieve the purpose of "truth-seeking", more truth-seeking than utility-attaining.

Example 2:

Source text: Chronic idiopathic urticaria (CIU) is a skin disorder characterized by the spontaneous appearance of wheals and/or angioedema for at least 6 weeks.

Translation: Chronic idiopathic urticaria (CIU) is a skin condition characterized by the spontaneous appearance of wind clumps or angioedema for at least 6 weeks.

Analysis: "Idiopathic" has both "idiopathic" and "spontaneous" meanings, and "chronic spontaneous urticaria" was found before translation. "Chronic spontaneous urticaria" refers to "chronic spontaneous urticaria". The word "wheal" means "herpes, rash", but "rash" is rich in variety and too large in scope, while "herpes" is very specific and too small in scope. The term "herpes" is very specific and too small in scope. After consulting the terminology online, we found that the meaning of "wheal" is "an elevation of the upper limit of focal edema of the skin, with the skin damage rising and falling, leaving no traces after fading, with itchy manifestations during episodes." In addition to the specific content of the scale, such as the description of disease signs, it was determined that this refers to "wind mass".

3.1.3 Translation Methods

As a means of translation, translation methods are part of the translator's behavior, and the translator's translation behavior cannot be separated from the use of translation methods. In applied texts that do not rely excessively on the original text, the translation strategy favors "utility-attaining" and is mainly practical, so the translation method that focuses only on linguistic one-to-one correspondence is undesirable, and it is necessary to consider the readers' needs, increase the social pragmatic modification, and adopt various translation methods to deal with the translation flexibly, as listed below. The following are examples of translation methods commonly used in the translation of the scale under the guidance of the translator's code of conduct of "truth-seeking, utility-attaining, and pragmatic use".

3.1.3.1 Variation Translation

Example 3:

Source text: The International Prostate Symptom Score (I-PSS) is based on the answers to seven questions concerning urinary symptoms and one question concerning the quality of life. Each question concerning urinary symptoms allows the patient to choose one out of six answers indicating increasing severity of the particular symptom.

Original translation: The International Prostate Symptom Score (I-PSS) is based on asking seven
questions about urological symptoms and one question about the quality of life. Each question about urinary symptoms allows the patient to select one of six answers that indicate an increase in the severity of that symptom.

**Analysis:** Although the direct translation has no lexical errors, the sentences are too long and have too much information. Considering the guidance of the translator's code of conduct criticism theory, we need to focus on the practicality of the sentences from a practical point of view and need to do "utility-attaining" retranslation in order to improve the scale validity.

**Adapted translation:** The International Prostate Symptom Score (I-PSS) scale consists of seven questions related to urological symptoms and one question related to quality of life. Each question related to urinary symptoms requires the patient to select one of six responses, with larger numbers indicating an increase in the severity of that symptom.

### 3.1.3.2 Amplification

**Example 4:**

**Source text:** Lequesne et al. developed an index of severity for osteoarthritis for the hip (ISH). This can be used to assess the effectiveness of therapeutic interventions.

**Original translation:** Lequesne et al. developed a severity index (ISH) for osteoarthritis of the hip that can be used to assess the effectiveness of therapeutic interventions.

**Analysis:** Here are two short sentences which are logically related and translated together. In the second sentence, the object word "disease" is added to make the sentence’s meaning clearer. To increase the reader's understanding of the original text and improve readability, two variations were made, inspired by the translator's code of conduct that "utility-attaining is the best, and utility-attaining is used", reflecting the adaptations to the original text and highlighting its functionality.

**Adapted translation:** Lequesne et al. developed a severity index (ISH) for osteoarthritis of the hip that can be used to assess the effectiveness of therapeutic interventions for the disease.

### 3.1.3.3 Reverse Translation

**Example 5:**

**Source text:** If patient is thought to be normal, an adequate sample of speech must be obtained by asking patient to read or repeat words from the attached list.

**Translation:** If the patient is not impaired, the patient shall be asked to read or repeat the words in the list to obtain an adequate sample of speech.

**Analysis:** The direct translation of "if the patient is normal" is strange, not concise enough, and not in line with the translation standard of "utility-attaining is the best", so the reverse translation method is used to make the sentence more fluent.

### 3.2. Translator's Out-of-translation Behavior in Medical Scale

The translation process of the scale is not limited to a single translator and reader but requires the participation of multiple parties, usually two to three translators depending on the difficulty of the content and other factors, and after repeated back translation, it still needs to be validated by the expert group members, translated into the source language and sent back to the author for review. Ultimately, the patient participates in the trial to test the reliability and validity of the scale. The out-of-translation behavior of the scale is more than the in-translation behavior, so the out-of-translation factors are more influential, which requires the translators to build a multi-dimensional mode of thinking, to focus on the theoretical guidelines of "utility-attaining" degree on the basis of "truth-seeking", and to consider various out-of-translation factors.

#### 3.2.1 Original Text Factors

Practicality-oriented and pragmatic, applied texts focus on their practicality, and the scales have a strong purpose, often before the beginning of the scale evaluation quiz, there will be a statement of the purpose of the scale, explaining its purpose and meaning that is for the reader to understand the meaning of the questions, namely, to understand the content of the scale, in addition, if the scale is for doctors, there will be detailed operational instructions and notes in front, to facilitate the collection of real feedback, scoring More objective and comprehensive, thus the translation should be clear, accurate and brief to avoid ambiguity.

**Example 6:**

**Source text:** Administer stroke scale items in the order listed. Record performance in each category after each subscale exam. Do not go back and change scores. Follow the directions provided for each exam technique. Scores should reflect what the patient does, not what the clinician thinks the patient can do. The clinician should record answers while administering the exam and work quickly. Except where indicated, the patient should not be coached (i.e., repeated requests to patient to make a special effort).

**Original translation:** Stroke scale items were administered in the order listed. Record performance in each category after each subscale examination. Do not go back and change scores. Follow the instructions provided for each examination technique. Scores should reflect the patient's performance, not what the clinician thinks the patient can do. Clinicians should record answers while administering the exam and work quickly. Patients should not be instructed (i.e., repeatedly asked to make special efforts) unless indicated.

**Analysis:** This paragraph is instructional content, which should not be overly truthful, and should be translated according to the translator's code of conduct of "utility-attaining is the most important". The direct translation of "stroke" as "stroke" in the middle of the paragraph does not clarify what kind of disease it is. The
individual phrases are unclear, and the instructions should be unambiguous.

**Adapted translation:** Administer the Stroke Scale in the following order: After testing, record the patient's performance in each category of each subscale separately. Do not return to revise the scores, following the technical instructions for each test; scores are used to reflect the patient's performance and do not reflect the actions the clinician is asking the patient to take. Clinicians should record answers quickly while performing the test. Patients should not be directed (i.e., repeatedly asked to make special efforts) unless indicated.

### 3.2.2 Reader Factors

The patient is the primary reader of the scale, with the physician second. According to the framework of the translator's behavior criticism theory, translator needs to focus on utility-attaining from the reader's perspective and in the case of patients, their psychological factors should be considered. The content of the scale is mostly in the form of question-scoring, with few pure textual answers. The questions need to use polite language to read comfortably and exclude psychological impact, but the questions often have fewer words, which adds a certain difficulty to the translation, while concerning patients' privacy, euphemistic statements should be used to avoid the adverse psychological impact of excessive bluntness on patients, which leads to untrue scores and affects doctors' judgment. All these factors need to be considered on a "utility-attaining" level to ensure the comprehensiveness of the translation.

**Example 7:**

**Source text:** Limb Ataxia: This item is aimed at finding evidence of a unilateral cerebellar lesion. Test with eyes open. In case of visual deficit, ensure testing is done in intact visual field. The finger-nose-finger and heel-shin tests are performed on both sides, and ataxia is scored only if present out of proportion to weakness. Ataxia is absent in the patient who cannot understand or is paralyzed. Only in the case of amputation or joint fusion should the examiner record the score as a missing value (UN) and clearly write an explanation for this choice. In the case of blindness, the test is performed by asking the patient to touch the nose from an extended arm position.

**Original translation:**

Limbic ataxia: The aim is to look for signs of unilateral cerebellar lesions. The test is performed with the eyes open, and if there is a visual deficit, ensure that the test is performed in full visual field. Finger-nose-finger and heel-shin tests are performed on both sides. Ataxia is scored only if it appears disproportionate to the weakness. Ataxia is not present in patients who are unable to understand or are paralyzed. Only in the case of amputation or joint fusion should the examiner record the score as a missing value (UN) and clearly write an explanation for this choice. In the case of blindness, the test is performed by asking the patient to touch the nose from an extended arm position.

**Adapted translation:**

Limbic ataxia: The aim is to look for signs of unilateral cerebellar lesions. The test is performed with the eyes open, and if there is a visual deficit, ensure that the test is performed in full visual field. Finger-nose-finger and heel-shin tests are performed on both sides. Ataxia is scored only if it appears disproportionate to the weakness. Ataxia is not present in patients who are unable to understand or are paralyzed. Only in the case of amputation or joint fusion should the examiner record the score as a missing value (UN) and clearly write an explanation for this choice. In the case of blindness, the test is performed by asking the patient to touch the nose from an extended arm position.

### 3.2.3 Cultural Factors

There are fundamental differences between Chinese and Western cultures, mainly in that English expressions are more straightforward, while Chinese is more euphemistic, especially in describing some sensitive content, therefore, cultural differences are also reflected in the scale. Nursing and other professionals translating the scale also consider cultural factors when adjusting the content, a process they refer to as cross-cultural adaptation.

**Example 8:**

**Source text:** Complete this questionnaire over 7 consecutive days. Your responses will help your doctor assess how active your chronic idiopathic urticaria (CIU) is. Please circle the score that corresponds to the number of wheals you have and the score that represents the intensity of your pruritus (itching) on a daily basis (see description in chart below).

**Original translation:** Complete this questionnaire over a period of 7 consecutive days. Your answers will help your doctor assess how active your chronic idiopathic urticaria (CIU) is. Please circle the score that corresponds to the number of wheals you have and the score that represents the intensity of your itching (see the description below).

**Analysis:** In the original translation, the sentences are long, and the wording is not precise and not pragmatic. In the syntactic modification of this paragraph, the translation guideline of utility-attaining is still followed, and the first two sentences are logically coherent, so the original sentence is an imperative sentence according to the meaning group, but it is necessary to enhance the cultural adaptability of the medical scale, pay attention to the euphemism and polite expression of language, and improve the utility-attaining of the statement, thus adding polite words.

**Adapted translation:**

Please complete this questionnaire over a period of 7 consecutive days as your answers will help your doctor to assess how active
chronic idiopathic urticaria (CIU) is. Please circle the score that corresponds to the number of herpes you have and the score that represents the degree of itching on each day (see the chart below for details).

3.3. Summary

The translation of medical scale is more than word-for-word translation, and it should not only stay at the semantic level, but should be analyzed from the translator's main body, and the strategies to improve the translation of scales should be analyzed from two dimensions, while the translator's out-of-translation behavior is regulated by the original text, readers, culture and other out-of-translation factors. Guided by the "truth-seeking-utility-attaining" theory of translator behavior criticism, the author integrates internal factors such as text type, stylistic characteristics and terminological difficulties, evaluates the scale by combining internal and external translation, and finds that the translation of the scale is more "utility-attaining" and its social nature is generally higher than its linguistic nature, so this theory is more applicable to the translation of the scale.

There are social characteristics in translator's behaviors, and the author integrates the degree of textual truth-seeking, pragmatic effect, and reasonable translator's behavior to achieve a balance of the three elements and follows the translation strategy of "truth-seeking" for terminology translation and "utility-attaining" for syntactic translation and translator's behavior. The translators follow the translation strategy of "truth-seeking" for terminology translation, "utility-attaining" for syntactic translation and translator's behavior, and "utility-attaining" for out-of-translation, and improve the translation by the inspiration and guidance of the translator's code of conduct. After considering social factors such as the reader, the translation needs to be heavily adjusted to facilitate the reader's understanding, while foreign authorized translation companies only use machine translation to finish the job hastily, and the translation quality is very poor, not to mention the required high reliability. The biggest difficulty in this practice is the usage of words, not only the terminology needs to be verified one by one, if not understanding the text then ask professionals, by which the difficulty will be reduced a lot; Secondly, pragmatic requirements should be taken into consideration, in addition to the first perspective of the reader, but also from the reader and other people's second, third-party perspective to review the translation. Repeatedly reading the target text until it is smooth whether it affects the understanding, or whether it causes ambiguity, and so forth. Whether the translator is a careful translator or a careful observer, a sense of responsibility is very important and often determines the quality of the translation. The full play of the translator's subjectivity can solve the translation problem in a more comprehensive way. "Utility-attaining" should be combined to help the translator grasp the translation from the social level, which exerts a better effect on improving the reliability of the scale.

4 Conclusion

Through "truth-seeking-utility-attaining" translator behavior continuum evaluation model, it can be concluded from the analyses that this model can distinguish the difference between literary translation and applied text translation, and indicate the translation direction especially for the applied text of general scientific and technical genres like the scale, which can form specific translation strategies according to its characteristics.

The natural language of the scale is more diverse and flexible, and the terminology of the scale with the patient as the reader is less and the explanation definition is more. In contrast, the terminology of the scale with the doctor as the reader is more and more specialized. On the basis of translator behavior criticism theory, the author summarizes and sorts out the translation points, influencing factors and translation methods according to the characteristics of the scale, based on two classifications of translators' in-translation behavior and out-of-translation behavior, and through the cases, comes to the rule of scale translation: more out-of-translation factors than in-translation factors, more "utility-attaining" than "truth-seeking", more pragmatic than semantic, more social than linguistic, so that translation is more utility-attaining and pragmatic-oriented, and the translation method of variable translation is used more often to deal with translation problems flexibly.

The critical theory of translator's behavior is used to evaluate the quality of the translated text, so the author is largely guided by the theory in the touch-up stage, and the process between "truth-seeking" and "utility-attaining" is a dynamic transformation, and the translation strategy is very flexible. Under the constraints of the three factors of the truthfulness of the text, utility-attaining of the effect, and reasonableness of the translator's behavior, the translation needs to be revised several times, because the degree of emphasis is different, and changes can be made in a targeted manner. Under the guidance of this theory, it is effective to solve the translation problems of medical scales, to assess the quality of scale translation comprehensively, and then to improve the quality of scale translation.

The translation is only one part of the introduction of the scale, and the preliminary translation is only the initial stage before the scale is put into clinical use. More social factors need to be considered for the translation of the scale, and for the translation of the scale, this translation practice lacks back translation by multiple translators, lacks evaluation by medical experts and makes corresponding cultural adaptations, and lacks patients as test samples, and more rigorously, statistical methods are needed to verify them. These are the regrets of this practice, but in terms of the translation itself, it has reached its reference value.
References