

A Corpus-based Comparative Study of the Translation Styles of *Treatise on Cold Pathogenic Diseases*

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ABSTRACT

A corpus-based methodology was employed to select and analyze two English translations of the *Treatise on Cold Pathogenic Diseases* (translated by Luo Xiwen and Nigel Wiseman), with a focus on comparing translation styles at the lexical, syntactic, and textual levels. It was found that Luo Xiwen's translation tends to employ liberal translation, characterized by a richer and more diverse vocabulary and more flexible sentence structures, emphasizing the readability and acceptability of the translation. In contrast, Nigel Wiseman's translation is inclined towards literal translation, featuring more complex sentence structures and emphasizing consistency and accuracy with the original text's linguistic structure. The differences in translation styles between the two versions may be attributed to the translators' differing purposes, strategies, and knowledge backgrounds.

Keywords: *Corpus, Treatise on Cold Pathogenic Diseases translations, Translation style.*

1. INTRODUCTION

Authored by the "Medical Sage" Zhang Zhongjing of the Eastern Han Dynasty and composed around AD 208, the *Treatise on Cold Pathogenic Diseases* is one of the four great classical works of Traditional Chinese Medicine (TCM). It is an essential text for the inheritance and development of Chinese medicine and serves as a crucial vehicle for the international dissemination of TCM knowledge. Since the publication of the first English translation by Hong-Yen Hsu, founder of the American Research of Chinese Medicine, in 1981, ten English versions have been published worldwide. Research on the English translations of the *Treatise on Cold Pathogenic Diseases* can generally be categorized into five areas. Firstly, the study of the theoretical foundations for the translation of the *Treatise on Cold Pathogenic Diseases*, including functional translation theory, eco-translatology, polysystem theory, skopos theory, prototype category theory, relevance theory, hermeneutics, thick translation theory, cultural translation perspectives, and conceptual metaphor cognition. Secondly, research on translation strategies and methods, focusing on translating core

concepts of TCM, disease and syndrome names, formula names, and cultural-loaded terms. Thirdly, the study of the history and characteristics of the English translations of the *Treatise on Cold Pathogenic Diseases*, covering the progression from selective translations to complete translations, and from the initial dissemination of basic knowledge of TCM to later comprehensive interpretations of its medical principles and cultural connotations. Fourthly, comparative studies of the English translations, examining textual features, historical contexts, semantic analysis, and accuracy of interpretation. Lastly, research on the overseas introduction and reception of the English translations, includes library holdings abroad, citation counts, bestseller rankings, overseas reader reviews, and audience feedback. In recent years, domestic scholars have achieved significant results in the theoretical foundations, translation methods, translation history, comparative studies of versions, and overseas introduction and reception of the *Treatise on Cold Pathogenic Diseases*. However, no research has been found that employs a corpus-based approach to study the translation styles of different English versions of the *Treatise on Cold Pathogenic Diseases*. Based on this foundation, an

examination of the translation styles of the English versions of the *Treatise on Cold Pathogenic Diseases* by Luo Xiwen and Nigel Wiseman will be conducted using a self-constructed corpus and corpus retrieval software, with an analysis of the reasons for the differences in the translation styles of the two translators. It is intended that this study will provide references and insights for the translation of the *Treatise on Cold Pathogenic Diseases* and other classical Chinese medical texts, thereby advancing both the practice and theoretical research of translating TCM classics and promoting a better global understanding of TCM.

2. TRANSLATION STYLE RESEARCH

Guided by linguistics and translation theory and focused on authentic bilingual corpora, corpus-based translation study aim to describe and interpret translation phenomena from both diachronic and synchronic perspectives [1]. Corpus-based translation study has shifted the focus of translation studies from a source-text-oriented model to one that emphasizes the translator, the target language, and the nature of the translation activity. As a result, translation research has transitioned from qualitative to quantitative analysis and from small-scale prescriptive studies to large-scale descriptive studies based on extensive translation corpora.

Translation style refers to the individual characteristics exhibited by translators in their choice of texts, translation strategies, and methods[2]. Research into translation style enables scholars to fully consider the linguistic habits of translators and the sociocultural environments in which they operate, thereby providing deeper insights into translator behavior and the underlying reasons for their choices[3]. Currently, an increasing number of domestic scholars are

utilizing corpus technology to study the translation styles of Chinese classical literary works (such as the *Analects*, *Tao Te Ching*, and *Dream of the Red Chamber*), foreign literary classics (such as *Jane Eyre*, *The Old Man and the Sea*, and *Pride and Prejudice*), prose and poetry (such as *Tang and Song Prose*, *The Poetry of Li Bai*, and *The Poems of Su Dongpo*), military works (such as *Naval Strategy* and *The Influence of Sea Power upon History, 1660–1783*), political documents (such as the documents of the Third Plenary Session of the 18th Central Committee), and science fiction novels (such as *Folding Beijing*). These studies have produced significant research outcomes, providing valuable references for the study of translation styles in TCM texts.

3. CORPUS AND METHODS

3.1 Corpus Selection

Currently, there are six complete English translations of the *Treatise on Cold Pathogenic Diseases* worldwide. These translations are by Luo Xiwen (1986/1993/2007/2016), Nigel Wiseman (1999), Huang Hai (2005), Yang Jiede (2009), Liu Guohui (2015), and Li Zhaoguo (2017). This study selects the translations by Luo Xiwen and Nigel Wiseman as the research objects. The primary reasons for selecting these versions are that Luo Xiwen's translation is the first complete English translation of the *Treatise on Cold Pathogenic Diseases* globally and was included in the *Library of Chinese Classics* in 2007. Nigel Wiseman's translation consistently ranks at the top of the *Treatise on Cold Pathogenic Diseases* English translations on Amazon's bestseller list and enjoys high recognition abroad. Relevant information about the two translations is presented in “Table 1”.

Table 1. Relevant information of the two translations of *Treatise on Cold Pathogenic Diseases*

Translator	Nationality	Publisher	Year	Original Count	Word Translated Count
Luo Xiwen	China	New World Press	2007	16546	20358
Nigel Wiseman	UK	Paradigm Publications	1999	16546	20526

Based on the English translations by Luo Xiwen and Nigel Wiseman, this study has created two parallel corpora named LUO PARA and WISEMAN PARA. Here, LUO and WISEMAN refer to the surnames of Luo Xiwen and Nigel

Wiseman, respectively, and PARA is the abbreviation for Parallel Corpus.

3.2 Research Methods

First, a multi-translation parallel corpus of the *Treatise on Cold Pathogenic Diseases* was constructed through the main steps of corpus conversion, corpus cleaning, manual error correction, and corpus alignment. Next, The Luo Xiwen translation consists of 20,358 words, the Nigel Wiseman translation consists of 20,526 words, and the original text consists of 16,546 words. Then, using the retrieval software

WordSmith and AntConc, the translation styles of the two versions were examined from three levels: lexical, syntactic, and textual.

4. RESULTS AND DISCUSSION

4.1 Lexical Level

The statistical data on type/token ratio, lexical density, and average word length for the two translations are presented in "Table 2".

Table 2. Lexical statistics of the two English translations of *Treatise on Cold Pathogenic Diseases*

	Tokens	Types	Type/Token Ratio(%)	Lexical Density(%)	Average Word Length	Percentage of Words with 1-8 Letters(%)
LUO PARA	20358	1549	29.67	65.2	4.91	87.62
WISEMAN PARA	20526	1463	29.11	71.8	4.76	91.26

Firstly, regarding the standardized type/token ratio (STTR), which represents the ratio of types to tokens per thousand words in the text and indicates lexical richness, it is observed that Luo Xiwen's translation has an STTR of 29.67%, whereas Nigel Wiseman's translation has an STTR of 29.11%. This suggests that Luo Xiwen's translation employs a more diverse vocabulary. For example, in the

translation of the phrase "主之" (zhu zhi), which appears 109 times in the original text, Luo Xiwen employs up to 18 different English translations, including "can be adopted as a remedy," "would act as a curative," and "be suited for," as shown in "Table 3". In contrast, Nigel Wiseman consistently translates "主之" as "govern."

Table 3. Translation variations of "主之" in Luo Xiwen's translation

No.	Translation Variation	No.	Translation Variation
1	.....fit.....	10	.....be suited to.....
2	.....will be curative	11	.....serve as a curative
3	.....can be adopted	12	.....be suited for.....
4	.....would be used for rescue	13	.....can be used as a curative
5	.....can be adopted as a remedy	14	.....can be adopted to cure the disease
6	.....is the cure	15	.....suit.....
7	.....can be used as a remedy	16	.....will be a/the remedy
8	.....serve as a remedy	17	.....would act as a curative
9	.....prescribe.....	18	.....can be adopted as a means of rescue

Secondly, in terms of lexical density, which represents the percentage of content words in the total word count of a text, the lexical density indicates the information load and complexity of a text. A higher lexical density suggests a greater proportion of content words, thereby implying a higher information load and reading difficulty. Luo Xiwen's translation contains 13,276 content words, with a lexical density of 65.2%. In comparison, Nigel Wiseman's translation contains 14,738 content words, with a lexical density of 71.8%.

These figures suggest that Luo Xiwen's translation has a lower lexical density, indicating it is easier to read compared to Nigel Wiseman's translation. Luo Xiwen tends to adopt a target-language-oriented approach, frequently using liberal translation, whereas Nigel Wiseman prefers a source-language-oriented approach, often employing literal translation. This distinction is particularly evident in the translation of traditional Chinese medical terms. For example, Luo Xiwen translates terms like "中风" (zhong feng), "伤寒" (shang han), and "温

病" (wen bing) as "febrile disease caused by Wind," "febrile disease caused by Cold," and "acute febrile disease," respectively, while Nigel Wiseman translates these terms as "wind strike," "cold damage," and "warm disease."

Lastly, regarding average word length, which refers to the average length of words in the translation, longer average word length implies the use of more long and complex words, thereby increasing reading difficulty. In general texts, words typically range from 2 to 5 letters, with an average word length of about 4 letters. The average word lengths for Luo Xiwen's and Nigel Wiseman's translations are 4.91 and 4.76, respectively, indicating very similar average word lengths. Additionally, words comprising 1-8 letters account for 87.62% and 91.26% of Luo Xiwen's and Nigel Wiseman's translations, respectively, demonstrating that both translations maintain good readability for general readers.

4.2 Syntactic Level

The statistical data for the number of sentences, average sentence length, and sentence standard deviation for the two translations as well as the original text are presented in "Table 4".

Table 4. Statistical data at the syntactic level for the two English translations of *Treatise on Cold Pathogenic Diseases*

	Number of Sentences	Average Sentence Length	Sentence Standard Deviation
LUO PARA	1148	17.73	9.88
WISEMAN PARA	782	26.25	14.61
SHL COMP	591	5.45	2.96

Firstly, regarding the number of sentences, the renowned expert on *Treatise on Cold Pathogenic Diseases*, Mr. Chen Yiren, pointed out that the text has five major linguistic characteristics, namely, "Variation, Differentiation, Strictness, Vividness, and Conciseness." [4] Here, Conciseness refers to the text's structured and concise language. The statistical results show that the original text contains 591 sentences, while both Luo Xiwen's and Nigel Wiseman's translations have significantly more sentences than the original text. Luo Xiwen's translation has 1,148 sentences, nearly 1.5 times more than Nigel Wiseman's translation.

Secondly, concerning the average sentence length, it refers to the average length of all sentences in the text, i.e., the average number of words per sentence. The average sentence lengths for Luo Xiwen's and Nigel Wiseman's translations are 17.73 and 26.25, respectively, indicating the frequent use of medium-length and longer sentences. Nigel Wiseman's translation has both a higher average sentence length and a higher sentence standard deviation than Luo Xiwen's translation, suggesting that Nigel Wiseman's translation employs more complex and longer sentences.

For instance, in the translation of the sentence "下利清谷，不可攻表，汗出必胀满" (xia li qing gu, bu ke gong biao, han chu bi zhang man):

Nigel Wiseman translates it as: "[When there is] clear food diarrhea, [one] cannot attack the exterior [because, if] sweat issues, there will be [abdominal] distention and fullness."

In this translation, Nigel Wiseman adds square brackets "[]" to supplement omitted words and implicit logical relationships in the original text, striving for formal and lexical equivalence between the translation and the original text. It was found that similar usage of square brackets "[]" appears as many as 1,489 times in Nigel Wiseman's translation, directly leading to a much higher average sentence length compared to Luo Xiwen's translation.

4.3 Textual Level

At the textual level, the entirety of the *Treatise on Cold Pathogenic Diseases* is composed of four-character parallel phrases, with profound language, concise expression, and implicit logic, and it has a relatively low degree of formalization. Therefore, translators need to enhance the logical relationships within and between sentences by adding conjunctions during translation to make the target language conform more to the formal and logical requirements. The usage of conjunctions in the two translations is compared as follows.

Table 5. Comparison of conjunction usage in two translations of *Treatise on Cold Pathogenic Diseases*

	LUO PARA	WISEMAN PARA
Coordinating	957	1288
Temporal	588	465
Causal	448	151
Conditional	180	615
Adversative	84	100
Total	2257	2619
Word Count	20358	20526
Frequency(%)	11.09	12.76

From “Table 5”, it can be observed that the number of conjunctions in the two translations is 2257 and 2619, respectively, with frequencies of 11.09% and 12.76% of the total word count. The difference is not significant. Both translations are able to clearly represent various semantic relationships hidden in the original text, including coordination, causality, temporality, adversativity, and conditionality, striving to accurately convey the information contained in the original text to the readers.

5. ANALYSIS OF THE REASONS FOR DIFFERENCES IN TRANSLATION STYLES

Through the data analysis of the translations by Luo Xiw and Nigel Wiseman, the following differences in their translation styles can be observed: the former tends to use liberal translation, with a richer and more varied vocabulary, more flexible sentence expressions, and a focus on the readability and acceptability of the translation; the latter tends to use literal translation, with more complex sentence structures, emphasizing the consistency and accuracy of the translation with the original text. This paper believes that differences in translation purposes, strategies, and knowledge backgrounds are the main reasons for the differences in translation styles between the two translators.

5.1 Differences in Translation Purposes

Luo Xiw's translation was included in the *Library of Chinese Classics* in 2007, which aims to

introduce Chinese cultural classics, including TCM, to the world and enhance China's cultural "soft power." The target audience of this translation is the general Western public, presented in the form of popular science literature, requiring attention to reader acceptability. Therefore, he conveys the medical content and cultural connotations of the *Treatise on Cold Pathogenic Diseases* through concise sentence structures and diverse vocabulary expressions. Nigel Wiseman obtained a PhD in Applied Linguistics for Complementary Medicine from the University of Exeter in 2000 and has been dedicated to linguistics, translation studies, and translation research in TCM. Given his background in complementary medicine, he focuses on maintaining the integrity, heterogeneity, and independence of TCM concepts, striving to present the *Treatise on Cold Pathogenic Diseases* in its original form.

5.2 Differences in Translation Strategies

Luo Xiw tends to be target language-oriented and uses more liberal translation. His translation of the *Treatise on Cold Pathogenic Diseases* was published in 2007 when TCM still existed in Western countries mainly as complementary and alternative medicine. Therefore, Western laypeople had very little understanding of TCM, let alone the *Treatise on Cold Pathogenic Diseases*. In order to allow Western laypeople to quickly understand and comprehend the *Treatise on Cold Pathogenic Diseases*, he used liberal translation for nearly half of the TCM terms. Meanwhile, in dealing with sentences, he used idioms and expressions common in English language, flexibly handling sentence structures to make it easier for Western readers to understand. Nigel Wiseman tends to be source language-oriented and prefers literal translation, believing that literal translation best reflects TCM concepts. For example, he translates "中风" (zhong feng) as "wind strike," "伤寒" (shang han) as "cold damage," and "温病" (wen bing) as "warm disease." His translation ideology is elaborated in detail in his paper *Single Characters with English Equivalents*. In his compilation of the *English-Chinese, Chinese-English Dictionary of Traditional Chinese Medicine*, he systematically translates over 400 commonly used Chinese characters in TCM across six categories: Basic Categories and Entities, Functions and Attributes, Diagnostics, Disease, Pathomechanisms and Disease Patterns, and Treatment.[5] [6] [7] While translating the text of the *Treatise on Cold Pathogenic Diseases*, he supplements omitted words or implicit logical

relationships in the original text with a large number of square brackets "[]," striving for formal structural and terminological equivalence between the translation and the original text, ensuring that the translation accurately conveys the information contained in the original text.

5.3 Differences in Knowledge Backgrounds

The main translation team of Nigel Wiseman's translation has backgrounds in both Chinese and English languages and possesses specialized knowledge of the *Treatise on Cold Pathogenic Diseases*. Therefore, they complement each other in terms of language and specialized knowledge. Therefore, in the arrangement of the translation content, through the introduction of the background of the compilation of the *Treatise on Cold Pathogenic Diseases*, the author's biography, academic thoughts, content summary, language characteristics, etc., in the general discussion section, and the presentation of the Chinese text, Chinese Pinyin, English translation, text annotations, and comments from past medical scholars in the main text section, as well as the presentation of the Chinese medical terms, Chinese herbal medicine, and prescriptions in the appendix section, the original appearance of the *Treatise on Cold Pathogenic Diseases* is comprehensively and accurately presented. In contrast, Luo Xiwen's translation was completed by himself. He graduated from the English major of Beijing Foreign Studies University. Due to the limitations of his professional knowledge, he is slightly inferior to Nigel Wiseman's team in terms of the professional knowledge background of the *Treatise on Cold Pathogenic Diseases*. Therefore, he did not delve into the medical principles of the *Treatise on Cold Pathogenic Diseases* but only translated each of the 398 clauses and 112 prescriptions of the *Treatise on Cold Pathogenic Diseases* one by one.

6. CONCLUSION

In conclusion, a comparative study of the translation styles of two English versions of the *Treatise on Cold Pathogenic Diseases* by different translators has been conducted, focusing on the levels of vocabulary, sentence structure, and text. It has been found that Luo Xiwen tends to employ liberal translation, resulting in a more diverse and varied vocabulary usage, along with flexible sentence expressions, with a focus on the readability and acceptability of the translated text.

On the other hand, Wiseman leans towards literal translation, leading to more complex sentence structures, with an emphasis on maintaining the consistency and accuracy of the translation with the original text's language structure. The differences in translation purpose, strategy, and knowledge background are identified as the main reasons for the distinct translation styles between the two translators. Against the backdrop of the big data era, this paper has attempted to utilize corpora for comparative analysis of the translation styles of the English versions of the *Treatise on Cold Pathogenic Diseases*, aiming to contribute to the development of the translation of TCM classics and promote the dissemination and understanding of TCM culture globally, facilitating not only its international outreach but also its deeper integration into various cultural contexts.

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