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A Corpus-Based Study of the Translator's Style of Two Versions of *Fu Sheng Liu Ji* — Take Pratt & Chiang Su-hui's and Graham Sander's Versions as Examples

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Abstract—Fu Sheng Liu Ji is not only an autobiographical prose written by Shen Fu in the Qing Dynasty, but also a love letter to his wife. So far, there have been four English versions of it, translated by Lin Yutang, Shirley M. Black, Leonard Pratt & Chiang Su-hui, and Graham Sanders respectively. Among them, Lin Yutang's version has been widely studied, and Shirley M. Black's version is different from the source text in terms of content and layout. Therefore, this research takes the co-translation version of Leonard Pratt & Chiang Su-hui and Graham Sanders' version as the research object, builds a corpus, and adopts both qualitative and quantitative methods to make a comparison of the translator's style between the two English versions from different perspectives—vocabulary, sentence, and discourse, analyzing the type/token ratio, lexical density, average word length and readability of the two versions. It is found that the type/token ratio, lexical density, average word length and average sentence length of Pratt & Chiang Su-hui's version are lower than that of Sanders' version, and Pratt & Chiang Su-hui's version is easier to read than Sanders' version.

Index Terms—Fu Sheng Liu Ji, translator's style, corpus, comparison

I. INTRODUCTION

Translation can help people bridge the gap between different languages and cultures to communicate with each other. Meanwhile, translation also plays an important role in spreading culture. Since the 1950s, translation as a discipline has been brought into the field of systematic and scientific research, but at first, the focus of translation studies was mainly on the comparison between the target text and the source text, while the study of the translator is in a marginalized position. With the development of descriptive translation, the study of the translator's style has gradually entered into translation. In the 1990s, the corpus method began to be applied to the study of translators' styles. Corpus refers to the real corpus which is collected and stored in a computer on a large scale by computer technology according to certain linguistic principles and specific language research purposes. These corpora can be used in descriptive and empirical research and after tagging, and it can help retrieve (Wang, 2012).

Fu Sheng Liu Ji, often regarded as a miniature version of Hong Lou Meng, is an autobiography written by Shen Fu (1763–1825), a prominent writer and literary figure of the Qing Dynasty. Like the title of the book, it consists of six chapters, but unfortunately, when Yang Yinchuan found it on the cold beach in Suzhou, there were only four chapters left, and two of them were missing. The four chapters left are The Joys of the Wedding Chamber, The Pleasures of Leisure, The Sorrows of Misfortune, and The Delights of Roaming Afar. This book is the integration of love and the art of life and it is a traditional Chinese literature that is very important in the history of literature. So far, there have been four English versions of Fu Sheng Liu Ji, translated by Lin Yutang, Shirley M. Black, Leonard Pratt & Chiang Su-hui, and Graham Sanders respectively. Among them, Lin Yutang's version has been widely studied, and Shirley M. Black's version is not a complete translation, and she rearranged the remaining episodes to a chronological order, which was regarded as different from the other three complete translation versions (Liang & Xu, 2018). Hence, this research takes the co-translation version of Leonard Pratt & Chiang Su-hui and Graham Sanders' version as the research object, builds a corpus and adopts both qualitative and quantitative methods to make a comparison of the translator's style between the two English versions from different perspectives—vocabulary, sentence and discourse, aiming to answer the following questions:

1) What are the differences in lexical level of the two English versions in terms of type/token ratio, lexical density and average word length?

- 2) What are the differences in syntactic level of the two English versions in terms of the number of sentence and average sentence length?
- 3) What are the differences in discourse level of the two English versions in terms of readability? Through the comparison of the translator's style of the two versions, it is hoped that this paper can provide some reference for the follow up translation of *Fu Sheng Liu Ji* and translation of other classics.

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II. LITERATURE REVIEW

In this part, translator's style, corpus linguistics, corpus-based translation studies and corpus-based studies on translator's style would be introduced one by one.

A. Translator's Style

For a long time, we tend to think that the translator is subordinate to the author, and the translator's job is to try to restore the author's work and find something equivalent to the source text to the greatest extent in the target text. However, we ignore a series of conscious thoughts of translators in the process of translation and their unconscious behaviors influenced by the target language itself and its social and cultural history, which are the core contents of the study of the translator's style.

In 1996, in the article titled *The Translator's Voice in Translated Narrative*, Hermans first put forward the concept of translator's voice. According to him, translated narrative discourse shows more than one voice in the text, and the discursive presence has more than one way. He thinks that there is an "other voice" in narrative discourse, and he names the "other voice" as translator's voice. Hermans believes that translator's voice may sometimes be completely hidden behind the narrator, so the reader cannot be aware of the existence of the translator. However, sometimes translators can rush out of the text to speak for themselves through prefaces, postscripts, etc. (Hermans, 1996). According to Wang and Huang (2008), the translation is by no means a transparent reproduction of the source text, but a dual text with multiple, scattered, mixed and other properties. The quasi-text forms such as side notes, footnotes, parentheses and prefaces in the translation all indicate that there are two incongruous sounds in the translation at the same time.

In her article titled *Towards a Methodology for Investigating the Style of a Literary Translator*, Baker (2000) put forward that translator's style refers to a kind of thumbprint that is expressed in a range of linguistic—as well as non-linguistic—features. In other words, the translator's unconscious stylistic features or subtle and inconspicuous language habits will appear in the translation. To a large extent, these features or habits are beyond the conscious control of the translator, and the recipient of the text will subconsciously notice them (Baker, 2000). This concept covers a wider scope than the translator's voice proposed by Hermans. The process from translator's voice to translator's style shows that the scope of its research ranges from linguistic translator's style to non-linguistic translator's style, from unconscious style to conscious manipulation and so on. Therefore, this research makes a comparison of the translator's style between two versions of *Fu Sheng Liu Ji*, namely, Pratt & Chiang Su-hui's version and Graham Sander's version.

B. Corpus Linguistics and Translation Studies

In this section, corpus linguistics, corpus-based translation studies and corpus-based studies on translator's style would be reviewed respectively.

(a). Corpus Linguistics

According to Baker (1995), a corpus is a collection of running texts, which is held in electronic form and analyzed automatically or semi-automatically, and Sinclair (1999) defines the corpus as a collection of naturally-occurring language texts which is chosen to characterize a state or the variety of a language. There are several types of corpora, including specialized corpus, generalized corpus, comparable corpus, parallel corpus, learner corpus, pedagogic corpus, historical or diachronic corpus and monitor corpus (Hunston, 2006).

With the help of a large number of language facts in the corpus and the rules of language use summed up from the real language use, corpus linguistics provides a new method for language research.

(b). Corpus-Based Translation Studies

Corpus-based translation study is developed based on corpus linguistics. It refers to the systematic analysis of the nature, process and phenomena of translation based on corpus, taking real bilingual corpus or translation corpus as the research object, applying statistics and theoretical analysis as research methods, and it is based on linguistic, literary and cultural theories and translation theories (Hu, 2011). Baker (1993) pointed out that the use of a large corpus of source text plus target text, coupled with the discussion of corpus research methods, will enable translation researchers to reveal the nature of translated texts as communication media, which can be regarded as the beginning of the approach of corpus-based translation studies. Although the emergence of corpus-based translation studies is not early, it has developed rapidly, and its theories and methodological guidance are constantly enriching and perfecting. With the development of corpus-based translation studies, the study of translator's style based on corpus method is emerging.

(c). Corpus-Based Studies on Translator's Style

Corpus-based translation studies bring a new opportunity for the study of translator's style, which increases the possibility of quantitative research on the basis of its single model of qualitative research. Meanwhile, corpus-based translation studies also extend the focus of the study of translator's style from description to interpretation, that is, not only to empirically describe the characteristics of the translation and the translator's choice through various data, it is more important to explain the causes of the translator's style through social, cultural, historical and other reasons. This also strengthens the interdisciplinary nature of translation studies and the study of translator's style, because the process from description to interpretation requires the knowledge of sociology, stylistics, culturology, psycholinguistics and other disciplines (Lu, 2013).

The first person who uses the corpus to study the translator's style is Mona Baker. In her article entitled *Towards a Methodology for Investigating the Style of a Literary Translator*, she put forward an important topic in corpus-based translation studies—the study of translator's style. Since then, many scholars at home and abroad have investigated and studied some aspects of the translator's style by using corpus. The study of translator's style combined with corpus can be divided into two categories: target-text type (T-type) and source-text type (S-type). The study of T-type translator's style analyzes a series of features that can be analyzed in the target text caused by the translator's subconscious or habitual choice, which is not completely influenced by the language style of the original text or the original author. The study of S-type translator's style focuses on how the translator expresses some features of the source text in the translated text. According to Saldanha (2011), the study of S-type translator's style focuses on the way the translator reacts to the source text, which is a conscious language act. The study of S-shaped translator's style is similar to the translator.

III. METHODOLOGY

So far, translator's style, corpus linguistics and translation studies have been reviewed. The previous part provides a theoretical basis for this study. In this part, the research is conducted, aiming to compare the translator's style of two English versions of *Fu Sheng Liu Ji* from lexical level, syntactic level, and discourse level. The following sections deal with the detailed description of the research design. Research questions are presented first. Secondly, building of the corpus is described in detail. Then tools utilized in this research are also carefully described. Finally, the research procedures and data collection of this research are presented.

A. Research Questions

This research tries to answer the following questions:

- 1) What are the differences in lexical level of the two English versions in terms of type/token ratio, lexical density and average word length?
- 2) What are the differences in syntactic level of the two English versions in terms of the number of sentence and average sentence length?
 - 3) What are the differences in discourse level of the two English versions in terms of readability?

Through the comparison of the translator's style of the two versions, it is hoped that this paper can provide some reference for the follow up translation of Fu Sheng Liu Ji and translation of other classics.

B. Corpus Building

As mentioned in the first part, so far, there have been four English versions of Fu Sheng Liu Ji, translated by Lin Yutang, Shirley M. Black, Leonard Pratt & Chiang Su-hui, and Graham Sanders respectively. Among them, Lin Yutang's version has been widely studied, and Shirley M. Black's version is not a complete translation, and she rearranged the remaining episodes to a chronological order, which was regarded as different from the other three complete translation versions (Liang & Xu, 2018). Therefore, this research takes the co-translation version of Leonard Pratt & Chiang Su-hui and Graham Sanders' version as research object to build the corpus.

Firstly, Leonard Pratt & Chiang Su-hui's and Graham Sanders' English versions of Fu Sheng Liu Ji were got in PDF format. Then they were converted into Word format. Errors in the Word format were corrected manually. At the same time, the redundant information in the text has also been deleted, including cover, catalogue, publication information, author introduction, preface, translator's preface, translator's introduction and so on. Thirdly, the corpus was converted into TXT format which would be more convenient for later analysis by corpus tools. Finally, a comparable corpus was set up which includes two monolingual corpora—Leonard Pratt & Chiang Su-hui's translation and Graham Sanders' translation.

C. Research Tools

- 1) In the study of the translator's style of the two English versions of *Fu Sheng Liu Ji*, Free CLAWS web tagger developed by Lancaster University, AntConc, Readability Analyzer and regular expression are used.
- 2) Free CLAWS web tagger is a free website developed by Lancaster University, which can be used to code the corpus and mark the words of the text in part of speech.

- 3) AntConc is a free corpus indexing tool developed and designed by Laurence Anthony of Waseda University in Japan. It supports concordance, keyword list and word list. Meanwhile, it can also display the types and tokens of the text, so it is mainly used to calculate the type/token ratio and lexical density.
- 4) Readability Analyzer is a website that can test the readability of text for free. It can detect the Flesch Reading Ease and Flesch-Kincaid Grade Level of a text. Flesch Reading Ease can be used to evaluate the difficulty of a text, which is usually determined by the number of syllables and the length of sentences. The index is scored on a percentile basis, and the higher the score, the simpler and easier to read the text. Flesch-Kincaid Grade Level heuristic indicates that the text can be read by the average student in the specified grade level.
- 5) Regular expression is a special text pattern that can be used in many modern applications and languages. It has many functions, such as verifying whether the input conforms to a given text pattern, finding text that matches the pattern, and text segmentation. In this study, it is mainly used to process the text to get the average word length, the number of sentences and the average sentence length.

D. Research Procedures

- 1) The main purpose of this research is to compare the translator's style of two English versions of *Fu Sheng Liu Ji* from lexical level, syntactic level and discourse level. The detailed procedures of this research are as follows:
- 2) Considering the purpose of this research, choose the English versions of Fu Sheng Liu Ji, and then download them from the Internet.
- 3) Convert the two versions from PDF to Word format, delete redundant information, correct misspellings and errors, and then convert the Word into TXT format.
 - 4) Use AntConc to process the texts, and get types and tokens of the texts.
- 5) use Free CLAWS web tagger to code the part of speech of the text, and then use AntConc to retrieve the frequency of different kinds of words, and calculate the lexical density.
- 6) Get the average word length, the number of sentences and the average sentence length by using regular expressions to process the text.
- 7) Use Readability Analyzer to process texts, and get the Flesch Reading Ease and Flesch-Kincaid Grade Level of the texts.
 - 8) Compare the data and draw a conclusion.

IV. ANALYSIS AND DISCUSSION

In this part, Leonard Pratt & Chiang Su-hui's and Graham Sanders' English versions of Fu Sheng Liu Ji were analyzed and compared from different linguistic perspectives—vocabulary, sentence, and discourse.

A. Study From the Perspective of Vocabulary

The general characteristics of lexical application can be analyzed by data such as type/token ratio, lexical density and so on. In this section, the comparison of the two English versions would be made in terms of type/token ratio, lexical density, and average word length.

(a). Type/Token Ratio

Generally speaking, token refers to the total number of words in the text, that is, the total number of words in the corpus. Type refers to the number of different word forms in the text, that is, the number of different words in the corpus. However, the number of types and tokens themselves cannot reflect the essential characteristics of the text, but the ratio between them can reflect some essential characteristics of the text to a certain extent, that is, the variability of words. Therefore, type/token ratio has become a common method to measure the lexical characteristics of text (Yang, 2002). After the two versions of translation were processed by AntConc, the number of types and tokens were obtained respectively, and the type/token ratio was calculated, which is shown in Table 1.

TABLE 1 TYPE/TOKEN RATIO

	I IFE/ TOKEN KATIO	
	Leonard Pratt & Chiang Su-hui's Version	Graham Sanders' version
Types	4,492	5,516
Tokens	45,687	48,563
Type/Token Ratio	9.83%	11.36%

From Table 1, it can be seen that the type/token ratio of Sanders' version is 11.36%, which is higher than that of Pratt & Chiang Su-hui's version (9.83%). This result indicates that Sanders' version has more abundant words and varied vocabulary than Pratt & Chiang Su-hui's version.

(b). Lexical Density

Lexical density refers to the proportion of notional words in the corpus, which is calculated by the number of notional words / total words * 100%. Notional words are the main carriers of information. The more the number of notional words in the text, the greater the amount of information it carries. Meanwhile, the reading difficulty of readers

will be improved accordingly. The number of notional words in the text is proportional to the lexical density, so the lexical density has become one of the important indicators to reflect the readability and acceptability of a text. Through the part-of-speech coding of the text by Free CLAWS web tagger, and then using AntConc to count the frequency of different kinds of words, the final result is shown in Table 2.

TABLE 2 LEXICAL DENSITY

	Leonard Pratt & Chiang Su-hui's Version	Graham Sanders' version
The Number of Notional Words	32,059	34,104
The Number of Total Words	45,687	48,563
Lexical Density	70.17%	70.23%

From Table 2, it can be seen that there are few differences in lexical density between the two versions. The lexical density of Sanders' version is a little bit higher than that of Pratt & Chiang Su-hui's version, which means that the amount of information carried in Sanders' translation is slightly more than that in the translation of Pratt & Chiang Su-hui, but the overall difference is small, and the difference in the actual reading experience is not obvious.

(c). Average Word Length

Average word length is the average number of letters in all the words of a corpus. It can reflect the lexical complexity and structure of a translation. Texts with longer average word length will be more difficult to understand. The average word length of Pratt & Chiang Su-hui's version and Sanders' version of Fu Sheng Liu Ji is shown in Table 3.

TABLE 3

	AVERAGE WORD LENGTH	
	Leonard Pratt & Chiang Su-hui's Version	Graham Sanders' version
Average Word Length	4.14	4.20

As shown in Table 3, the average word length of Pratt & Chiang Su-hui's version is 4.14 letters, and that of Sanders' version is 4.20 letters. Therefore, the average word length of Pratt & Chiang Su-hui's version is slightly shorter than that of Sanders' version, indicating that Pratt & Chiang Su-hui's version is simpler and easier for readers to understand than Sanders' version.

To sum up, from the perspective of vocabulary, Pratt & Chiang Su-hui's version is easier for readers to understand with lower type/token ratio, lower lexical density and shorter average word length.

B. Study From the Perspective of Sentence

Word is the minimum linguistic unit which can be used independently while sentence is the minimum unit which can convey a complete unit of meaning. Syntactic feature analysis is also an important part of examining the linguistic features of specific languages in translated texts. According to Hu (2011), the syntactic features of specific languages to translation languages can be understood from two aspects: the overall syntactic features and the application features of typical sentence structures. The general syntactic features include the number of sentences in the translated text, the average length of sentences, the frequency of simple sentences and complex sentences, and so on. This study mainly reflects the overall syntactic features of the text through the number of sentences and the average sentence length. The average sentence length is represented by the number of words in a sentence, and its calculation formula is "the average sentence length = the total number of tokens / the total number of sentences". The average sentence length is usually used to measure the complexity of sentences in a text. Generally speaking, the shorter the average sentence length, the simpler and easier to understand the syntactic structure of the text, and vice versa. The number of sentences and average sentence length of the two English versions of Fu Sheng Liu Ji is shown in Table 4.

 ${\bf TABLE~4}$ The Number of Sentences and Average Sentence Length

	Leonard Pratt & Chiang Su-hui's Version	Graham Sanders' version
The Number of Sentences	2,442	2,305
Average Sentence Length	18.38	20.82

From Table 4, it can be seen that Pratte & Chiang Su-hui's version has more sentences but shorter average sentence length than Sanders' version, which indicates that the sentences in Pratt & Chiang Su-hui's translation are shorter than those in Sanders' translation, and there are more sentences in Pratt & Chiang Su-hui's translation. It can be inferred that the sentence structure in Pratt & Chiang Su-hui's translation is simpler and easier to understand than that in Sanders' translation.

C. Study From the Perspective of Discourse

The readability of a text can reflect the difficulty of reading the translation. In general, text readability can be measured by two kinds of data, namely Flesch Reading Ease and Flesch-Kincaid Grade Level. Flesch Reading Ease can be used to evaluate the difficulty of a text, which is usually determined by the number of syllables and the length of

sentences. The index is scored on a percentile basis, and the higher the score, the simpler and easier to read the text. Flesch-Kincaid Grade Level heuristic indicates that the text can be read by the average student in the specified grade level. The results of Readability Analyzer are shown in Table 5.

TABLE 5 READABILITY

	Leonard Pratt & Chiang Su-hui's Version	Graham Sanders' version
Flesch Reading Ease	77.63	72.54
Flesch-Kincaid Grade Level	7.05	8.26

From Table 5, it can be seen that the Flesch Reading Ease of Pratt & Chiang Su-hui's translation is higher than that of Sanders' translation, while the Flesch-Kincaid Grade Level of Pratt & Chiang Su-hui's translation is lower than that of Sanders' translation. This result reflects that Pratt & Chiang Su-hui's version is more readable than Sanders' version, and Pratt & Chiang Su-hui's version can be understood by readers from lower grade level.

V. CONCLUSION

The application of corpus provides the possibility for the quantitative study of translator's style, and the study of translator's style has developed from theory to the combination of data and theory. Based on the corpus, this paper probes into the translator's style of the two versions of *Fu Sheng Liu Ji* from the perspectives of vocabulary, sentence and discourse.

Firstly, from the perspective of vocabulary, the lexical richness of Pratt & Chiang Su-hui's version is lower than that of Sanders. Accordingly, the difficulty of reading is also lower than that of the Sanders' version. However, in terms of the amount of information carried, there is little difference between the two versions. Pratt & Chiang Su-hui's translation carries slightly less information than Sanders' translation, but the difference is very small, and it is not obvious in the actual reading experience. At the same time, the average word length in the Pratt & Chiang Su-hui's translation is also smaller than that in Sanders' translation, which means that Pratt & Chiang Su-hui's version is simpler and easier for readers to understand than Sanders' version.

Secondly, from the perspective of sentence, the number of sentences in Pratt & Chiang Su-hui's version is more than that of Sanders, but the average sentence length of Sanders' version is larger than that of Pratt & Chiang Su-hui. This shows that the sentence structure used in Pratt & Chiang Su-hui's version is simpler and easier to understand than that in Sanders' version.

Lastly, from the perspective of discourse, the Flesch Reading Ease of Pratt & Chiang Su-hui's version is higher than that of the Sanders' version, while the Flesch-Kincaid Grade Level of Pratt & Chiang Su-hui's version is lower than that of Sanders' version. This shows that Pratt & Chiang Su-hui's version is more readable than Sanders' version, and Pratt & Chiang Su-hui's version can also be understood and accepted by the younger readers.

In conclusion, all these translators try their best to spread the literary works of *Fu Sheng Liu Ji* to the English-speaking world. From this point of view, both translations are excellent translations, which are worth reading and speculating carefully. However, Leonard Pratt & Chiang Su-hui pays more attention to spreading *Fu Sheng Liu Ji* in the process of translation, so they chose to use easier words and sentences in their translation. Therefore, this version can be understood by more people and it is more popular among normal people.

Due to the limited time and technology, this study still needs to be improved. For example, this study does not include the source text of Fu Sheng Liu Ji into the corpus for comparison, and there is no careful analysis of the sentence structure, the use of conjunctions, discourse links and so on in the two versions. Therefore, the translator's style in Fu Sheng Liu Ji is worthy of further study.

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