

CHAPTER 3

METHODOLOGY

3.1 Objectives and Method of Study

In this study, a MT software is used to translate three (3) different articles from English into Chinese. Each of the translations is then compared and evaluated against a humanly translated version of the same source text -- both as a product and in terms of its process.

As indicated in Section 1.4, the first objective of this study is to compare MT products with HT products to find out the similarities (if any) and differences between the two from the linguistic perspective.

The second objective of this study is comparative evaluation of the similarities and differences between the MT product and HT product from the perspectives of pragmatics and selective concepts/theses of **Relevance Theory**. This is followed by the

third objective which is the comparative evaluation of MT process against HT process from the same perspectives.

Based on the above two objectives, the methodology of this study is comparison followed by evaluation.

3.2 Resources of Study

To carry out this study, the following items are used:

- 1) Three different source texts in the English language;
- 2) Humanly translated versions (HT Corpora/HT Products) of the three respective source texts in the Chinese language;
- 3) One Machine Translation Software (MT Software) that performs translation from English into Chinese to produce machine translations (MT Corpora/MT Products)

3.2.1. Description of Resources

1) Source Texts

The three source texts are articles from a bimonthly column in an English daily (i.e. Star). They have been carefully selected for the purposes of this study from among articles published over a span of two years.

The selection of the articles is based on two criteria, namely: i) the subject matter of the article must not be of a technical nature or of a specific field; ii) the theme of the article must consist of human, social or/and societal phenomena. This is in order that the study can examine MT's performance in its less conventional domains, considering that MT is normally used in the technical domains -- where the role of context in the interpretation of meanings is negligible. Besides, an article with human, social or/and societal phenomena would present more context related implications to be addressed in the translation process. This is necessary because what is examined in this study is essentially the ability of MT to

address context and contextual elements in relation to 'relevance'.

2) Human Translation Corpora (HT Products)

The humanly translated versions of the three respective source texts are produced by a professional translator. While the source texts are obtained from an English daily, these HT corpora are obtained from a Chinese daily (i.e. Nang Yang Siang Pao), which published the translated versions of the source articles.

3) MT Software

The MT software used in this study is TransPerfect Professional Version 5.0. It is a windows program, an upgraded version of its less user-friendly predecessors that were based on disk operation system (DOS).

TransPerfect Professional Version 5.0 provides three (3) options of translation, namely i) File Translate, ii) Sentence Translate and iii) Reference Edit.

i) The File Translate option translates a full text either in an automatic one-step process or in a two-step process. For the latter, a first translation serves as a draft to be manually edited by a human translator before a final translation is produced. The editing can be done using the editing functions in the translation program. ii) The Sentence Translate option translates individual phrases, sentences, or up to seven lines of text that are entered directly from the keyboard. When the translated text appears on the screen, it can be discarded or edited as necessary. iii) The Reference Edit option provides powerful editing functions. Its editing functions can be used when editing the translation draft in the two-step process within the File Translate option or within the Sentence Translate Option.

Besides the above translation options, this translation software is also equipped with the following referencing functions: a set

of professional dictionaries for various fields, 'meaning look-up' function and dictionary maintenance function.

3.3 Use of MT Software and Generation of MT Corpora

Notwithstanding the referencing and editing functions it provides, TransPerfect is selected for this study based on its facility to perform the actual, full translation task without human intervention. It is not the intention of this study to utilize a MT software as a translation aid, or in other words, as a vehicle to produce a draft translation to be then edited by a human translator. The MT corpora in this study are intended to be fully original MT output without any intermediate human editing (post-editing).

It is for the above reason that, in the generation of MT corpora (MT products) for this study, none of the editing or referencing functions of TransPerfect is employed. The MT software is also in its most original state when utilized to

produce the MT corpora. This means that no new word, new phrase or grammar pattern rule has ever been added to the program's dictionary maintenance system.

Keeping to the aforementioned parameters, the 'One-step File Translate' option is used to generate the MT corpora. This means that the full content of each source text is translated without any editing.

3.4 Purpose of Study vs State of the Art of MT

As the MT products in this study are generated without deployment of the full facility of TransPerfect, especially the editing and referencing functions, it cannot be said that TransPerfect Professional Version 5.0 has been put into optimal use. This points to the crucial fact that this study does not assess the state of the art of TransPerfect and of MT in general (as mentioned in Section 1.6) Instead, this study seeks to witness a case of MT performance in domains that present contextual implications of meaning.

3.5 Considerations in Evaluation of HT Products/MT Products

As indicated in Section 1.4 (Objectives of Study) the data analysis of this study consists in: i) simultaneous evaluation of translation product and translation process (where HT/MT product and HT/MT process are evaluated at the same time); ii) comparative evaluation of HT product against MT product as well as HT process against MT process. The comparative evaluation will be carried out through exploration of the cognitive aspect of the translation activity with regard to natural language, verbal communication, language understanding and utterance interpretation.

While the above constitutes the central focus, this study also very much concerns translation studies. As such, certain fundamentals of translation must be addressed in the analysis of data, particularly in the comparative evaluation of HT products and MT products. Two of these translation fundamentals which this study deem very important are i) meaning in translation; and ii) equivalence in translation.

3.5.1 Meaning in Translation

In seeking to evaluate translations, this study is mindful of the essence of translation, which according to House (1981), lies in preservation of meanings across two different languages. Hence, in its attempt at evaluating translation corpora, this study should assess whether the original meanings of the source text have been preserved. This is the first consideration pertaining to meaning in the analysis of translation corpora in this study.

Secondly, since this study seeks to assess MT's ability in understanding contextual aspects of meaning and in producing contextually meaningful translations, it must look closely at the elements of context in the translations under study. This in turn requires that much attention be given to contextual meaning and connotative meaning in the analysis and evaluation of translation corpora. Equally important, since a substantial part of context is derived from culture and culturally specific notions, the analysis and evaluation process in this study should include consideration of cultural meaning.

All that has been pointed out in this paragraph constitutes the second consideration pertaining to meaning in the analysis of translation corpora in this study. This consideration accords with the fact that 'context' constitutes an important fundamental of this study.

As mentioned in the part of the literature review regarding meaning in translation (Section 2.8), House (1981) asserts that there are basically three aspects to meaning in translation, namely semantic aspect, pragmatic aspect and textual aspect. In this study where translation is discussed and evaluated mainly from the perspective of pragmatics, the pragmatic aspect of meaning should naturally be the main focus. This is the third consideration pertaining to meaning in the analysis of translation corpora in this study. In effect, among the wide spectrum of meanings that are involved in translation, contextual meaning, connotative meaning and cultural meaning, as highlighted in the preceding paragraph, are identified in this study as very significant components of the pragmatic aspect of meaning.

3.5.2 Equivalence in Translation

In terms of equivalence, this study is mindful of the fact that, while the concept of equivalence is fundamental to all theories of translation, it is considerably diversified in terms of the interpretation of what it means (Sager 1994: 142). The study also takes cognizance of the common belief that full equivalence is an ideal phenomenon: it is only possible "under relatively simple communicative conditions in texts with a relatively narrow range of functional characteristics" as suggested by Shveitser in Zlateva (1993:51).

Notwithstanding the above, for its purposes, this study takes into consideration Nida's (1969) and Komissarov's (1987) approaches to equivalence in translation respectively.

Nida's version of translation equivalence is 'dynamic equivalence'. This account of equivalence in translation emphasizes the hearer's comprehension, feeling and response towards the message. What is suggested is that the translated text should produce some similar effects on the translated text

reader as the source text does on the source text reader. When such a phenomenon happens, some degree of dynamic equivalence is said to have been achieved between the translated text and the source text.

Nida's emphasis on the need for the hearer to achieve comprehension and feeling toward the translated text is identified in this study as being in accord with at least two assertions in **Relevance Theory**, namely i) to communicate is to claim an individual's attention; and ii) cognitive processes are geared to achieve the greatest possible cognitive effects (for the smallest possible processing effort)'.

Komissarov's version of translation equivalence is also taken into consideration in this study based on its correspondence with some concepts in **Relevance Theory**. As mentioned in Section 2.10, Komissarov maintains that it is the cognitive content that should be reproduced in the translated text; hence the cognitive content plays an important part in addressing the problem of translation equivalence. Komissarov also highlights the role of cognitive environments of the speaker

and hearer in interacting with meaningful components in the communication process; and that the aim of communication is best achieved if the hearer uncovers the speaker's intention in the discourse. Equally important, Komissarov stresses the role of context in the process of uncovering the intended meaning. All these concepts of Komissarov pertaining to translation equivalence parallel some concepts in Relevance Theory that are applied in this study. (These parallels have been discussed in Section 2.10.)

3.5.3 Comparison of MT Products with HT Products

In attempting comparative evaluation of MT products against HT products, this study will take cognizance of Sager's (1994) assertion regarding comparison between HT and MT. In Sager's words: "There is... no single model of human translation which could be set as a standard for machine translation and there is not even a minimum standard of human translation which could be set as a target for machines." (op.cit:162).

Taking cognizance of the above view, however, does not contradict the attempt in this study to compare MT with HT. The HT corpora used in this study are not meant to be a standard for MT. Instead, they are meant for highlighting the similarities (if any) and differences between MT and HT in the linguistic sense; thereupon they serve as an instrument for this study to demonstrate the disparities between MT and HT in the cognitive dimension.

3.6 Analysis of Data

Three sets of data are used in this study for analysis purposes. Each set of data is analyzed separately.

As indicated in Section 1.4 (Objectives of Study), the data analysis of this study consists of comparative evaluation of HT product against MT product as well as comparative evaluation of HT process against MT process.

Both translation product and translation process are evaluated simultaneously. In this evaluation process, the translation corpora (i.e. HT products and MT products) serve as a means for the analysis of the disparities between HT process and MT process.

Last but not least, a thin line of difference is made between the evaluation of translation product and the evaluation of process. In that the former tends towards the linguistic dimension while the latter the cognitive dimension.