

AN OUTLINE OF CONTRASTIVE CONVERSION COMPETENCE FOR HUMAN AND MACHINE TRANSLATION (A COMMENTARY ARTICLE)

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Received: 14 Apr 2018

Accepted: 24 Apr 2018

Published: 30 Apr 2018

ABSTRACT

This study aims to encapsulate three broad methods of translation and their sub types under Contrastive Conversion Competence. Contrastive Conversion Competence refers to the contrastive knowledge base by which a human translator or an MT (machine translation) system compares two languages in terms of contrast and equivalence. The degree of translatability in terms of perfection and naturalness depends very much on the degree of possessing and implementing the contrastive knowledge base.

KEYWORDS: *Conversion, Contrastive Knowledge, Machine Translation*

INTRODUCTION

METHODS OF TRANSLATION

In the light of machine translation (MT), it is imperative to stress that one should not confuse linguistic competence with that of computer programming as competence in programming language for MT is a medium of processing linguistic competence in a particular form so as to make the machine understand linguistic instructions for producing the same result what human translator does (Jha, 2004). What is common and essential for both human and machine translation (MT system) is an adequate linguistic competence or a knowledge base. How good one (human or machine) can translate depends on how good knowledge base one has. No matter, be it human or machine translation, it is the degree of our linguistic competence or knowledge base, which effects and matters in the degree of translatability.

There comes a time during translation not equally for the human translator and a machine translation system in which deciding a particular *method of translation* for a given discourse or paragraph becomes crucial. This empirical study classifies translation method broadly into three types based on *form*, *content*, and *manner* as illustrated below.

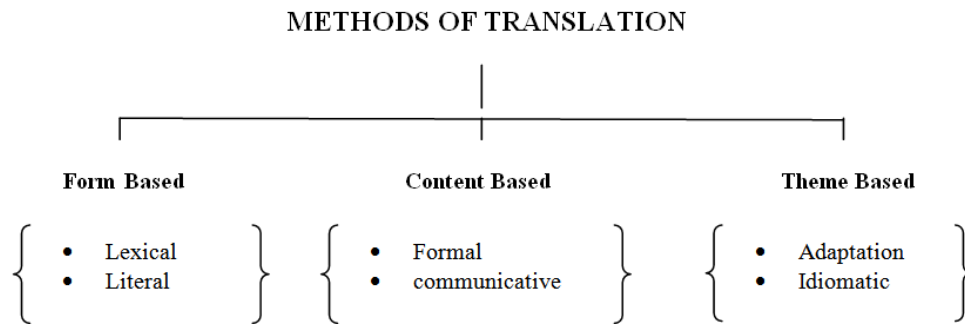


Figure 1

Of the three methods of translations, the nature of form-based translation (FBT) is least semantic and the nature of the theme based translation is mostly semantic. FBT is more oriented towards the transference of Source Language (SL) structure into that of Target Language (TL). Under Content-based translation (CBT) all the constituents of the SL is taken into account to produce their precise equivalents with respect to their meanings in the TL. Theme based translation (TBT) can be viewed as the counterpart of *form-based translation* in its approach. The reason is TBT does not transfer the structure of the SL, rather skews the structure in terms of style, irony, emphasis, etc. for the naturalness in the target language. *Form-based translation* is easier for machine translation as it has to produce the structure of SL into TL in a restricted manner. For *content* or *manner* based translation, the MT system has to be fed a great amount of intra-linguistic and extra-linguistic information in a highly precise manner. The following are the brief descriptions of the sub-types of each of the three methods of translation.

Form Based Translation

There are mainly two sub-types of form-based translation, namely *lexical* and *literal*. The following are the brief accounts of the both with reference to English-Hindi translation.

Lexical (word-for-word)

Lexical or Word-for-word translation is the most undesired and weakest method, especially in the field of machine translation. It transfers the syntactic structures of the SL into that of TL. All the SL lexemes, in this method, tend to get the closest equivalents in TL irrespective of the TL ordering and inflection. An example of lexical translation can be seen below.

English: The king appointed Balram general.

Hindi: *rājā niyukt kiya balrām senāpati.*

In the above example, Hindi sentence is bound at word-rank. Such a translation can be found more in machine translation because of imperfection in a linguistic and computational input. There was a time when MT research initially concluded that a translation produced by means of the lexical method is better than no translation at all. Such a method is still being adopted by the English-Hindi MT system like *Angla Hindi* developed by IIT Kanpur, especially in a case when the system fails to translate an English sentence into Hindi. An example of the same has been given below which was

found during my online evaluation¹ of different MT systems in terms of assessing their degree of translatability.

English: We don't want to be taken there.

Hindi (IITK): *hama kara nahiin jaruurata taka ho liyaa huua vahaan*

The situation of giving above-kind of translation comes when the system lacks the required linguistic knowledge base to process any particular syntactic construction. But the present state is different as most of the commercially oriented machine translating systems are equipped with post editing facilities in the form of *human-aided machine translation*.

Literal (grammatical)

Contrary to lexical translation, equivalence in literal translation is sought not only at lexical level but also syntactic level. It follows the syntactic rules of the TL. For example, **the king appointed Balram general.** > **rājā ne balrām ko senāpati niyukt kiyā** is a literal translation, because the sequence of the individual words of the clause has been changed in accordance with TL syntactic rules? A literal translation may start from a lexical or word-for-word translation, but makes changes in conformity with TL grammar. This may make it a group by group or clause by clause translation.

Content Based Translation

There are mainly two sub-types of form-based translation, namely *formal* and *literal*. The following are the brief accounts of the both with reference to English-Hindi translation.

Formal

Formal translation (FT) takes more account of the original message in terms of its structure and meaning. More precisely, formal translation preserves all the grammatical units intact in TL, e.g. substituting nouns by nouns, punctuation for punctuation, and so on. Thus, the aesthetic value of the SL text remains preserved in TL. Formal translation is usually suggested for **expressive texts**². Such a method is usually adopted by human translators.

Communicative

Communicative translation (CT) is oriented towards TL text. It can be viewed as the counterpart of *formal translation*. CT molds the form and content of the original text as per the suitability of the TL grammatical structures. By this method, the TL text not only becomes natural, but also readily comprehensible. CT may undergo shift at different grammatical levels, e.g. word-class shift, deviation or skewing in syntactic structures, etc. After the application of this method, TL syntactic structure and its length could be different from that of the source text; tenses can be changed, there could be a mismatch of other types.

The difference between formal (also called as semantic by Newark, 1998) and the communicative translation is that the first is uncompromising and dogmatic, while the second is more flexible. A formal method is applied to expressive

¹ Evaluation of three MT systems is part of this study.

² Expressive text comprises autobiography, personal correspondences, short stories, novels, plays, authoritative statements (e.g. political speech, legal document, etc.).

text, whereas communicative for **informative**³ and **vocative**⁴ texts. According to Newmark, an FT is normally inferior to its original, as there are both cognitive and pragmatic losses. By applying the communicative method, the TL text can be made better than its source text.

Theme Based Translation

There are mainly two sub-types of form-based translation, namely *adaptation* and *literal*. The following are the brief accounts of the both with reference to English-Hindi translation.

Adaptation

The terms like adaptation and free translation used by Newmark, (1998) are not very distinct from each other. Both are free forms of translation. For Newmark (1998:46), adaptation is the freest form of translation, whereas free translation is “a paraphrase much longer than the original, a so-called ‘intralingual translation’, often prolix and pretentious, and not a translation at all.” Translation of movie dialogues, songs, plays (comedies), and poetry can be viewed as an example of adaptation. Under adaptation, a socio-cultural aspect of the SL is converted to that of TL. In adaptation, one needs to visualize the idea and intention of the SL text and transform them into TL text without getting lost into finding lexical equivalence. Such a method of translation is usually suggested for vocative texts.

Idiomatic

Idiomatic Translation shows colloquialisms and idiomatic expressions in the TL text which are not found in the SL text.

Related to the above-mentioned methods, two points are important to be emphasized regarding their applications. First, only one method of translation should be applied to a given discourse (paragraph) at a time. Second, the application of a particular method to a given discourse will depend on the type of text in terms of its supra linguistic aspects (e.g. function, domain, and style) as declared under *decisive phase*. For example, the following conditions say that if the discourse is **Expressive** in terms of function; and **administration** in terms of a **domain** then the method of translation will be **formal**.

Conditions for Selecting a Method of Translation

If

Discourse_function is **Expressive** and discourse_domain is **administrative**

Then

Method of translation will be **formal**

Translation specifications and text types are very important factors, not only for human translators, but more importantly for the MT systems. Domains like weather forecast and medicine have already been benefited by text-type

³ Informative text comprises scientific report, technical report, computer manuals, newspaper reports, periodical, TV news, textbooks, thesis, etc.

⁴ Vocative text comprises persuasive writing, notices, instructions, propaganda, etc.

domain based translation. But the domain like advertising needs a catchy and creative translation rather than going for a syntactically similar phrase and lexical equivalence.

In view of the above-mentioned strategy, one may say that a particular text may have different functions (i.e. expressive, informative, and vocative). In such case, one may need to go for “hetero functional” translation (Nord, 1997: 54) which is the combination of different translation methods. To apply hetero functional translation, a human translator will require a high degree of subtle perception to discern the different communicative functions of the text. Implementing hetero functional translation in machine translation sounds extremely difficult if not impossible for lack of enormous world knowledge.

Viewing the notion of quality translation, the present research suggests a communicative method for both human and machine translation, as it takes into account the issues of readerships and readability. For an MT system, the application of the communicative method seems rather difficult, as it is a complicated task to feed all the required world knowledge in the machine in terms of contrastive aesthetic and stylistic nuances of the concerned pair of languages. In this scenario, an MT system, giving a satisfactory literal translation is considered to be good enough. In addition, the translation methods also need research in terms of defining their strategies on the basis of their inherent characteristics. This will help a human translator or an MT system to determine the application of a particular method of translation for a certain type of text.

REFERENCES

1. Jha, S. K. (2004). *Human versus Machine Translatibility of English-Hindi Translation*. *Bulletin of the Deccan College Research Institute, Pune*.
2. Newmark, P. (1998). *A Textbook of Translation*. Prentice Hall International: New Jersey.
3. Nord, C. (1997). *Translating as a Purposeful Activity*. Routledge: London.

