Teaching Translation for Electric Power English From the Perspective of Relevance Theory: Belt and Road Initiative and Electric Power Education

ZHAO Yushan[a]; CHEN Rui[b],*

[a]Professor. School of Foreign Languages, North China Electric Power University, Beijing, China.
[b]School of Foreign Languages, North China Electric Power University, Beijing, China.
*Corresponding author.

Abstract

With the continuous development of the Belt and Road international cooperation of electric power, companies related to electric power develop overseas markets and invest overseas electric power projects. The market demand for translation of electric power English is increasing. Translation for Electric Power English is a basic required course for English major students in North China Electric Power University. The course combines translation skills with basic electric power knowledge in the process of teaching to help students gain professional knowledge and improve students' practical language application in international electric power cooperation activities. Most of English majors master little knowledge about electric power, which makes it difficult for them to finish translation task with high quality of translation. Translation for Electric Power English Course should be taught in the following aspects: help students accurately understand the meaning of the original materials, aid them in selecting appropriate translation methods, modify the translated text and improve their translation ability for electric power English. Translation for Electric Power English Course focuses on imparting the translation methods of electric power English to students, such as literal translation, free translation, amplification and omission. This paper discusses the importance of the teaching of the course and uses Relevance Theory to analyze the teaching methods of Translation for Electric Power English.

INTRODUCTION

The power industry is a basic industry for the development of the country. The investment in electric power facilities is very important for China to realize the strategic significance of the Belt and Road. Companies related to electric power develop overseas markets (Wang, 2016, p.297) and invest the overseas electric power projects. The market demand for professionals with the skill of electric power English translation is increasing.

Translation for Electric Power English as a basic required course for English major students in North China Electric Power University is one of the important courses. The course includes the basic translation skills and some electric power knowledge. It combines translation skills with electric power knowledge in the process of teaching in order to effectively help students gain professional knowledge and improve students' practical language application skills needed in international electric power cooperation activities.

Most of the students lack knowledge about electric power, which makes it difficult for them to understand electric power materials and affects the quality of translation. It shows the importance of the teaching of Translation for Electric Power English. The purpose of the paper is to discuss the teaching methods of making students understand the meaning of the electric power text and improve the quality of translation version.

1. THE FEATURES OF ELECTRIC POWER ENGLISH WORDS AND SENTENCES

Terminology, compound word and acronym are the main features of electric power English words. Terminology of electric power English are specialized English words for Electrical Engineering. For example, "custom power" means "定制电力", "time synchronization" means "对时", "telesignalisation" means "遥信", "tap" means "档位", "write" means "固化", "setting group" means "定值区", and "buster couple" means "母线对". Many words of electric power English are compound words. For example, "shutdown" is a noun means "关闭，关机", which combines two verbs "shut" and "down" together; "breakdown" is a noun means "击穿", which combines two verbs "break" and "down" together; "feedback" is a noun means "反馈", which combines two verbs "feed" and "back" together. Many words of electric power English are acronym. For example, AC is the acronym of "alternating current" means "交流", DC is the acronym of "direct current" means "直流", GIS is the acronym of "gas insulated switchgear" means "气体绝缘封闭组合电器", and SCR is the acronym of "silicon controlled rectifier" means "可控硅整流器".

Sentences of electric power English have the feature of passive sentences and long sentences (Deng & Deng, 2015, p.150), for example:

> By means of various combinations of shunt-, series-, and separately excited field windings the D.C. machines can be designed to display a wide variety of volt-ampere or speed-torque characteristics for both dynamic and steady state operation. Because of the ease with which they can be controlled, systems of D.C. machines are often used in applications requiring a wide range of motor speeds or precise control of motor output.
> 通过励磁绕组并励、串励、他励的不同组合，直流电机在动态或稳态运行时都可以呈现出多种多样的伏安特性或速度——转矩特性。由于操纵简便，当需要多种电动机转数或精确控制电动机输出量时，常采用直流系统。

In the English example above, there are two longer sentences with passive voice used.

2. RELEVANCE THEORY

Relevance Theory was put forward by linguistic Deirdre Wilson and anthropologist Dan Sperber in their work Relevance: Communication and Cognition in 1986. It is a pragmatic theory which focuses on the meaning and context in communication. The authors think that every act of ostensive communication communicates a presumption of its own optimal relevance (Sperber & Wilson, 1986, p.158). Ernst-August Gutt was the first scholar who applied the Relevance Theory of communication to translation studies. He believes that translation is an act of communication and the inferring process is based on relevance in the context of communication (Gutt, 1991).

Optimal relevance is the reader's making effective processing efforts to achieve adequate contextual effects. The translated text should be relevant enough to the original text. The translated text should be worth processing and it is the most relevant one compatible with the reader's abilities and preferences. The degree of relevance is determined by two main factors: contextual effects and processing efforts. The greater the contextual effects are given by the translated text, the more relevance between the translated text and the original text; the more processing efforts are made by the readers, the less relevance between the translated text and the original text.

3. TRANSLATION METHODS OF WORDS AND SENTENCES FOR ELECTRIC POWER ENGLISH

In the framework of Relevance Theory, translation is believed as an ostensive-inferential activity. Translators should consider author's intention and audience's expectation, find optional relevance between the original text and the translated text, and achieve the best effect of communication. In order to translate accurately, translators need to pay attention to the transmission of the original information and the acceptability of the target readers at the same time. The translation methods of literal translation, free translation, amplification and omission can be used in the process of translation.

3.1 Literal Translation

Literal translation refers to a method to render of text from one language to another by following closely the form of the source language. Different from word for word translation, literal translation usually provides fluent and accurate translation easy to be understood by the readers of the target language. According to Relevance Theory, the translator should ensure that his translation is faithful to the original text and should have optimal relevance. In the process of translating words and sentences for electric power English, literal translation method is adopted to make the translation faithful to the original text, retain the information of the original text, and convey the intention of the original author to the target readers as completely as possible in order to realize the optimal relevance between the original text and the translated text.

Example 1:

> D.C. machines are characterized by their versatility.
> 直流电机的特点是用途广泛。

Example 2:

> The device includes an instrument transformation and a relay system with two circuits in it.
> 这个装置包括一个互感器和一个有两个电路的继电器系统。

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These two examples show the original texts are translated literally into Chinese. The information is conveyed to the target readers and the optimal relevance is realized.

3.2 Free Translation

Free translation is a method to convey the intended meaning of the source text without paying attention to details such as text style, sentence structure of the original. Free translation is suitable in case the translation is difficult to be understood or accepted by the readers. According to Relevance Theory, the contextual effects are given by the whole text, and the processing efforts are related to personal cognitive competence and cognitive environment. People instinctively hope to get enough contextual effects in the process of communication, and do not want to pay too much processing efforts to understand the meaning of words. In the process of translation, free translation method should be used to make enough contextual effects and help readers understand the meaning with less processing efforts.

Example 3:

Today batteries come in a range of sizes from large Megawatt sizes, which store the power from solar farms or substations to guarantee stable supply in entire villages or islands, down to tiny batteries like those used in electronic watches (Alarco & Talbot, 2015).
现在的电池大小不一，大到兆瓦级别的电池可以用来储存太阳能发电厂和变电站产生的电能，可以保证整个村子或整座岛屿供电稳定，小到纽扣电池为电子表供电。

The free translation is used to explain the exact meaning of the original sentences: "a range of sizes" means many of sizes, "大小不一" in Chinese is used to replace the English one, which is conform to the expression of Chinese. The intention of the author is transmitted to the readers, and the readers get sufficient contextual effects without too much processing efforts.

Example 4:

It was almost universal practice in the United States to use three single-phase banks.
在美国几乎普遍的做法是将三个单相变压器联接成一个三相变压器组。(Zhu & Yin, 2007)

In this sentence, "practice" refers to something that people do regularly as a practice, and "unit" means a single, complete thing. If the translator only translates them literally, the reader could not get enough contextual effects and couldn't understand the exact meaning of the sentence. The method of free translation is used to make the sentence understandable. The words "practice" is translated into "做法", and "unit" is translated into "变压器".

3.3 Amplification and Omission

Amplification, also called addition, means supplying necessary words in translation according to accurate understanding of the original. Any meaning should not be added to the sentence. However, this does not mean that a translator should refrain from supplying necessary words to make the version accurate in meaning and in keeping with the idiomatic use of the language to be translated into. According to the Relevance Theory, every act of ostensive communication communicates a presumption of its own optimal relevance. Translation is an ostensive-inferential communication that the translator determines the relevance of the translation text and the original text. Translator's choice can influence the quality of the translated text and the response from the readers. For some difficult words and sentences in electric power English, the translation method of amplification and omission should be used in the process of translation. The amplification or omission of the words and sentences will not change the intention of the author in original text and the translated text can be clear and logic which makes readers easy to understand.

Example 5:

The next most important job is to maintain a proper (voltage) profile throughout system.
第二个最重要的工作是维持整个系统正确的电压分布。(Zhu & Yin, 2007)

Example 6:

In other words, a greater change in per-unit excitation is required for a machine with low SCR than high SCR for the same load change.
SCR小的发电机与SCR大的发电机相比，相同负荷变化所需要的单位励磁改变更大。(Zhu & Yin, 2007)

In the original text, the word "voltage" in example 5 is omitted, and "a machine with" in example 6 is omitted after "than". When the sentence is translated into Chinese, the translation method of amplification should be used. The omitted word should be amplified into "电压" and "发电机" to make the sentence clear enough for reader to understand.

Example 7:

A transformer is a static device.
变压器是一种静止电器。(Zhu & Yin, 2007)

Example 8:

The introduction of mercury is rectifiers and thyratrons have made it possible to convert AC for generation and distribution into high voltage DC for transmission.
汞弧整流器和闸流管的采用适用于发电和配电的交流转变成用于输电的高压直流成为可能。(Zhu & Yin, 2007)

In example 7 the first indefinite article "a" is omitted, and the pronoun "it" in example 8 is omitted. The omission of these words does not affect the information transmitted by the entire sentence. The quality of the translation text is improved and it made sentence clear that readers can easily understand.

4. SUGGESTIONS FOR TEACHING

Electric power English is not special, and the methods of translation are interlinked with other types of text. The standards of electric power English translation are as follows: faithfulness, accuracy, and fluentness. In order to meet these standards, the teacher should help students to make a comparison between English and Chinese, acquire related knowledge of electric power, and learn to consciously choose the appropriate translation methods. According to Relevance Theory, in order to achieve optimal relevance between the target text and the original text, the translator should understand the original text accurately: the intention of the original text and the cognitive environment of the reader, and select appropriate translation methods to make good translation.

4.1 Helping Students Accurately Understand the Meaning of the Original Materials

According to Relevance Theory, in order to understand the original text accurately, the translator should consider the contextual effects. In electric power English translation, the first step is to accurately judge the meaning of the original words in order to accurately understand the meaning of the original sentence. The extended meaning and polysemy of English words makes the translation difficult. Vocabulary in the text of electric power English is terminology with specific professional meaning. In the process of teaching, students should be guided to learn professional knowledge of electric power English. In the process of translation, the knowledge could help students understand the meaning of the original text and translate the exact meaning of the words and sentences in the context.

4.2 Aiding Students in Selecting Appropriate Translation Methods

After guiding students to understand the original text accurately, the teacher should guide them to learn how to choose appropriate translation methods. According to Relevance Theory, translation should consider both the intention and expression of the original text. In order to convey the intention of the original text, a translation must provide sufficient contextual effects to enable the readers to obtain the optimal relevance. The translator should make assumptions according to the cognitive environment of the readers, and choose appropriate translation methods to provide sufficient contextual effects for the readers to achieve the optimal relevance. In the process of teaching, it is necessary to teach the translation methods of vocabulary, sentence and text, and make students practice. Students can learn how to choose appropriate translation methods in practice, such as literal translation, free translation, amplification and omission.

4.3 Modify the Translated Text

The teacher should guide students to modify the translated text to make perfect translation version, which let the readers get enough contextual effects with minimal processing effort. The content of the modification includes word order and sentence pattern. English Word order is flexible. When postpositional modifiers in English are replaced by prepositional modifiers in Chinese, the word order needs to be rearranged. Modification of sentence pattern refers to the transformation between "tree structure" of English and "linear structure" of Chinese. According to the differences between English and Chinese, the structure of the original English text should be rearranged when it is translated into Chinese.

CONCLUSION

With the rapid development of science and technology, the frequent communication with other countries and the policy of Belt and Road Initiative of China, English plus professional interdisciplinary talents should be trained urgently to meet the need of global communication and choosing proper teaching method to teach the course including some electric power knowledge is very important. From the perspective of Relevance Theory, according to the text features of electric power, the course Translation for Electric Power English could be taught in the following aspects: help students accurately understand the meaning of the original materials, aid them in selecting appropriate translation methods, modify the translated text and improve their translation ability for electric power English.

REFERENCES

Alarco. J., & Talbot, P. (2015). Charged up: The history and development of batteries. Australia: Queensland University of Technology.

Deng, F., & Deng, B. Z. (2015). Research on the teaching method of electrical power english translation. *Education and Teaching Forum*, (51), 150-151.

Gutt, E. A. (1991). *Translation and relevance*. Cambridge: Basil Blackwell.

Sperber, D., & Wilson, D. (1986). *Relevance: Communication and cognition*. Oxford: Blackwell Publishers.

Wang, H. L. (2016). Characteristics of electric power English terminology and translation teaching reform. *Journal of Hunan City University (Natural Science)*, (05), 297-298.

Zhu, Y. Q., & Yin, Z. D. (2007). *English reading and translation of electric power majors*. Beijing: China Water Resources and Hydropower Press.