

Thematic, Rheme Analysis and Translation Studies of Petroleum English

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ABSTRACT. *With the rapid development of economic globalization, the exchanges between countries are increasingly intertwined. As the pillar industry of the world economy, the oil industry plays an irreplaceable role in international exchanges and cooperation. Petroleum English, as a special style and branch of scientific and technological English, covers a wide range of fields such as oil drilling English, oilfield development English, petrochemical English and so on. Thematic-rheme theory is an important part of discourse linguistics, which plays a vital role in guiding translation practice. At present, the deepening of economic globalization makes petroleum English increasingly important, and its translation quality is directly related to the national image. From the perspective of Halliday's thematic-rheme theory, this article discusses the two discourse thematic advance modes, as well as the thematic and rheme components in petroleum English and their translation. It is hoped that it will help the translator to grasp the author's intention and analyze the text structure, so as to maximize the textual communication function.*

KEYWORDS: *Petroleum english, Theme-rheme theory, Translation*

1. Introduction

The rapid development of science and technology has made petroleum English more and more popular and has become a pivotal part of the petroleum industry. In the translation of petroleum English, translators must dig out language information from a deeper level and avoid understanding it from the surface level. The quality of petroleum English translation lies in whether it can accurately analyze the information structure of the source text and achieve the cohesion and coherence of the text. The study of thematic and rheme theory is helpful for readers to clarify the sentence structure and accurately grasp the author's writing intention, so as to better realize the communicative function of discourse.

2. Theme-Rheme Theory

2.1 Overview of Theme-Rheme Theory

Theme and rheme theory is an important concept in system function, which was first proposed by Czech linguist Matthius. He tried to find out the underlying rules of language from different languages and explored the important role of sentence components in communication by analyzing different sentences. The theory was subsequently inherited and developed by Halliday, a system functional linguist. Halliday thinks that the theme is the known information of a sentence, which is generally located at the beginning of the sentence. It leads to the other component information in the sentence-the rheme. The rheme is an interpretation of the old information. Themes are divided into three types: complex theme, single theme, and sentence theme [2].

2.2 Information Structure Promotion Model

The coherence of a text depends on whether the themes are connected to each other and progressive. There are at least two sentences in each paragraph of the text. The theme and the thematic component of the sentence will change continuously with the information structure of the article. Changes in the rhetoric make the sentence move forward, thereby realizing the integrity of the discourse structure. The continuous advancement of this information in the text is called the “thematic progression mode” [3]. At present, academics have expressed their opinions on different thematic promotion modes, but the four modes proposed by Czech linguist Denis-“parallel mode”, “centralized mode”, “continuous mode” and “crossover mode” -are widely recognized and are the most used ones. [4] In petroleum English, an accurate grasp of the information structure promotion model is helpful to clarify the writing framework and achieve communicative intentions.

3. Theme and Rheme Analysis in Petroleum English

3.1 Theme and Rheme Analysis of Petroleum English Discourse

Petroleum English is a special-purpose English with a wide range of fields, including oil and gas exploration, oilfield development engineering, petrochemicals and oil and gas reservoirs. Norms: The tight connection between the themes and the rhetoric in petroleum English, and the progressive advancement of sentences in order to achieve the cohesive function in the text.

3.1.1 Single Themes in Petroleum English

Petroleum English belongs to English for science and technology, in which single

themes and sentence themes are used more frequently. According to Halliday, single themes are at the beginning of a sentence and refer to an independent and indivisible whole, which can be words, phrases or compound sentences. [6].

Example 1 Petroleum (Theme) is a result of the disposition of plant or animal matter in areas that are slowly subsiding (Rheme).

Example 2 Water-base mud (T) is the most commonly used drilling fluid (R).

Example 3 The use of gases as drilling fluids (T) is limited to areas where the formations are competent and impermeable (R).

In the above three sentences, the themes are petroleum, water-base mud, the use of gases as drilling fluids respectively. The single thematic components of petroleum English are often very small, striving to use short language to indicate the core functional concepts of things, and then lead to the subsequent description of things. The language is concise and clear, so that readers can understand the author's intention instantly.

3.1.2 Sentence Theme in Petroleum English

The sentence theme appears in a compound sentence, which can be a main clause or a subordinate clause. If the main clause is at the beginning of the sentence, then the main clause is the sentence theme of the entire sentence; otherwise, the subordinate clause is the sentence theme[7].

Example 4 After the perforations are made (Theme), the tool is retrieved (Rheme).

Example 5 If the formations above the target reservoir produce an abundance of water (T), that portion of the well must be drilled with fluid (R).

In addition, the themes can be divided into marked themes and unmarked themes. The difference between them is that in the unmarked themes, the subject and theme components of the sentence are the same; while in the marked themes, they are different. In the above examples, the subjects of example 1, 2, 3, and 4 are the thematic components of the sentence, so they are unmarked themes. For example 4 and example 5, the subjects are inconsistent with the thematic components, so they are marked thematic elements.

In the above two examples, the theme of example 4 is the adverbial clause of time guided by “after”, and the main sentence that follows is the rhyme of the entire sentence. Similarly, the theme of example 5 is the conditional adverbial clause guided by “if”. The extensive use of connectives reflects the syntactic rigor of petroleum English. The rational arrangement of theme and rhyme allows readers to accurately grasp the central idea that the author wants to express.

3.2 Application of Thematic Advance Mode in Petroleum English

In petroleum English, there are at least two sentences in each paragraph. As the information continuously changes, the theme and rheme between the sentences will change accordingly. Thus, the sentence structure of the entire paragraph will keep moving forward. As mentioned above, the four thematic promotion modes proposed by Dennis are widely used in academic fields. In petroleum English, the two most commonly used modes are “parallel mode” and “continuous mode”.

3.2.1 “Parallel” Thematic Advance Mode

In the “parallel” thematic progression mode, the beginning of each sentence in a paragraph is consistent, that is, the theme of each sentence is the same. On the basis of the same theme, the author can better present different rheme components [2].

Example 6 The first submersible pumping unit (T) was installed in an oil well in 1928. Since that time the concept (T) has proven itself throughout the oil-producing world. Presently it is considered as an effective and economical means of lifting large volumes of fluid.

The above text consists of three sentences: the theme of each sentence is an electric submersible pump, which is described in different ways by using the same known information, leading to new rhemes. However, English is used to use pronouns to express the same thing, such as “concept” and “it” in the paragraph. Both of them refer to “the first submersible pumping unit”. While Chinese repeats the aforementioned nouns as much as possible. Therefore, the “parallel thematic mode” should be used as much as possible when translating.

3.2.2 “Continuous” Thematic Advance Mode

The overall structure of the article is paid much attention in petroleum English. The sentence information is advanced step by step, and the connection between the sentences is fine. The rheme of the first sentence in a paragraph is often the theme of the second sentence, which makes the structure of the article present a continuous and progressive pattern [8].

Example 7 Gas lift (T) is a method of lifting fluid where relatively high pressure gas is used as the lifting medium through a mechanical process (R1). This process (T2 = R1) is accomplished by two methods (R2), which (T3 = R2) include continuous flow and intermittent flow.

The above text introduces the concept of gas lift and the way to achieve it. The text begins with “Gas lift” and gives a brief introduction to it. Then, based on the old concept, the new concept “mechanical process” is introduced. The new concept, in turn, leads to two mechanical means “continuous gas lift” and “intermittent gas lift”. From this, we can see that “gas lift” is the first theme of the sentence, and “mechanical means” is the theme of the second sentence. The detailed description

of the lifting method is also the rheme of the first sentence; “the two methods” is the theme of the third sentence and rheme of the second sentence. The thematic structure continues to advance, presenting new article information to readers, making translation in line with the progressive mode of the text. This mode makes the article clear and logical, facilitating readers to obtain the maximum information.

4. Conclusion

The rational layout of theme and rhetoric makes the article information more complete and the language expression more coherent. In the translation practice of petroleum articles, the translator needs to find out the underlying information of the article and analyze the specific information the author wants to express. At the same time, the translator should also analyze the thematic and rheme components in the sentence, taking into account the language expression habits of the target reader, and then forming a coherent discourse that is semantically complete and easy to understand. It is helpful for the translator to accurately grasp the thematic and rheme theory is when carrying out translation practice. In this way, the communicative function of petroleum English texts can be realized and China's petroleum industry can go global.

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