

## An Overview of Cognitive Translation Studies

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### Abstract

With the development of social economy and science and technology, translation has promoted the development of various industries and increased international exchanges in various fields. As an important means of connecting two different languages, translation is extremely important. Translation studies as an independent discipline has a relatively short development time. However, research scholars have always attached great importance to the study of translation methods. Cognitive translation studies is an important translation method in the translation discipline. Therefore, it is imperative to strengthen the study of cognitive translation. The research on the cognitive process of translation has made great progress in the past three decades. Since the beginning of the 21st century, it has combined with cognitive science and used the latest scientific and technological methods to produce many research methods that are convenient for collecting experimental data, and has achieved a lot of research results. This article is an overview of the research on cognitive translation studies, pointing out that the theoretical basis of cognitive translation studies is cognitive psychology. The research methods in the cognitive psychology discipline are adopted. Moreover, the cognitive context has a great influence on discourse understanding and plays an important role in restricting translation. It is an important part of cognitive translation studies.

**Key words:** Cognitive context; Translation process; Cognitive translation

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### INTRODUCTION

Context is the only factor that determines semantics. Without context, there is no semantics (Sun Li, 2013). It can be seen from this that context is the basis for people to understand the meaning of words. Since the 1980s, cognitive pragmatics has emerged. From the perspective of psychology, cognitive pragmatics regards context as a psychological structure, namely cognitive context. Translation activity is also a kind of verbal communication. The translation process is actually an explicit-inference process (Lu Caihong, 2012). In this process, cognitive context plays an important role. Communication is by no means a direct transfer of information. From the source cognitive domain to the target domain, participants need to adjust the cognitive environment, highlight the meaning, make relevant reasoning and cooperate with other thinking mechanisms.

Since the middle and late 20th century, as Western translation studies gradually changed from translations to translators, the translation community began to introduce concepts and methods of cognitive science to study the psychological processes of translators (Lu Caihong, 2012). Cognitive science provides extremely valuable methods and inspirations for studying the operation process of the translator's brain, and brings a new perspective to translation research. Cognitive translation studies refer to translation studies based on cognitive science, especially cognitive psychology (Tan Yesheng, 2012). Researchers use cognitive science theories and methods to explain translation phenomena and reveal

the cognitive processes and laws of oral and written translation. Cognitive translation studies believe that translation is a kind of cognitive activity (Lu Weizhong, Wang Fuxiang, 2013). While language conversion is only external and superficial, cognitive operation is internal and deep. Therefore, translation studies should examine the operation on the cognitive level. On the basis of introducing the theoretical background of cognitive translation, this article discusses the research content and methods of this discipline and points out its research trends.

## 1. THEORETICAL BACKGROUND OF COGNITIVE TRANSLATION STUDIES

Cognitive translation studies are derived from cognitive science. And cognitive science has benefited from the research results of psycholinguistics and cognitive psychology. The branches of cognitive science closely related to translation studies mainly include psychology, especially cognitive psychology. Cognitive psychology is a branch of psychology, with information processing as the core psychology (Lv Xiaofeng, 2013). This subject takes cognition as its research object, and its research goal is to explain the information processing process of people in cognitive activities. The combination of cognitive psychology and translation research produces translation psychology. This interdisciplinary subject focuses on the role of human cognitive ability in translation. Translation psychology research aims to discover the translators' observable external behaviors. It can be concluded that cognitive psychology is the theoretical basis of translation cognitive research. Cognitive translation studies are gradually established on the theoretical basis of cognitive research in cognitive psychology (Peng Lin, 2013). The research objects it focuses on mainly include information processing strategies for translation, translation capabilities, and translators' cognitive efforts. The process of translation is essentially a psychological cognitive process (Wang Yin, 2017). It not only shows the external speech acts and facts of primitive input and translation output, but also reflects the translators' internal psychological mechanism of interlingual conversion and the cognitive process of speech information processing. The cognitive characteristics of translation are mainly reflected in three aspects, namely, translation has cognitive dependence, translation is a cognitive behavior, and translation is a cognitive process.

### 1.1 Content and Methods of Cognitive Translation Studies

Cognitive translation researchers believe that the focus of translation research should be on an objective description of the translation process and a cognitive study of the translator's brain activity (Miao Ju&Zhu Lin, 2011).

In their view, translation is essentially an information processing process (Miao Ju&Zhu Lin, 2011). Therefore, the information processing mode, processing strategy and processing unit adopted by the translator in the translation process have become the main content of cognitive translation research. In addition, the author believes that translation capabilities and their acquisition, as well as the translators' cognitive efforts, are also important aspects of cognitive translation research.

The method of translation research is mainly affected by the way the research object is presented. In the specific text and cognitive research, it mainly discusses which translation model is playing a role in these research paths, whether it is a comparative model, a process model, or a causal model (Wang Yin, 2012). Among them, cognition is more important in the process model. People can choose different research objects, models and methods. The methods of translational cognitive research are mainly borrowed from the branches of cognitive science such as psychology, cognitive psychology, and cognitive linguistics. From the perspective of cognitive psychology, the translation process is essentially a process of information processing. To understand the information processing mode adopted by the translator in the translation process, researchers must first understand the method of data collection for the experimental research of the psychological process of translation (Yu Gaofeng, 2011). Therefore, to conduct a descriptive study of the translators' psychological activity or thinking activity, it is necessary to use cognitive psychology research methods, including audio thinking method, image observation method, computer log monitoring recording method, screen recording method, retrospective Observation and empirical methods.

### 1.2 The Trend of Cognitive Translation Studies

Cognitive translation studies are still at an early stage, and there are no generally accepted research methods. This fully reflects the necessity and urgency of the theoretical construction of cognitive translation studies, and also shows that the theoretical research of this discipline has a long way to go. The ultimate goal of cognitive translation studies is to construct a universally accepted and practical translation model in order to explain the translation process and its related elements more reasonably (Yu Gaofeng, 2011). The realization of this goal requires the researcher of translation theories of cognitive approaches to conduct integrated research on the basis of drawing on the research theories and achievements of cognitive psychology and other sub-disciplines of cognitive science, so that the theoretical construction of this discipline will continue to mature.

Some researchers believe that translation cognitive research methods in the future have the following two development trends. One is to combine the experimental

methods of the natural sciences and the humanities methods of the social sciences to study translation, so as to play the complementary role of quantitative analysis and qualitative analysis in the study of translation cognition (Zhang Jianwei&Bai Jiehong, 2014). The second is to combine the experimental method and the corpus-based method to obtain reliable data for cognitive research on interpretation and translation (Zhang Jianwei&Bai Jiehong, 2014). The corpus data is not necessarily completely reliable. So it is necessary to borrow experimental data such as questionnaire survey, control experiment and classification comparison to make a more comprehensive interpretation of the translation topic. Only by combining experimental methods with corpus-based methods can researchers better understand the cognitive basis.

### 1.3 Interdisciplinary Research on Cognitive Science and Translation Studies

Moser-Mercer's article takes a neurophysiological perspective to study the "neurophysiological connection of interpretation expertise" with a view to discovering the neurophysiological changes that the brain may experience during the acquisition of interpretation expertise (Jin Ping, 2013). The article not only refers to the relevant results of empirical interpretation process research, but also makes great use of the research results of neurophysiology for learning and expertise. The results of the study suggest that high-intensity training for simultaneous interpretation may have long-term effects on the function and structure of different regions of the interpreter's brain. This research provides a good example for the translation community to use the existing cognitive science research literature to further understand the translation process, and it has a demonstrative significance.

Another American psychology professor Diamond and the scholar Shreve's collaborative research also illustrates the necessity of combining the results of adjacent cognitive disciplines with translation studies. The article, *The Neural and Physiological Linkages of the Interpretation and Translation Process in the Brain of Bilinguals*, summarizes a series of recent studies in the fields of bilingualism and translation, and comprehensively examines the research results on the relationship between neurology and physiology of oral translation (Li Guangrong, 2011). The article points out that with the development of translation process research, new tools such as eye tracking and keyboard input tracking technology (such as Translog) have gradually been applied to a larger scale in the academic world. However, some other cognitive research methods, such as neuroimaging techniques, have not been widely used in translation studies. However, they can provide more direct physiological and neurological data for the projection method and position of the translation process in the brain, so it is worthy of attention.

From the perspective of translation studies, these studies from the angle of psycholinguistics have their limitations. But they undoubtedly provide new research methods and ideas for process research. Putting the research results of adjacent disciplines such as psycholinguistics and neuroscience in translation studies and exploring their reference significance for the study of translation process is an indispensable part of the cooperation process between translation studies and cognitive science.

## 2. RELEVANCE THEORY, COGNITIVE CONTEXT AND TRANSLATION

Relevance theory is the theory related to communication and cognition proposed by Sperber & Wilish in 1986 on the basis of Grice's conversational meaning theory. From the perspective of cognitive psychology, relevance theory regards language communication as an explicit-inference process (Jin Ping, 2013). It is believed that language communication is not a pure coding-decoding activity, but a cognitive reasoning activity according to certain thinking rules. Actually, translation is essentially a communicative act of human beings. Translation activities are the process of correctly understanding the original text and creatively reproducing the original information in another language. According to Gutt's relevance translation theory, translation is a communicative act (Li Guangrong, 2011). But it has its own characteristics and is the communication among the original author, the translator and the target reader. Because the original author and translator have different cognitive environments, the author's contextual effects will be different from the translator's contextual effects obtained from the original textual context. Therefore, the original information cannot be equal to the information conveyed by the translation. The relationship among the original author, the translator and the target reader determines that the translation can only convey the intent of the original author as much as possible, provide the best relevance to the target reader, and try to make the translation reflect the original intention (Zhang Jianwei&Bai Jiehong, 2014).

Therefore, the translator must first accurately grasp the context of the original text, put himself in the cognitive context of the original author to understand it, and then correctly present the full meaning and intention of the original author. The translator must take full care of the cognitive context of the readers of the translation. On this basis, the translator can carry out language conversion. Because there are certain cultural and social differences between the cognitive context of the target reader and that of the original reader, the translator has the responsibility to adopt various means to make pragmatic adjustments so that the target readers can have the same feelings as the original readers (Lei Xiaofeng&Tian Jianguo, 2014).

It can be seen that cognitive context affects and restricts translation. In the translation process, cognitive context is an important factor that translators must consider first. For example, 三个臭皮匠，顶个诸葛亮, a well-known sentence in China. It is very difficult for target readers to understand. First of all, there is no knowledge reserve related to Zhuge Liang in the cognitive context of target readers, and it is impossible to find the connection between Zhuge Liang and the wise man. Furthermore, target readers also cannot find the connection between 三个臭皮匠 and the wise man. In order to produce contextual effects, the translator needs to provide some background knowledge and related explanations (Deng Zhihui, 2011). Please see the translation: Three cobblers with their wits combined equal Chuhek Liang the master mind. "With their wits combined" and "the master mind" are added to the translation. Two phrases enable the target readers to find the relationship between the discourse information and the hypothesis through explicit and inference, and then obtain a correct understanding. Furthermore, in the sentence of "Although the United States opened the way for the commercial exploitation of space, Western Europe is now taking the lion's share of the benefits.", "The lion's share" in the sentence refers to the "largest and most important part". The original reader can easily understand this sentence. But for Chinese readers, since there is no knowledge reserve about "the lion's share" in their cognitive context, Chinese readers cannot understand the original text if the translator translates this into "lion's share" directly. Therefore, from the perspective of the target readers' cognitive context, translation such as "the greatest benefit" can help readers find the best relationship between the translation and the context.

## CONCLUSION

Cognitive translation studies have gone through a development process from research approaches to research methods to a new research model in just thirty years, and have achieved considerable results (Li Guangrong, 2011). Its contribution to the translation discipline mainly has the following three points. First, the perspective of cognitive psychology that it uses expands the scope of translation studies and proves the cognitive characteristics of translation behavior. Second, researchers in related disciplines participate in clarifying the psychological operations of translation and interpretation, which realizes the cooperation between translation researchers and researchers in other disciplines. Its cognitive interpretation of the translation process has also enabled the translation research model to shift from focusing on translations to focusing on the translation process. Third, it combines cognitive translation with a variety of psychological testing tools, using modern cognitive psychological testing

tools to discover and verify the translation process, so that translation research has crossed many translation barriers and embarked on the scientific road. The summary of this article shows that the new field of translation cognition research is of great significance to the research methods and theories of the independent discipline of translation studies. In terms of applications, research in this area also helps improve the translator's ability and translation quality assessment, and enhance people's understanding of cognitive skills and the oral and translation skills (Chen Jirong, 2011). Cognitive translation studies will have better development in the future.

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