

The Application of the Effort Model in Coping Figure in Chinese-English Consecutive Interpreting^{*}

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The transform of figure in interpreting has been recognized as a difficult point. Based on the effort model of consecutive interpreting put forward by Gile and the figure information which features in low predictability, relativity, and redundancy with a high informative and differences on numeral systems between the Chinese and English languages, this thesis analyses the listening and analysis effort, note effort, and semantic memory effort in the process of figure interpreting and proposes solutions to reduce the efforts.

Keywords: effort model, figure information, figure interpreting, effort reduction

Introduction

The deepening of economic globalization also makes interpretation activities more and more prevail, which plays an increasingly important role in international exchanges. As scholar Gerver defined in 1971 that the interpreting task is “a fairly complex form of human information processing involving the reception, storage, transformation, and transmission of verbal information”. In the interpreting activities, the occasions involving figures have been commonplace, but it has always been a key obstacle in the quality of interpretation that tests the ability of interpreters to reduce the cognitive effort and process information and resolve it in a short time.

Effort Model of Consecutive Interpreting

In order to help interpreters understand difficulties in interpreting and choose appropriate coping tactics to deal with them, scholar Daniel Gile, formulated the effort model (1995) focused on the ability of the human brain from the perspective of cognitive psychology and psycholinguistics. The first effort model was designed for simultaneous interpreting, which consist of four efforts labeled “listening and analysis”, “production”, and “memory”. Later he developed the effort model of consecutive interpreting with the same principle. He pointed out that consecutive interpreting is a language resource management, and the deep understanding of linguistic resources is the process of deducting the effort of listening and analysis, note-taking, and memory. From his view, there is two phrases, listening and note-taking phase and language production phase in consecutive interpreting:

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Consecutive Interpreting (Phase one) = Listening and Analysis + Note-taking + Short-term Memory + Coordination;

Consecutive Interpreting (Phase two) = Remembering + Note-reading + Production.

The first phase is the process in which the interpreters listen to the original speech and take notes and the second one is the delivery process of speech. Gile expresses that the total amount of processing capacity is limited, and the sum of the four efforts required for interpreting must be less than the total amount of processing capacity available to the brain. There is no emerging problem in tackling multitasking while the processing capacity is closely saturated in the second phase. Therefore, this thesis will only analyse the problems of processing capacity in the first phase. By effort model, we can analyze the causes and solutions to the problems encountered in interpretation and improve the quality of interpretation in figure interpreting.

Figure Information in Interpreting

Figures are widely used in speeches, product introductions, and other occasions for its visualization and persuasion. The efficiency of figure information processing has also become one of the basic qualities of an interpreter. Figure information refers not only to the figure itself but the overall information including numbers, units, ranges, and so on. Because in the text translation, the figure is often related to the unit, scope, and other words to constitute substantive meaning, single figure cannot provide complete specific information. Jones mentioned that the figure information involving five parts, arithmetic value, the order of magnitude, the unit, what the numbers refer to, and the relative value of a number (Jones, 2008, 117). Compared with other information in interpreting, figure interpreting characterized by low predictability, low relativity, and low redundancy and great information content (Yang, 2010, 13). The differences in Chinese and English numeral systems makes it even harder for interpreters to process the figure information.

Efforts in Figure Interpreting

There are three basic efforts in figure interpreting.

Listening and Analysis Effort

Listening and analysis is the fundamental part in interpreting no matter what type it is. In the process of listening, interpreters will get semantic information through the auditory expression and then decode it with short-term memory and interpreting skills. If there is any obstacle in comprehending the sound waves of the original language speech, it will not be transformed into meaningful information by the brain. In addition, the time-limit in interpreting is not always long, which requires the interpreters to have a outstanding listening and comprehension ability. The low predictability and low redundancy makes it impossible to be predicted or supplemented according to context. Moreover, the difference in numeral system and the large amount of units in the figure information as well as the speaker's accent factors often increases the difficulties in the decoding part thus imposes a great burden on the translators in the listening and analysis.

Note-Taking Effort

Note-taking is the process of externalizing the information; the interpreter hears in a short message. In that case, it is an essential part of interpreting. Taking notes can help the interpreters deepen their understanding of the source language because in this process you will write down the logic structure of what you have heard.

Accordingly, it will not only reduce the memory pressure of the interpreters, but also enhance their memory. A good note should have these critical elements including key words, terms, logical relations, and figures. But since the order and size of figure information cannot be estimated, it can hardly be stored in short-term memory and therefore it basically depends on the notes to complete decoding. In that case, note-taking is regarded as the critical part in figure interpreting. A well-organized note can effectively help interpreters extract information from short-term memory and decrease the memory effort to promote smooth interpretation.

Memory Effort

According to the length of time, the memory is divided into instantaneous memory, short-term memory, and long-term memory. Short-term memory is the working memory in interpreting and is crucial in interpreting. It refers to the capacity of information that can be remembered and expressed in a short time. Research on memory shows that: Short-term memory has great limitations which is generally lasting five to twenty-five seconds, and has a limited capacity, generally only about seven semantic chunks. A large number of facts show that figure memory exists a very short time in the human brain, which belongs to instantaneous memory. When interpreting general semantic information, interpreters analyse the source language information they have heard and store them in short-term memory then then combine the relevant background knowledge of their own reserves to convert the source language code into the target language output. Therefore, when dealing with general semantic information, experienced translators can predict the content based on the previous information and the related knowledge of reserves, thus reducing the pressure on processing capacity. However, the figure information is hard to predict for its low relativity and low redundancy of figure information that makes it difficult to form a semantic chunks with links and logical relationships like other information. Therefore, the pressure that figures put on memory is almost entirely shifted to the note-taking effort.

Reduction on Effort in Figure Interpreting

In order to improve the effectiveness of figure interpreting, the first thing to be solved is the issue of effort reduction. According to Gile's effort model, interpreting needs to establish the logic of source language on the basis of listening and understanding, internalize the meaningful information to the brain, and externalize it to notes. If interpreters cannot understand the semantic information in source language, they cannot externalize it into notes and output to target language. So for the purpose of reducing the listening and analysis effort in figure interpreting and increasing its fluency, the interpreters should do a good job of preparation in the areas of background, new words as well as parallel text, and so on. Moreover, increasing the sensitivity to figures also takes effect in this process. For note-taking effect reduction, the interpreters should take a large number of note-taking exercises such as using the method of "insert thousands separator and vertical lines between every three decimal digits and four decimal digits respectively" when hearing figure information. As for the reduction of memory effect, the interpreters should strengthen the combined memory of figures and related semantic information to expand the amount of short-term memory information. By such tactic, we can release the pressure in short-term memory and pay more mental "energy" to note-taking.

Conclusion

From the perspective of effort model of consecutive interpreting, this thesis analyzes the figure interpreting

between Chinese and English which is high-information content, low in predictability, relativity, and redundancy, and differences on numeral systems. Focusing on the listening and analysis effort, the note-taking effort, and memory effort and its reduction tactics in the process of figure interpreting, this thesis aims to increase the accuracy of figure information interpreting and better guarantee the smooth progress of interpretation.

References

- Bao, G. (2005). *Interpretation studies [M]*. Beijing: China Translation & Publishing Corporation.
- Gile, D. (1995). *Basic concepts and models for interpreter and translator training [M]*. Shanghai: Shanghai Foreign Language Education Press.
- <http://alessandravita.com/giles-effort-model-interpreting/>
- Jones, R. (2008). *Conference Interpreting Explained [M]*. Shanghai: Shanghai Foreign Language Education Press.
- Pochhacker, F. (2009). *Introducing interpreting studies [M]*. Shanghai: Shanghai Foreign Language Education Press.
- Yang, L. (2010). Figure Interpreting Research Based on Interpreters' Survey [J]. *China Electric Power Education* (13), 217-218.