Abstract: The rendering of a language into another can be by mouth or by pen, namely interpreting and translation. Interpreting consists of consecutive interpreting (CI) and simultaneous interpreting (SI). SI can be further divided into different working modes. The performances of different working modes are definitely different. In this paper, we review the previous study presented by scholars all over the world, and then use the Effort Model as a theoretical framework to analyse the process of different SI working modes respectively. The positive and negative impacts of different SI working modes are analysed theoretically.

Keywords: simultaneous interpreting; consecutive interpreting; Effort Model; Tightrope Hypothesis; interpreter.

INTRODUCTION

The rendering of a language into another can be by mouth or by pen, namely interpreting and translation. Interpreting consists of consecutive interpreting (CI) and simultaneous interpreting (SI). SI can be further divided into different working modes. The performances of different working modes are definitely different. In this paper, we review the previous study presented by scholars all over the world, and then use the Effort Model as a theoretical framework to analyse the process of different SI working modes respectively. The positive and negative impacts of different SI working modes are analysed theoretically.

Keywords: simultaneous interpreting; consecutive interpreting; Effort Model; Tightrope Hypothesis; interpreter.

INTRODUCTION

In terms of working mode, interpreting can be classified into consecutive interpreting (CI), and simultaneous interpreting (SI), among which SI can be further divided into SI without text and SI with text. The working modes of SI without text and SI with text are quite similar to each other and only differ in whether interpreters have a text in hand. Having a text in hand or having no text in hand will have different impact on the performance of interpreters. The quality of SI with text is generally believed better than that of SI without text, because besides listening on which SI without text exclusively depends to obtain information, SI with text can also rely on reading to make up for information losses or information obscurity generated by listening. However, according to Daniel Gile’s Effort Model for SI without text and SI with text, the assumption mentioned above is somewhat challenged:

SI without text= L (Listening and Analysis) +P (Production) +M (Short-term memory) +C (Coordination)
SI with text= L (Listening and Analysis) +P (Production) +M (Short-term memory) +C (Coordination) +R (Reading)

From these two formulas, we can see that interpreters have to spare efforts in reading during the process of SI with text. While the effort is not readily available, according to Daniel Gile’s Tightrope Hypothesis, “most of the time, interpreters work close to saturation, be it in terms of total processing capacity requirements or as regards individual Efforts because of high Effort-specific requirements and/or sub-optimized allocation of resources to each of them” [1, 2]. Therefore, during the process of SI with text, interpreters shall have to spare efforts in reading when they already work close to saturation which will most likely lead to failure.

This paper, Research Advances on Simultaneous Interpreting Quality Assessment, has four sections. Section one is a general introduction to this study. The second section is a literature review which introduces SI with text, SI without text, and related theories. The third section presents the relevant research ever done both at home and abroad. Section four concludes this study by discussing limitations of previous study, and also suggestions for future study.

LITERATURE REVIEW

SI without Text

SI without Text

SI emerged in the 1920s when transmission equipment was developed to enable interpreters to work simultaneously. This kind of interpreting is practiced in a sound-proof booth in which interpreters receive source speeches through an earphone and deliver target language reproduction through a microphone almost at the same time. The audience who may not understand the source language but understand the target language can get the information from an earphone through which the interpreted version is given by the interpreters. SI is not a process of word for word transcoding but a complicated process in which a foreign language speech is fully understood and then its message...
reproduced in the language that audiences understand. Danica Seleskovitch developed the interpretive theory of translation based on observations made during conference interpreting. She divided SI into eight phases:

- Listening;
- Language comprehension;
- Conceptualization (combining the segments that have been heard with interpreters’ previous knowledge so as to form the cognitive memory);
- Expressing based on the cognitive memory;
- Understanding the situation;
- Monitoring;
- Interpreting by way of transcoding;
- Special signifier indication [3].

All those phases are not individual or finished chronologically, but interweave with one another and sometimes are finished at the same time.

While Zhang Weiwei and Zhong Weihe proposed a simplified working process of SI based on the characteristics of English-Chinese SI and their own experiences:

- addresser → microphone → earphone → SI interpreter → microphone → earphone → addressee.

**SI with Text**

SI with text in the booth is a special mode of (spoken-language) simultaneous interpreting. “Since authoritative input still arrives through the acoustic channel, with many speakers departing from their text for asides or time-saving omissions, this variant of the simultaneous mode is not subsumed under sight interpreting which is the rendition of a written text ‘at sight’, but rather regarded as a complex form of SI with a more or less important sight interpreting component [4].”

**Effort Model**

Daniel Gile originally used his Effort Model for simultaneous interpreting to elaborate on the basic tenet that there is only a limited amount of mental “energy” (or processing capacity) available for the interpreter’s processing effort, and that the sum of the three basic efforts which are listening and analysis, production, and short-term memory must not exceed the interpreter’s processing capacity:

\[(L+P+M) \leq \text{Capacity}\]

L stands for listening and analysis;

P stands for production;

M stands for short-term memory.

With the refinement of the model, a new factor is added, namely a coordination effort (“C”). Therefore, the relationship between the components are updated and expressed as follows:

\[\text{SI}=L+P+M+C\]

Simultaneous interpreting can be modeled as a process consisting of the three main efforts plus a coordination effort. In this formula, the ‘equal’ sign should be interpreted as meaning ‘consists of’, not as an equation in the usual mathematical sense, and the ‘plus’ sign as some kind of ‘addition’ in a very general sense, not as the usual arithmetic addition [1, 2].

\[\text{TR}=L+M+P+C\]

TR stands for total processing capacity requirements;

L stands for processing capacity requirements for L;

M stands for processing capacity requirements for M;

P stands for processing capacity requirements for P;

C stands for processing capacity requirements for C [1-2].

Total processing capacity requirements are a (not necessarily arithmetic) sum of individual processing capacity requirements.

\[\text{TA} \geq \text{TR}\]

TA stands for total available processing capacity [1-2].

Total available capacity must be at least equal to total requirements.
Daniel Gile’s Effort Model for SI with text is described as follows

Simultaneous Interpreting with text = Reading Effort + Listening Effort + Production Effort + Memory Effort + Coordination Effort

The text in hand is a double-edged sword. The facilitating side is that the visual presence of the information reduces memory failures and the effect of acoustic difficulties and unusual accents as well as the probability of failures due to insufficient processing capacity in the Listening and Analysis Effort. While the negative side is that the high information density and peculiar linguistic constructions of written texts as opposed to oral discourse require more processing capacity for analysis. What is more, the added cognitive load arising from the need to follow both the vocal speech and the written text makes two associated risks noteworthy:

Since all the information is present in the text, students often try to translate all of it even when delivery is too fast and they are being outdistanced. In such cases, saturation may occur and important speech segments may be lost. Speakers often deviate from the written text by adding comments, changing segments or skipping segments. When interpreters focus on the written text, they may miss these changes [1, 2].

The word “saturation” mentioned above is related to a hypothesis when in conjunction with which the full relevance of the Effort Models in explaining interpreting difficulties appears—The Tightrope Hypothesis. The Tightrope Hypothesis assumes that most of the time, interpreters work close to saturation, be it in terms of total processing capacity requirements or as regards individual Efforts because of high Effort-specific requirements and/or sub-optimized allocation of resources to each of them [1, 2]. Without this hypothesis, interpreting failures may be believed to be caused by insufficient linguistic or extra-linguistic knowledge or by mistakes rather than cognitive tension between processing capacity supply and demand.

Quality Assessment of Interpreting

Quality assessment in interpreting has always been a basic concern in the process of professionalization; however, it did not emerge as a topic of research until the 1980s. Since then, Scholars have been repeatedly trying to address the issue of how to assess the quality of interpreting. To assess interpreting quality, some valid criteria to define what is ‘good’ and what is ‘bad’ need to be established. However, this is not an easy task, because quality is acknowledged as an essentially relative and multi-dimensional concept which can and must be approached with different evaluation methods from a variety of perspectives [5]. Indeed, quality appears not as a self-dimensional concept which can and must be approached with different evaluation methods from a variety of perspectives [5]. Indeed, quality appears not as a self-contained topic but as a complex, overarching theme in which all aspects of the interpreter’s product and performance—textuality, source-target correspondence, communicative effect, and role performance—play an integral part [4]. There are some currently used criteria for judging the quality of interpreting, such as accuracy, completeness, appropriate language use, and smooth delivery. Though those criteria are used extensively, they are not universally accepted, because in different settings interpreters produce a great variety of texts which makes generalization difficult and even impossible.

An initial step was taken by Bühler [6] in a survey of AIIC members. Using a list of sixteen criteria to be rated on a four-point scale (‘highly important’, ‘important’, ‘less important’, ‘irrelevant’), Bühler asked her forty-seven respondents to indicate the relative importance of interpreter-related qualities (such as thorough preparation, endurance, poise, pleasant appearance, etc.) as well as nine features of the interpreter’s output (native accent, pleasant voice, fluent delivery, logical cohesion, sense consistency, completeness, correct grammar, correct terminology, appropriate style). The survey showed that most of the criteria were considered ‘important’.

Despite the fact that quality in interpreting must be assessed differently from various perspectives and it is essentially ‘in the eye of the beholder’, Pöchhacker [7-9] points out that research on quality in a certain interpreting event can focus on the recordable product or on the overall process of communicative interaction. He [7-9] believes that more than three parties can be involved in the process of quality assessment, and each party has their own expectations towards the quality of interpreting. Gile [1-2] argues that assessment variability can also be ascribed to the various actors’
(parties’”) positions in the communication configuration, while no actor can make an overall assessment because of their limitations:

- **The Sender**
  In consecutive interpreting, speakers can listen to the target-language speech and it would appear that if they understand the source language, they are qualified to assess the interpreter’s output. An experiment was conducted to testify this assumption. It turned out that their assessments are not necessarily reliable, perhaps due to attention fluctuation. In simultaneous interpreting, senders cannot hear the target-language speech, and therefore can only check it to a limited extent through the reaction of the receivers—if any.

- **The Receiver**
  In simultaneous interpreting, the receivers only can listen to the original or the interpreter’s speech. Spot-checking of words or groups of words can be realized by listening to isolated sentences in the source speech and then checking the interpreter’s reproduction of them, but it is impossible to listen to the whole target-language reproduction and the whole source-language speech during interpreting. If both the original and the target-language speech have been recorded, it is possible for a receiver to evaluate the fidelity, which is not standard practice. In consecutive interpreting, it is different: if the receivers have good understanding of both languages, they are in a good position to evaluate the quality of interpreting with regard to the accuracy of individual segments, though they may not be able to note all the information losses because of the large amount of information involved and the fact that they do not take notes as the interpreter does.

- **The Interpreter**
  The interpreter is a receiver and also a sender who has a good knowledge of the source language and a good command of the target language, but normally knows less about the subject, the aims, and is less familiar with the appropriate terminology than the sender and the receiver. Another constraint applies specifically to interpreters: because they are engrossed in complex cognitive operations under time pressure, their processing capacity is busy if not overloaded, and they are not in a position to monitor fully the quality of their output while interpreting. They can be aware of some of the shortcomings of their target speech when they fail to understand certain parts of the source speech, when they find themselves unable to render them, when making errors or formulating clumsy sentences in the target language, but properly have a limited capacity to view their speech as a whole and assess its overall quality. After interpreting, part of the material for comparison is no longer there, as words have disappeared from their minds.

  In the West, there are two models of assessment which are principles and parameters. The former refers to the establishment of macro principles for interpreting quality assessment. Therefore, the interpreting quality assessed under the guidance of these principles can be regarded as qualitative study of interpreting quality assessment. For example, if the quality assessment process is guided by the principles of transmitting the message of the source text completely, the examiner will judge the performance of interpreters in line with this principle. By following these principles, the important aspects of qualified interpreting can be known. The latter refers to setting up assessment parameters for interpreting quality assessment. Examiners set up parameters based on their own past experience and then set a certain ratio to each parameter according to their importance which can be regarded as quantitative study of interpreting quality assessment. Then the quality assessment can be realized by comparing the source text with the target text. Compared with qualitative study, quantitative one is of high feasibility. Many scholars at home and abroad adopted parameter model as the method to assess the quality of interpreting in their own studies.

  **Relevant Research Ever Done both at Home and Abroad**
  Information science (cognitive linguistics and cognitive psychology) points out that people acquire information through many channels, such as visual sense and auditory sense. It is generally accepted that people can acquire more information when the channels are more. When applied to simultaneous interpreting, it does not seem to be right.

  Daniel Gile’s Effort Model indicates that:

  - SI without text=L+M+P+C
  - SI with text=R+L+M+P+C

  In terms of effort distribution, SI with text is the two sided coin as mentioned above. The facilitating side is that the visual presence of all the information reduces memory loads and the effect of acoustic difficulties and unusual accents as well as the probability of failures due to insufficient processing capacity in the Listening and Analysis Effort. The negative side is that the high density and peculiar linguistic constructions of written texts as opposed to oral discourse require more processing capacity in the analysis component [10]. Meanwhile, interpreters are constantly interfered by the vocal output of the speaker. Therefore, compared with SI without text, SI with text does have some advantages as well as disadvantages.
In recent years, interpreting quality has become a heated topic in interpreting studies. However, research ever done abroad mostly focus on SI without text, CI, and the comparison between SI without text and CI. For example, Chang Chia-chien from the University of Texas at Austin discusses directionality’s effect on quality of SI without text; Tzou Yeh-zu, who is from Texas A&M University, discusses the effect of working memory, language proficiency, and training on quality of SI without text; Jessica Perez-Luzardo Diaz from the Universidad de Las Palmas de Gran Canaria (Spain) discusses a set of exercises in the training of SI without text; Debra Lynn Russel, who is at the University of Calgary, compares the quality of SI without text and CI in legal settings. Research on SI with text and comparative studies between SI with text and SI without text have not been found yet.

In China, the research on related issues can be divided into three categories

- Some scholars explore interpreting performance from the perspective of interpreting ability. They all focus on attention, analysis, memory, and communication.
- Other scholars focus on directionality, discussing the performance of interpreters. This kind of research mostly focuses on CI.
- Some research makes a comparison between SI without text and CI.

Though interpreting quality has become increasingly important in interpreting studies, research with regard to SI with text is rarely seen. I have found only three theses on this subject. Zhang Lili makes a comparative study of the quality of SI with text and that of SI without text. In her thesis, she uses five English-Chinese simultaneous interpreting transcriptions of the review presentations on Lebanon’s national report at Ninth Session of Human Rights Committee’s Working Group on the Universal Periodic Review as examples for performance analysis and comparison. All of the subjects are professional interpreters. And according to her thesis, the quality of SI with text is better than that of SI without text.

CONCLUSION

Previous studies of SI with text or comparison between SI with text and SI without text are rarely found. Zhang Lili makes a comparative study of SI with text and SI without text. In her thesis, all subjects are professionals, so no experiments are conducted on student interpreters. Moreover, in the thesis, while doing the experiment, the subjects are required to get the text far in advance and then to make full preparations for the experiment. Therefore, the results could be inferred. Getting the text in advance and making full preparations will definitely reduce the subjects’ effort of reading when doing SI with text; therefore the effort allocated to other tasks increases. Moreover, since the subjects are quite familiar with or can even memorize the text, their effort allocated to listening and analysis reduces. Therefore, an experiment can be conducted on student interpreters. The text can be handed out to student interpreters in about ten minutes before the experiment of SI with text in future research so that the student interpreters get only enough time to scan the text instead of reading it word by word and memorizing them. As a result, the impact on the quality of target language will be more obvious, because student subjects partly allocate the effort to the text in hand.

REFERENCES