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Original Paper

Skills of English-Chinese Figure Interpreting from the Perspective of Effort Models-A Report on Simulated Interpreting practice of An Intelligence Square Debate

Hanshu Zou[1]

[1] Renmin University of China, Beijing, 100872, China

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Abstract

Figure interpreting has been one of the difficulties in interpretation study because figures are hard to remember, to be taken notes of and to be conversed between different languages, often leading to misinterpreting and lowering the quality of interpretation. However, figure interpreting being a significant area of study, has not received enough attention.

Therefore, this essay, based on the author's interpreting practice of an Intelligence Square debate on Has Globalization undermined American Workers, aims to analyse the frequency, reasons and types of figure errors statistically and provide suggestions on quickly and accurately delivering figure information under the guidance of Effort Models in English-Chinese consecutive interpreting.

Keywords

figure interpreting, consecutive interpreting, Effort Models

1. Introduction

As China's economy soared over the past decades, its comprehensive national strength and international stage has been dramatically improved. The commercial and cultural exchanges, diplomatic negotiations and cooperation with other countries have achieved great development. As a bridge to the whole world, interpretation has been ever significant than before, because it helps people from different backgrounds communicate without language obstacles, better understanding to each other and achieve common views. There are more international conferences than before, thus demanding more high-quality interpreters.

Interpretation is a challenging profession. It requires interpreters to make a relatively accurate and fluent delivery under great pressure in a very short time. Even the most experienced interpreters can

make mistakes. Among them, figure interpretation is a major difficulty. The reasons interpreters often make figure errors are: it is hard for them to deal with multitasks with limited short-time memory, and there are conversions to be made in interpreting figures from English to Chinese. In addition, figure information are used to support objective information, and need to be as accurate as possible.

Wrongly delivered figure information can exert adverse impacts for both sides in commercial, economic and diplomatic negotiations. If interpreters consistently make figure errors, they will doubt themselves. Important figure interpretation as it is, it have not received enough attention. Most present researches focus on interpretive theories, such as figure conversion skills, note-taking skills and teaching methods, which might not be applied in field interpreting very well. In addition, most of them are centered on simultaneous interpretation rather than consecutive interpreting. Therefore, it is necessary to further how figure information could be addressed in consecutive interpreting.

This essay is organized as follows:the first part is literature review. In the second part, we will conduct the English-Chinese consecutive interpreting. The third part is used to analyse the practice from three aspects: the definition of figure information, statistics diagrams of figure errors, and causes of figure errors. Then, there will be countermeasures from the perspective of Effort Models in part four. In part five, we will make a conclusion of the significance of figure interpreting and coping tactics in field interpretation.

2. Literature Review

In this chapter, relevant literature regarding Figure interpreting, and Effort Models will be included.

2.1 Previous Research on Figure Interpreting

Scholars from home and abroad have been doing researches on figure interpreting for quite a long time. But there is a major difference of research emphasis between western and Chinese scholars. The former pay more attention to interpreting practice, and the latter focus more on interpretive theories and teaching methods.

Based on previous research, the definition of figures in interpretation have long been viewed as mere numbers. However, there are lot's of other elements concerned with figures, such as units, numbers' magnitude, objects that figures describe, correlative variables and so on. Roy Jones (2008, pp. 117-118) argues that figure in interpreting is only part of figure information and other elements include orders of magnitude (like hundred, thousand, trillion, cubic meter, etc.), the object that figures describe (such as KPI, stock price, employed staff), relative elements(one changes as the reference changes. Those elements are well worth considering, not only because of the information carried by figures, but because of the relationship between those elements. Overlooking any of them would result in dissatisfied output.

According to Gile (2011, p. 161), Figure is a common cause that introduces to unsatisfied interpretation. An experiment carried by Alessandrini (1990, p. 79) on figure information in consecutive interpreting points that even for an experienced interpreter, 34%-59% of his or her errors are related to Figures,

showing the importance of figures in delivering qualified interpretation. An experiment by Cristina Mazza (2001, p. 95) mentions that when a profession interpreter was doing simultaneous interpretation on two similar source texts, the correct rate of non-figure content is around 81.8%, while the content with figures lower than 53.9, indicating the difficulty of accurately interpreting materials with figures.

Based on previous international studies, Chinese scholars have also done a lot researches. Liu and Xiao (2010, p. 92) observed the interpreters' performance in addressing figure information and found that among 939 figures, there were 148 figures wrongly delivered with the error rate of nearly 16%. Ding Yuan (2014, p. 213) found in her interpretation teaching that students are often afraid of figure information and their performance is easily affected.

2.2 Previous Research on Causes of Figure Problems

According to research of Zhou (2016, p. 4), omission happens most frequently. Since Figure information is not only figures, as mentioned above, we should discuss errors and coping tactics based on elements of figure information, such as numbers, units, objectives that figures describe and correspondent relationship. Those errors not only lower the quality of interpretation, but cause misunderstanding and even conflicts between people using target language and source language. Here are major external and internal causes of those errors, each affecting different phases of interpreting.

The external causes concluded by former researchers include lack of language ability and coping tactics in different phases of interpretation, and being out of conditions. These are great obstacles for interpreters to understand figures at the first place. (Jia, 2014, pp. 4-5) Lack of language ability means that interpreters English skills remain to be horned. Not Applying coping tactics correctly in different phases of interpretation is also a cause.

The internal causes such as the complexity of figures as its own characteristics, huge amount of information carried in source language, and the numeric differentiation are also great challenges.

Professor Fang Shengping at BFSU thinks that information carried by figures is 20 times the quantity of that carried by words. It means that the pressure interpreters need to face in dealing with figures is much more than that in doing common interpretation. Besides, because information units of figure interpreting are not as closely connected as other semantic information is, it is hard for interpreters to deduce figures to be interpreted. Such characteristics of high information, low degree of correlation, and low redundancy often lead to psychological overloading. Therefore, even in international conferences, figure errors or omissions are not rare.

Apart from mere figure information, there is numeric differentiation (数级差) to be considered in translating Indo-European languages and Chinese, which is also an obstacle. For example, Chinese and English employees different ways of counting. In Chinese, numbers are counted by "千,万,十万,百万,亿" and so on. But in English, numbers are counted by hundred, thousand, 10 thousands, million, 100 million, etc. Conversion of units is necessary in interpretation, thus adding to difficulties. Figures with units like "thousand" or "10 thousand" are not that difficult, but if units are too complicated, errors are hard to be avoided. (Xie, 2012, p. 4)

2.3 Previous Research on Effort Models and Its Application in Figure Interpreting

In 1995, famous interpretation professor Danie Gile put forward his Effort Models theory. He argues that "interpretation requires some sort of mental 'energy' that is only available in limited supply" and explaining in detail different energy distributions in interpreting, the connection between these parts, their characteristics and reasonable energy-allocation model. He also brings forward inequation theory on consecutive interpreting. All of his theories provide valuable perspectives for improving interpreter' s practice.

Gile regard the efforts an interpreter faces as four parts:

Listening and Analysis Effort (L):concerning all comprehension-oriented operations, such as sound waves carrying source language, and interpreters getting the meaning of what they hear. These efforts are concerned with comprehension. Just hearing the sounds of words is of no use unless interpreters render them into meaningful information.

Memory Model (M):seen more as a storage system where information is temporarily kept before further processing take place. (Liu, 2008, p. 173)

Production Effort (P): comprised of two parts in consecutive interpreting, the moment interpreters hear source language while taking notes and the target language delivery.

Coordination Effort (C): a fundamental part in interpreting. Because smooth interpreting is based on smooth coordination. It enables interpreters to strike a balance between the listening and analysis task, and the on-going self-monitoring. Acquiring the skill of balancing energy distributions, Even if sometimes these efforts overlap, coordination actually finds the balance between all factors. (Kriston, 2012, p. 81)

As for its application in figure interpreting, green hands of interpreting could only pay attention to orders of magnitude (hundred, thousand, million, etc) at first, and then move on to care about more details and accurate delivery.

Xieyue (2013. p. 13) uses Effort Models to analyse figure interpreting in English-Chinese consecutive interpreting, advising that interpreter be fully prepared for interpreting, such as knowing the background and them of one task, and some relevant proper nouns, in order to avoid lose figure information because of being not familier with words. In addition, she also advised that interpreters should understand the content microscopically, knowing what content is and what is the figures that describe it.

Panzhiya (2013, p. 16) concludes in her essay that figures can be predicted by actively focusing on words related to figures and their common uses. When it comes to the cases when figures are too much and too complicated for interpreters to analyse, they can deliver the figure information in an general way, make them rounded, so as to keep the information right to some extent.

Sometimes figures are very complicated, if interpreters have no time to address, they can deliver the rounded figures and try similar expressions in order to make sure that the general meaning of the context is conveyed correctly. (Wang, 2015, p. 45)

2.4 Comments

Previous research has done a lot in analyzing the impact of figure information on interpretation quality, causes of figure errors and coping tactics, and made great contributions to interpretation studies. However, there are still some problems remaining to be addressed. In coping tactics, most of these researches focus on detailed skills in Figure conversion, overlook other elements related to figure information and strategies of energy distribution in filed interpreting.

Therefore, this essay, based on the author's interpreting practice of an Intelligence Square debate on "Has Globalization undermined American Workers", aims to analyse the frequency, reasons and types of figure problems by showing the statistics diagrams and put forward improvement suggestions under the guidance of Effort Models in English-Chinese consecutive interpreting.

3. Process Description

3.1 Preparation for Interpreting

The topic of the impact of globalization on American workers is professional and requires economic background knowledge to understand. The whole debate audio lasts nearly 60 minutes, therefore, the author selects 20 minutes out of them to do the simulated interpreting practice. The source words are 4012 English words, and the interpreted version is 7145 Chinese words. The transcription of the interpreting are appendixes attached at the end of the essay.

3.1.1 Preparation for the Theme

In simple terms, globalization is the process by which people and goods move easily across borders. Principally, it's an economic concept–the integration of markets, trade and investments with few barriers to slow the flow of products and services between nations. There is also a cultural element, as ideas and traditions are traded and assimilated.

Globalization has led to many millions of people being lifted out of poverty. However, globalization has also brought bad results. While some areas have flourished, others have floundered as jobs and commerce move elsewhere. While many have been lifted out of poverty, not everybody has benefited. Many argue that globalization operates mostly in the interests of the richest countries, with most of the world's collective profits flowing back to them and into the pockets of those who already own the most. Under such circumstances, American workers' livelihoods are being affected. According to an essay on the status quo of the American working class, since the 2008 financial crisis, the unemployment rate in America has remained on a high level. Statistics of the World Bank show that the unemployment rate from 2008-2011 is 5.8%, 9.3%, 9.6% and 8,95% respectively. After the American economy picked up gradually, the job market improved. However, because many people were no longer workers, despite of the unemployment rate lowered to 7.7% in February of 2013, the employed-population ratio was still around 58.6% , just 0.4% lower than what it was in summer of 2011. Obviously, as bourgeois make the most use of workers' surplus value, the American workers is becoming poorer.

3.1.2 Preparation for the Glossary

Because the topic is about the impact of globalization on American workers, the author did a lot of research and read parallel texts in order to understand more terminology and concepts related to economics and finance.

3.2 Process of the Interpreting

In the process of interpreting, the author was confronted with many problems and made lots of figure errors. The difficulties in this interpreting practice are that figures are so frequent and complicated that the author could not grasp, remember and interpret them correctly. Problems like omission, misinterpreting, and vague expression pop up from time to time. So this essay is to analyse why figure information are so hard to address and figure out practical skills from the perspective of Effort Models.

3.3 Post-interpreting Work

Based on the record audio, the author transcripts all the content and prints them out in order to review the process of interpreting again. The frequency and causes of figure problems showed in statistics will be analyzed and suggestions for improvement will be put forward.

3.3.1 Frequency of Different Types of Figures and Problems

There are mainly six types of figures:round number, multiple, fractional number, percentage, decimal and vague figure. Round number refers to figures that need no conversion. Complicated number refers to figures that need conversion. Vague figure in this essay, refers to figures not in specific figure forms, such as “millions, hundreds, lots of, a decade, decades of” and so on. Figure-related information refers to the information with other background meaning but showed in figure forms, such as Econ101.

	Frequency	Rate	Error	Rate
Round number	29	50%	1	0.03%
Complicated number	6	10%	1	16%
Multiple	3	5%	1	33%
Fractional number	1	0.1%	0	0
Percentage	13	22%	6	46%
Decimal	0	0%	0	0
Vague figure	4	0.7%	0	0
Figure-related information	1	0.1%	1	100%
Sum	57			

According to the statistics, it is easy to find that in this source language material, round numbers appear most frequently, and percentages come at the second place. As for the error rate, Vague Figures are at least prone to be wrongly delivered. Although in the table, percentages and multiples are figures with the highest error rate, but in practice, percentages and complicated numbers are very likely to get interpreters confused, and thus make figure errors.

4. Problems of Figure Interpreting

Based on the author's audio transcription, the figure problems fall into three categories: omission, misinterpreting and vague expression. All of these problems are all related to how energy is distributed in the process of interpreting. If the author puts too much efforts in listening and understanding figure information, then there will be less energy allocated in note-taking and thus lead to omission, or misinterpreting. If the author cares too much about taking notes as much as possible, then less energy will be distributed in listening and understanding, so it is highly possible to omit figure information.

Problems	Frequency	Rate
Omission	3	10%
misinterpreting	8	80%
Vague expression	3	10%
Sum	14	25%

5. Causes of Figure Interpreting Problems Analysis

5.1 Insufficient Background Knowledge and Terminology

Lack of background knowledge and unknown terminology have been one of the biggest factors that limit interpreters' performance, especially in highly professional areas, such as economics and finance.

Example 1

SL: I am an economist by training, and I know that for all of you who have taken **Econ 101**, you learned that lesson really well, which is "Free trade is good for everybody all the time."

Analysis: The author failed to interpret **Econ 101** in this section, because she had no idea what that is. After searching the internet, she knows that it refers to economics lessons. But without such background knowledge, it was hard to response or detect what that term is in a very short time.

5.2 Inadequate Listening Ability

Example 1

SL: An even bigger part has been the invention of containers that you can put on ships and make it much cheaper to ship goods. The invention of the internet, which allows more coordination across borders, the widening of the Panama Canal and a whole bunch of other developments, as well as the fact that tariffs have come down **75 percent** from what they were at the end of World War II and we've pursued a number of deals that make that trade easier.

Analysis: In the text above, because there are lots of description before the figure, so the author put much attention on listening the meaning and did not expect there would suddenly appear a figure. So the energy was not allocated in remembering and expressing the specific Figure.

5.3 Non-proficient Note-taking Skills

Example 1

SL: In the period before trade expanded, their paycheck grew **3 percent** per year consistently from the late **'40s to the mid '70s**. Since then it has grown **0 percent.** Again, over **45 years**. In fact, the real wage of a blue-collar manufacturing worker was about **$22** in today's dollars in **1973.**

Analysis: There are quite a lot figures appearing almost at the same time. The author mush address them immediately. However, because the speaker spoke very fast, and the author was not very proficient at taking notes of figures, the figure "3 percent" was omitted and "45 years" was delivered in a vague way. Writing figures quickly and correctly is a crucial part of figure interpreting. Without notes, it is barely impossible for interpreters to remember.

6. Countermeasures of Figure Problems

After analyzing the causes of misinterpreting of figure information, the author will give suggestions accordingly based on her interpreting practice.

6.1 More Efforts in Background Knowledge and Terminology

(1) Full preparation for interpreting

A qualified interpreter should be fully prepared for every task he or she has taken. Professionalism can be easily told from this part. Pre-task preparation includes background knowledge of a certain industry, subject and theme, creation of glossary and information of the speakers.

Example 1

SL: They've encouraged and rewarded outsourcing, over-exports. They've shifted the balance of bargaining power toward wealthy and already powerful multi-national corporations, and away from working people.

Analysis: In this text, "bargaining power" is a term. This paragraph is mainly about the impact of globalization, and if the author knew more about it, she would understand this common concept of economics, which means that one side has the power to increase or lower the price of the services or products that he provides. Even if she did not know that "bargaining power" means "议价能力" in Chinese, she can detect from the meaning of the words "bargain 议价 "and "power 力" respectively with the help of background knowledge.

(2) Daily practice

When we are discussing ways to improve figure interpreting performance, one thing can not be overlooked. That is interpreters' language ability, including basic English skills of listening, speaking, reading and writing and background knowledge. Because understanding and expressing figure information is only part of understanding language, and figures are ultimately used to convey meaning. The more knowledgeable and proficient in English an interpreter is, the more likely one can be to make accurate delivery or even infer what figures mean according to one's background knowledge. Therefore, it is necessary for interpreters to horn their comprehensive abilities. Just as Roman was not built up in

one day, it is daily routine practice makes a difference.

6.2 More Efforts in Listening and Understanding

Whatever in consecutive interpreting or simultaneous interpreting, listening and comprehension is the first step of interpreting and also lays a foundation for delivery. Therefore, an excellent interpreter should be proficient in it. The process of listening is to decode the words, sentences or paragraphs the first moment one hear these by translation skills. Because of the low connectivity and redundancy of figures, interpreters should pay more attention to figure information in listening and understanding.

(1) Practise listening ability

Just as the table of figure problems showed above, there are 80 percentage of misinterpreting. Unsatisfied listening ability is one major cause. On one hand, the speaker does speak very fast, making it harder to grasp the accurate figures. On the other hand, it reveals that the author's listening ability remains to be improved. Because in order to present a high-quality interpreting, the interpreter should have no problem of listening. Therefore, improving listening ability should start from daily practice.

6.3 More Efforts in note-Taking Skills

Due to limited storage of memory, information is hard to be fully remembered in mind. Note taking is the key to this problem, and also a core ability that any interpreter should acquire. Clear and logic notes are very helpful to manage remember and read, the second part of Effort Models, and facilitate the whole process of interpreting. Here below are some effective ways to help achieve this goal.

(1) Be familiar with formulas

1 thousand = 千	1 million = 百万	1 billion = 十亿
10 thousand = 万	10 million = 千万	10 billion = 百亿
100 thousand =十万	100 million = 亿	100 billion = 千亿

Although there is difference in Chinese and English units of figures, there are formulas that help us finish the conversion. Reciting them frequently is helpful for interpreters to make fast response in English-Chinese interpreting.

(2) Create appropriate and vivid symbols

Note-taking is designed to help interpreters remember more information. There are two kinds of memory—remembering of literal words and meaning. Interpreters don't have to remember exactly the same figures as are carried in source language, nor can they do, so taking notes are a very effective way to help interpreters remember.

7. Conclusion

Based on the author's interpreting practice for An Intelligence Square debate "Has Globalization Undermined American Workers", this essay expand the definition of figure information, and discuss the

importance of accurately delivering figure information, major causes of errors and practical coping tactics from the perspective of Effort Models.

Figure information is not only about figures, but all elements related to the meaning to be interpreted, such as units, numbers' magnitude, objects that figures describe, correlative variables and so on. Major difficulties of figure information come from its high density, low connectivity and redundancy, and the difference of numeric magnitude between English and Chinese, adding greatly to interpreters' pressure and result in unbalanced energy distribution in different phases of figure interpreting, and errors like wrong expressions, non-accurate expressions and omission of figures.

Therefore, this essay provides some suggestions accordingly based on Gile's Effort Models and her interpreting practice. In listening and comprehension, an interpreter should be fully prepared and understand the content at a macroscopic level, coming the figure information with literal information. In memory, figures are advised to be remembered by understanding comprehensively and vividly. In addition, because listening and understanding, remembering and note taking are almost done at the same time in consecutive interpreting, interpreters should learn different skills of taking notes. Figure interpreting has been one of the most challenging part of consecutive interpreting. Its quality affect that of the whole consecutive interpreting, especially under circumstances like business negotiations, international conferences. This essay is meant to provide practical methods to cope with figures successfully in real working conditions, hoping that will be of value for interpreters and interpretation learners.

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