

Original Paper

A Study on Translation Strategies for Prose into English under the Think-Aloud Protocol: Taking "*I Love the Sea*" (Excerpt) as an Example

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Abstract

The think-aloud protocol, as an emerging research tool, provides a new perspective for translation studies. This paper takes the prose "I Love the Sea" (excerpt) as an example. Combined with textual comparative analyses, this study explores translators' cross-cultural transfer strategies. The research finds that subjects with translation experience frequently utilize strategies such as syntactic restructuring, memory recall, and so on. In contrast, subjects without translation experience primarily rely on basic strategies. By exploring the specific translation strategies, the results indicate that for the English translation of prose rich in cultural imagery. Translators need to comprehensively consider factors such as the original text's style, cultural connotation, and target audience. They should flexibly apply various translation strategies to achieve a dynamic balance between linguistic, thereby enhancing translation quality.

Keywords

prose translation, think-aloud protocol, translation strategies, cultural imagery, cognitive process

1. Introduction

Translation is a complex activity that can be divided into two aspects: the "process" and the "outcome". Translation studies have always focused on the study of translation outcomes, such as the analysis and evaluation of the translated text, and the comparison between the translated text and the original text. If we want to deepen translation research and reveal the essence of translation, studying only the translation results is far from enough. We also need to describe and explain the translation process.

Unlike traditional analysis, TAP examines the real-time cognitive processes of translators. Developed since the 1980s, this approach allows translators to verbalize their thoughts while working. Real-time recording through TAP sheds light on how translators tackle complex challenges. The resulting data exposes hidden decision-making patterns. Such observations contribute to translation studies. It shows subconscious strategies that traditional analysis misses. In addition, it helps bridge theory and practice by demonstrating how abstract principles apply in actual scenarios.

This study selects an excerpt from Xie Bingying's prose *I Love the Sea* as the research object. The aim is to explore effective strategies for prose translation under the think-aloud protocol. By dissecting the translator's thinking activities during the translation process, this study presents the translator's thought pathways. It aims to provide specific strategic guidance for prose translation.

2. Literature Review

2.1 Studies on Think-Aloud Protocol

Krings (1987) & Seguinot (1991) introduced psychological study method of verbal report into the study of translation process, the psychological reality of a translator being revealed to the researchers. TAPs-based translation process experiment can be designed at various levels and procedures towards various problems and purposes.

Empirical TAPs-based researches on translation process focuses on translation strategy (Krings, 1986; Lorsch, 1991). In translation study, translation strategy has long been mixed up with translation method and translation rule. Wilss (1983) and Konigs (1987) who first tried to differ translation strategy from translation method, believe that the former refers to the procedures a translator follows when transferring the source text into target text and the procedures may, but not necessarily result in a good translation product.

Different from the above prescriptive method, a descriptive process-oriented method has been adopted to conduct TAPs translation study. In Lorsch's (1991) definition (discussed in Chapter 1), translation strategy is problem-solving, which means translation strategies will be employed when translators encounter some translation problems. This definition highlights the role of consciousness in identifying translation problems.

In other words, the problems realized by the translator in the translation process are deemed real problems, which are the targets of the translation strategy. In Lorsch's definition, the perspective of the analyst is replaced by the translator or the language user, and the focus is shifted to the procedures, the process the translator follows to cope with the translation problems consciously in the real translation situation (Lorsch, 1991).

2.2 Studies on English Translation of Chinese Prose

Prose translation research focuses on how to transmit the unique aesthetic values and cultural connotations across different cultures. Scholars have conducted in-depth discussions on prose translation.

The essence of translating literary prose centers on the faithful reconstruction of aesthetic resonance. Tong's (2010) quadripartite model delineating textual beauty across phonemic, semantic, structural, and conceptual dimensions. Illustrating this framework, case study of *Moonlight over the Lotus Pond* reveals how practitioners orchestrate phonological parallelism to recreate poetic cadence (2009). Cognitive poetics offers groundbreaking insights into image transference. The investigation of lunar symbolism demonstrates the necessity of bicultural frame alignment (2015).

Contemporary scholarship increasingly employs corpus methodologies to identify operational tendencies. Parallel findings emerge in studies of ambiguous expression localization (2014). As documents through Guo Moruo's works, effective handling of culturally-loaded indeterminacy requires dialectical integratio (2012).

This progression reflects the field's maturation from contrastive linguistics to a multidimensional discipline. Twenty-first century practitioners must navigate dynamic equilibria to achieve genuine intercultural aesthetic communion.

3. Overview of the Think-Aloud Protocol

The think-aloud protocol represents a comprehensive data collection method. Compared with other investigative tools such as questionnaires and interviews, think-aloud data exhibit higher objectivity (Guo Chunjie, 2004).

This method's operational paradigm requires participants to verbally articulate their thought processes continuously. Ideally, a think-aloud protocol should fully reveal all cognitive information during task execution. In fact, think-aloud phenomena are not uncommon in daily life. For example, children describe their play while manipulating toys; adults mutter operational steps while studying keys. They both exemplify this externalization of cognitive processes.

Since its introduction to translation studies in the 1980s, Krings (1986) was among the first to employ the think-aloud protocol in empirical research on translation processes. He described it as "the most appropriate research tool for exploring translation thought processes" (1987:166). By asking translators to verbalize their decision-making in real time, researchers gain direct access to observe translators' cognitive operation mechanisms. Although fully automated cognitive strategies may resist effective verbalization, the think-aloud protocol retains unique advantages. It provides cognitive process, integrates research on emotional factors, and reveals the thought trajectories underlying complex decision-making.

It is important to note that in practical applications, the think-aloud protocol should be combined with methods like questionnaires and interviews for data triangulation. While the method has limitations in fully disclosing cognitive processes, scientific experimental design can effectively enhance the reliability and validity of research.

4. Experimental Design

4.1 Participant Information

This experiment primarily investigates students' translation strategies. The preparatory work included selecting 14 postgraduate students, all with at least 13 years of foreign language learning experience. They have got certification in the Test for English Majors-Band 4 (TEM4). Among them, 6 participants (Group A) had prior experience in translation projects, while the remaining 8 (Group B) had no such experience. All participants volunteered for the study.

4.2 Experimental Text Selection

The selected text was a 398-word excerpt from the prose *I Love the Sea*. To ensure contextual comprehension, participants were provided with 1,529 words of surrounding text. The prose employs a poetic style to convey the author's profound affection for the ocean. In addition, the excerpt depicts her daily walks along Xiamen's coastline. It reflects the traditional Chinese ideal of "harmony between humanity and nature".

4.3 Experimental Procedure

The data collection method in this experiment was the think-aloud protocol. Participants verbalized their thought processes while translating, and their utterances were recorded. They were allowed to use dictionaries. The experimenter did not interfere with their translation activities. The experimental process was as follows:

1. Training Phase

Before the formal experiment, the researcher systematically introduced the basic concepts of the think-aloud protocol. Participants first engaged in a pre-test of Chinese-English translation to master how to maximize the externalization of their cognitive activities. The researcher provided improvement suggestions based on pre-test performance, including operational norms. They are supposed to maintain clear and stable vocal volume. The limiting single pauses should be no more than 10 seconds (to avoid affecting experimental validity).

2. Recording

Fourteen participants verbalized their thought processes, which were primarily recorded via audio. During the experiment, participants were permitted to freely use dictionaries and online resources.

3. Transcription

After completing the test, each participant immediately submitted their audio recording. During the initial verification of the recordings, the researcher highlighted segments obscured by dialect accents or low volume. Based on the established regular communication with participants, all recordings were verified and corrected.

5. Experimental Data Analysis

5.1 Analysis of Experimental Validity

The reliability and effectiveness of auditory thinking data should be the first issue to be discussed.

From the questionnaire survey conducted on the subjects after the experiment, it can be seen that the method of verbal thinking does not have a significant impact on translation tasks. All participants completed the experimental task. In the assessment of think-aloud data, the validation of data is a crucial step. The total duration of non-verbal behaviors (such as silence and pauses) should be controlled within 10% of the total test time (Guo Chunjie, 2007).

Table 1. Participants' Completion Status

Participant	Total Test Time (minutes)	Pause Time (minutes)	Percentage
P1	24.3	2.1	8.6%
P2	22.7	1.9	8.4%
P3	27.8	3.2	11.5%
P4	25.6	2.2	8.6%
P5	23.9	1.8	7.5%
P6	28.1	2.5	8.9%
P7	21.5	1.6	7.4%
P8	26.9	2.4	8.9%
P9	20.8	1.5	7.2%
P10	27.3	2.6	9.5%
P11	25.2	2.3	9.1%
P12	23.1	1.7	7.4%
P13	28.5	3.1	10.9%
P14	26.2	2.2	8.4%

As the results show, the proportion of pause time for most participants is within a reasonable range. Among the 14 participants, 12 have a pause time percentage within 10%. The proportion of pause time for these participants indicates that they had good thinking coherence during the translation process. However, for P3 and P13 (both from Group B), the proportion of pause time is 11.5% and 10.9% respectively. This may imply that these two participants encountered more thinking obstacles. Therefore, they are not included in the final statistical analysis.

5.2 Data Coding

The German scholar Kiraly (1997) proposed a set of translation strategy indicator systems. It aims to code and analyze various behaviors and strategies of translators. These indicators provide a detailed and comprehensive framework for researching translators' translation processes.

Table 2. Translation Strategy Indicators

Representative Symbol	Significance
S1	Accept the internal solution
S2	Attempt syntactic reconstruction
S3	Back - translation
S4	Interrupt the attempt
S5	Interrupt the translation and start over
S6	Utilize memory aids
S7	Identify problems
S8	Consult the source - target language dictionary
S9	Extra - linguistic judgment
S10	Intuitive judgment
S11	Monitor the accuracy of the target - language text
S12	Consult the target - source language dictionary
S13	Select dictionary entries
S14	Reorganize the context
S15	Delete meanings
S16	Consider the expected value of the translation
S17	Interpret the source - language text
S18	Be uncertain about the acceptability of the text
S19	Automatically output the text
S20	Dictionary - consultation is ineffective

Before officially starting the data analysis, to ensure the accuracy and standardization of the data, the author conducted a systematic coding process on the raw data. The coding process was carried out strictly in accordance with the analysis rules specified in Table 3. It covers strategy indicator symbols such as S1 - S20 and clarifies the way to record pause seconds. In this way, each behavior label can correspond to the specific performance, laying a solid foundation for subsequent efficient.

Table 3. Analysis Rules

Symbol	Significance	Example
S1—S20	Strategy indicators (symbols)	我记得“沙子”的英文应该是“grit”S6
(1—10s)	The amount of seconds used for pause	查词典，…… (8s)
{ }	A translation segment on the basis of problem - solving	{“小巧玲珑的贝壳”用什么词表达“小巧玲珑”呢？…… (3s) S7 }

.....	pauses	比如“雪浪”，嗯..... (2s) “snow - white waves” 比较直白
???	Inaudible utterance	洁净柔美的细沙，洁净柔美能用一个词表示 吗??? (7s)

5.3 Statistics Analysis

Table 4. Cross - tabulation of Translation Strategy Usage

Translation Strategy Symbol	GA	GB
S1	4.4%	7.9%
S2	17.5%	4.9%
S3	5.1%	6.7%
S4	4.4%	6.1%
S5	3.6%	15.9%
S6	16.1%	4.3%
S7	7.3%	7.4%
S8	2.9%	14.1%
S9	5.8%	6.1%
S10	5.1%	5.5%
S11	6.6%	3.1%
S12	3.6%	4.3%
S13	2.9%	3.7%
S14	2.2%	4.9%
S15	2.9%	13.5%
S16	15.3%	3.7%
S17	6.6%	6.1%
S18	2.9%	4.3%
S19	3.6%	4.9%
S20	2.2%	3.7%

The results of the data analysis show that GA demonstrated distinct strategy preference. The three strategies they used most frequently were S2, S6 and S16. This strategy selection pattern reflects that experienced translators tend to adopt advanced cognitive processing strategies. They can flexibly restructure syntax to adapt to the expression habits of the target language. In contrast, GB mainly relied on basic strategies such as S5, S8 and S15. This combination of strategies indicates that novice translators are more inclined to adopt straightforward but simplification methods. The significant

differences in strategy selection between the two groups confirm the influence of translation experience on strategy choice. Experience accumulation prompts translators to shift from basic strategies to more efficient ones.

In terms of the degree of dispersion of strategy distribution, the strategy use in the GA was relatively more balanced. Although S2, S6, and S16 were used more frequently, other strategies were also applied to a certain extent. This indicates that experienced translators can flexibly employ a variety of strategies, forming an organic strategy network. However, the strategy used in GB showed a more concentrated trend, mainly focusing on S5, S8, and S15. This means that novice translators often over-rely on a few strategies.

From the perspective of the synergistic effect between strategies, translators in the GA were able to achieve better synergy between strategies. Translators in GB performed poorly in terms of strategy synergy. There was a lack of organic connection between strategies, and they mostly used individual strategies in isolation.

6. Conclusion

The Think-Aloud Protocols can record translators' real-time thoughts during translation. TAPs effectively capture translators' immediate thinking and their hesitations. It provides empirical evidence for research on translation strategies.

This study employed an excerpt from the prose *I Love the Sea* as the test material and coded 12 valid sets of think-aloud data. It revealed significant differences in strategy selection between two groups. Translation experience is not merely a simple accumulation of knowledge but problem-solving abilities.

However, due to the limited sample size and the potential impact of participants' subjective expressions on data integrity, the generalizability of the research findings requires further verification. In future research, it is crucial to expand the sample size and diversify the test materials, thus to enhance the reliability and validity of the findings. Additionally, combining TAPs with other research methods can also offer a more comprehensive understanding of the translation process.

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