Exploring Cognitive Effort in Written Translation of Chinese Neologisms: An Eye-tracking and Keylogging Study

Jinjin Chen
Center for Studies of Translation, Interpreting and Cognition, University of Macau, Taipa, Macau SAR, China
chenjj0601@163.com

Defeng Li
Center for Studies of Translation, Interpreting and Cognition, University of Macau, Taipa, Macau SAR, China
defengli@um.edu.mo

Victoria Lei
Center for Studies of Translation, Interpreting and Cognition, University of Macau, Taipa, Macau SAR, China
viclcl@um.edu.mo

Abstract

Neologisms are newly coined lexical units or existing lexical units that acquire a new sense, and they pose great challenges to translators in conducting translation task (Newmark, 1988). This study, taking cognitive effort as a window, is an attempt to find out how the human mind invests its energy in information processing as well as language production during written translation of Chinese neologisms.

Three research questions are formulated in this study: (1) Are translators more cognitively effortful when doing written translation of Chinese neologisms? (2) Does knowledge of context have an effect on the cognitive effort of translators in translating Chinese neologisms? (3) How translators differ in investing cognitive effort in translating Chinese neologisms from different text types?

Three groups of people are invited to the experiment including professional translators, well-trained graduate translation students, and untrained translation students/bilinguals. They are asked to perform three from-scratch written translation tasks from Chinese to English, after which a retrospective interview is conducted to check their knowledge of context and translation strategy in relation to their tasks. A different text type is used for each of these three tasks, while each text consists of 200 words and 7 Chinese neologisms. Participants' translation outputs are recorded by Translog-II and Tobbi 300. Various indicators of cognitive effort including source text gaze measures, target text gaze measures, and target text keystroke measures are analyzed in connection to the subjects' self-assessment using NASA TLX as well as holistic quality assessment by translator trainers.

It is expected that this study will shed light on whether more cognitive effort is allocated in written translation of Chinese neologisms, as well as elucidate the relationship between cognitive effort and knowledge of context. In addition, the study intends to find clues of the relationship among cognitive effort, text type, translation strategy, and translation quality.

References

Newmark, Peter. 1988. *A Textbook of Translation*. New York: Prentice Hall.