Chapter 10
Cognitive Effort and Efficiency in Translation Revision

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ABSTRACT

Empirical studies of revision are often based on either think aloud protocols, interviews, or observational methods. Eye tracking and keylogging methods are rarely applied to the study of revision behavior. The authors employ established methods from translation process research (TPR) to study the eye movement and typing behavior during self-revision (i.e., the phase in the translation process that follows a first complete draft). The authors measure the effect of behavior during the drafting phase on the relative revision duration. Relative revision duration is the time translators spend revising the first complete draft of the source text. They find that the most efficient process involves a large degree of concurrent reading and writing and few deletions during the drafting phase. The efficiency gains in terms of relative revision duration achieved by avoiding discontinuous typing, by making a larger number of deletions, pausing for longer amounts of time, and engaging in less concurrent reading and writing are outweighed by the gains in total task time by doing the exact opposite.

INTRODUCTION

Revision is today undoubtedly a major quality management task within the translation process (cf. Gouadec, 2007; Mossop, 2007; Drugan, 2013; ISO 17100, 2015). Producing a product without checking its quality would, according to the ISO 9001 requirements of measuring process results (ISO 9001,

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2015), simply not be allowed. Even if we disregard standards and only take a look at a typical modern translation production, this would be nothing other than negligent. The field of research that evolves out of this standard-driven necessity to revise translations is the investigation of the translation revision process. For a more detailed process description, the identification of the different process parts and the definition of the most efficient revision mode are very important. In this paper we will present a study that investigates self-revision within the translation revision process. The main research question addresses the revision behavior and its efficiency during self-revision performed by the translator.

Almost exactly ten years ago in an article summing up the status of empirical studies in revision, Mossop (2007, p. 18) expected eye tracking to be the future technology to allow translation revision research to combine and triangulate data from different sources for a better investigation of the revision process. One key proposal was to correlate keystroke records, at the time a very common method in research, with the recordings from eye movements of the revision actions that are performed (or not) on a translated text. While his 2007 publication was limited to the research question why revisers would overlook certain errors, he foresaw the possibilities of correlating eye movements and keystrokes in combination with an empirical set of methods to investigate the behaviour during the different phases of the translation process. Although there are a number of studies investigating revision and although several behavioural aspects were investigated empirically (e.g. Mossop, 2014; Künzli, 2005, 2006, 2009, 2014; Robert, 2008, 2014; Robert, Remael, & Ureel, 2016), eye tracking and key logging have only been used in some smaller scale studies in revision research (Englund Dimitrova, 2005; Robert, 2012)[1].

In Translation Process Research (TPR), the written translation process as a whole is typically divided into an orientation, a drafting and a final revision phase (Jakobsen, 2002). We define, for the current purpose, the drafting phase as starting with the first keystroke. The drafting phase ends with the first time that the last source word was translated. All the reading that occurs prior to the drafting phase is considered orientation and all the keystrokes and reading that occur after the drafting phase are considered end revision. Indeed we distinguish two types of revision: revision during the drafting phase (online revision) and end revision, which are corrections that take place during the final revision phase. This common understanding of revision in the TPR community seems to be similar to the concept of self-revision or checking by the translator in revision research.

EMPIRICAL STUDIES OF REVISION

There is a limited number of empirical studies which investigate the translation process as opposed to the product. The data elicitation methods in these studies are varied. They include interview studies (e.g. Shih, 2006), Think Aloud Protocols (TAPs) (e.g. Shih, 2013), screen recording and key logging and/or eye tracking. Given that it has been shown that TAPs have a distorting effect on the process of translation itself (Jakobsen, 2003) we will, for the current purpose, ignore studies which use TAPs as data elicitation method. Shreve, Angelone, and Lacruz (2014) study to what extent viewing a screen recording of someone else's translation process can help spotting errors in the product and find that it is indeed more helpful than other methods. Ipsen and Dam (2016) investigate which revision procedure is the most successful (procedures were, e.g., whether the source or the target were read first). Success here is defined as error detection which is, to a certain extent, independent of how the error is corrected. Results suggest that the more successful procedures are the ones which involve reading the target text (TT) first. However, given that the study by Ipsen and Dam (2016) used screen recording and post-task