

Eye-key span: Exploring input/output coordination in translation

Barbara Dragsted and Inge Gorm Hansen, Copenhagen Business School, CRITT

The present study is carried out under the research project “Comprehension and production processes in translation and interpreting hybrids” funded by the Danish Research Council for Culture and Communication. The aim of the project is to expand our understanding of how translators coordinate the process of constructing meaning in the source text (ST) with the process of representing meaning in the target text (TT) – how comprehension processes in one language are transformed into text production processes in another language.

With the availability of technologies that can monitor translation behaviour by generating user-activated data – *eye-tracking* technology to record ST reading and TT monitoring and *keyboard logging* to record TT production – we are gaining more insight into what is going on during the translation process. This study reports on experiments which combine eye-tracking and keyboard logging technologies and aims to explore comprehension and production processes in translation and translation/interpretation hybrids, drawing on experimental data from translation students as well as professional translators and interpreters.

The study of coordination of comprehension and production processes may be approached from different angles and with different foci, for instance the attention split between the ST and the TT windows of the screen, distribution and duration of pauses, and transitions between reading/comprehension and production/monitoring modes. This paper will focus on the time lag between word fixations in the ST and production of equivalents in the TT, assuming that the *input-output lag*, or *eye-key span*, indicates a coordination effort. Coordination may be seen as an instance of problem-solving: the longer the time lag, the more demanding the problem-solving challenge, and the shorter the time lag, the higher the degree of automation.

Expert and novice behaviour will be compared and discussed and findings from written translations will be contrasted with data from interpreting and translation/interpreting hybrids (Lederer 1981, Pöchhacker 2004). We anticipate differences between written and oral modalities, and expect the highest level of automation (the shortest time lags) in interpreters, with almost instant input/output integration and no (felt) coordination effort.

To optimize the integration between eye-tracking and keystroke logging data, we have developed an *eye-key manager*, a program which allows us to measure and correlate the time lag between ST eye fixations and TT keystrokes.

Based on our analyses, we will discuss Just and Carpenter’s (1980) immediacy assumption and eye-mind assumption in relation to the translation process.

References:

Just, M. A. and Carpenter, P. A. 1980. A Theory of Reading: From Eye Fixation to Comprehension. *Psychological Review* 87 (4). 329-354.

Lederer, M. 1981. *La traduction simultanée – Expérience et théorie*. Paris: Minard Lettres Modernes.

Pöchhacker 2004. *Introducing Interpreting Studies*. London/New York: Routledge.