

Exploring the dynamics of reading behavior in sight interpreting/translation: A hidden semi-Markov approach to eye-movement data

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Sight interpreting/translation (SIT), the oral or signed rendition of a text written in another language, is a cognitively demanding task. It is characterized by various constraints, including reading the source text under time pressure while simultaneously planning or delivering target-language reformulation.

Existing research has mainly characterized reading in SIT using aggregate eye-tracking measures, such as group-level mean fixation durations. Although informative, these measures may not fully capture changes in reading behavior over the course of a single task or differences between participants. This has resulted in a largely static account of reading in SIT.

This talk introduces hidden semi-Markov modeling as a complementary approach that could provide a finer-grained picture of reading behavior in SIT. On the basis of eye-movement data from eleven participants completing English-French SIT tasks, the model was used to identify distinctive eye-movement profiles, or reading 'states'. The findings show that these states formed recurrent sequences whose organization changed as the task progressed. The talk will discuss what such reorganization may reveal about shifts in cognitive processing during reading in SIT.

Bio

Mathieu Veys is a teaching assistant and Ph.D. candidate in the Faculty of Translation and Interpreting at the University of Mons, Belgium. His doctoral research uses a mixed-methods approach to investigate cognitive processing in sight interpreting/translation, with a particular focus on reading and problem-solving behaviors. He is currently undertaking a research stay at Macquarie University, working with Profs. J.-L. Kruger and M. Orlando.