Reader differences in navigating English-Chinese sight interpreting/translation

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Reading is a key determinant of success in sight interpreting/translation (SiT) (Jiménez Ivars 2008; Nilsen & Monsrud 2015), a task in this study involving reading and orally rendering speech scripts from English to Chinese in a diplomatic interpreting scenario. While previous SiT studies have compared the features of SiT reading with other tasks (e.g., Alves, Pagano & da Silva 2011; Chen 2013; Ho 2017; Huang 2011; Jakobsen & Jensen 2008; Macizo & Bajo 2004; Ruiz et al. 2008), the existing literature tends to see reading as a *uni-process* activity without considering the multiplicity of the processes involved. Evidence has shown that multiple types of reading processes exist (Carver 1990; Olivier, Guérin-Dugué & Durand 2022; Simola, Salojärvi & Kojo 2008), and there are distinct individual differences regarding the use of processes in combination to achieve reading goals (Hyönä, Lorch Jr. & Kaakinen 2002; Stanković & Lalović 2010). This eyetracking study unveils the types of reading processes in SiT, using silent reading (SR) and reading aloud (RA) for comparison to understand how various processes are used in different tasks, and how reading strategies employed by participants diverge (reflected by how the percentages of reading processes vary). The participants were invited to conduct three tasks, including SR, RA, and SiT, each using a speech script of 175 words. The data of 17 experienced interpreters, 18 interpreting trainees, and 18 untrained bilinguals (with comparable language competency to trainees) were analysed. The major criterion differentiating interpreters from the others is the length of professional experience, while interpreters plus trainees set themselves apart from the bilinguals in the SiT training they received. The clustering method of PAM (partition around medoids) (Kassambara 2017) was adopted to categorise reading processes considering fixation duration, saccade amplitude and saccade direction—the latter two indexed by the *number of crossed words* (Olivier, Guérin-Dugué & Durand 2022). The results show five distinct reading processes: skimming, rauding (normal reading), typical problem-solving, effortful problem-solving, and anchoring. The percentages of processes vary according to the nature of each task. While the combination of processes is similar across groups for each task, i.e., all share a similar overarching reading strategy, a clear divide exists between the trained participants and the untrained bilinguals—the latter having significantly more fixations for skimming, rauding, and typical problem-solving. Our findings show that fixation plus saccade-based analysis complements word-based analysis well in understanding SiT reading.

Keywords: sight interpreting/translation, eyetracking, reading process, reading strategy, cluster analysis

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