

Speakers' Co-Speech Hand Gestures in Simultaneous Interpreting: an Asset for Language Comprehension?

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Gesture research suggests that hand gestures and speech are orchestrated together to form coherent multimodal messages (de Ruiter, 2007), and evidence shows that speakers' co-speech hand gestures can facilitate language comprehension in naïve listeners (Hostetter, 2011). In simultaneous interpreting (SI), interpreters comprehend speakers' input while producing verbal output in another language. Typically, on task, interpreters can see speakers, including their hand gestures (AIIC, 2007; AIIC, 2011). It is considered SI includes multimodal processing (Seeber, 2017), and multimodal descriptive approaches have explored the nature and functions of speakers' and interpreters' gestures (Zagar Galvão, E. & Galhano-Rodrigues, I., 2010; Zagar Galvão, 2013). However, to our knowledge, there is no reliable empirical data corroborating if, how and when speakers' co-speech hand gestures are processed and influence SI. We therefore describe a novel experimental method to examine speakers' gestures in a SI context, systematically controlling the type of gestures presented and establishing a direct link between stimuli presentation and participants' processing and comprehension. In our study, professional interpreters are to complete an audio-visual comprehension task and a SI task. Materials comprise sentences with (redundant) representational or control gestures corresponding to the target verb, or without gestures. Tasks are carried out at two noise levels to determine whether gestures could modulate comprehension as a function of the signal-to-noise ratio. Using a visual cued recognition paradigm, participants will then select the target picture from an array containing the target and a distractor. Participants' eye movements are to be tracked during the entire experiment using a remote eye tracker. We propose to conduct a time course analysis of fixation distributions and to analyse reaction time for target picture identification to explore potential effects of hand gestures in interpreters' language comprehension off and on task.

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