Title: Audio ergo sum: manipulating bodily awareness through spatial cues about the own voice

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Abstract:

During autoscopic phenomena, people see an image of themselves outside their body boundaries. While available classifications of the phenomenon refer to it as a primarily visual experience, some patients report experiences of auditory doubles, which could classify as an auditory autoscopy. Experimental protocols to induce autoscopic-like phenomena in healthy participants exist, however they also center on vision. We thus developed a paradigm for stimulating auditory autoscopic.

In a two block design with blindfolded participants, we first compared three conditions: they heard themselves speaking from a first-person perspective (self-1PP), around themselves (self-3PP), or heard another person around them (other-3PP). We measured ECG, temperature as well as phenomenological aspects using a self-perception questionnaire. A second block compared the perceived location of the speaker while participants heard their own or another person’s voice walking around themselves.

The questionnaire shows a stronger self-identification for both self conditions compared to the other, and a stronger feeling of a presence in both the 3PP conditions. For both the physiological measures and perceived location no significant differences were found.

These preliminary results show that at a subjective level, participant’s report perceiving themselves as a peripheral presence, accounting for an auditory autoscopic. However, this is not reflected in any of the implicit measures.