



P5.103 EFFECTS OF VOLUNTARY MOVEMENTS ON SIMULTANEOUS PERCEPTION OF AUDITORY AND TACTILE STIMULI PRESENTED ON NON-MOVING BODY SITE

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When people are voluntarily moving their body sites, the points of subjective simultaneous (PSSs) of auditory and tactile stimuli shift compared to the PSSs without such movement (Kitagawa et al. 2009; Nishi et al. 2014). However, in the previous studies, the tactile stimuli were presented on the body sites, which people were voluntarily moving. This paper aimed to investigate whether voluntary movements influence the PSSs of auditory stimuli and tactile one of the body sites which are not moving. We performed temporal order judgment (TOJ) task in which participants judged which auditory stimuli and tactile one presented on left index finger came first under three movement conditions: 1) voluntary condition where participants performed the TOJ while moving voluntarily their right index fingers, 2) involuntary condition where participants performed the TOJ while their right index finger were moved involuntarily by a device, 3) no-movement condition where participants just performed the TOJ. By performing TOJ task at various stimulus onset asynchronies, we measured PSS in each condition. From the results of preliminary experiments with some participants (N=3), we suspected that the voluntary movements of right index finger affected the PSSs. Although this conclusion still needs to be confirmed with more participants in the following time, this result suggest that voluntary movements of a body site change the temporal integration including tactile stimuli on other body sites. Keywords: Voluntary movements, Temporal perception, Multi-sensory integration, Temporal order judgment, body site

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