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Abstract

Many studies have shown that people may have the ability to extract summary statistics over objects/events in a set. Most of the investigations have mainly used simultaneous presented visual features. This experiment tested whether and how people could represent the average value over tactile stimuli presented in a temporal sequence. A voice-coil type vibrator was used to present the stimuli. In the averaging task, a sequence of stimuli was presented first, followed by a single stimulus. The sequence was composed of 4, 6, or 8 vibro-tactile stimuli. Participants judged whether the vibration intensity of the second stimulus was stronger or weaker than the estimated average value of the first sequence. The result demonstrated that 1) people can extract the average tactile stimuli, and 2) averaged intensity tend to be overestimated than the single stimuli. We will discuss characteristics of the summary statistical representation in the tactile modality.