Metacognition of Time Discrimination

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While the conscious sense of the passage of time is often assessed in the temporal orientation studies on the individual's focus on the past, present and future, much less is known about metacognitive awareness of our perception of short time scales. In a series of time discrimination studies, we measured the sensitivity of time judgments (Level 1) and the metacognitive accuracy (Level 2) of the Level 1 responses. We found that different aspects of time judgment (threshold, slope) predict metacognitive awareness of time perception. In addition, participants showed systematic over- and under-estimation of sub-second vs. supra-second judgements, which was also reflected in the metacognitive processes. The results highlight the higher-level processing of time, which likely cannot be carried out without conscious awareness of time.

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