

MEMORY RECALL AND TIME PERCEPTION

Abstract

Many studies have shown that the presentation of emotion stimuli alters time perception. However, whether and how the retrieval of an emotional memory influences one's internal clock is still unclear. To address this issue, the present study adopted an S1/S2 duration comparison paradigm using memory retrieval as emotional distractors. In between the presentation of S1 and S2, a cue appeared instructing participants whether to recall a previously selected autobiographical memory. After the presentation of S1, memory cue and S2, participants indicated whether stimulus 2 was longer or shorter than stimulus 1. Both of the timed stimuli S1 and S2 were circles. S1 lasted for 1200 ms while S2 varied in durations between 950, 1100, 1300 and 1450 ms. Triangle, square and star were used as memory cues representing either the retrieval of emotional memory, neutral memory or the no recall condition. They varied in durations with an average of 5 s. Each participant would perform the task in two blocks, one block had angry memory being the emotional memory, another had happy. The block order was counterbalanced across participants. Results showed that the probability of responding 'longer' was larger in the “no recall” as compared with the two recall conditions, while there was not significant difference between the latter two. This study showed that memory recall, irrespective of emotionality, influenced time perception. Although this study failed to provide support for a specific timing model for the influence of emotion on time perception per se, it offered possible directions for future research to continue filling the gap in this controversy.

Keywords: autobiographical memory, emotional memory, time perception