

The temporal compression of experience in memory: the effects of the number and duration of events

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Remembering the unfolding of past episodes usually takes less time than their actual duration. In this study, we tested whether such temporal compression depends on the number and duration of remembered events. To address this question, we asked 72 healthy young adults to watch and mentally replay short movies depicting 1, 2, or 3 events (continuous actions performed without interruption), each lasting 3, 6, 9, or 12 seconds. For each trial, we computed the event remembering duration (ERD) by dividing participant's mental replay duration by the number of events composing the movie. When events were presented alone, ERD was close to the actual stimuli duration for short events (3 and 6 s), but smaller for longer ones (9 and 12 s). We also observed an effect of the number of events, showing that ERD was lower when multiple events had to be remembered. Taken together, these results suggest that both the number and duration of events have a specific influence on the temporal compression of experience in memory.