Working memory capacity for continuous events: the impact of event duration

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Remembering the unfolding of past episodes usually takes less time than their actual duration. In this study, we evaluated whether such temporal compression emerges when events are too long to be fully held in working memory. To do so, we presented video clips showing people performing a continuous action (e.g., turning a car jack) that lasted 3, 6, 9, 12, or 15 s. For each clip, participants had to carefully watch the action and then to mentally replay it as accurately and precisely as possible. Results showed that mental replay duration was close to the actual stimuli duration for short videos (3-9 s), but smaller for longer ones (12 or 15 s). These findings suggest that when the capacity limit of working memory is attained, the maintained event model no longer represents the entire unfolding of the current event and thus temporal compression occurs.