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INTRODUCTION AND AIMS

Recent research suggests that some imagined future events are encoded in memory, leading to the formation of "memories of the future" (Ingvar, 1985; McLelland, Devitt, Schacter & Addis, 2015; Szipunar, Addis & Schacter, 2012). However, questions remain regarding the exact components of future event simulations that are memorized and the factors that determine their accessibility.

The aims of this study were:

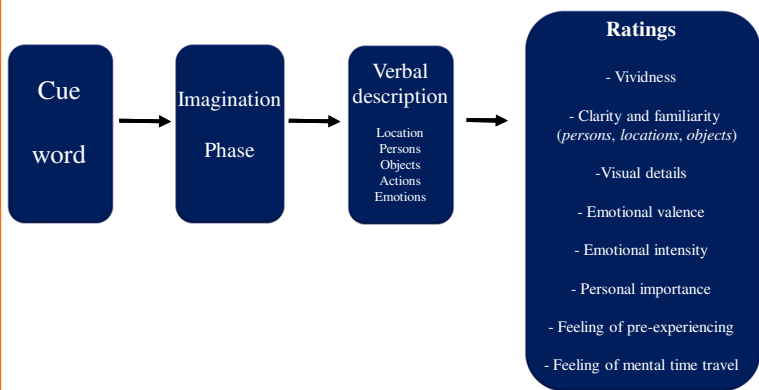
- To investigate the prevalence of memories for future event simulations.
- To examine whether some categories of event components (i.e., *locations, persons, objects, actions, and emotions*) are better recalled than others.
- To identify what characteristics of imagined future events predict their successful memorization.

To address these questions, we investigated memory for previously imagined future events by collecting verbal descriptions and ratings of event characteristics during their initial imagination and subsequent recall.

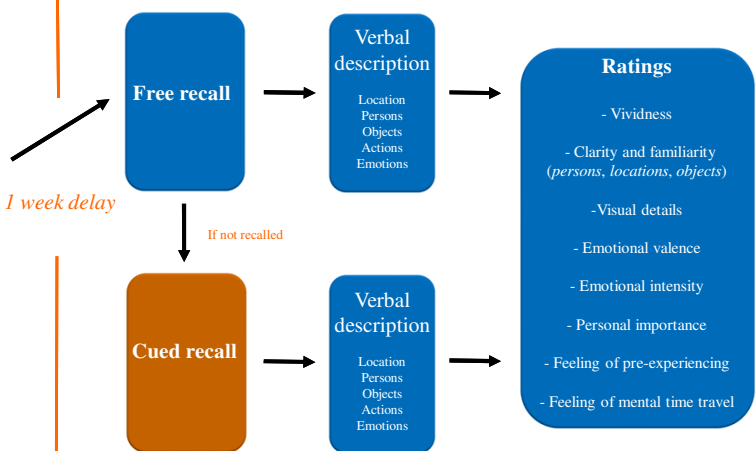
METHOD

Imagination phase

34 participants (23 females; mean age = 23 years, *SD* = 2.4 years) imagined 15 novel and specific future events in response to cue words

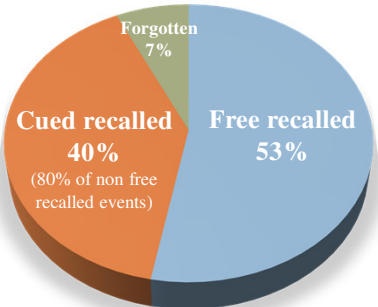


Recall tasks

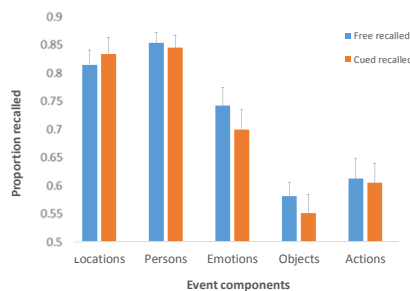


RESULTS

Prevalence of memories for future simulations



Recalled components for free and cued recalled future events

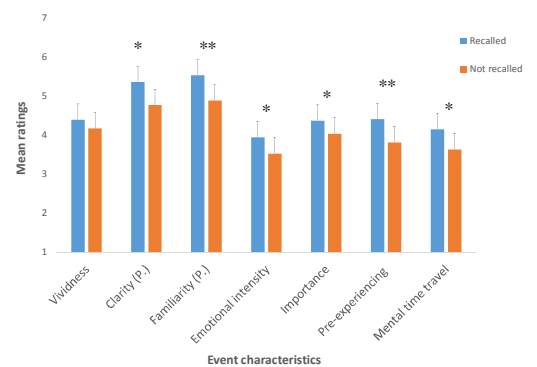


ANOVA
2 (Type of recall) X 5 (Type of components)

Main effect of type of components
 $F(4,124) = 38.75, p < .001$

Locations = Persons ($p = .40$) > Objects, Actions and Emotions
Objects and Actions ($p = .16$) < Emotions ($ps < .001$)

Predictors of the free recall of future event simulations



* Significant $p < .05$

** Significant $p < .01$

DISCUSSION

- These findings suggest that **most future event simulations are encoded in memory** and remain available for recall for at least one week.
- Memories of the future **vary in their accessibility**, such that some memories are readily accessible during a free recall task, whereas others can only be accessed when relevant cues are provided.
- The overall accessibility of future event simulations is related to the clarity and familiarity of represented persons, the subjective feelings of pre-experience and mental time travel, and the emotional intensity and importance of imagined events.
- Our results show that free and cued recalled memories are comparable in their components and also demonstrate that although most components of future event simulations are fairly well recalled, **persons and locations are particularly well remembered**, suggesting that these components are central to the simulation and memorization of future events.



REFERENCES

- Ingvar, D. H. (1985). "Memory of the future": An essay on the temporal organization of conscious awareness. *Human Neurobiology*, 4, 127-136.
- McLelland, V. C., Devitt, A. L., Schacter, D. L., & Addis, D. R. (2015). Making the future memorable: The phenomenology of remembered future events. *Memory*, 3(8), 1255-1263.
- Szipunar, K.K., Addis, D.R., & Schacter, D.L. (2012). Memory for Emotional Simulations: Remembering a Rosy Future. *Psychological Science*, 23(1), 24-29.