

INTRODUCTION

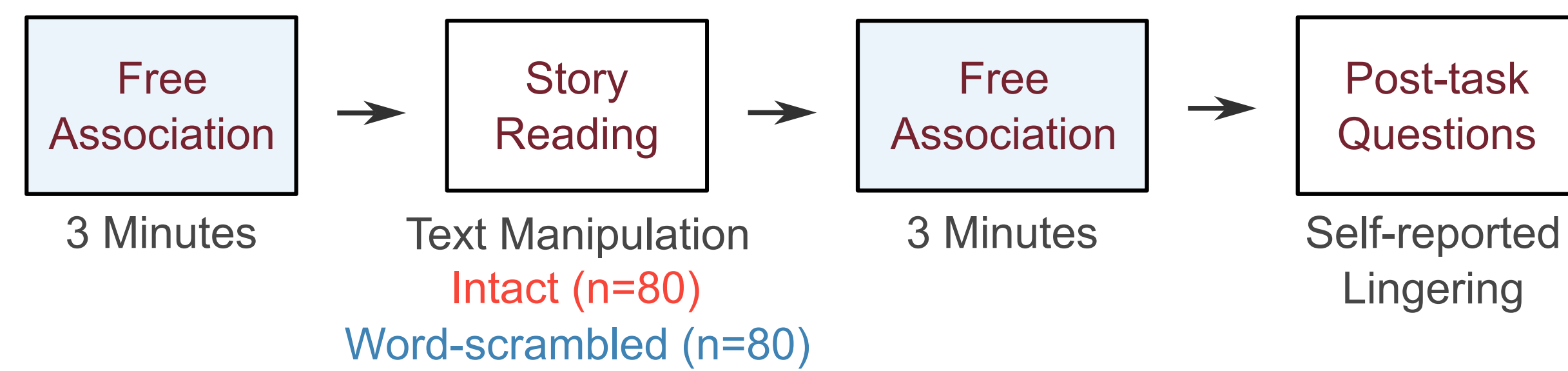
Recent experiences shape our current thoughts, actions, and decisions. But how do experiences persist in our thoughts? Persistent thoughts enable us to find creative solutions to problems (Gable et al., 2019) but are also associated with depression and anxiety (Spinhoven et al., 2018). We recently introduced a method to measure what mental content persists in spontaneous thought after participants read a story (Bellana et al., 2022).

In what form is persistent mental content maintained over time?

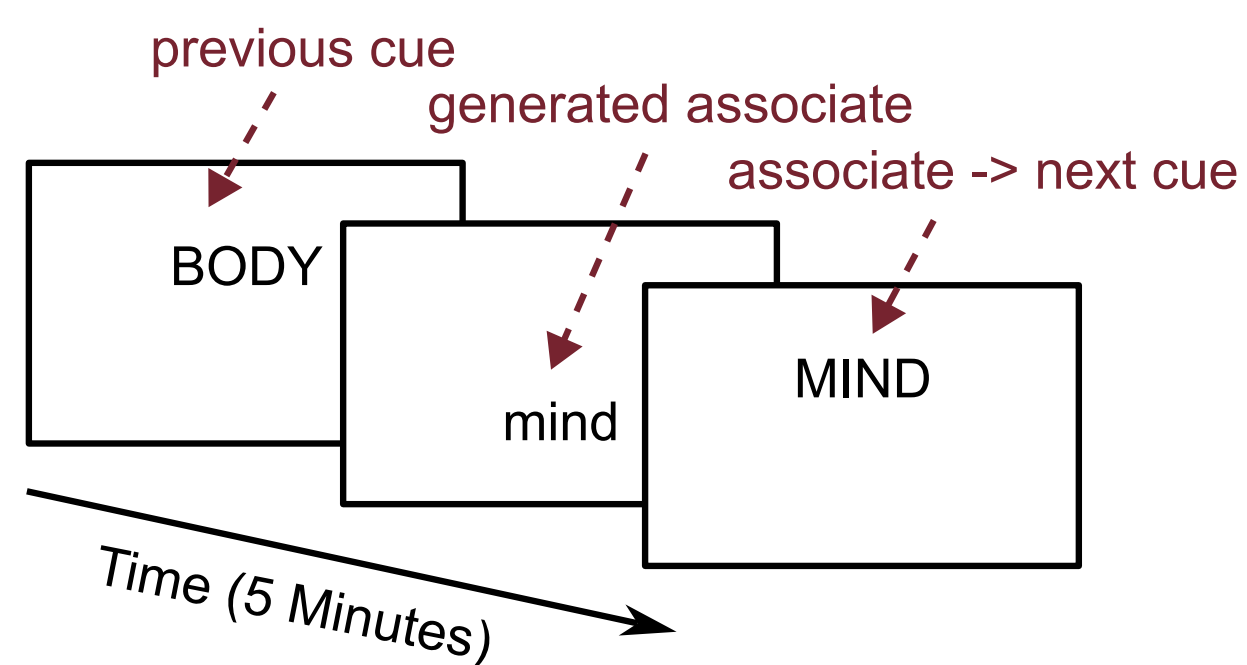
How can persistent mental content be controlled?

METHODS

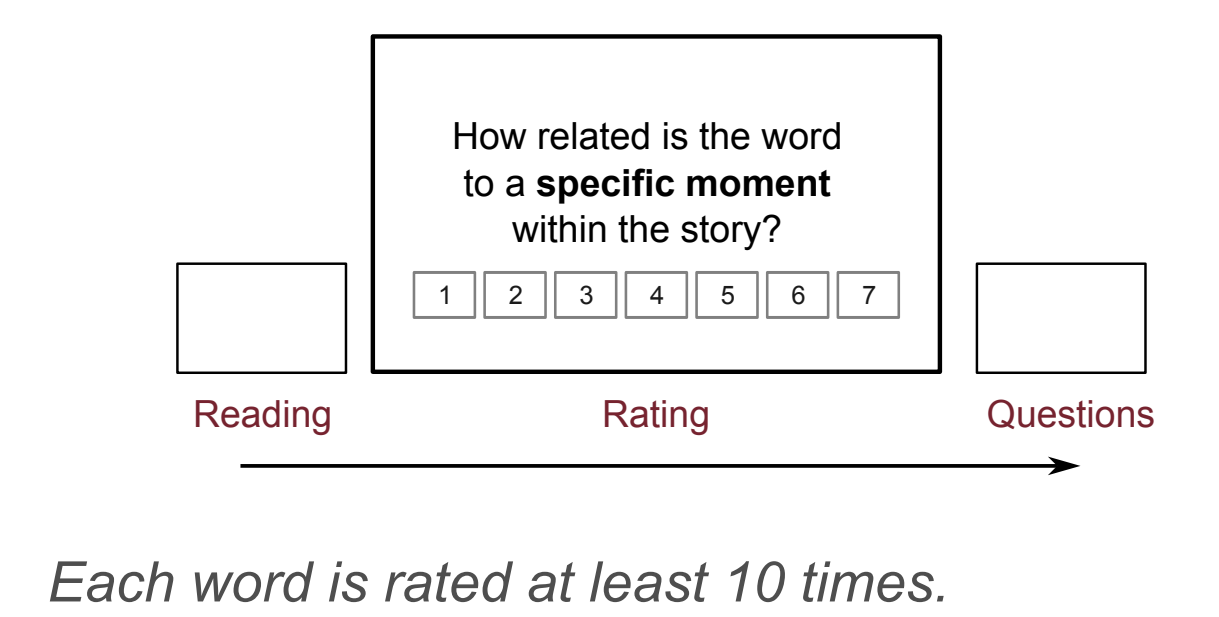
Paradigm



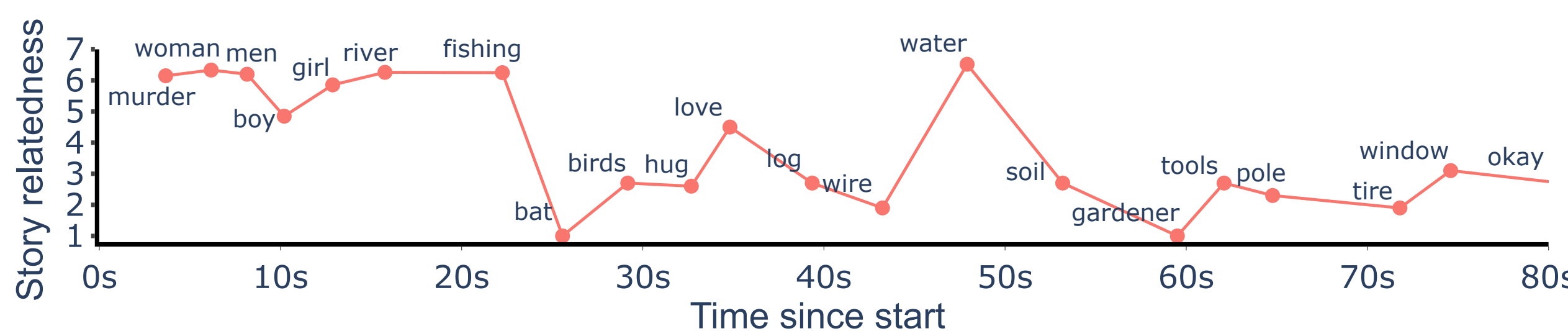
Free Association



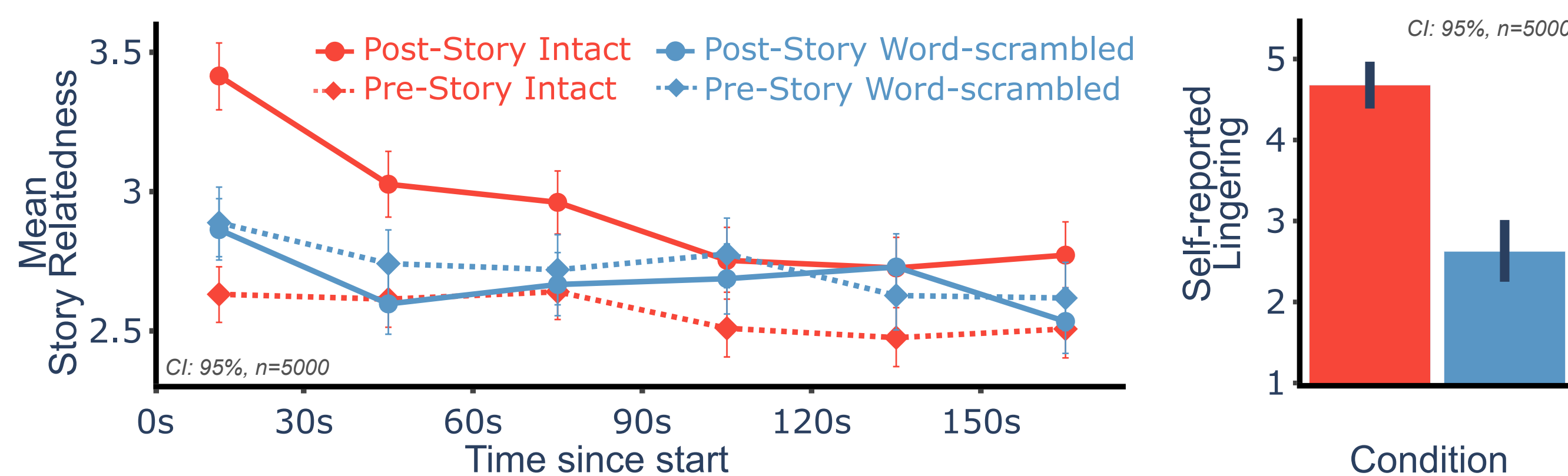
Norming of Story Relatedness



Example wordchain

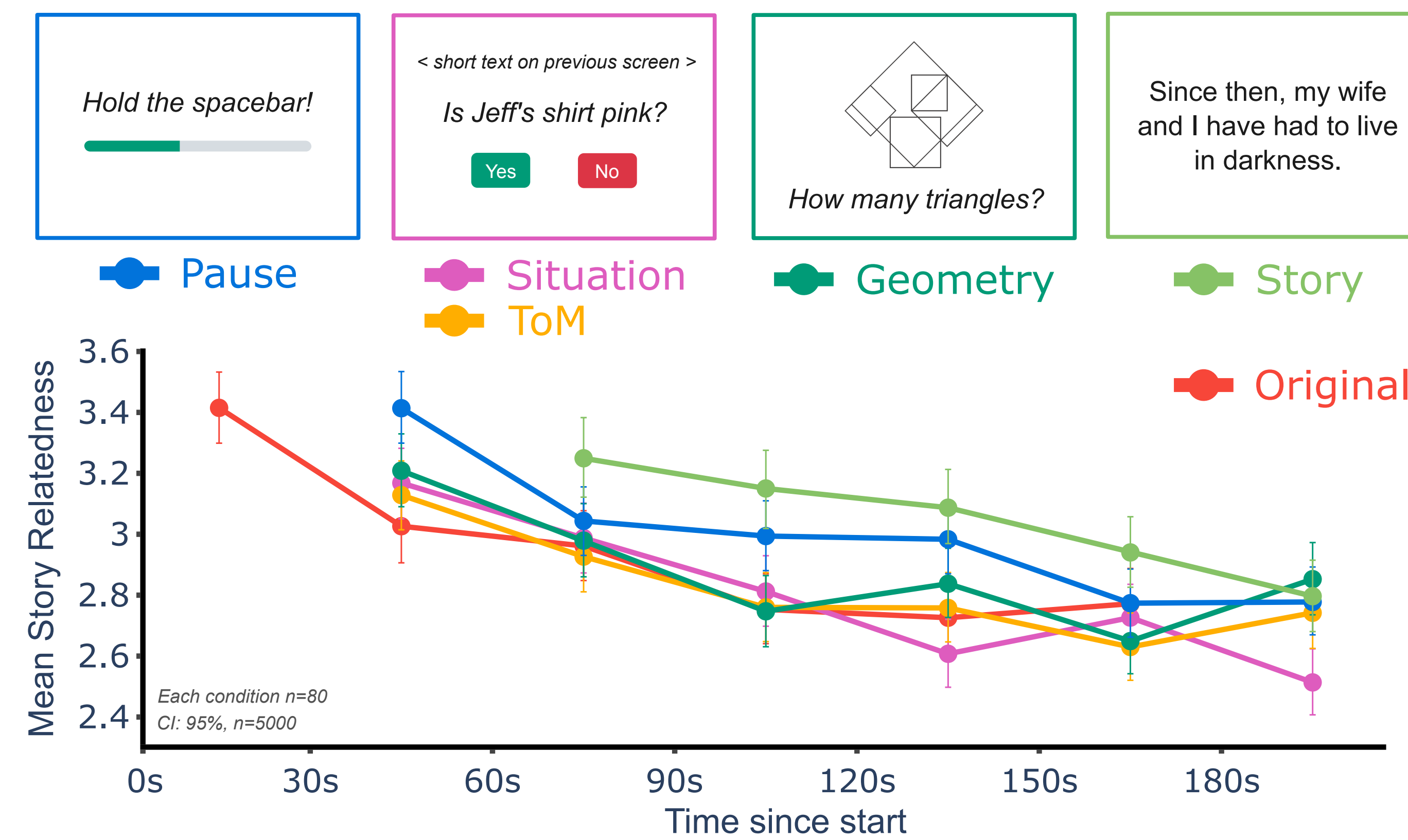


Persistent mental content is detectable as semantic bias in free association.

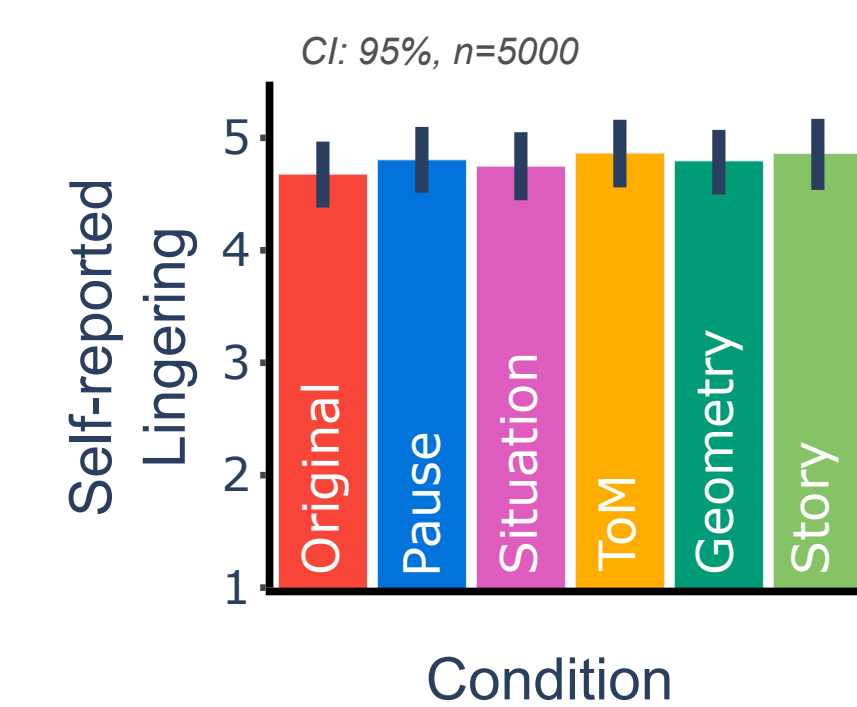


PERSISTENT CONTENT IS RESISTANT TO INTERFERENCE

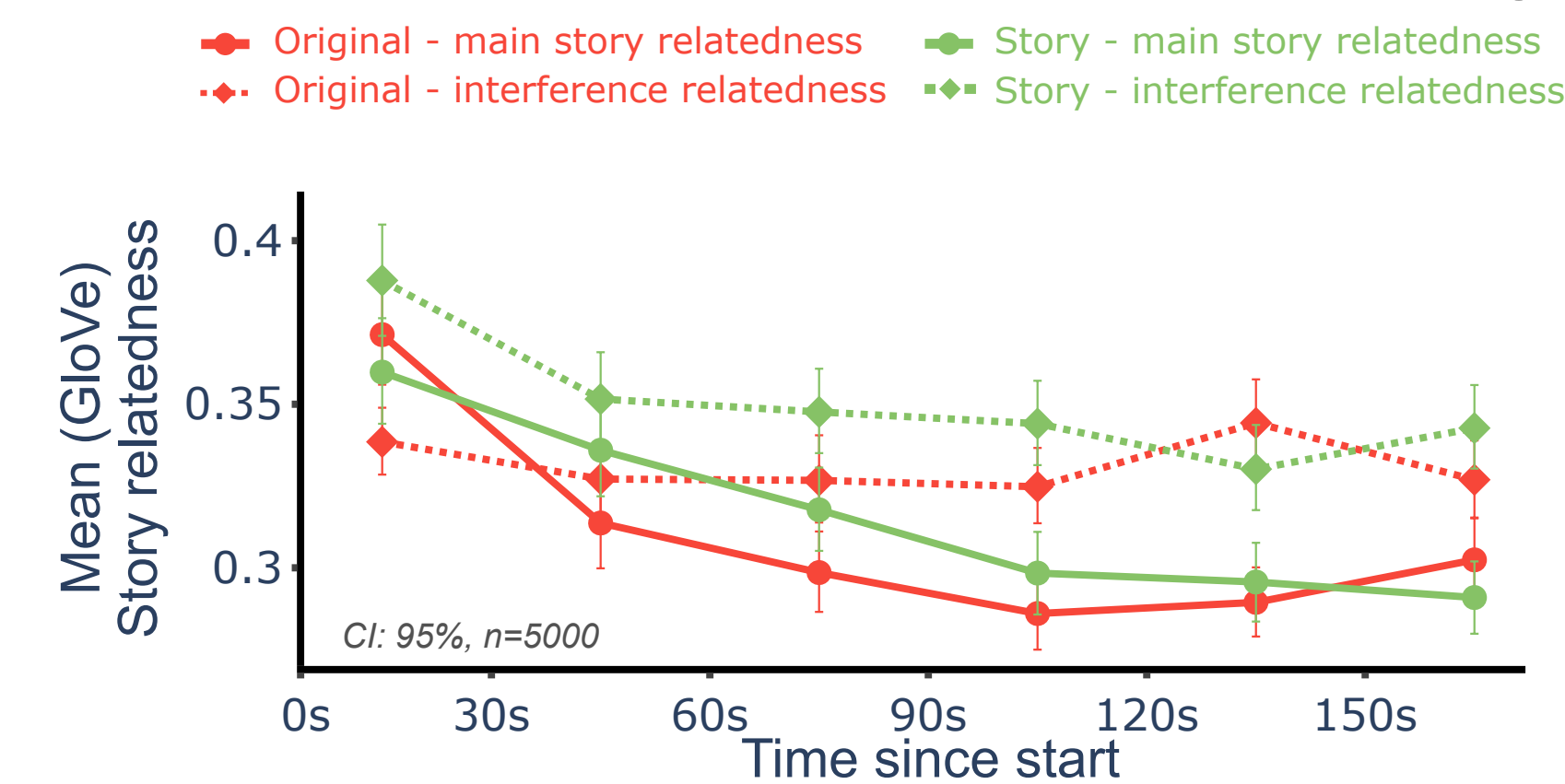
Persistent content, measured via semantic bias, is widely resistant to interference.



Narrative content persists in subjective experience regardless of interference.



Two stories can persist simultaneously.



CONCLUSIONS

Persistent mental content decays over the course of a few minutes but is not maintained in capacity-limited short-term memory buffers. This calls for a novel memory process or an update to our understanding of long-term memory accessibility.

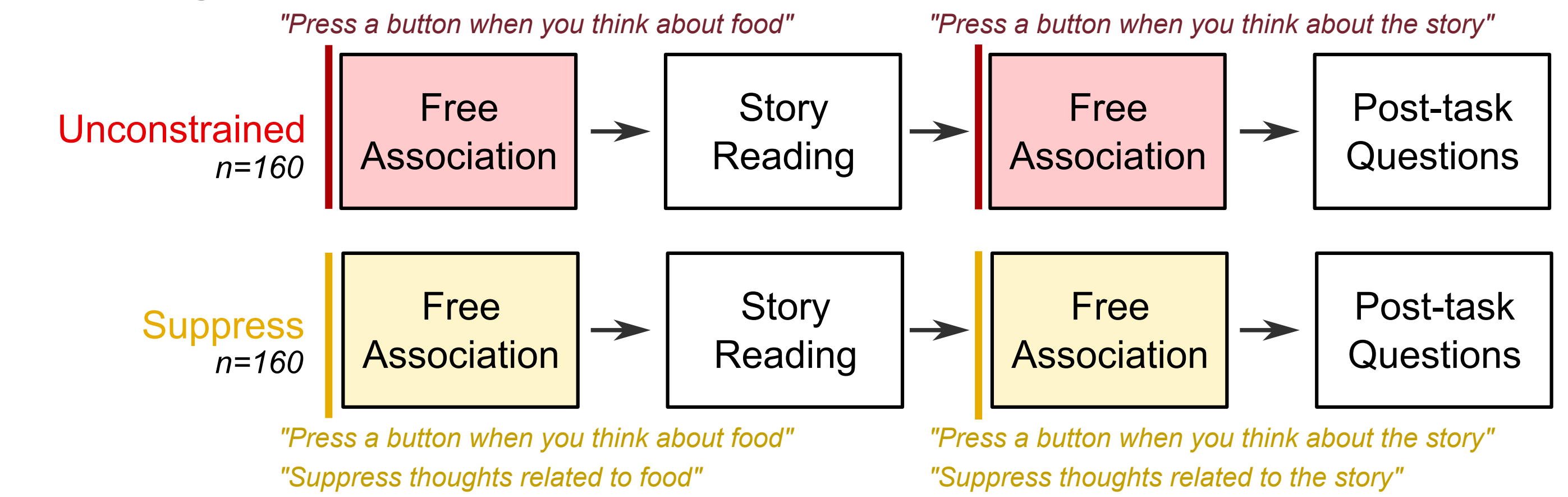
Participants can block behavioral expression of persistent thoughts, but not the thoughts themselves.

Working hypothesis: Persistent mental content reflects a state of enhanced accessibility in long-term memory. Information enters this state when it is situationally or personally relevant.

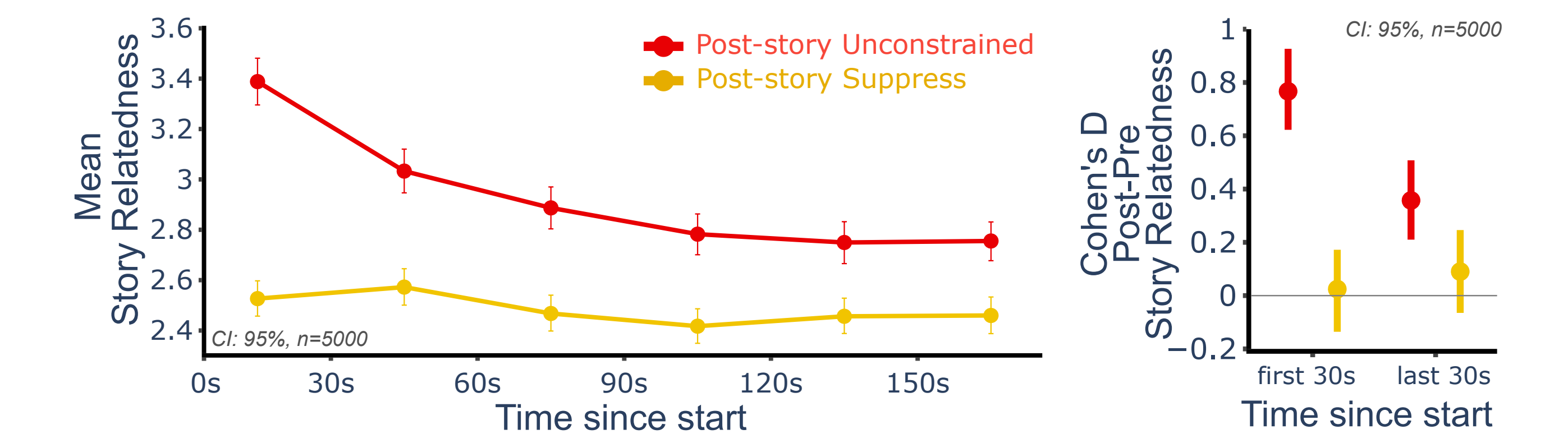
Open question: Why is persistent mental content most readily induced by situational/episodic content?

PERSISTENT CONTENT IS NOT VOLITIONALLY ELIMINATED

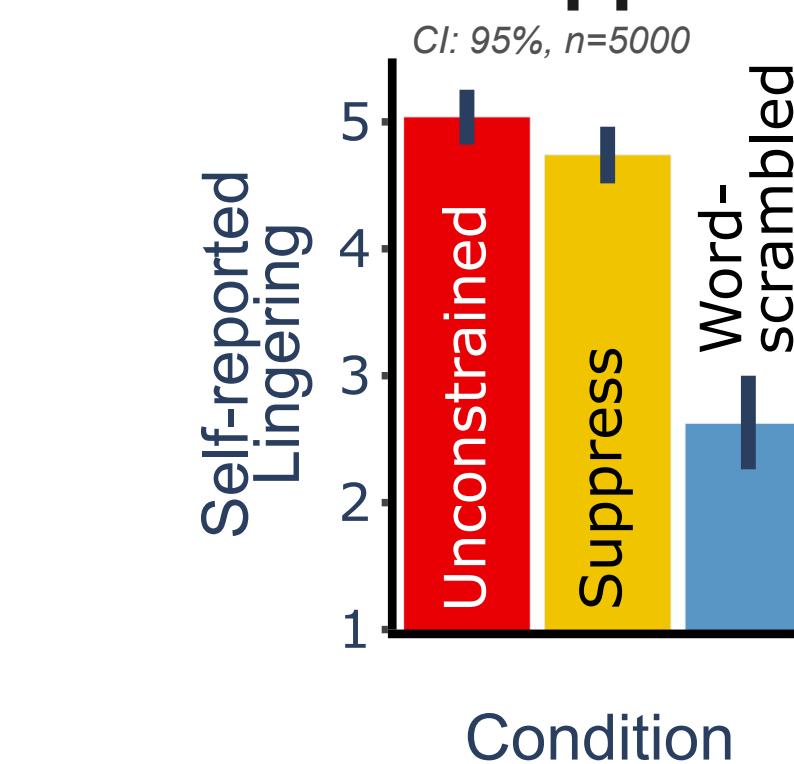
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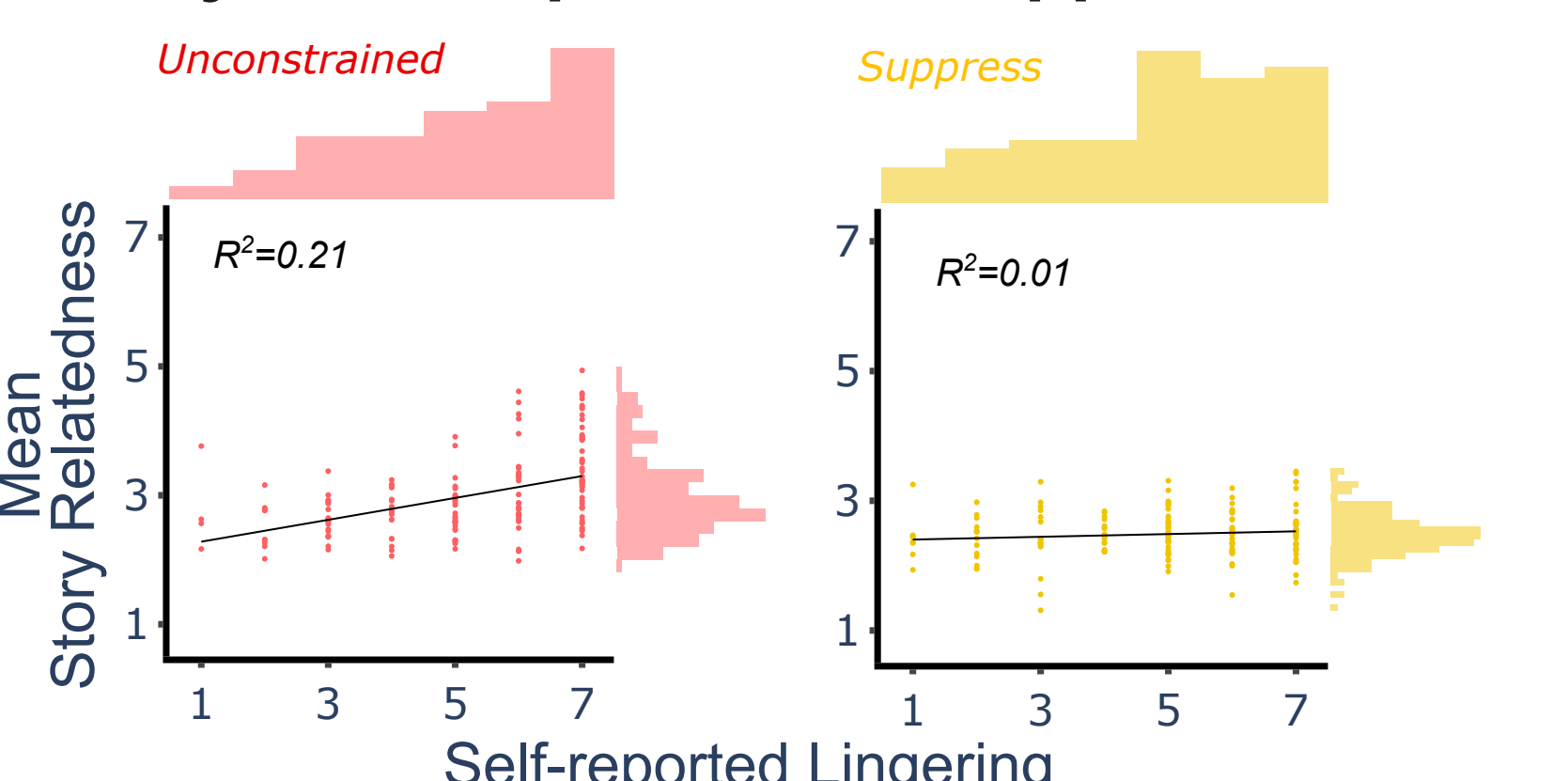
Semantic biases undetectable when participants volitionally suppress story-related thoughts.



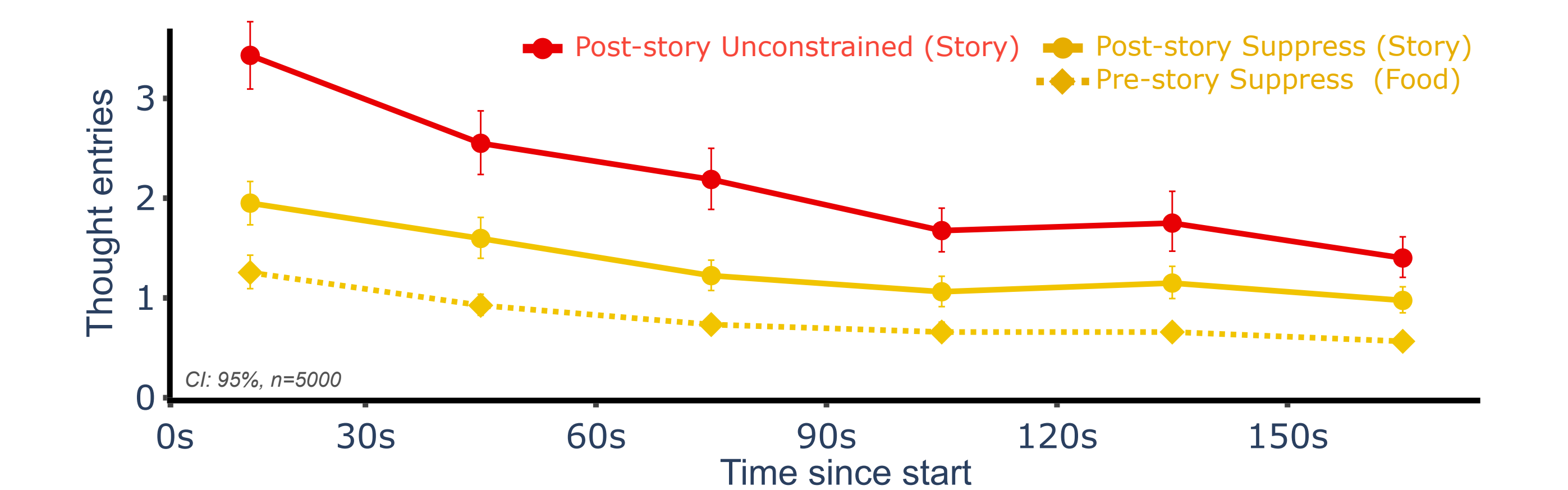
Narrative content persists in experience despite volitional suppression.



Correlation between semantic bias and subjective experience disappears.



Narrative thoughts persist despite volitional suppression.



REFERENCES

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We gratefully acknowledge the support of the NSF (CAREER Award, C.J.H.) and the NIMH (R01 MH 119099, C.J.H.). We thank Samira Tavassoli for her assistance.