



INTRODUCTION

Past experiences shape our current thoughts, actions, and decisions. But which experiences resonate in mind? Persisting 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).

Is the subjective experience of persistent thought reflected in free-association biases?

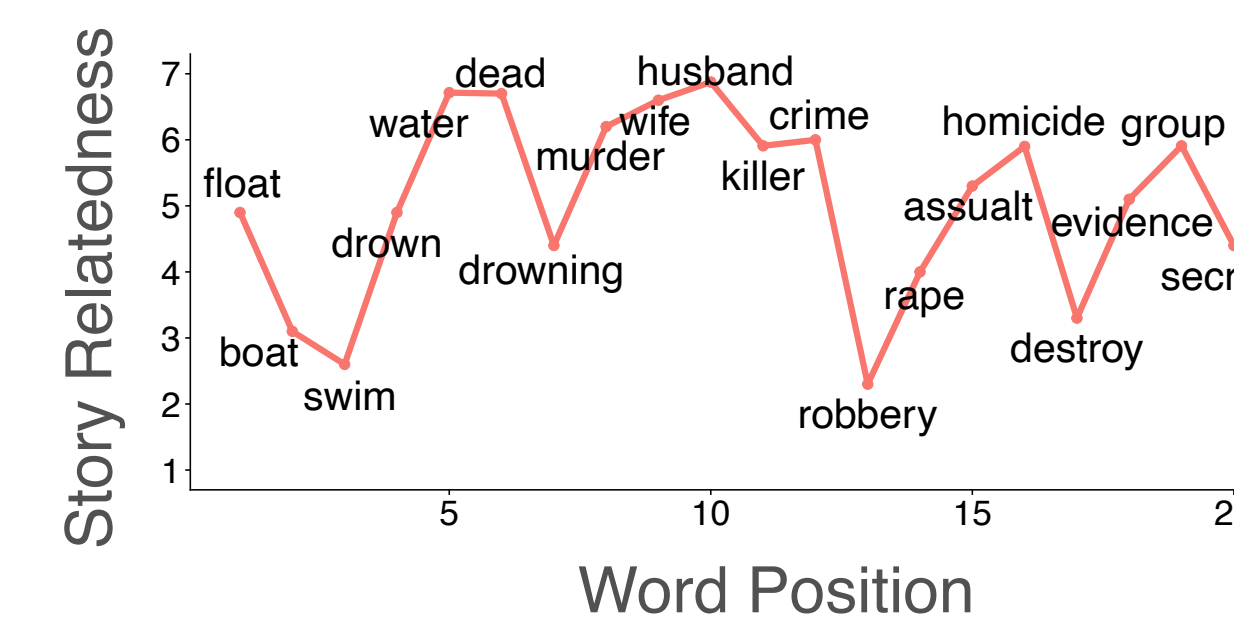
Is persistent mental content involuntary and how can it be blocked?

SUBJECTIVE & OBJECTIVE MEASURE OF PERSISTENT MENTAL CONTENT

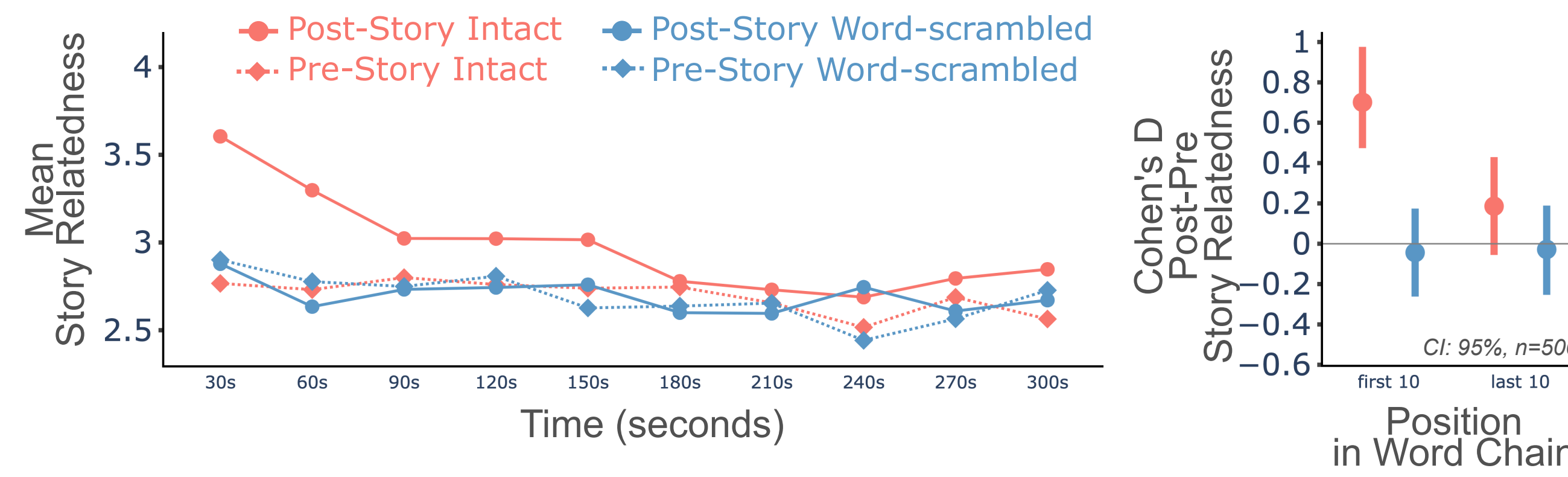
Subjective: Self-reported Lingering Objective: Semantic Biases

"To what extent did the text linger in your mind after reading it?"

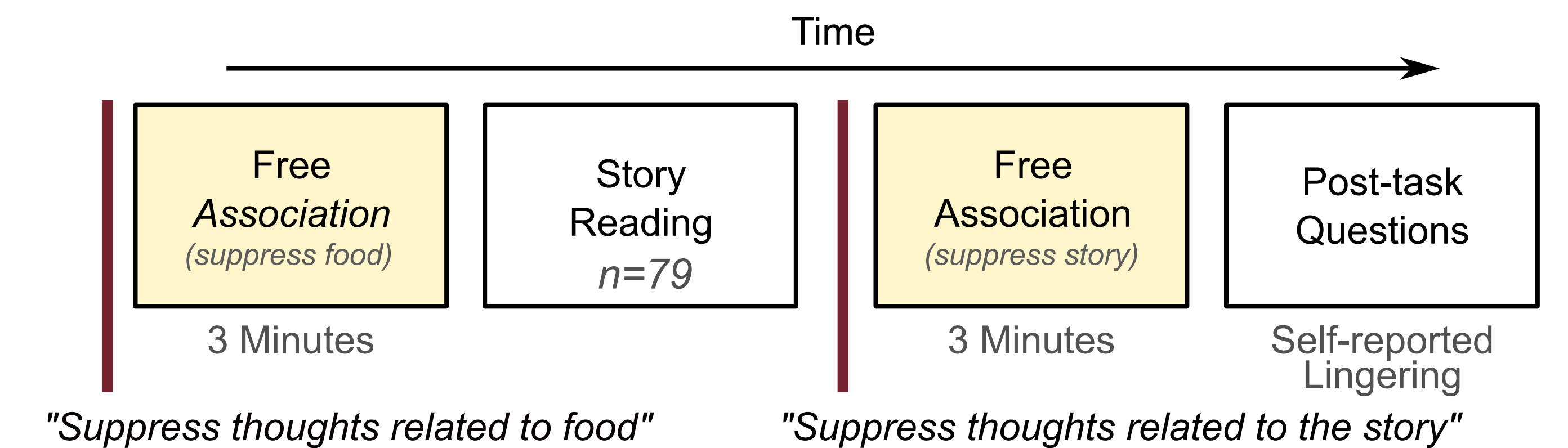
(1 - not at all) ... (7 - very much)



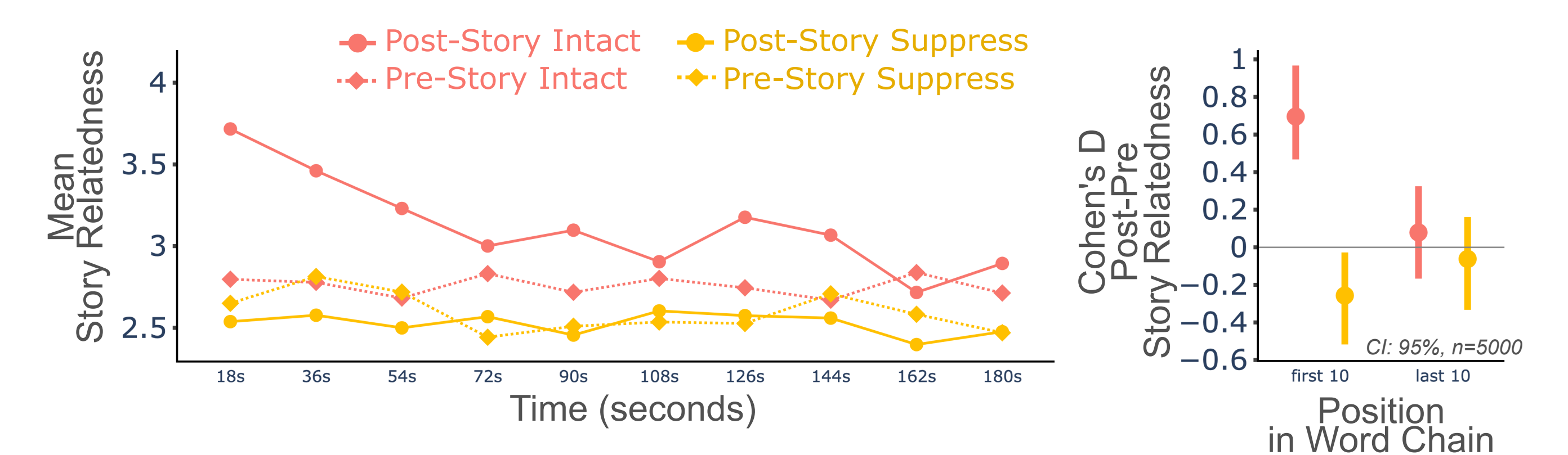
Persistent mental content is detectable as semantic bias in free association.



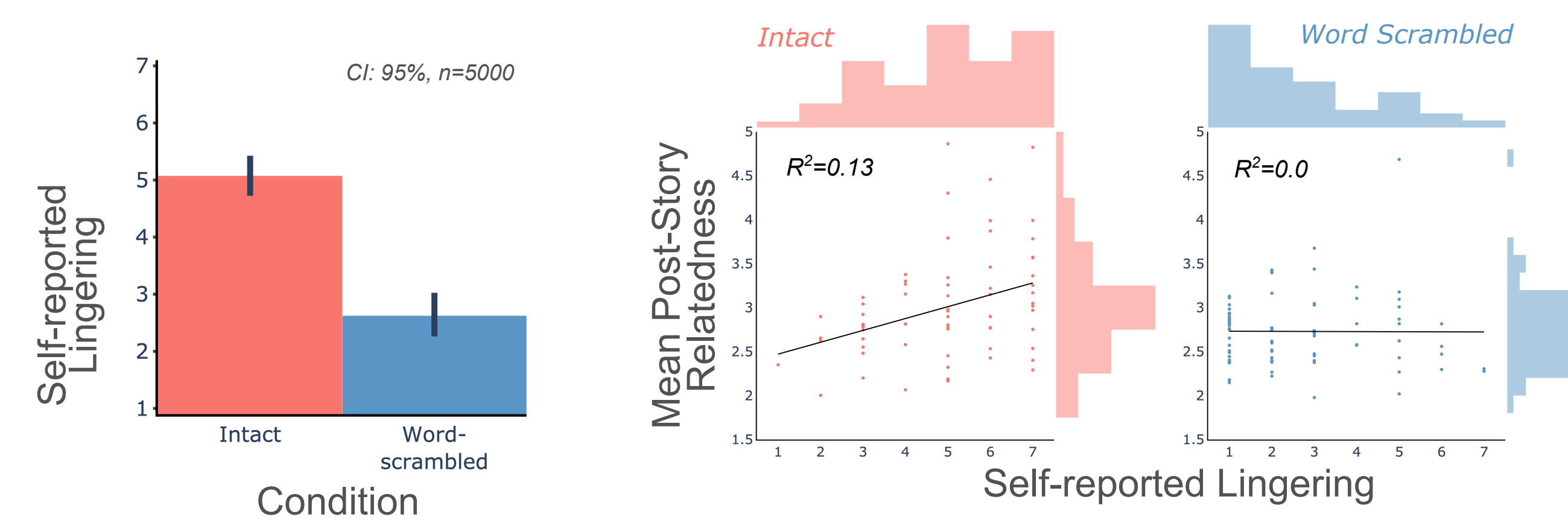
VOLITIONAL CONTROL OF PERSISTENT MENTAL CONTENT



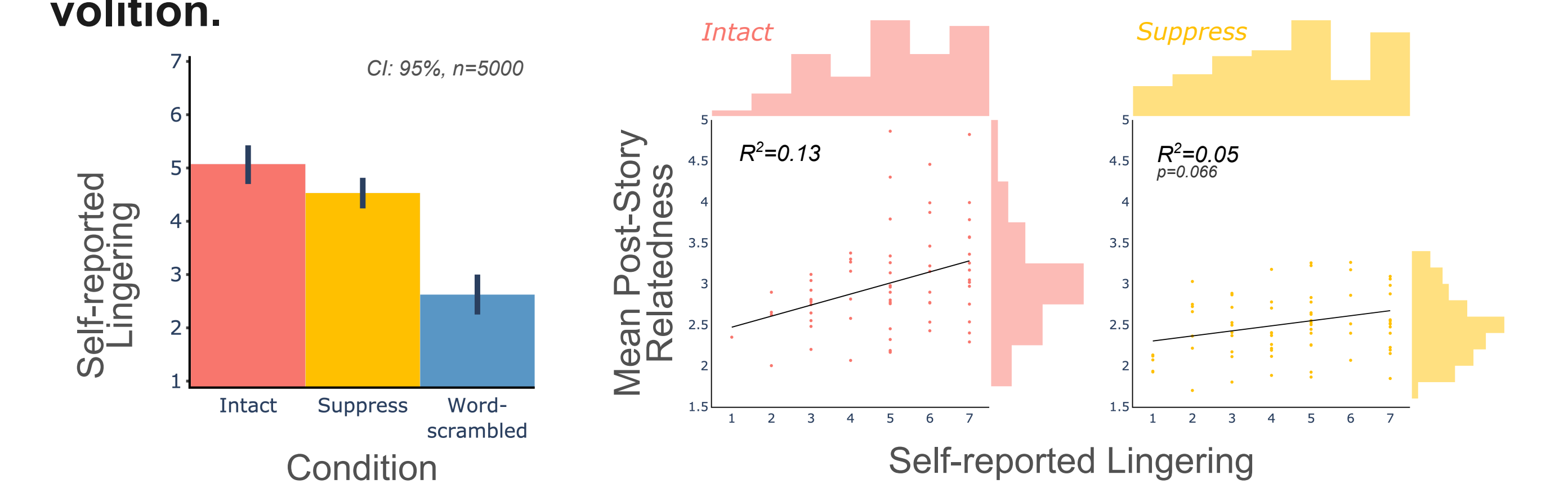
Semantic biases undetectable when participants suppress story-related thoughts.



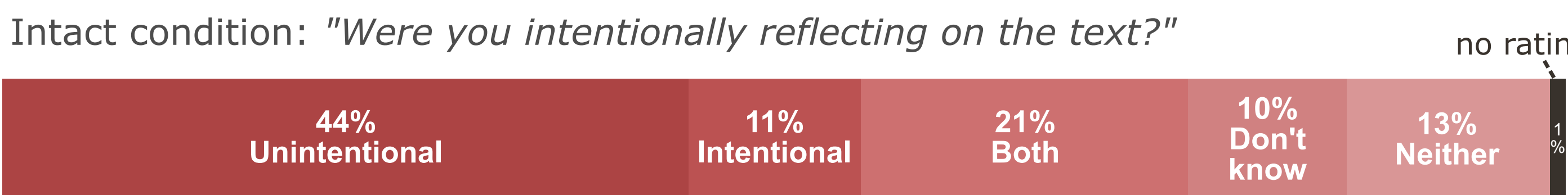
Narrative content persists in thought. Semantic Biases & Subjective Experience are correlated.



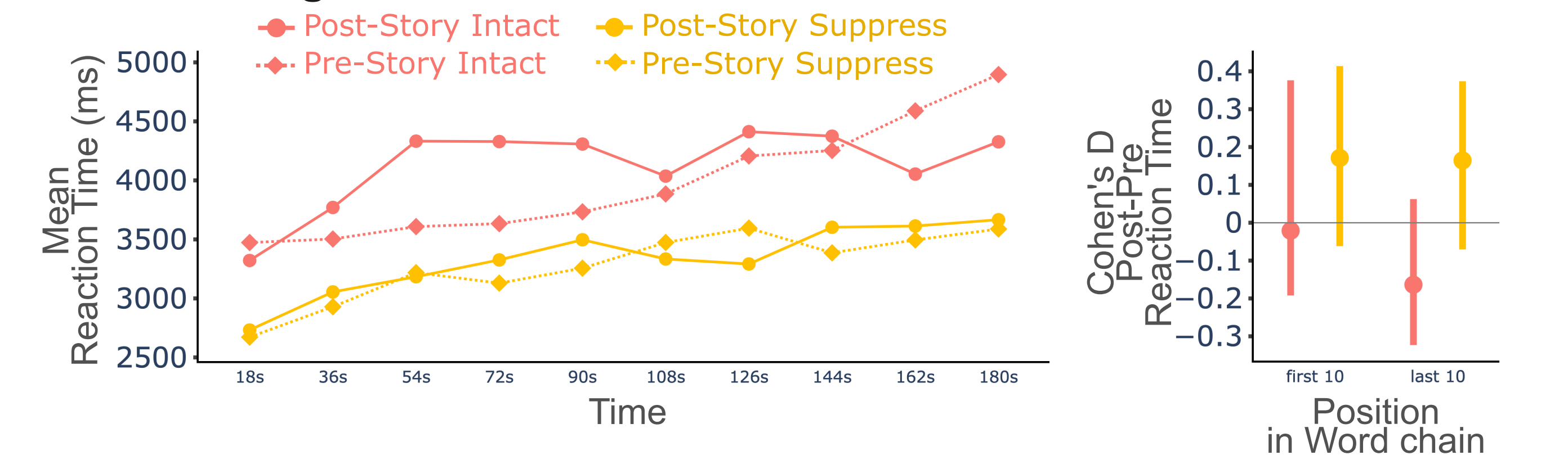
Narrative content persists in thought regardless of volition. Semantic Biases & Subjective Experience show a correlation trend.



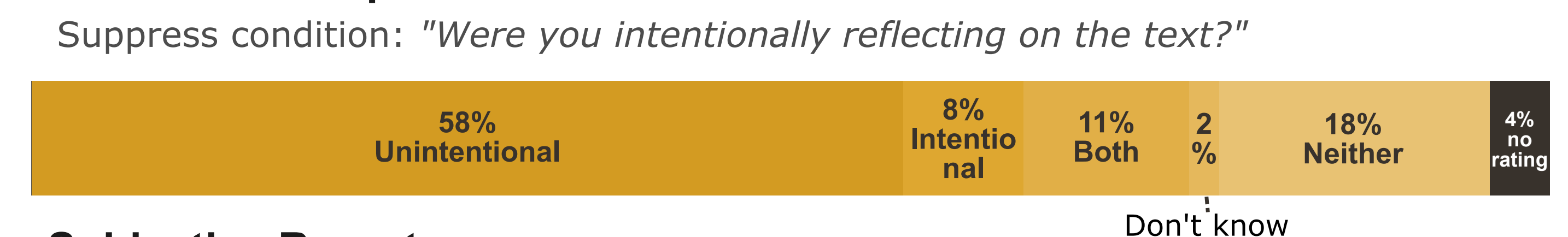
Mental content persists without volition



Participants do not respond slower, even while suppressing story-related thought.



Mental content persists without volition



CONCLUSIONS

Greater semantic bias in participants reporting more persistent thoughts.

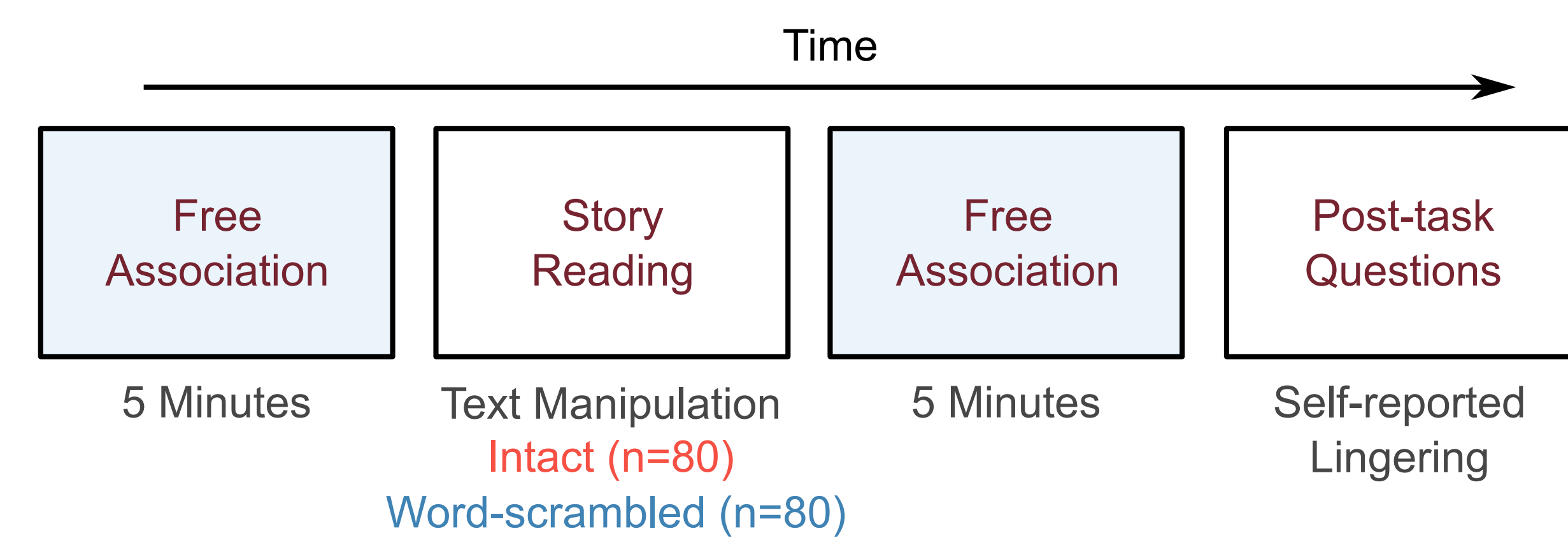
Participants can block behavioral expression of persistent thoughts, but not the thoughts themselves.

Next steps: Persistent thoughts may not be subject to cognitive control. Are they blocked by interference?

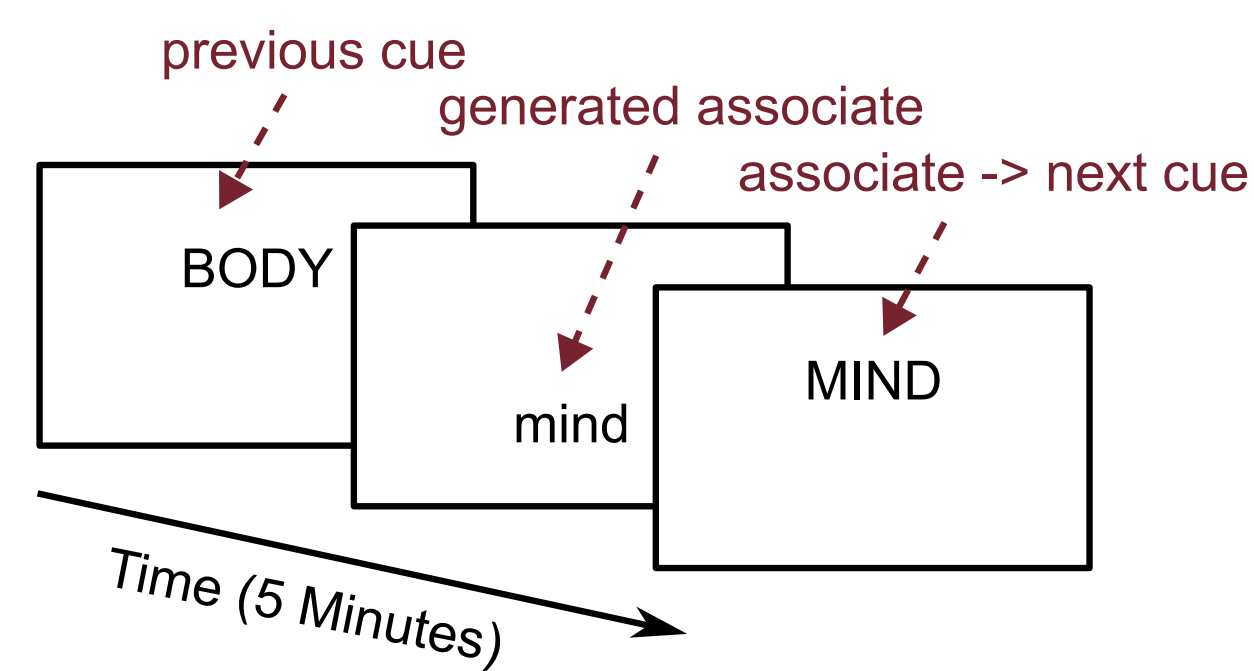
Subjective Reports

"The second game was hard because I had to think of not using words related to the story that I was just thinking about"
 "I wanted to write words having to do with crime and murder afterwards since it was top of mind."
 "After the text was much harder. The story touched so many things that my mind strayed to, like water and fishing and daughters and camping."

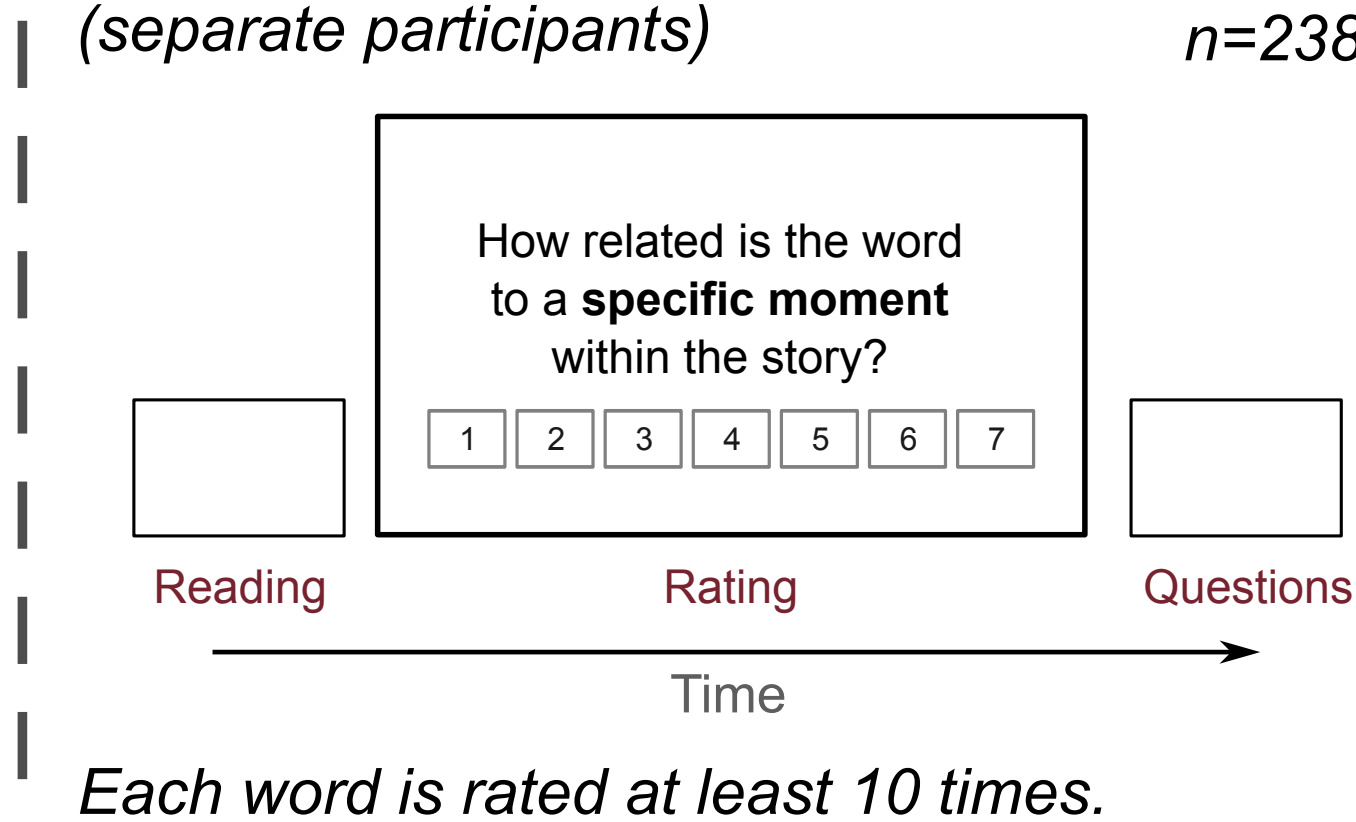
METHODS



Free Association



Norming of Story Relatedness (separate participants) n=238



REFERENCES

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