

Introduction

- Semantic memory is memory for facts and concepts (Tulving, 1972)
- Episodic memory is memory for events within a spatiotemporal context (Tulving, 1972)
- Healthy older adults typically have impaired episodic memory but intact semantic memory (Wingfield & Kahana, 2002)
- Young adults can utilize temporal information to support memory (Kahana, 1996)
- Older adults may have difficulty encoding and/or retrieving temporal information (Wingfield, Lindfield, & Kahana, 1998)

Hypothesis

Older adults are unable to leverage temporal information to support memory behavior

Participants

- Older adults: 60-85 years old, N = 22 †
 - Young adults: 18-35 years old, *to be collected*
- † Data collection is ongoing

Predictions

Older adults will show faster reaction times to studied and unstudied items from strong semantic conditions, regardless of temporal overlap strength

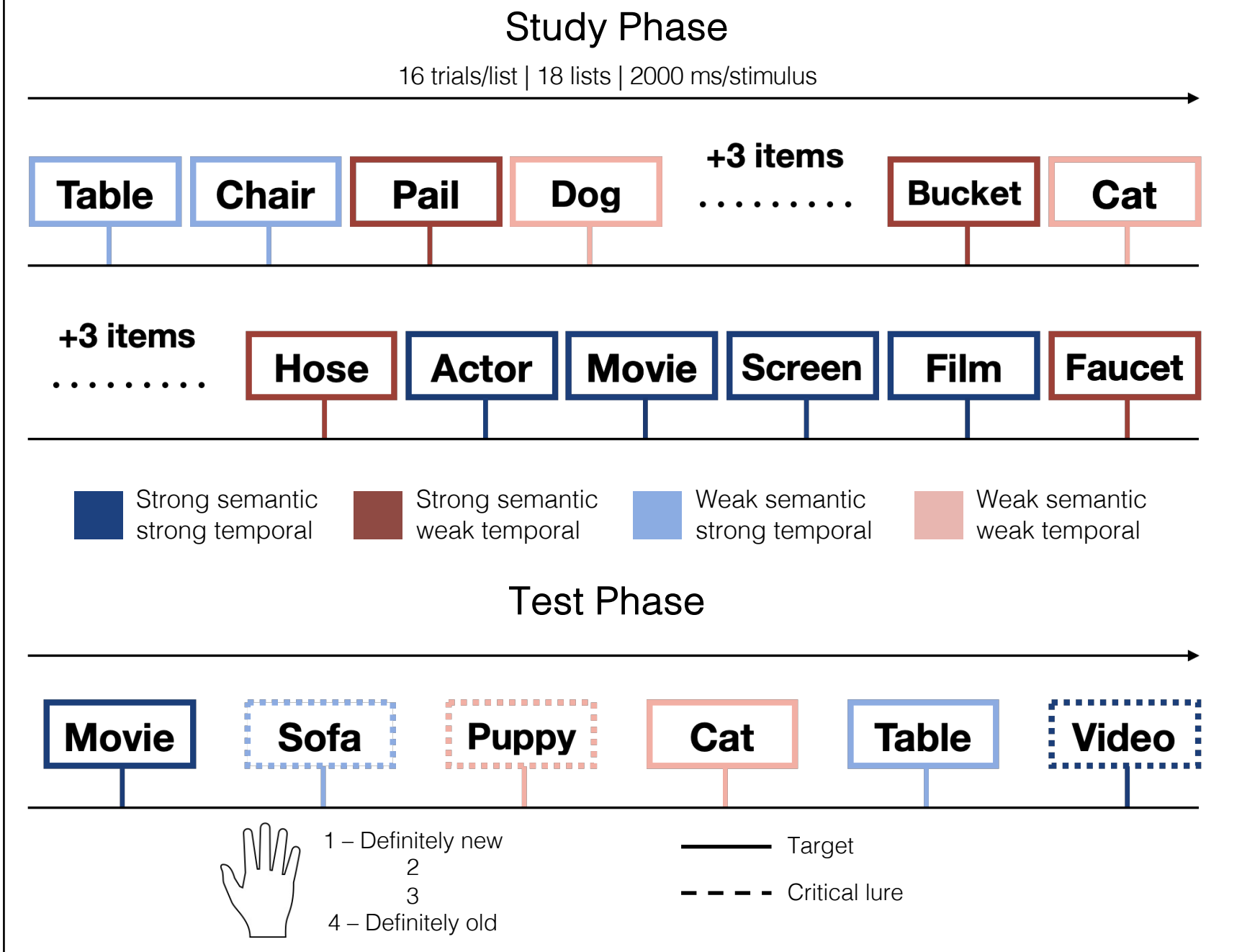
References

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- Tulving, E. (1972). *Episodic and semantic memory*. Organization of Memory. Academic Press.
- Wingfield, A. and Kahana, M.J. (2002). The Dynamics of Memory Retrieval in Older Adulthood. *Canadian Journal of Experimental Psychology*, 56(3), 187-199.
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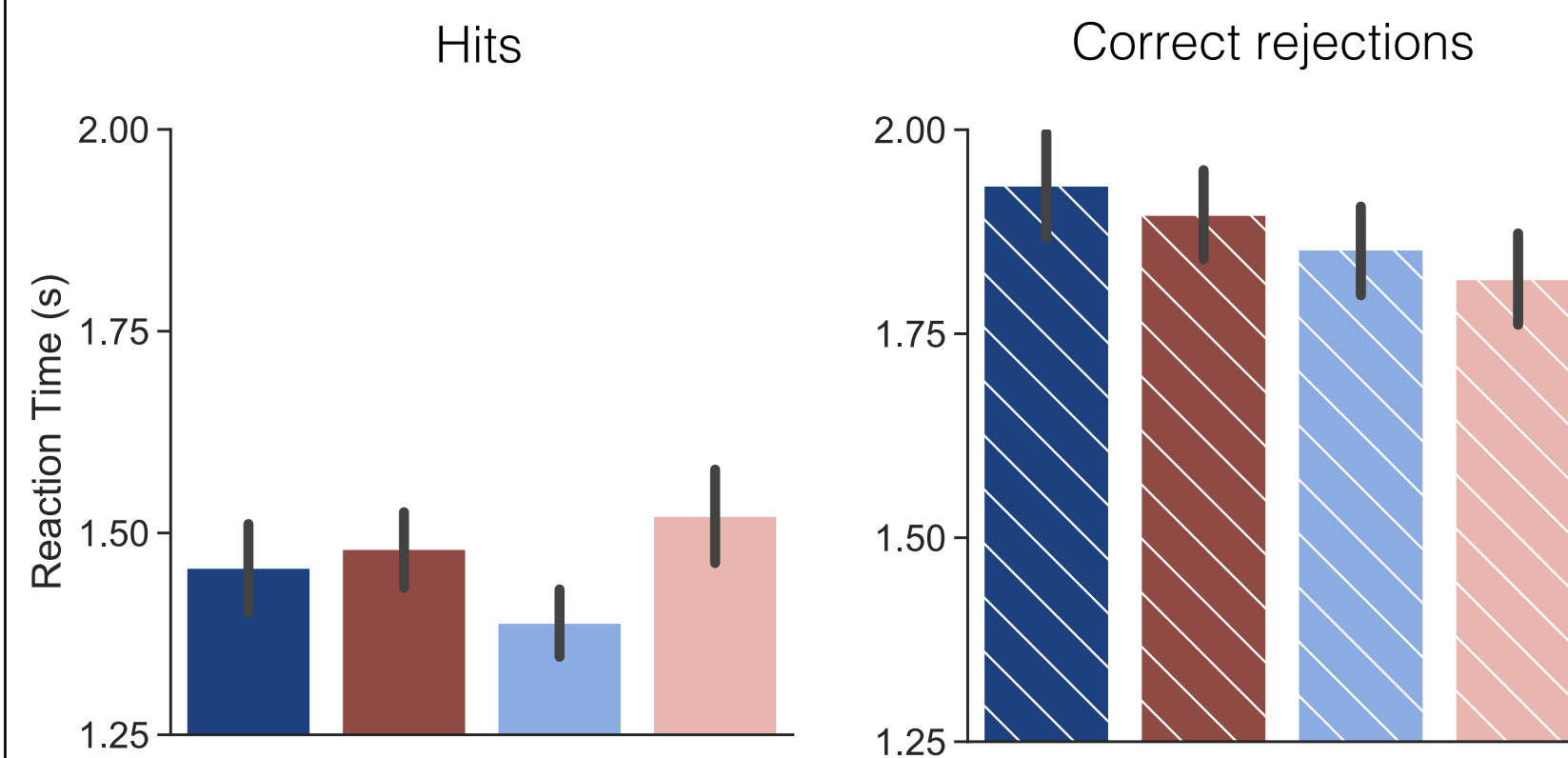
Acknowledgements

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Recognition memory task



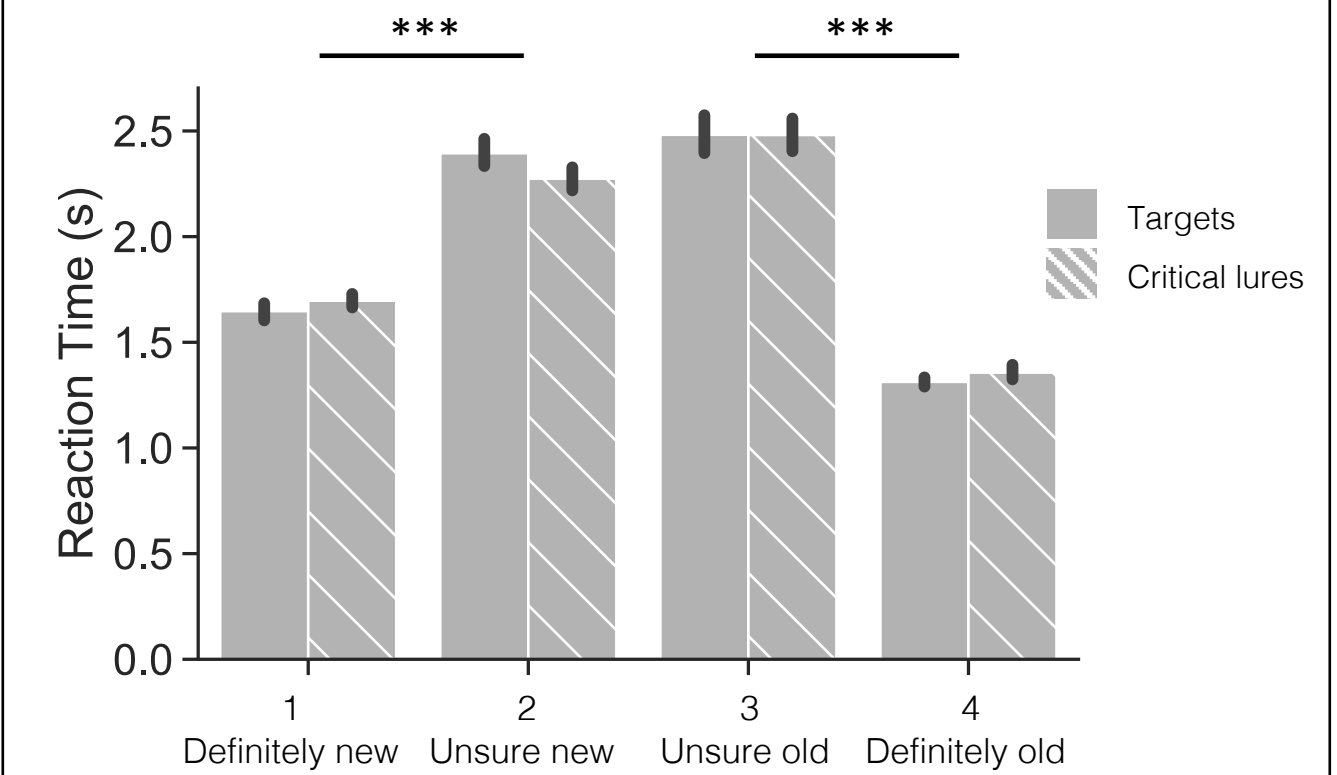
Reaction time by semantic and temporal overlap



Older adults' reaction times for correctly recognizing targets (hits) are modulated by overlap strength ($p = 0.047$)

Older adults' reaction times for correctly rejecting critical lures (correct rejections) generally decreases as overlap decreases

Reaction time by probe type and response

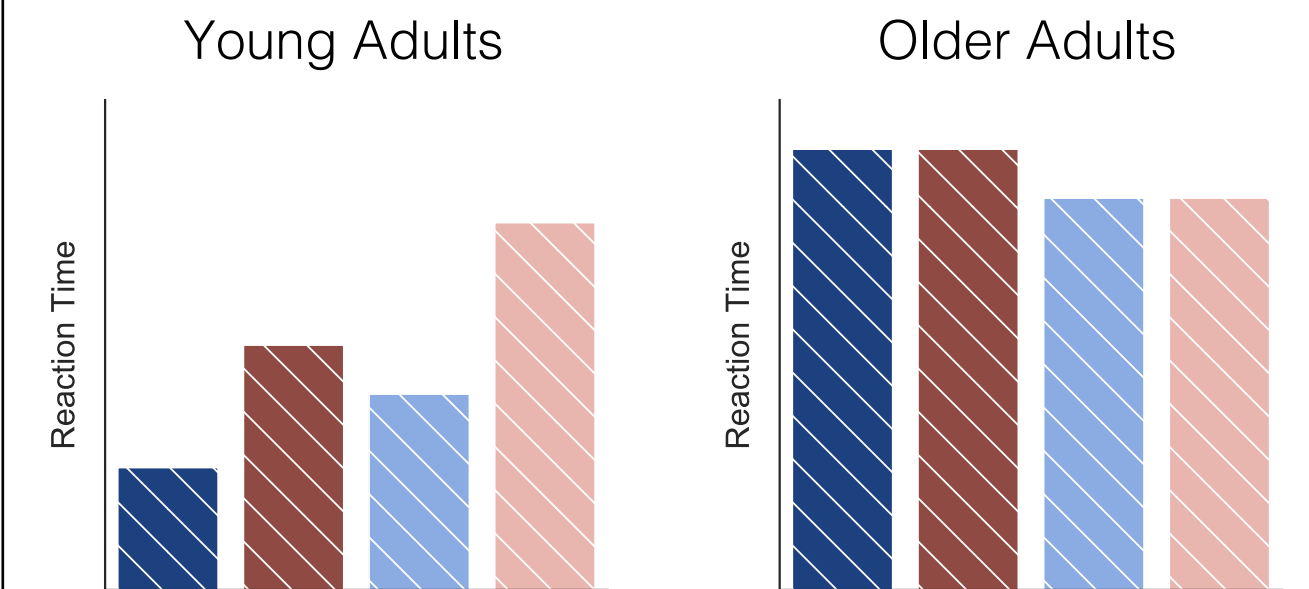


Older adults have faster reaction times for confident responses compared to unsure responses for both targets and critical lures *** $p < 0.001$

Summary

- Older adults tend to recognize items more quickly when targets overlap semantically and temporally with study neighbors
- It is easier for older adults to reject critical lures that weakly overlap with study items
- Older adults respond more quickly to both targets and lures when they are confident

Age-Based Predictions



Young adult reaction times to critical lures will be fastest for items with strong semantic and temporal overlap

Older adult reaction times to critical lures will be selectively driven by semantic overlap