

# Effects of aging on semantic and episodic contributions to false memory

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## Introduction

- Older adults are more susceptible to false memory than young adults (Koutstaal & Schacter, 1997)
- 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 rely more heavily on semantic versus episodic processing, which promotes false memory

## Participants

- Older adults: 60-85 years old, N = 42
  - Young adults: 18-35 years old, N = 40 †
- † Data collection is ongoing

## Predictions

Unlike young adults, older adults' false memory rate will not be impacted by temporal overlap strength

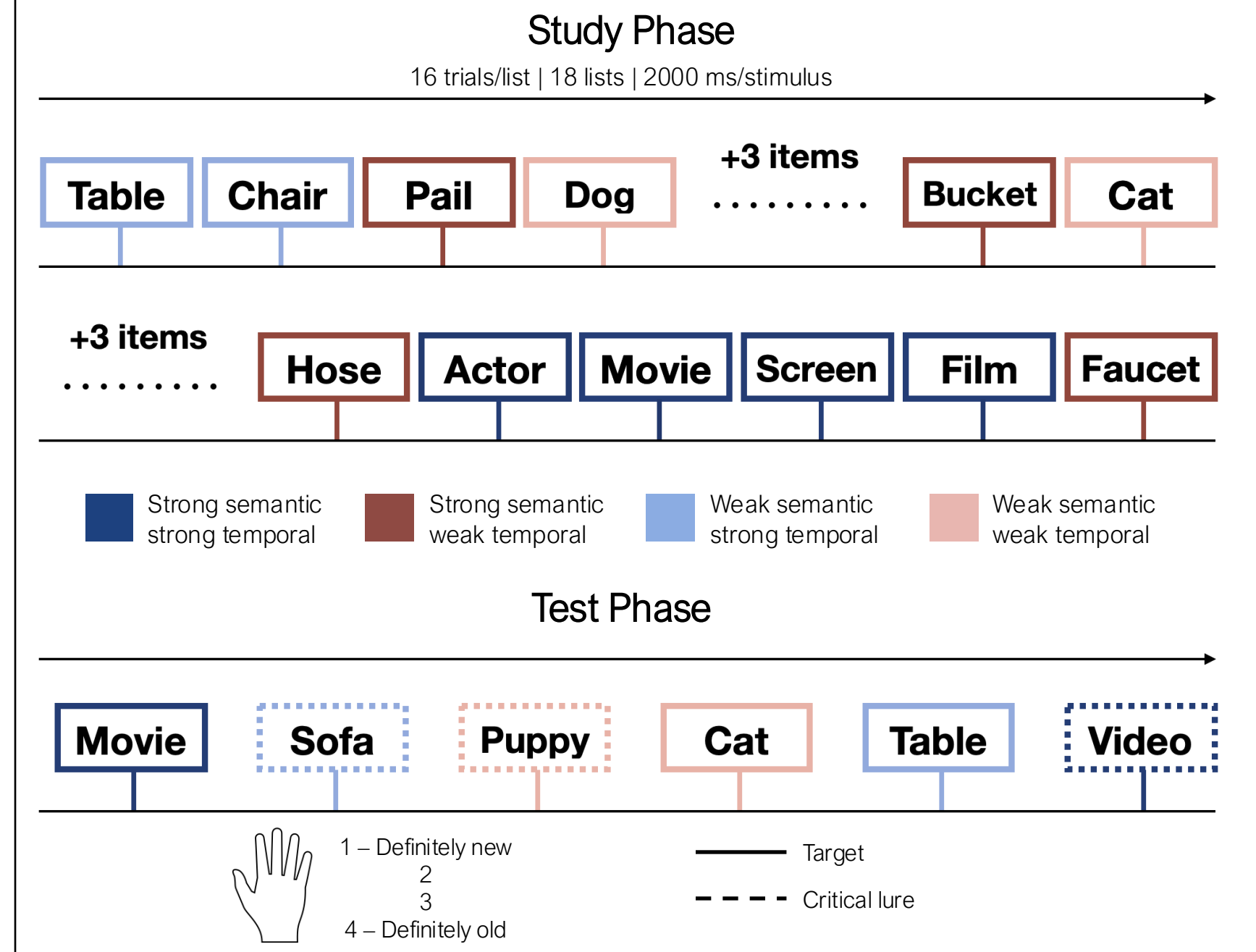
## References

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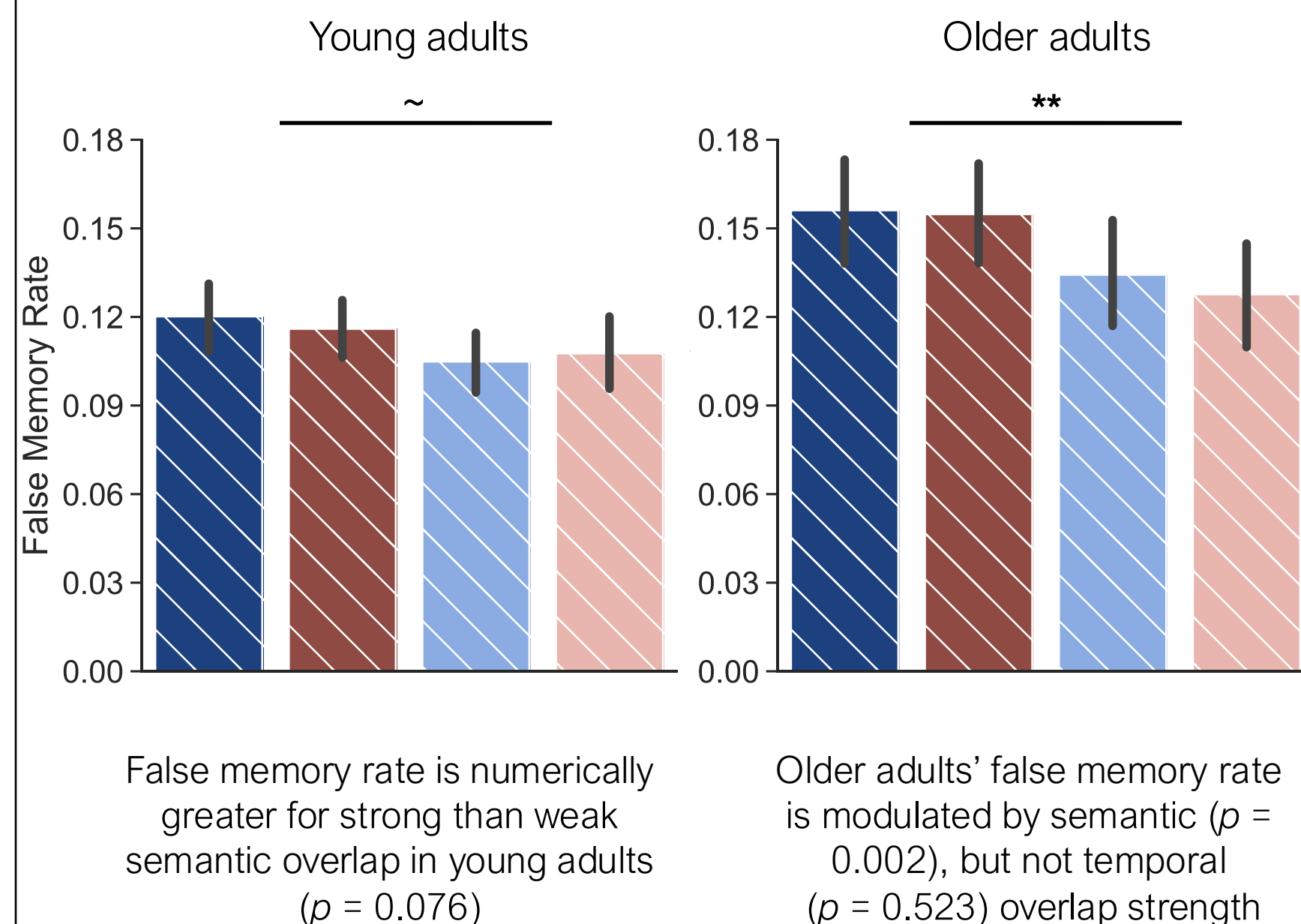
## Acknowledgements

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## Recognition memory task

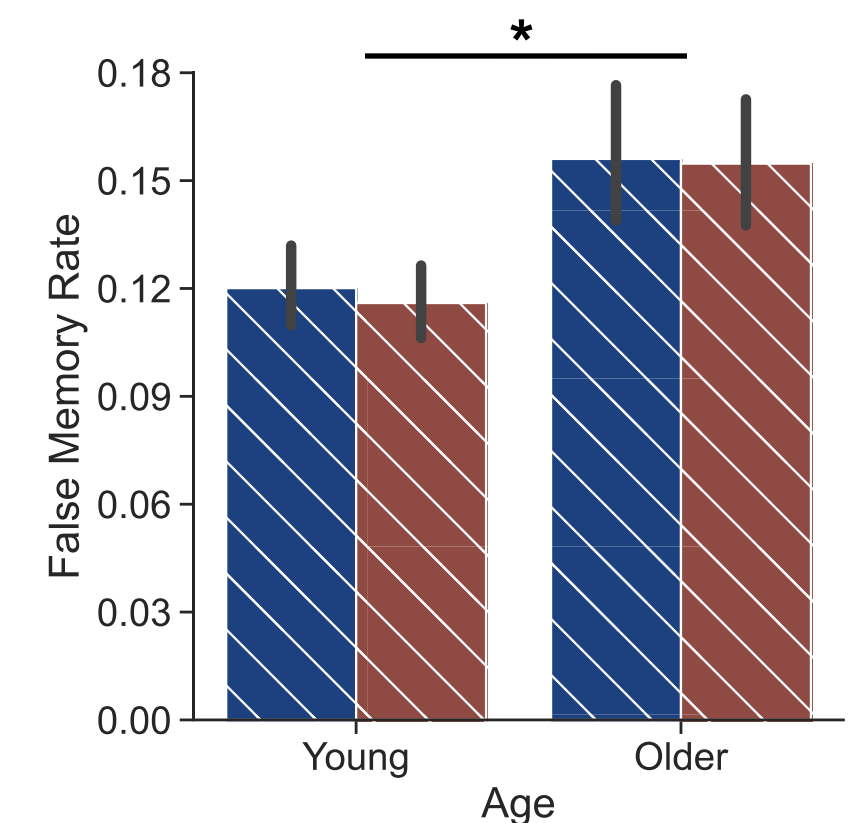


## False memory rate by semantic and temporal overlap

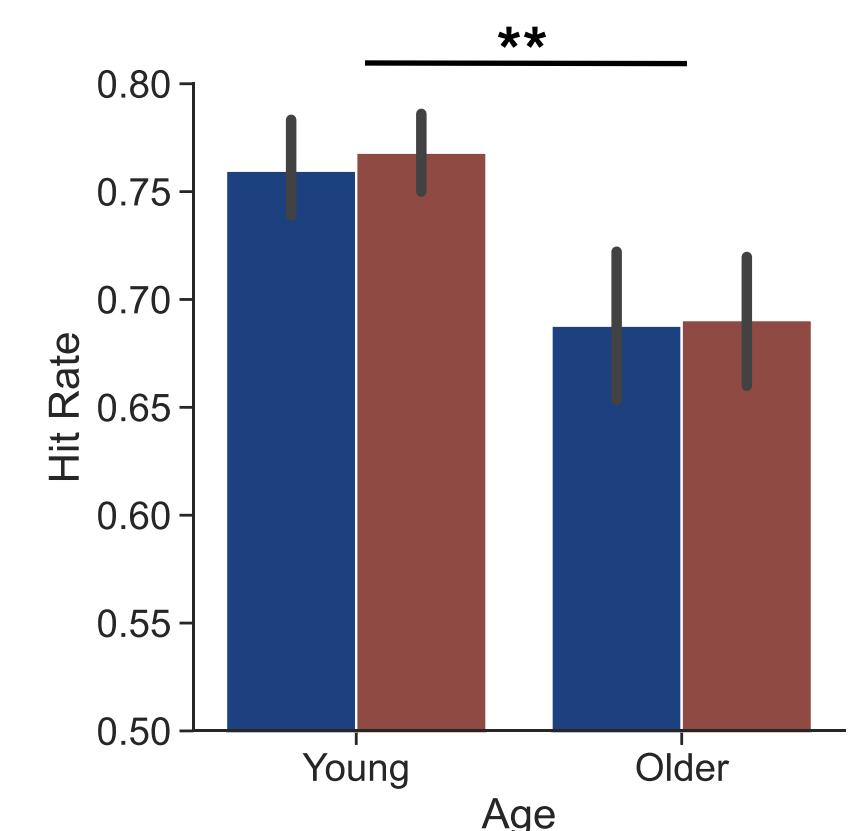


## Effects of age and temporal overlap strength on memory

Older adults have a greater false memory rate than young adults ( $p = 0.036$ ), with no interaction between temporal overlap strength and age ( $p = 0.861$ )



Young adults have a greater hit rate than older adults ( $p = 0.007$ ), with no interaction between temporal overlap strength and age ( $p = 0.794$ )



## Summary

- Older adults may be less able to utilize temporal information to reject false memories
- Increased semantic overlap is associated with more false memories
- Age group, but not temporal overlap strength, influences false alarm and hit rates for test items with strong semantic overlap

## Future Directions

- Finish young adult data collection
- Analyze false memory and hit rates by confidence and semantic and temporal overlap strength