

# Temporal Contiguity in Incidentally Encoded Memories

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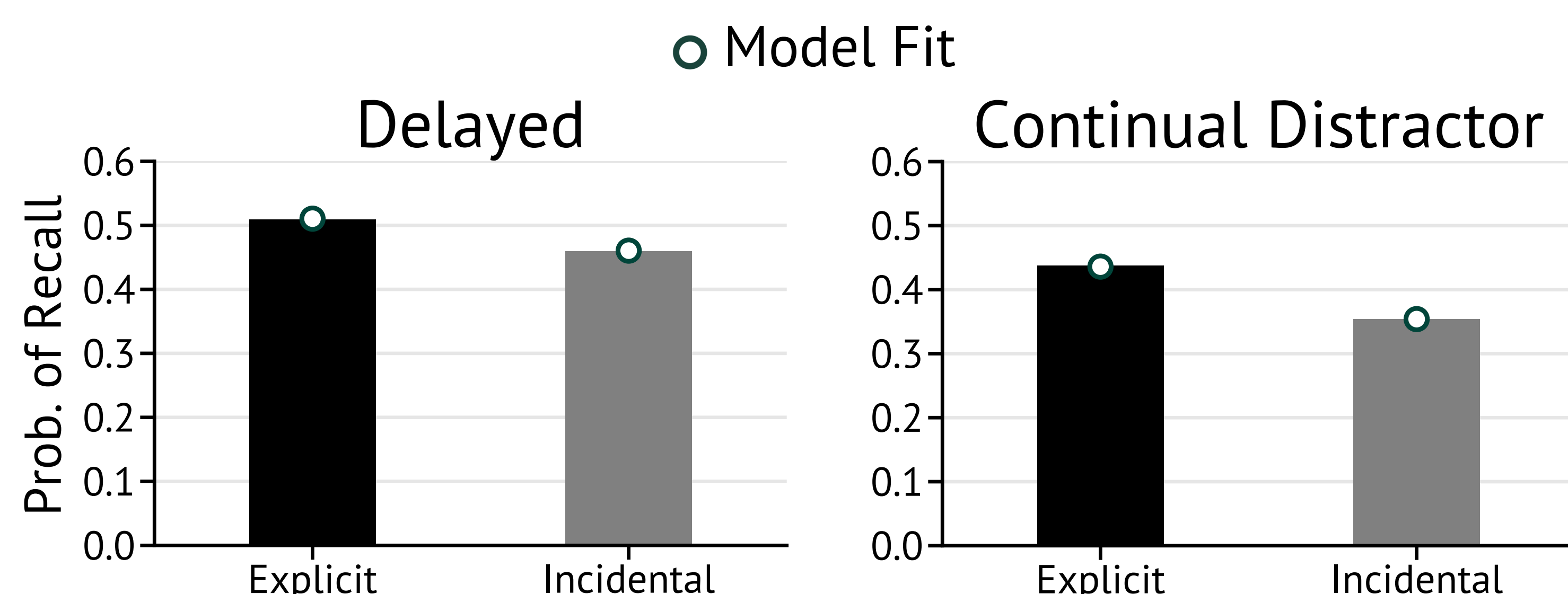
## Introduction

- Temporal Contiguity Effect (TCE): recall of one event triggers recall of other events originally experienced nearby in time (Kahana, 1996)
- Retrieved Context Models attribute the TCE to *automatic* encoding of temporal information whenever new memories are formed (Healey, Long, & Kahana, 2018)
  - Predicts a TCE even when encoding is incidental
  - Predicts reducing the TCE should reduce recall
- However, data show incidental encoding:
  - Dramatically reduces the TCE (Healey, 2018; Nairne et al. 2017)
  - Only slightly reduces overall recall (Marshall & Werder, 1972)

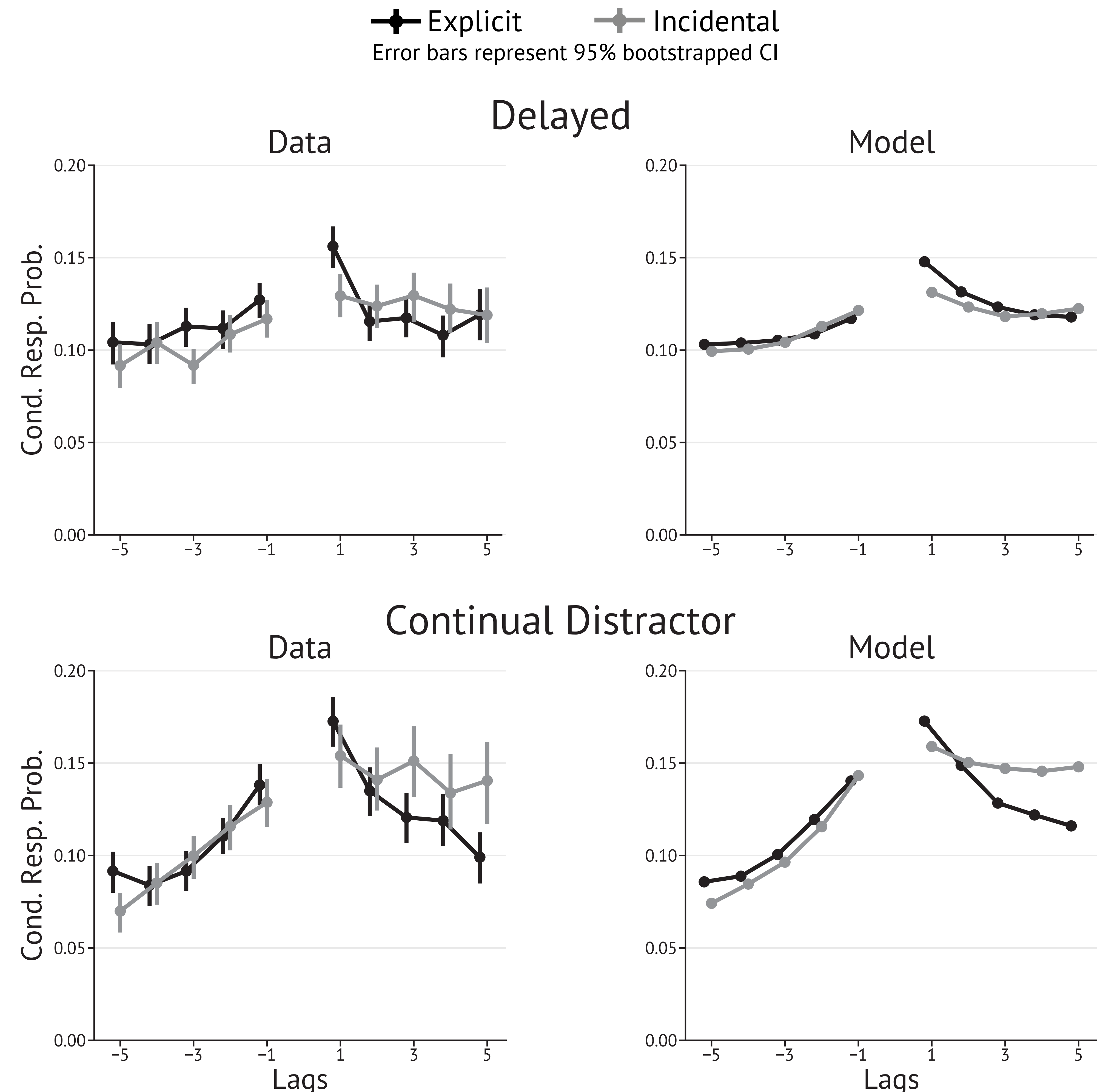
**Research Question:** Can the Retrieved Context Model simultaneously account for the TCE *and* overall recall in incidental encoding?

## Design

- $N = 5,443$  [Amazon MTurk]
- Free recall task
  - 1 list of 12 words
  - Animacy judgment encoding task
- 2×2 Between-Subjects Design
  - Explicit vs. Incidental
  - Continual Distractor vs. Delayed Free Recall
- Retrieved Context Model fit using genetic algorithm



## Results



## Conclusions

- The Temporal Contiguity Effect is dramatically reduced, but not eliminated, when participants are not intentionally studying
- The Retrieved Context Model can fit the TCE *and* overall recall in incidental encoding
- Future Directions:
  - Examine which model parameters must differ between incidental and explicit conditions