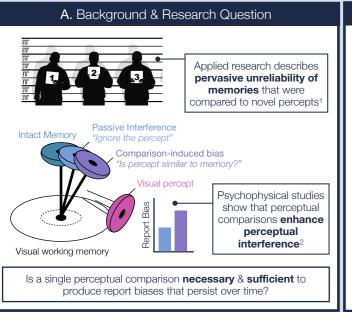
## Perceptual comparisons are necessary and sufficient for the persistence of memory biases across time

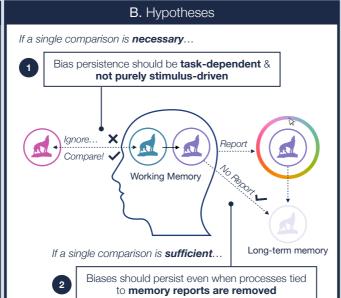
Joseph M. Saito<sup>1</sup>, Susanne Ferber<sup>2</sup>, Morgan D. Barense<sup>2</sup>, & Keisuke Fukuda<sup>2,3</sup>

<sup>1</sup> University of California San Diego, <sup>2</sup> University of Toronto, <sup>3</sup>University of Toronto

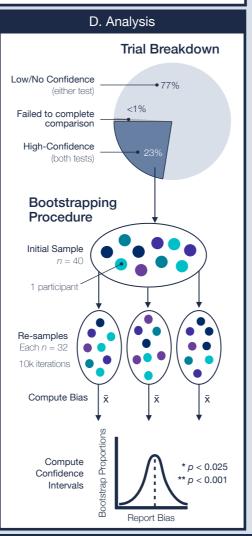


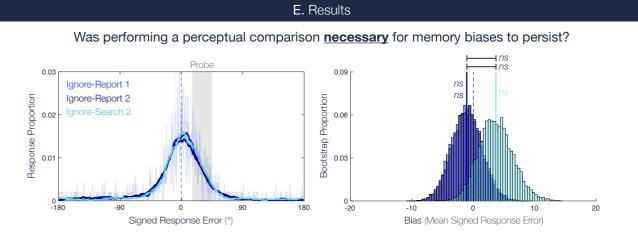
Model<sup>4</sup> assumes.



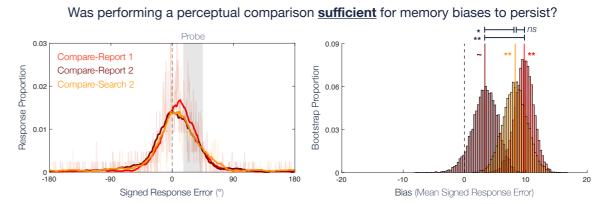


## C. Method **Encoding Task** Day 1 **Encoding** (Definitely/Maybe/New) 288 Colored-Object 1500m Immediate Test Ignore-Search 1 48 Old | 12 New Ignore-Report 1 48 Old | 12 New **Memory Test** d 48 Old | 12 New Compare-Report Obi+Col/Obi/New 48 Old | 12 New Probe Sampling Untime Day 2 Ignore... or Similarity Judgment! **Delayed Test** No probe presented Ignore-Search 2 48 Re-test | 12 New Ignore-Report 2 Confidence? High/Low/None) 48 Re-test | 12 New Compare-Search 2 Report Color! Find Letter! Counterbalanced Compare-Report 2 48 Re-test | 12 New

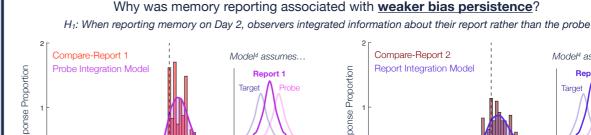




No bias following passive interference suggests that performing a comparison was necessary!



Biases after comparisons persisted without reporting, suggesting the comparison was sufficient!



 $R^2 = 0.75**$ 

Weaker bias persistence well-accounted for by assuming observers integrate their report into memory

## F. Future Directions

- Provide empirical support for report integration by manipulating properties of the report itself
- Disentangle perceptual and decisional influences on report bias by manipulating the certainty of sensory inputs and contextual factors that can influence decision-making (e.g., trial history).

Wixted et al. (2021) PSPI; 2Saito, Kolisnyk, & Fukuda (2013) PBR; 3Sutterer & Awh (2016) PBR; 4Schurgin et al. (2020) NHB

 $R^2 = 0.72**$ 

Signed Response Error (°)