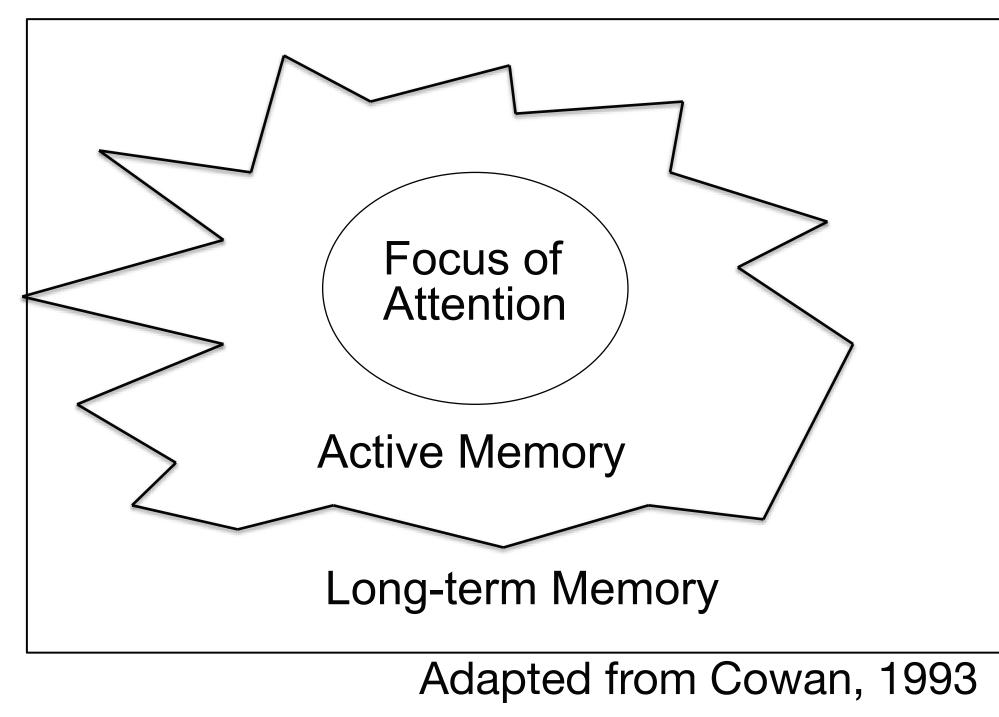
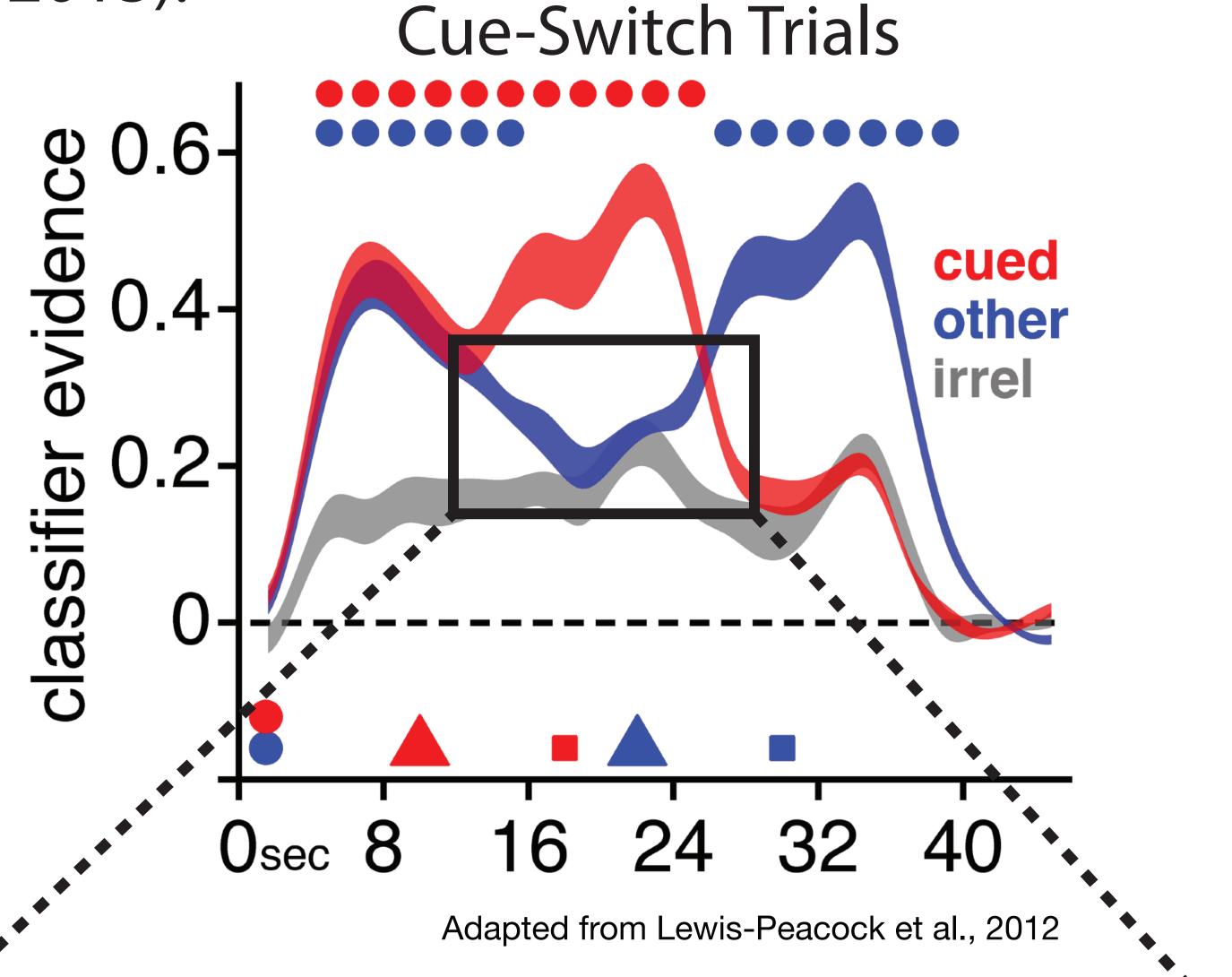
# Introduction

Several memory models suggest a distinction between items in and out of the focus of attention (FoA).



MVPA analyses of delayed recognition with prioritization cues have found no evidence for active neural representation of uncued items despite their retention in STM (fMRI: Lewis-Peacock et al., 2012; EEG: LaRocque et al., 2013).

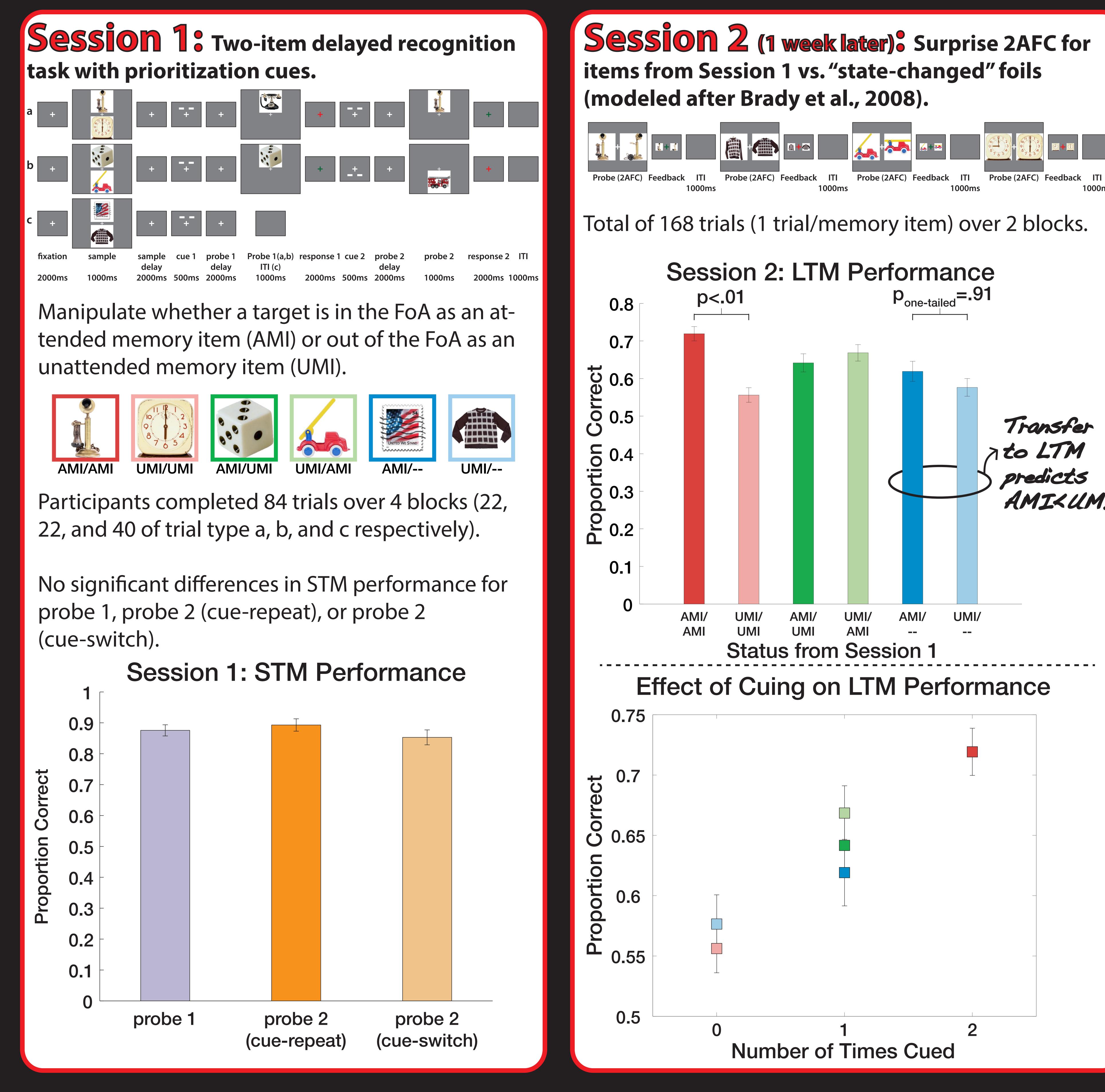


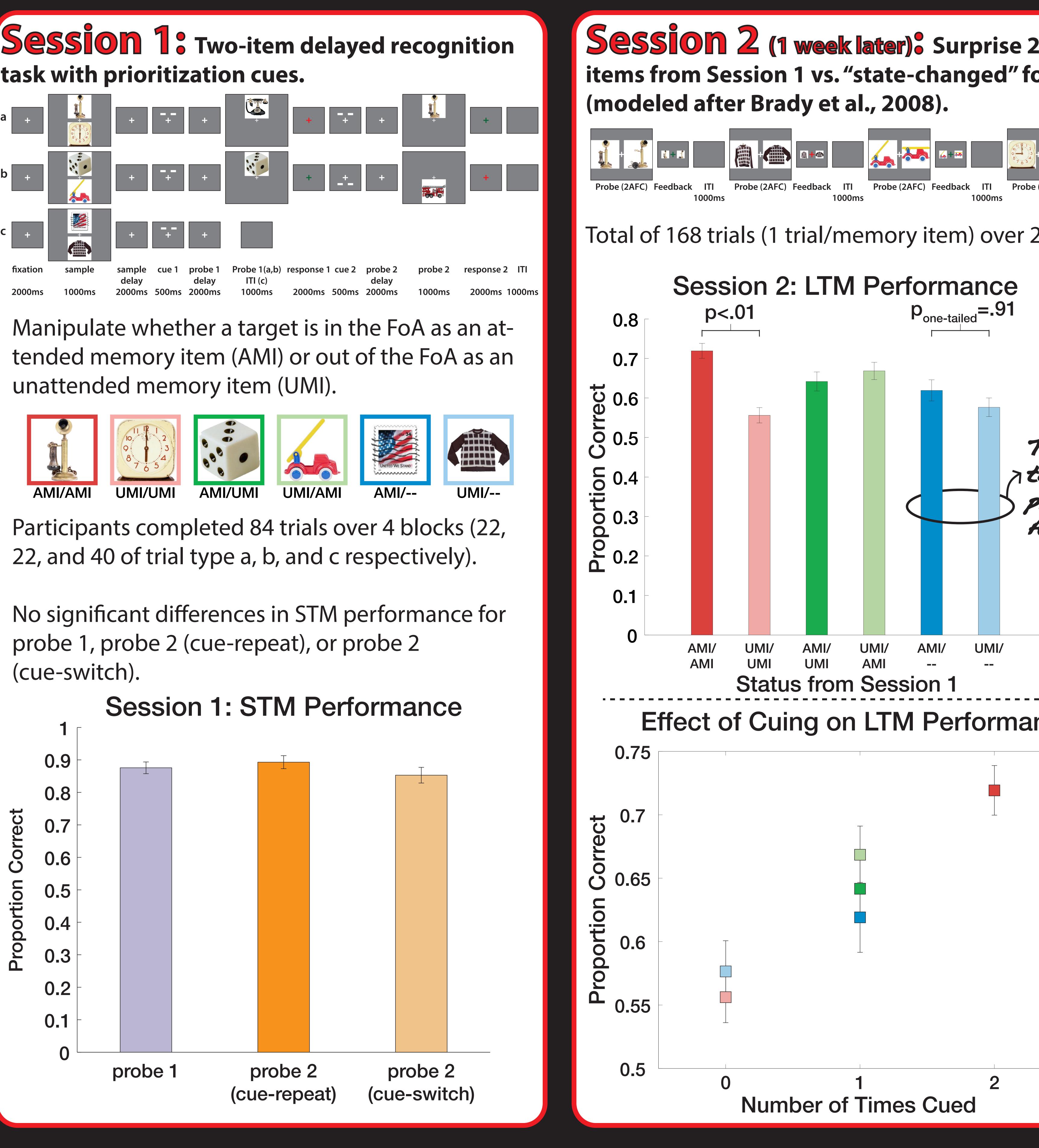
# Are items outside the FoA transferred into LTM?

To test this question, we administered an STM experiment ("session 1") followed by a surprise test of LTM one week later ("session 2").

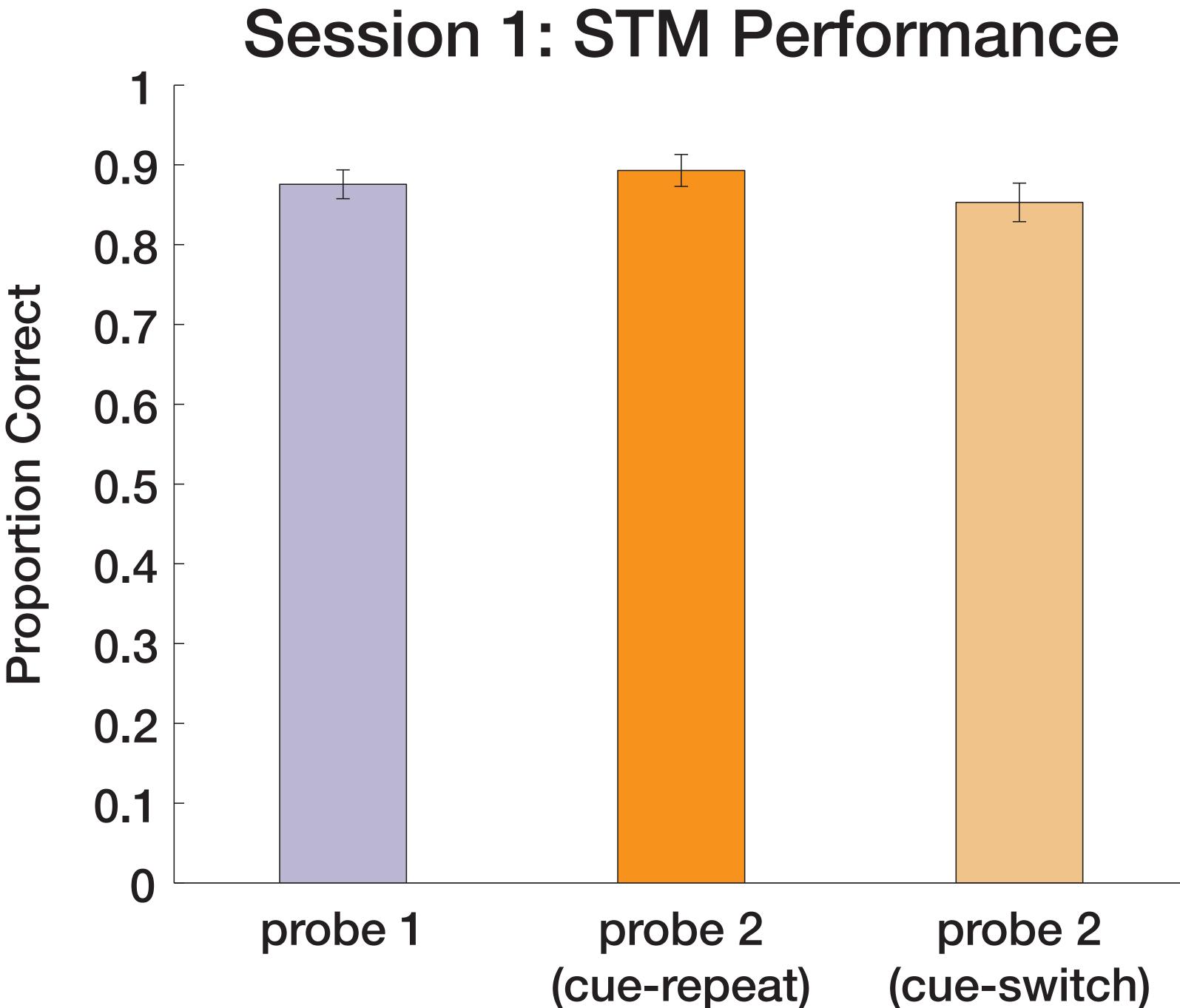
### mjstarrett@gmail.com

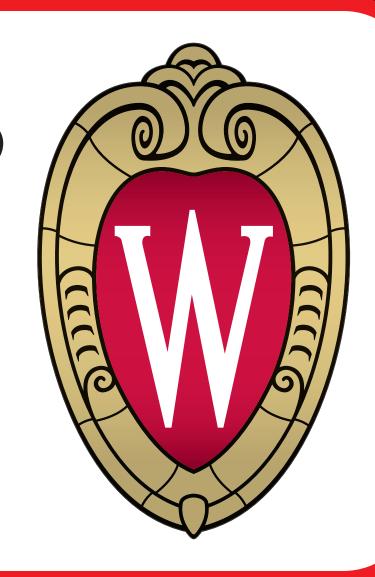
# In short-term memory but outside the focus of attention: A role for long-term memory? Michael J. Starrett<sup>1</sup>, Joshua J. LaRocque<sup>3,4</sup>, Nathan S. Rose<sup>2</sup>, Bradley R. Postle<sup>1,2</sup> Departments of <sup>1</sup>Psychology and <sup>2</sup>Psychiatry, <sup>3</sup>Neuroscience Training Program, <sup>4</sup>Medical Science Training Program, University of Wisconsin-Madison











$( \mathbf{D} \wedge \mathbf{E} \mathbf{C} )$	Foodback IT	

Transfer Nto LTM predicts AMIKUMI

# Conclusions

Lack of LTM benefit for UMIs suggests that items outside the FoA are *not* transferred into LTM.

Perhaps UMIs are held in a transient structural trace that is not dependent on the hippocampus?

# References

Cowan, N. (1993). Activation, attention, and short-term memory. Memory and *Cognition*, 21(2), 162-167.

Brady, T. F., Konkle, T., Alvarez, G. A., & Oliva, A. (2008). Visual long-term memory has a massive storage capacity for object details. Proceedings of the National Academy of Sciences, USA, 105(38), 14325-14329.

LaRocque, J. J., Lewis-Peacock, J. A., Drysdale, A. T., Oberauer, K., & Postle, B. R. (2013). Decoding attended information in short-term memory: An EEG study. Journal of Cognitive Neuroscience, 25(1), 127-142.

Lewis-Peacock, J. A., Drysdale, A., Oberauer, K., & Postle, B. R. (2012). Neural evidence for a distinction between short-term memory and the focus of attention. Journal of Cognitive Neuroscience, 24(1), 61-79.

### Supported by NIH R01 MH064498