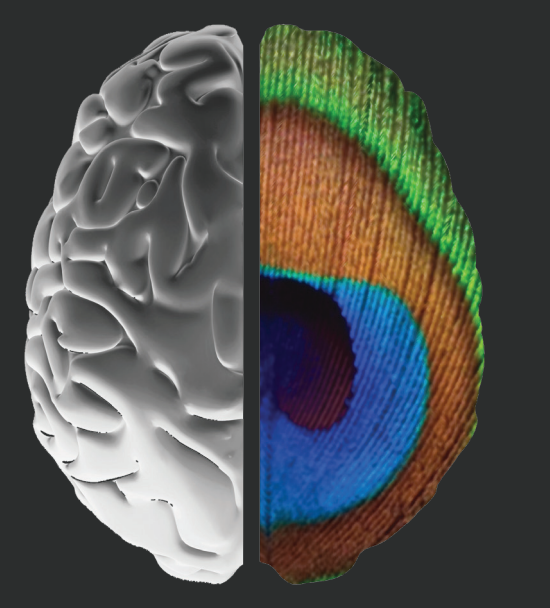


Maintenance suppression is disrupted by information associated with threat



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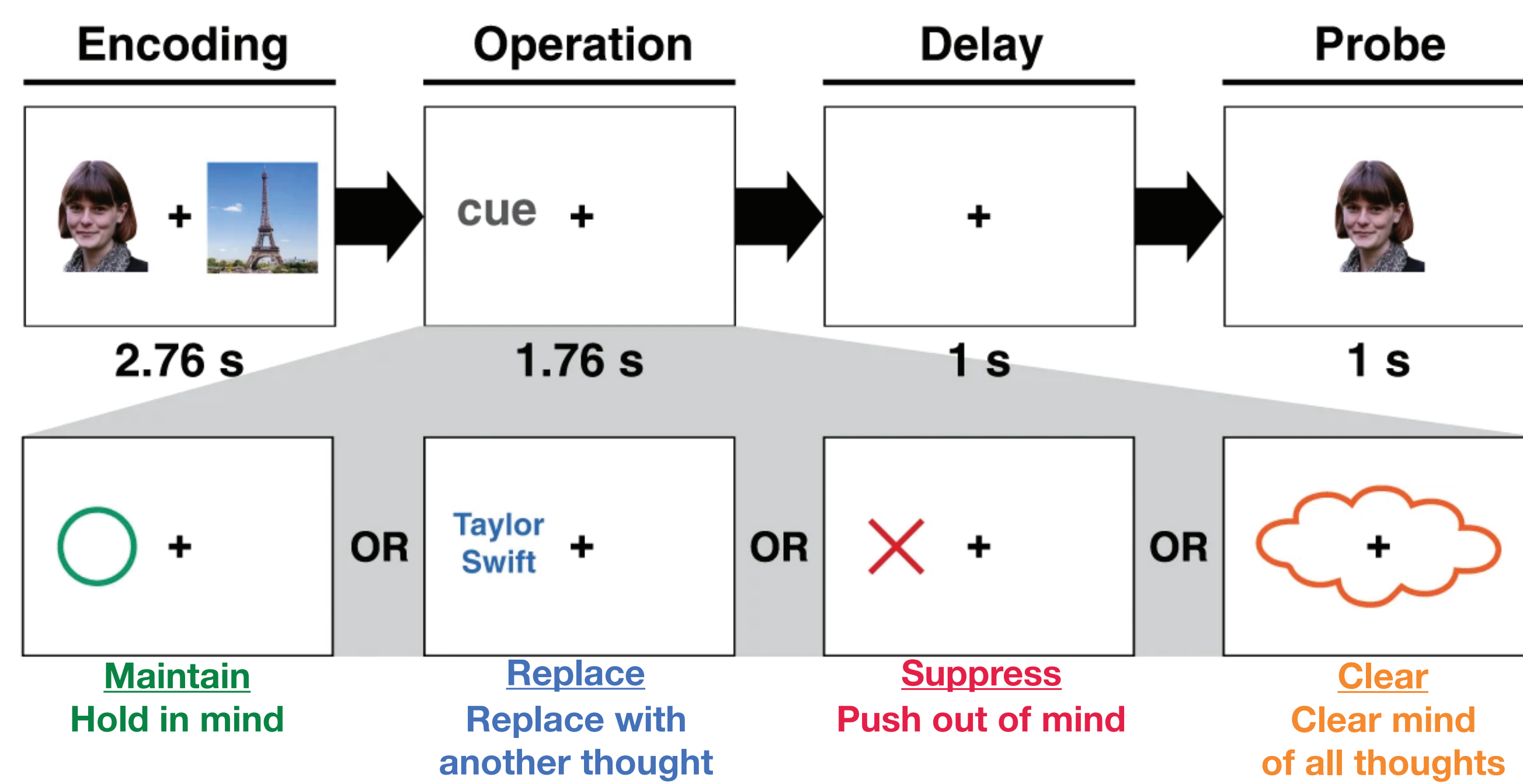
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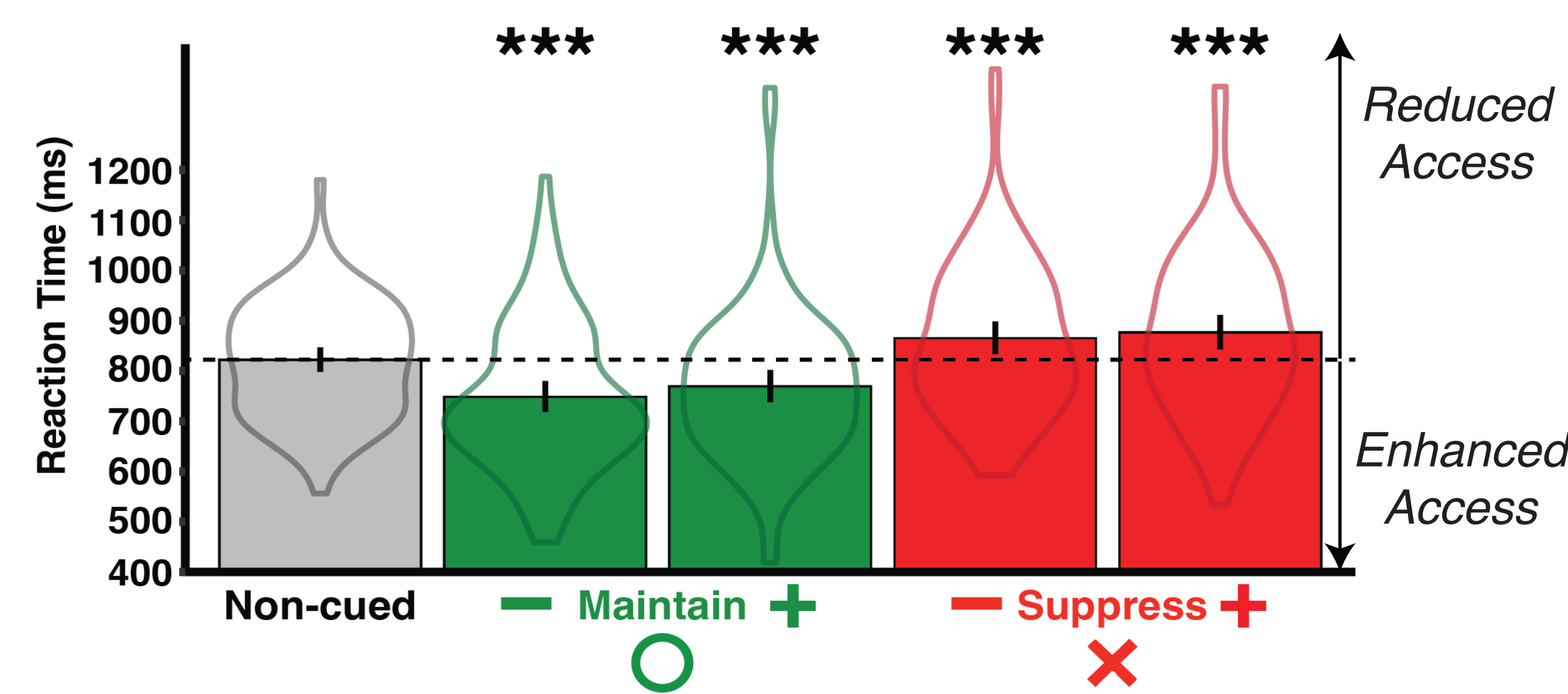
1 INTRODUCTION

Background

- Individuals can use distinct cognitive control strategies to remove unwanted information from WM^{1,2}.



- Only suppression in WM (i.e., maintenance suppression) reduces access to neutral² and valenced information (negative or positive)³.



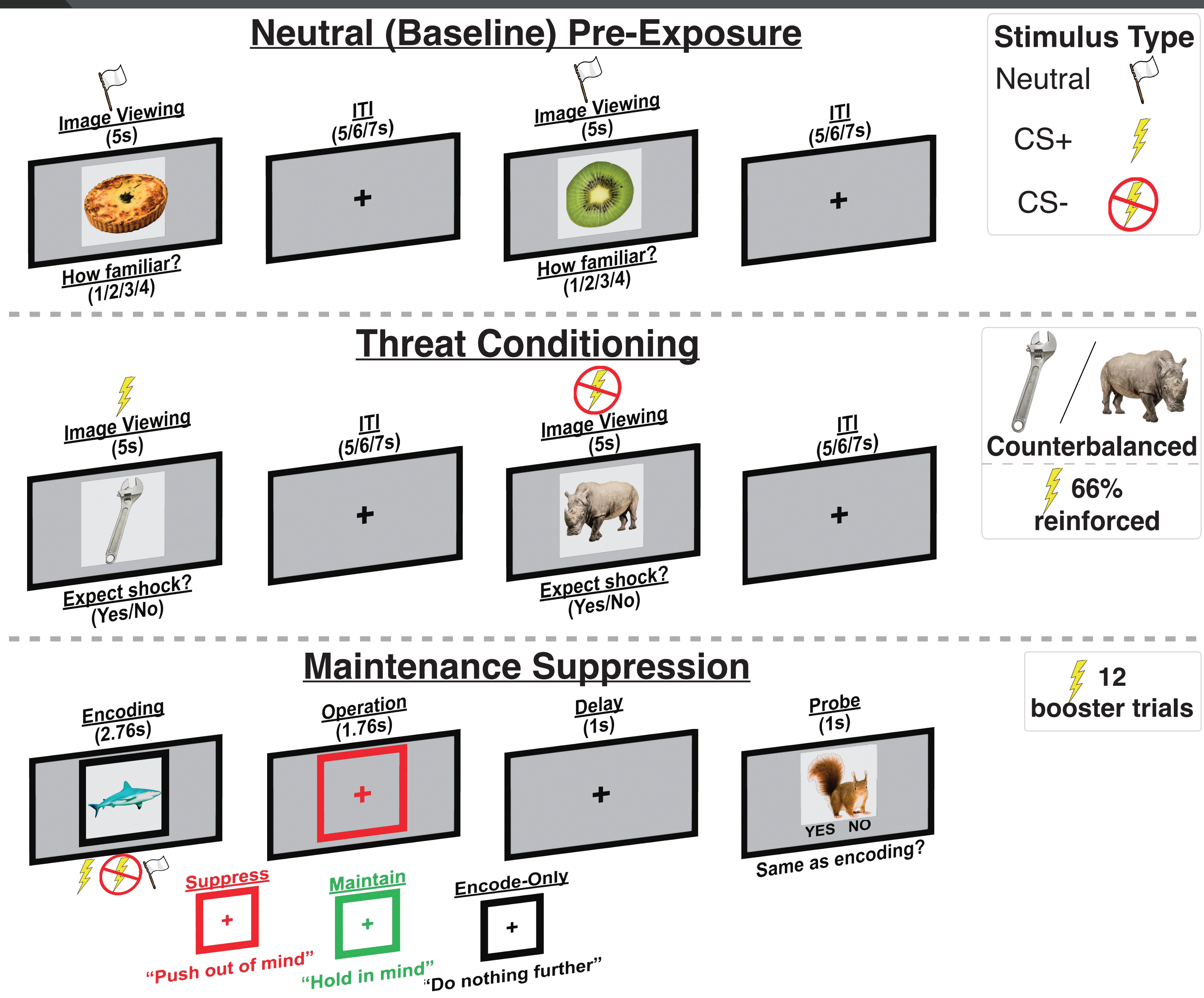
RESEARCH QUESTION

Does maintenance suppression reduce access to information associated with threat?

Hypothesis

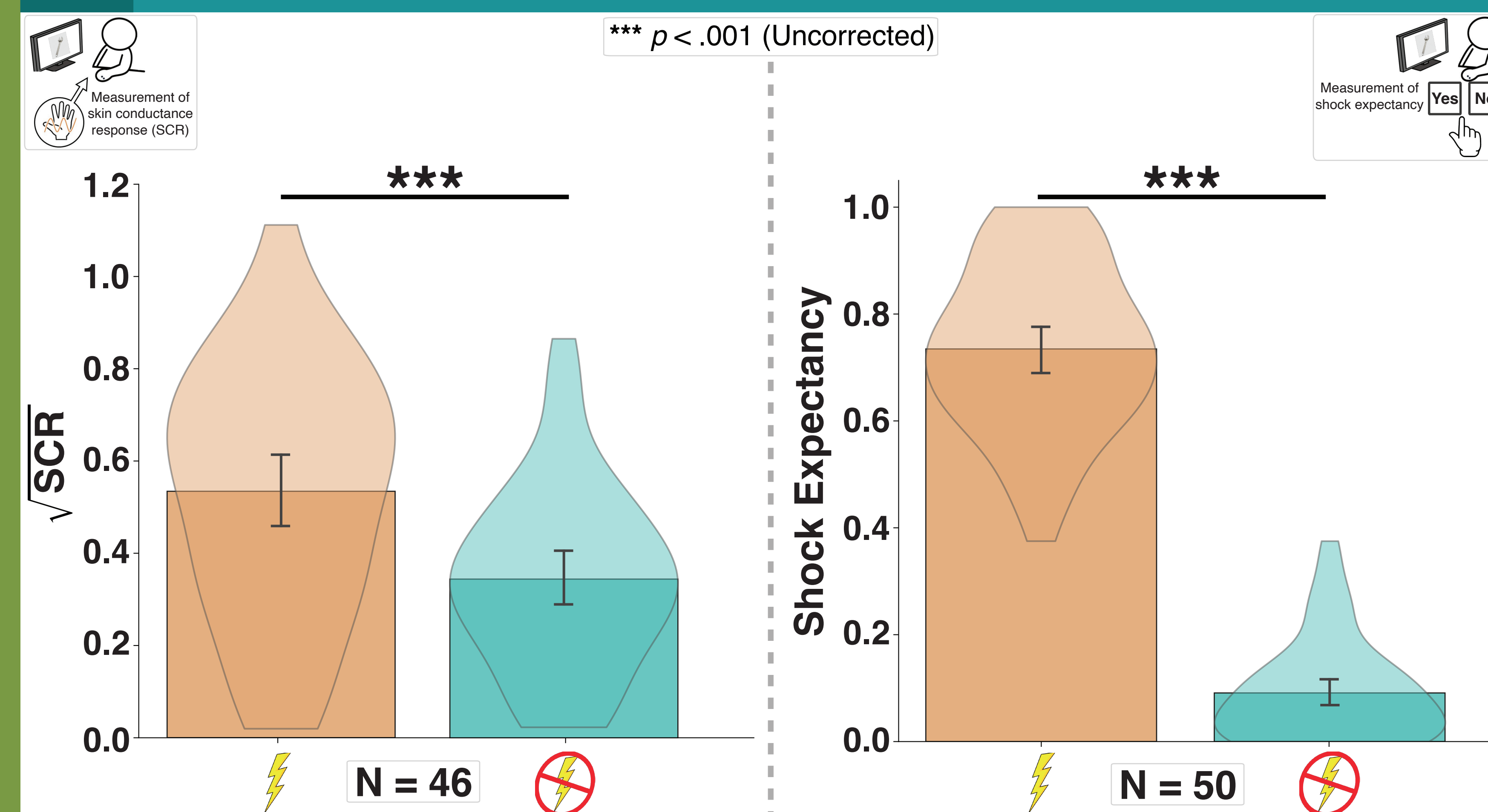
Information associated with threat could be more difficult to suppress from WM due to its increased salience.

2 EXPERIMENTAL DESIGN



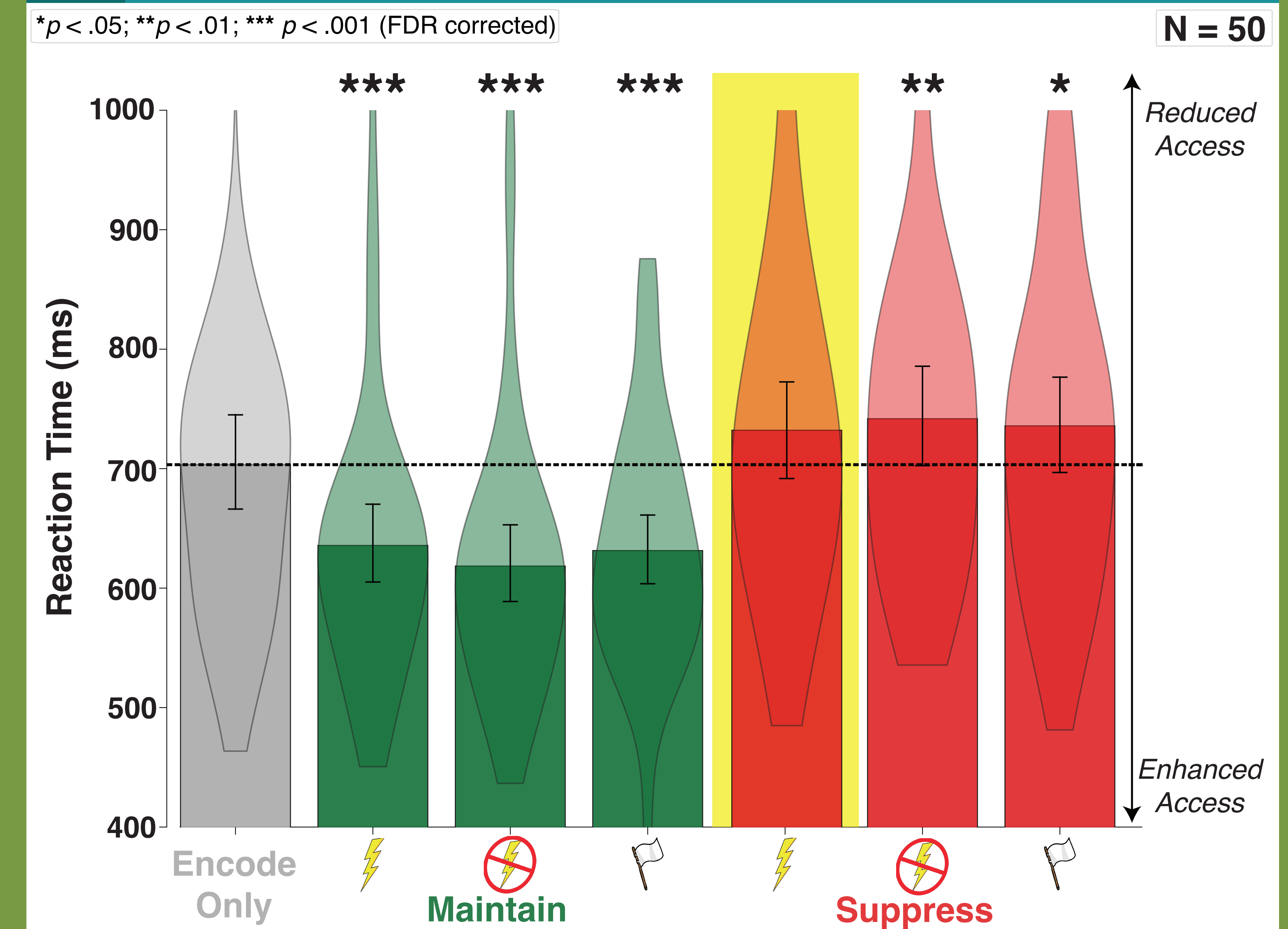
3 MANIPULATION CHECK

Increased threat responses to CS+ items



4 RESULTS: WM PERFORMANCE

CS+ items disrupt maintenance suppression



5 Discussion

- CS- and Neutral items that were removed via maintenance suppression were slower to be recognized
- Engagement of maintenance suppression was disrupted when attempting to remove CS+ items
- Information associated with threat may be more resistant to maintenance suppression due to its heightened salience

References:

- Banich, M.T., Mackiewicz Seghete, K.L., Depue, B.E., & Burgess, G.C. (2015). *Neuropsychologia*
- Kim, H., Smolker, H.R., Smith, L.L., Banich, M.T., & Lewis-Peacock, J.A. (2020). *Nature Communications*
- Jerinic-Brodeur, C.N., Banich, M.T., & Lewis-Peacock, J.A. (2024). *Frontiers in Cognition*