

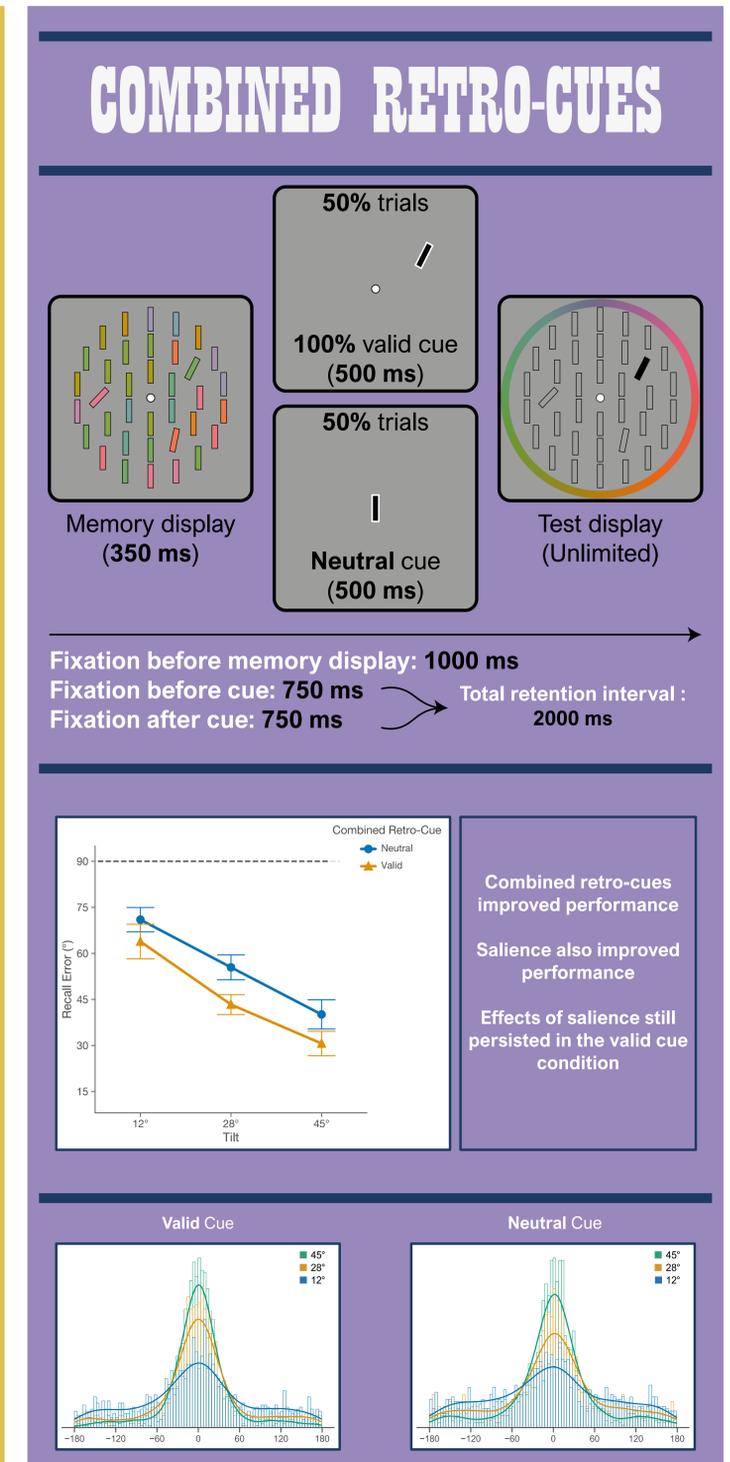
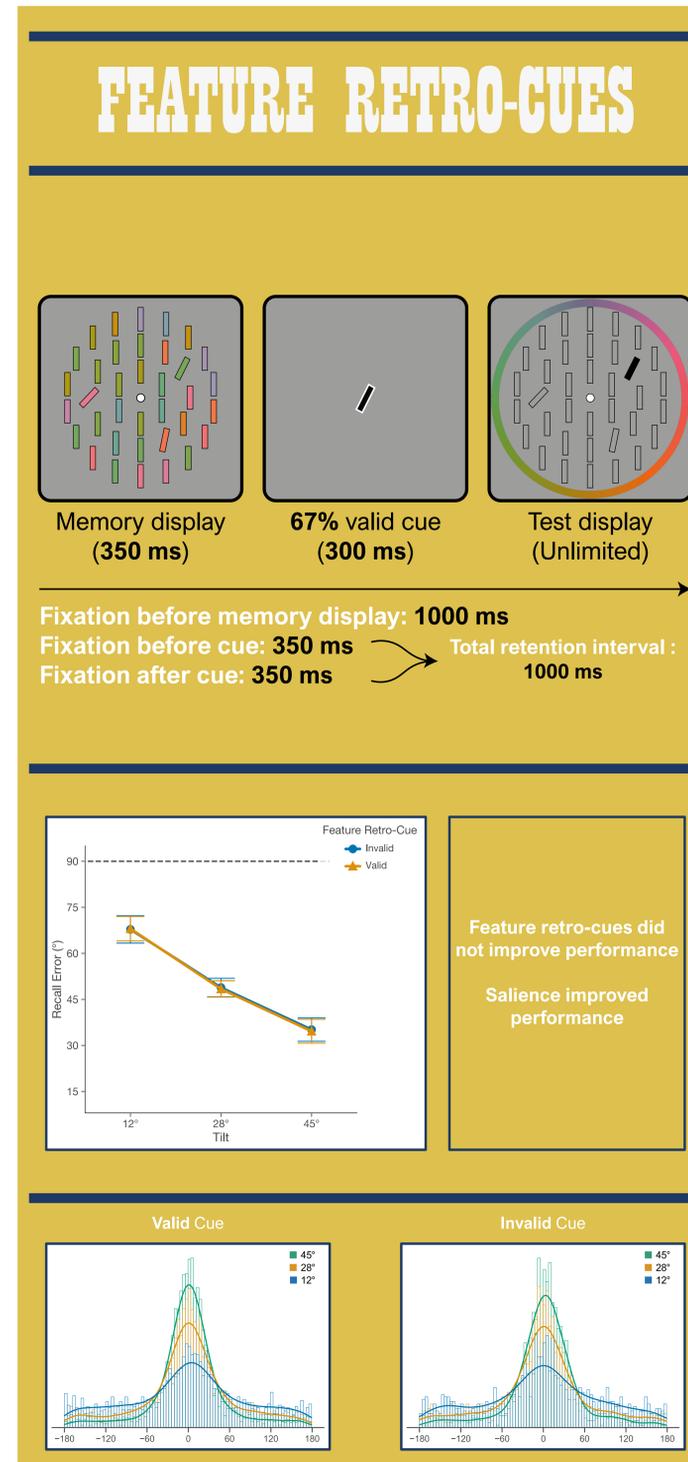
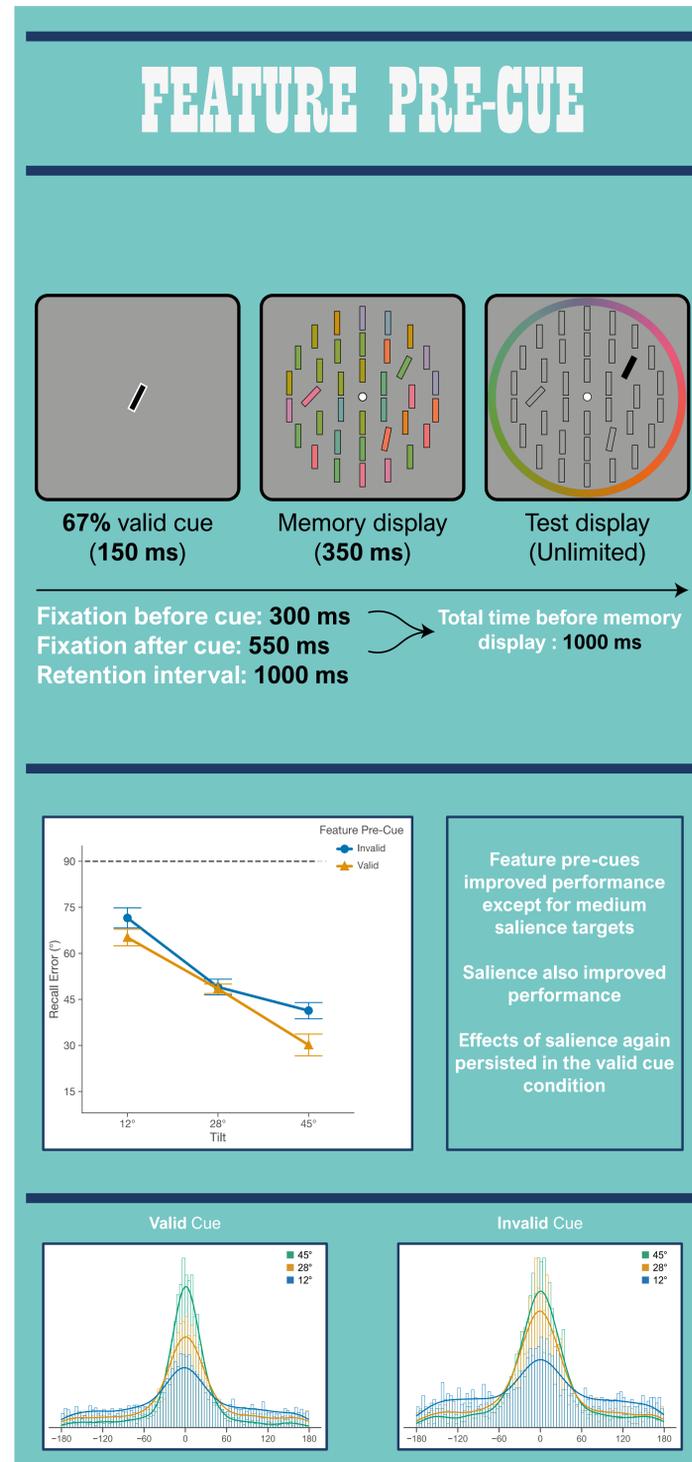
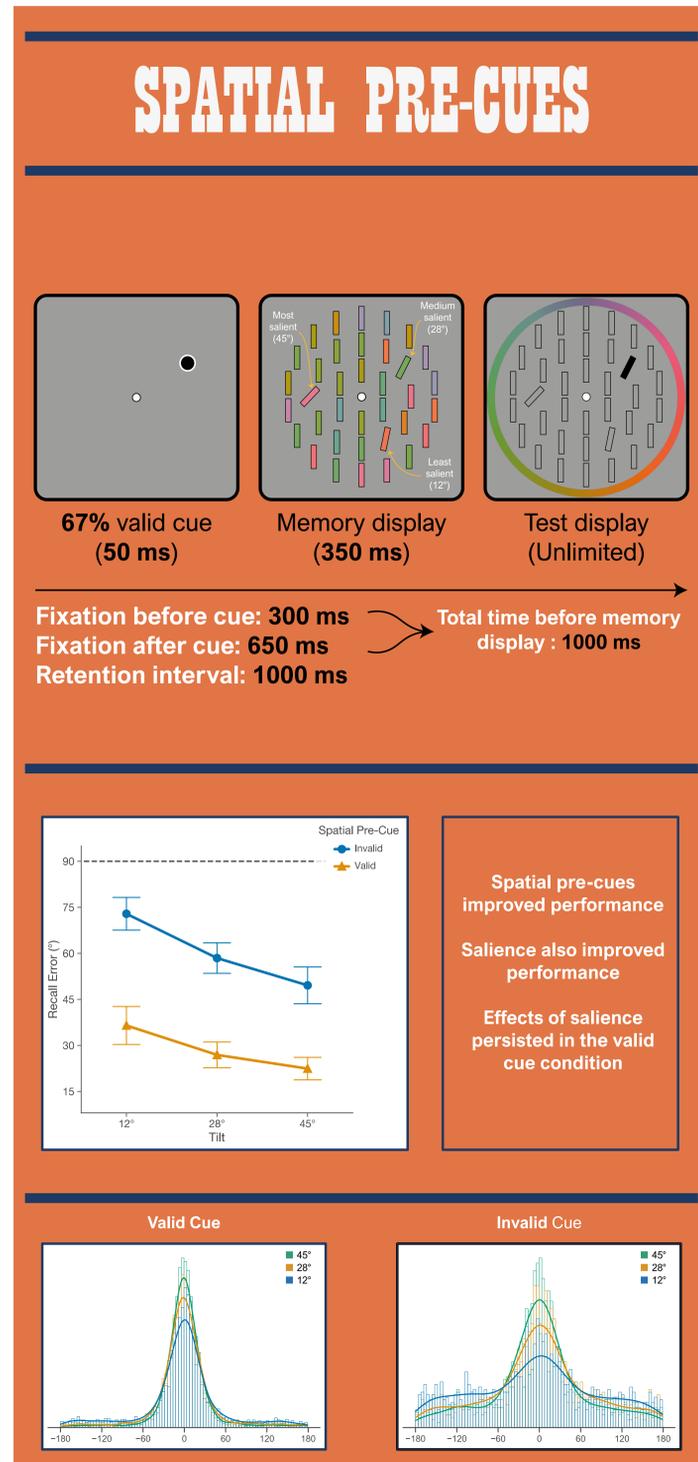
# Cues improve visual working memory but fail to counteract the effects of salience

We examined whether cues can counteract the effect of salience on visual working memory<sup>[1,2]</sup>

Participants memorized the color of three differently tilted bar and recall was made with a colorwheel

Across 4 experiments, several types of cues were presented at various times

We expected that the effects of salience would decrease or disappear for valid cues



### Conclusion 1

In the pre-cue experiments, we expected the effect of salience to disappear when the cue was valid. However, we observed that the strong effects of salience on visual working memory performance remain even when advance knowledge about the target is provided.

### Conclusion 2

Retro-cues did not improve performance in Experiment 3 and were moderately effective in Experiment 4. The effects of salience again persisted even for valid cues. This suggest that salience shapes the initial encoding process in a manner that is hard to override later on.

[1] Constant, M., & Liesefeld, H. R. (2021). Massive effects of saliency on information processing in visual working memory. *Psychological Science*, 32(5). <https://doi.org/gjk9jh>

[2] Constant, M., & Liesefeld, H. R. (2023). Effects of salience are long-lived and stubborn. *Journal of Experimental Psychology: General*, 152(9). <https://doi.org/gr6xzz>

[3] Constant, M., & Kerzel, D. (2024). Persistent effects of salience in visual working memory: Limits of cue-driven guidance. *PsyArXiv*. <https://doi.org/mvnx>