



Up to the challenge: Suppression of multiple salient distractors

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Introduction

- **Dynamic** singletons tend to **capture attention**¹, whereas **static** singletons tend to be **suppressed**².
- Recent evidence suggests that **both static** and **dynamic** stimuli can be **suppressed** but only under **specific contexts**^{3,4}.
- **Signal suppression** is generally only studied when distractors vary within a **single feature dimension** (e.g., color)³⁻⁵.

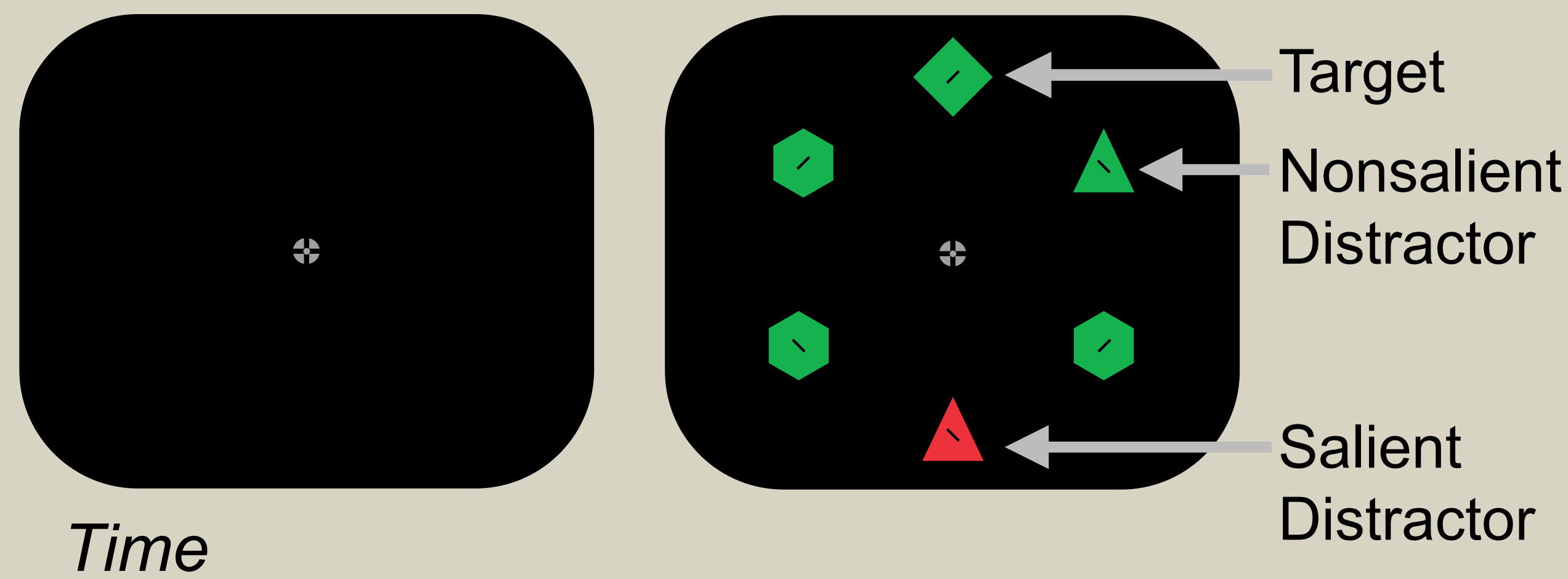
Can participants effectively suppress singletons across multiple feature dimensions?

Method

A Search Task

Fixation
Until fixation

Search Display
Until response



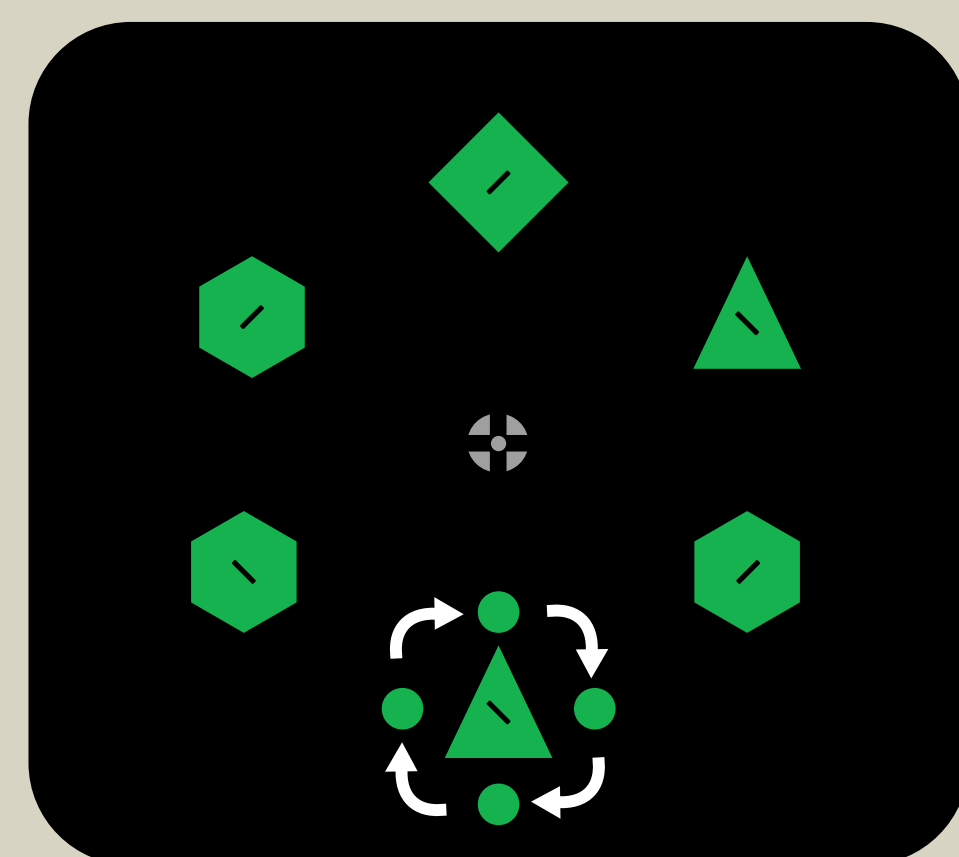
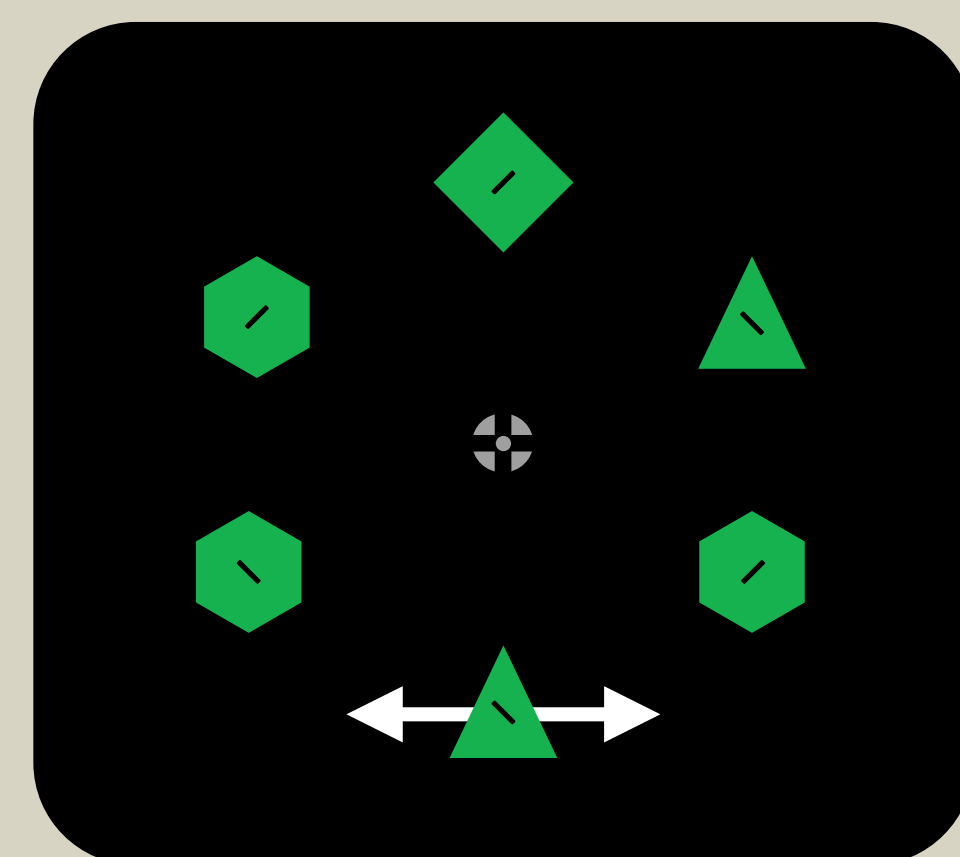
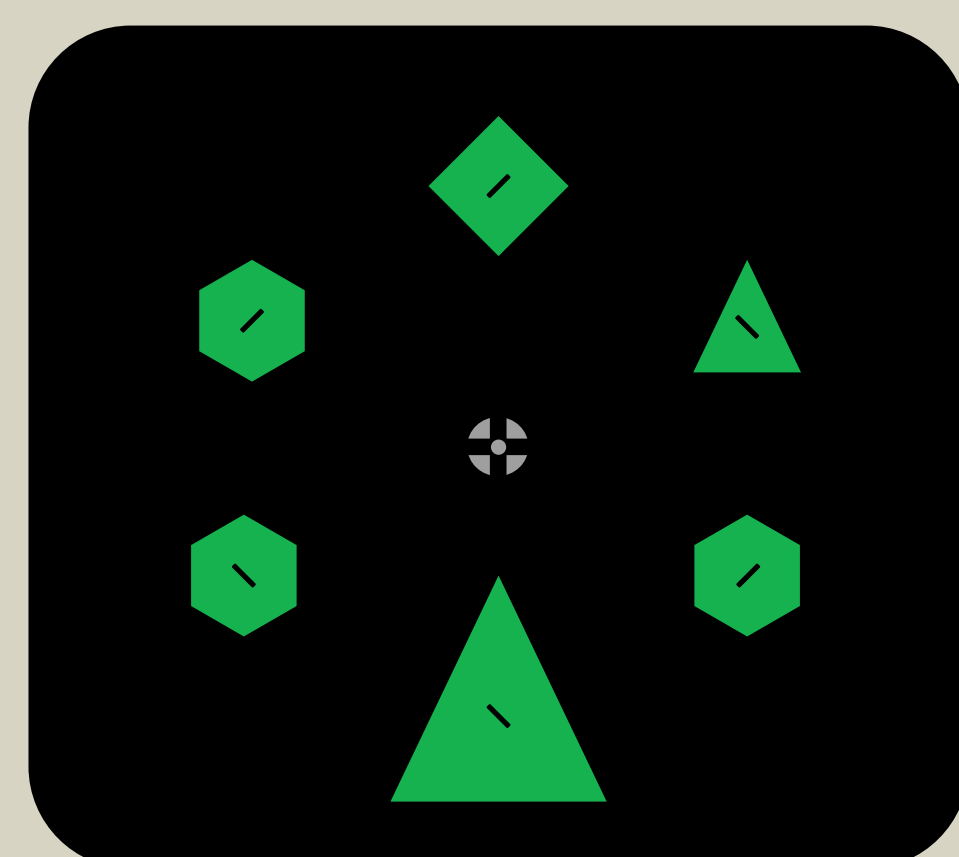
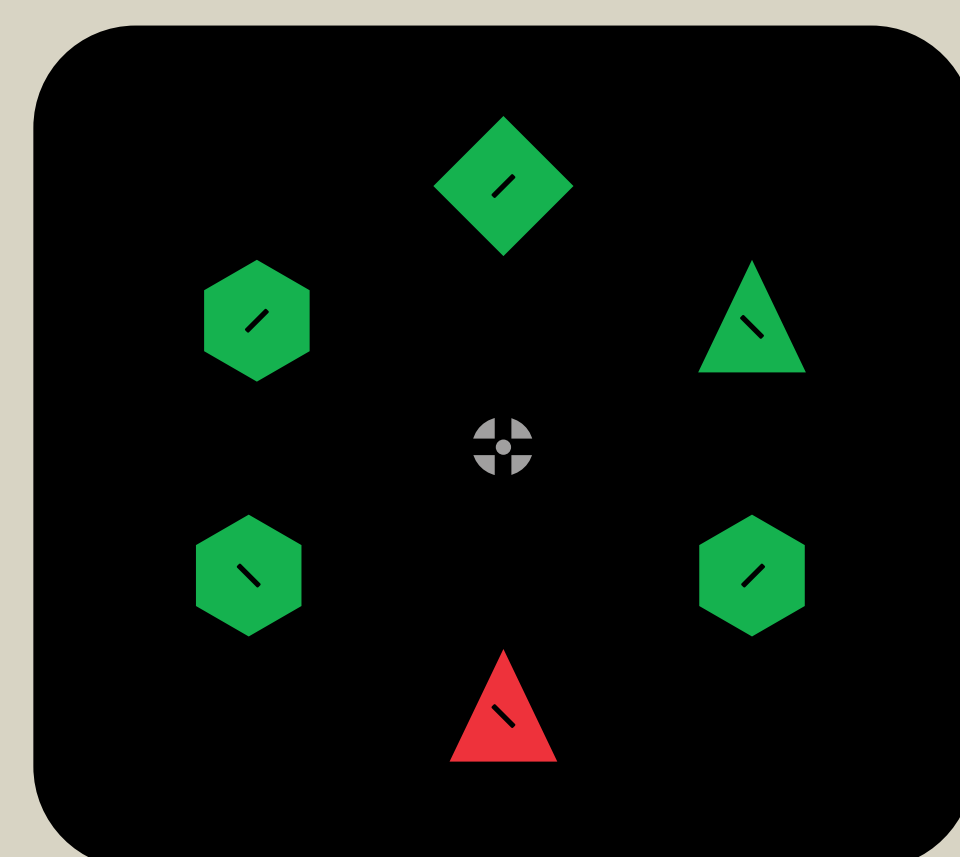
B Search Stimuli

Color

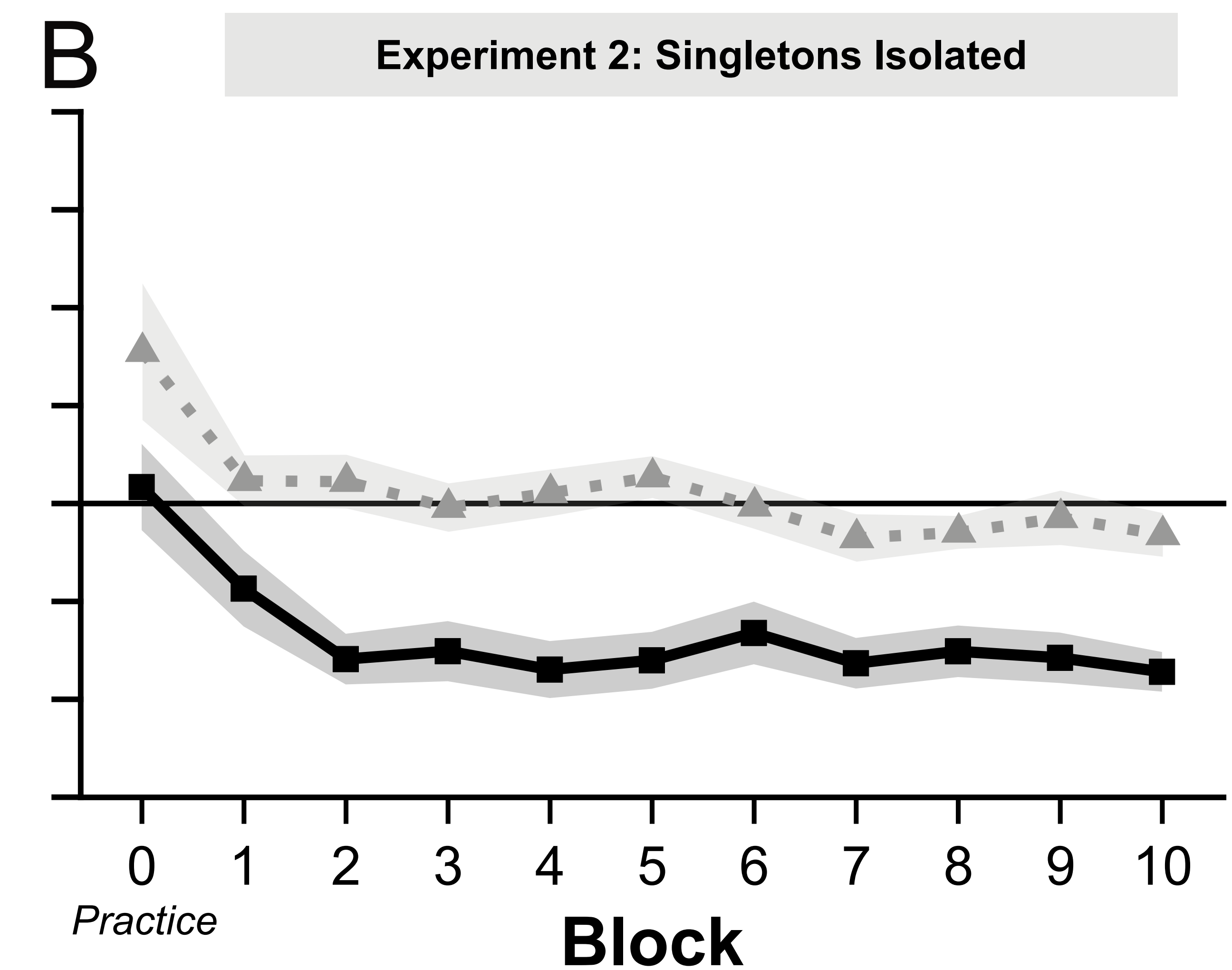
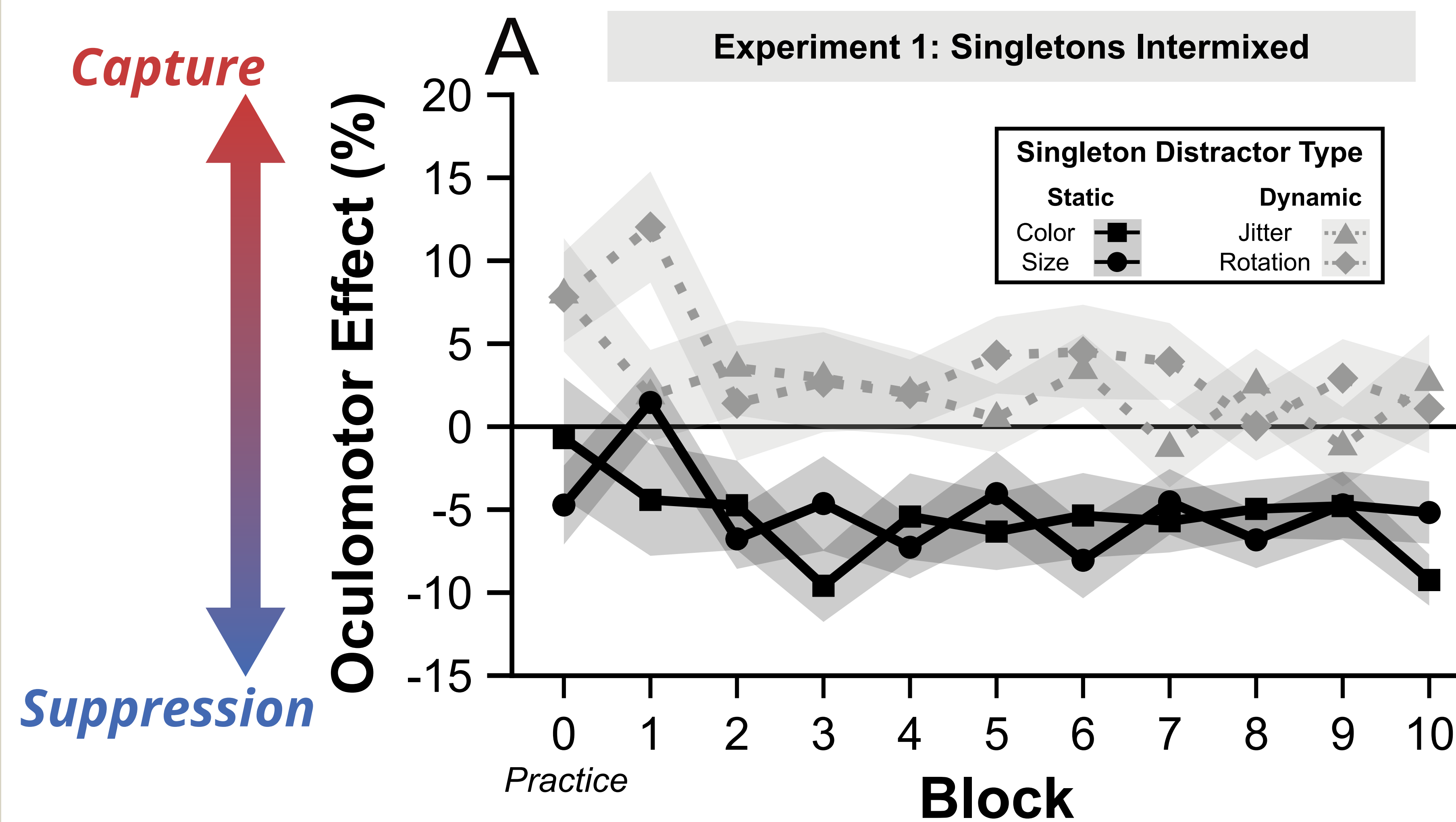
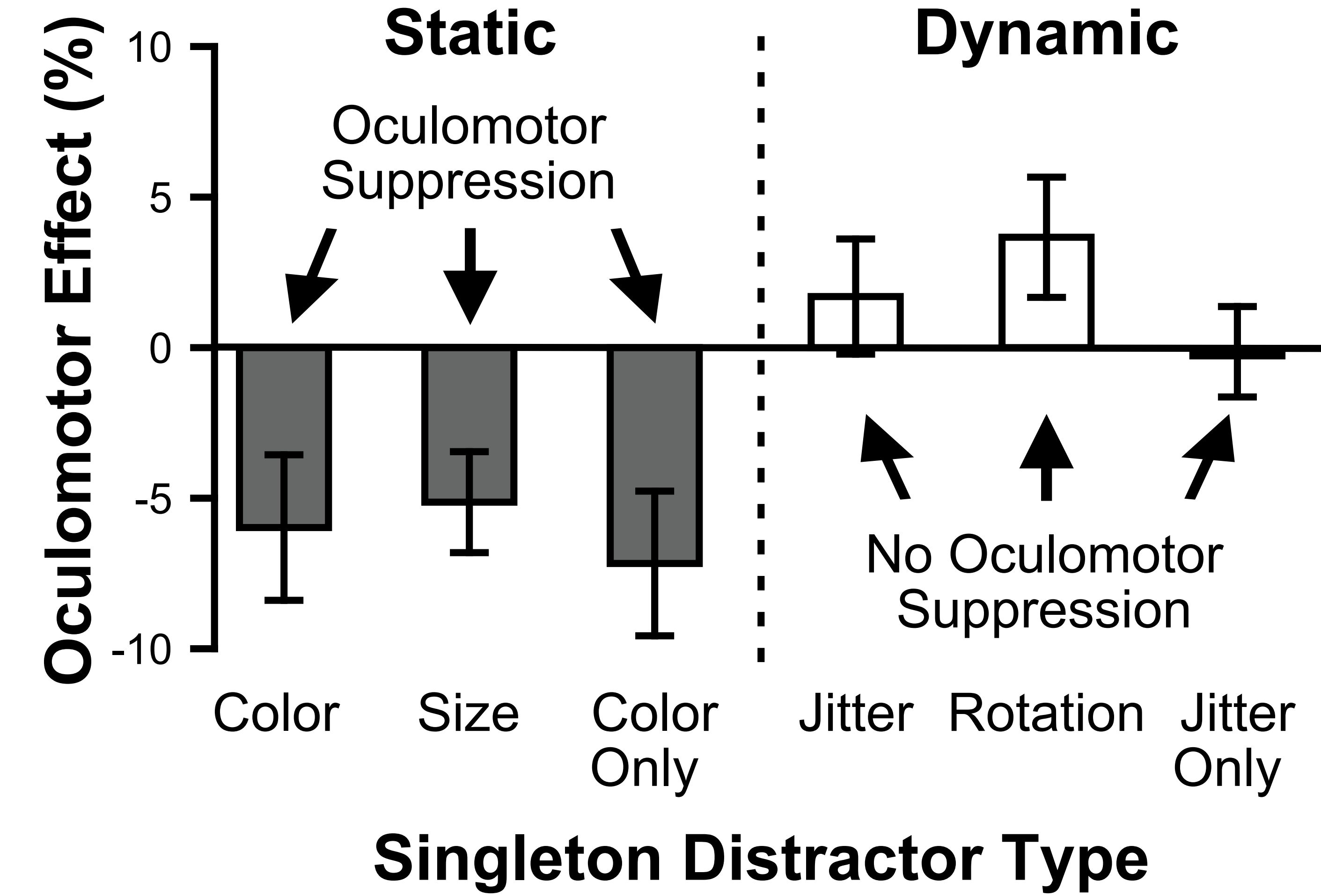
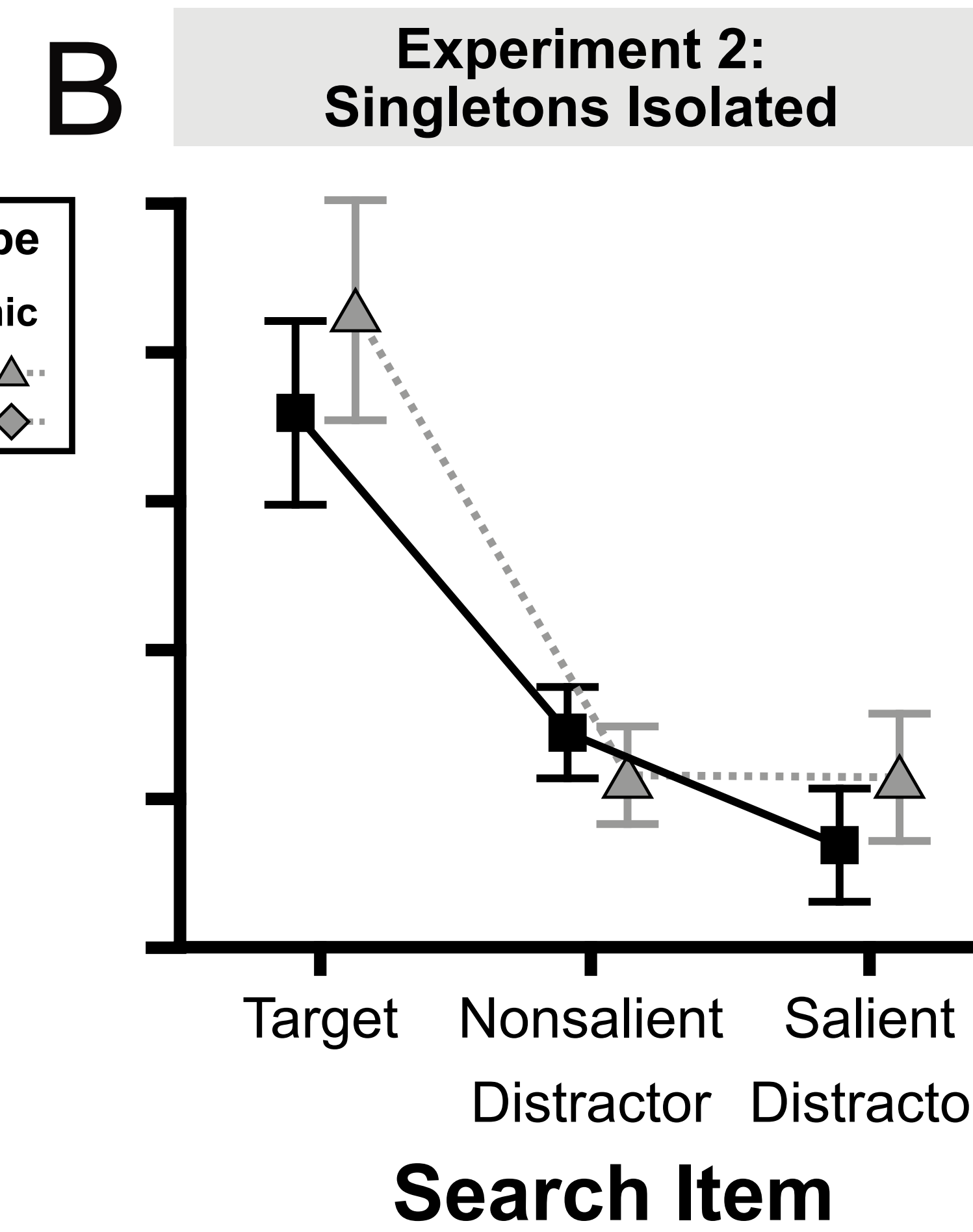
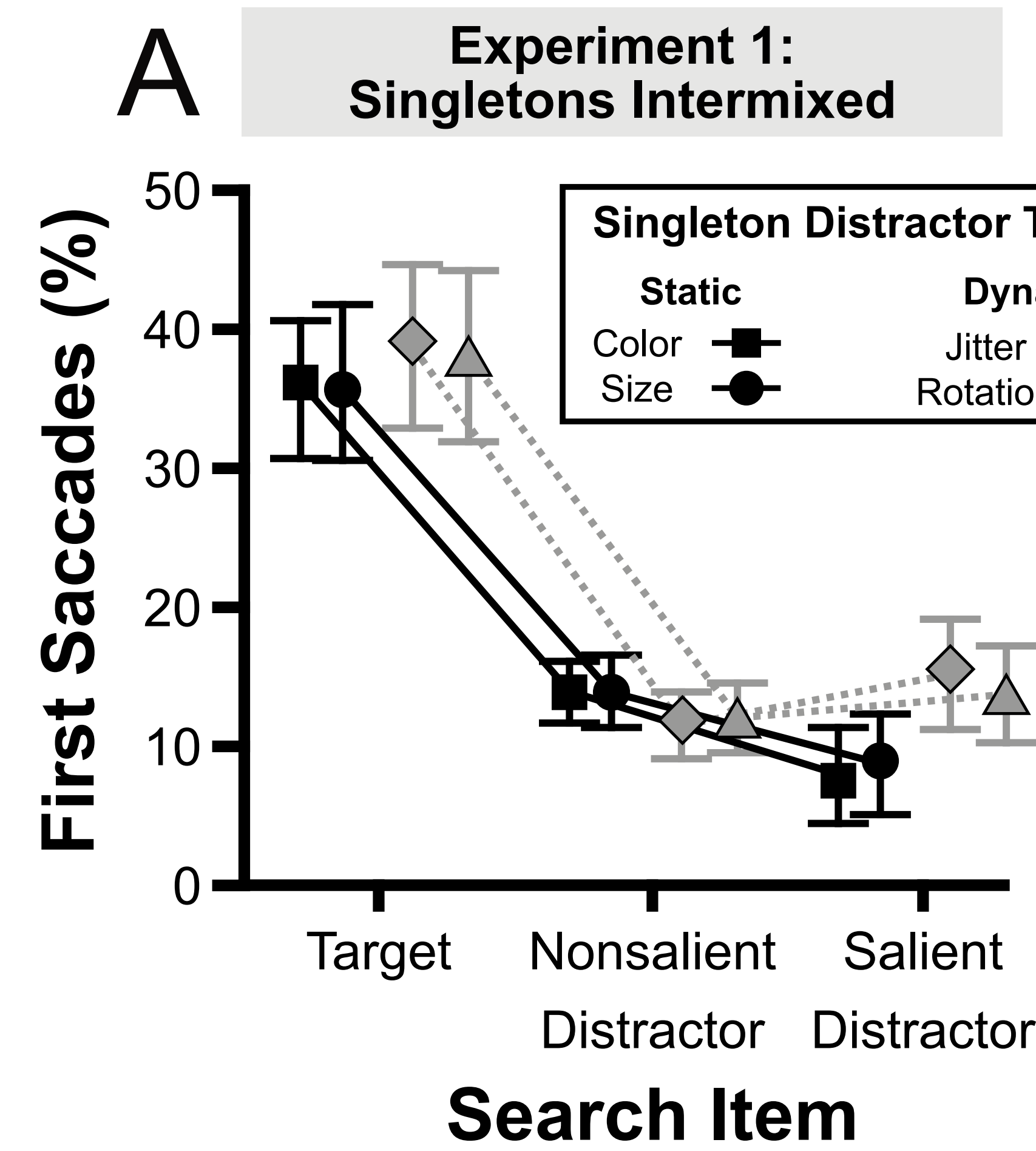
Size

Static

Dynamic



Results



Conclusions

- Only **static** singletons could be reduced **below baseline**.
- However, there was a **rapid reduction** in capture by **dynamic singletons** over blocks.
- Intermixing the stimuli did not affect the robustness of suppression, consistent with "**global suppression**"⁶ or at least parallel suppression across feature dimensions.

References

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4. Adams, O. J., Ruthruff, E., & Gaspelin, N. (2022). *Attention, Perception, & Psychophysics*
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