Effects of Mindfulness Induction Before and After Encoding on False Recognition

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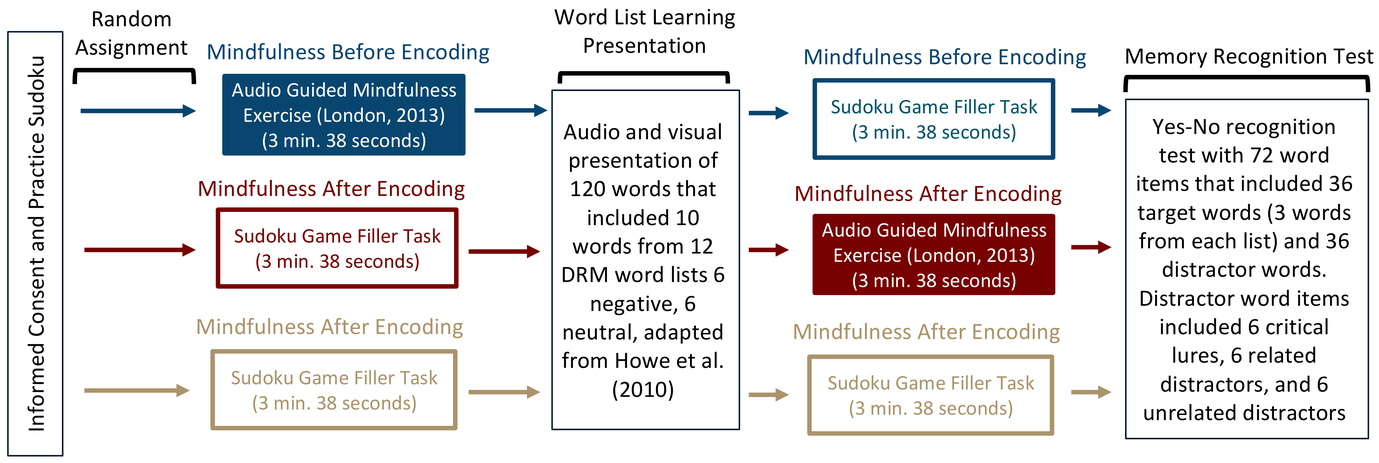
Study Background and Objective

- Mindfulness is a mental state which refers to complete mental awareness of one's surrounding emotions and events, which if practiced may hold greater implications for improvements in memory and attention (Namias & Huff, 2024).
- Recent studies examined mindfulness on false memory for DRM word list materials (e.g., Alberts et al., 2017; Calvillo et al., 2018; Wilson et al., 2015), reporting mixed findings.
- Practically, if a mindfulness technique were to be administered to eyewitnesses by police, this would occur prior to memory retrieval and concern negative emotional information.
- This study builds on a prior student study (Frederickson, 2022) to **examine the effects mindfulness induction has at the encoding and retrieval stages on false memory recognition for negative and neutral DRM word lists.**

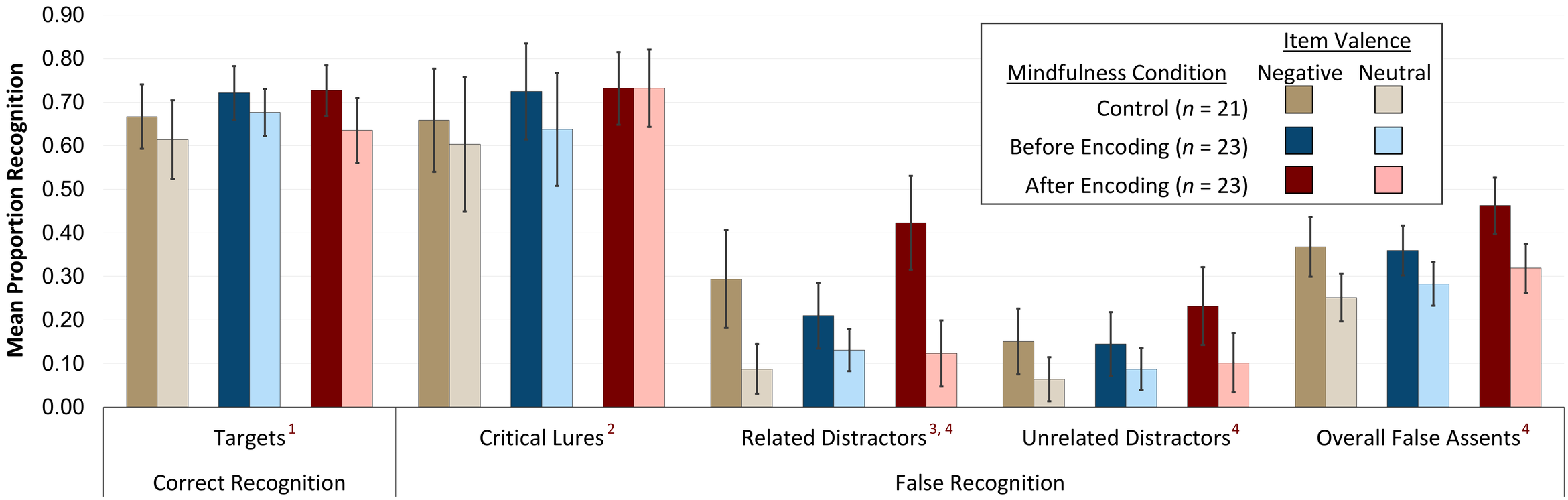
Method

- **PARTCIPANTS:** 67 (35 male; 67.2% White/Caucasian) Florida Tech students (*M* age = 20.77 years)



Using a mindfulness exercise with eyewitnesses before having them report memory information may be problematic, as mindfulness induction prior to memory retrieval broadly increased false recognition for negative emotional information.

Figure 1. *Mean Proportion Correct and False Recognition for Negative and Neutral Word Test Items Between Mindfulness Conditions*



Note. Error bars show 95% confidence intervals. [1]Main effect of emotional valence on target recognition accuracy, $F(1, 64) = 9.62$, $p = .003$, $\eta_p^2 = .13$. Correct recognition was greater for negative ($M = .71$, $SD = .15$) than neutral valanced word targets ($M = .64$, $SD = .12$). [2]Against expectations, no main effects or interaction was found for rates of false recognition to critical lures. [3]Significant mindfulness condition x word valence interaction on false recognition to related distractors was found, $F(2, 64) = 5.18$, $p = .008$, $\eta_p^2 = .14$. Both mindfulness after encoding and control conditions showed higher false recognition to negative unrelated distractors compared to neutral words. [4]Higher overall false recognition was observed for negatively valenced distractors as significant main effects of word valence on false recognition were found for related distractors, $F(1, 64) = 47.05$, $p < .001$, $\eta_p^2 = .42$, unrelated distractors, $F(1, 64) = 16.61$, $p < .001$, $\eta_p^2 = .21$, and overall false recognition, $F(1, 64) = 45.66$, $p < .001$, $\eta_p^2 = .42$.