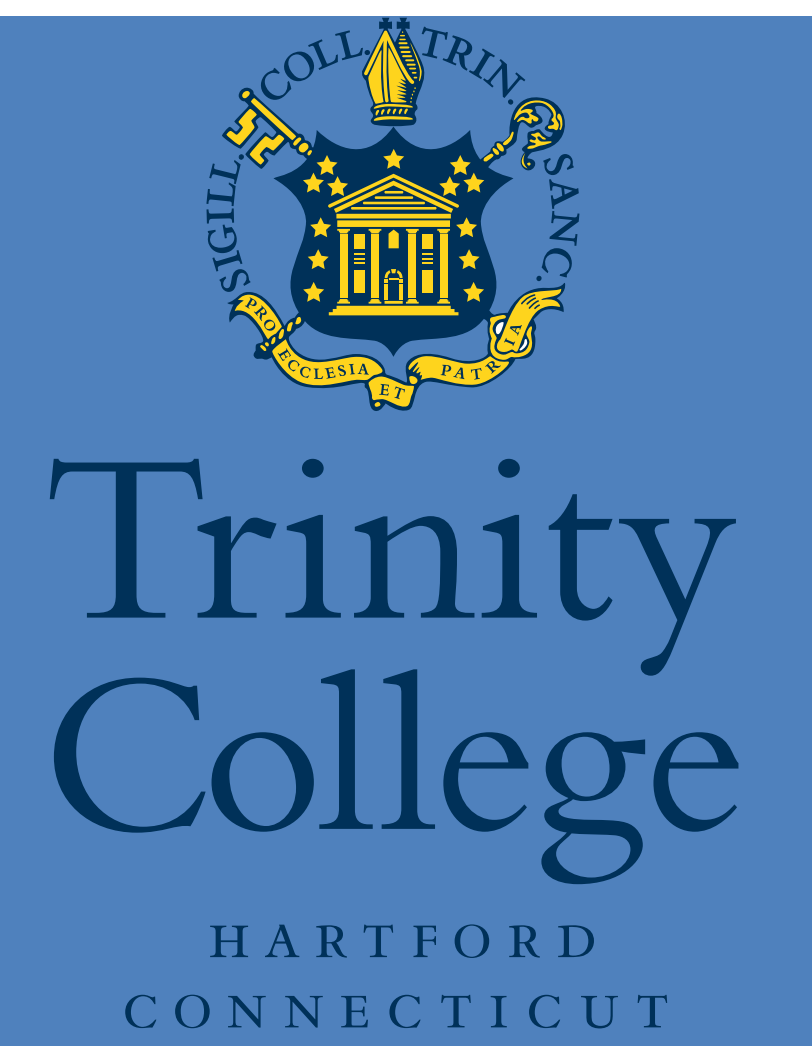


# Investigating the Change in State Boredom After Completion of the Attentional Blink Paradigm

Julia Francis and Michael Grubb | Department of Psychology | Trinity College, Hartford CT

Co-Researchers: Jack Miller, Raysa Leguizamon and Kefei Wang



## Introduction

**Boredom:** The feeling of disengagement from the outside world and being stuck in an endless and dissatisfying present, making a person's surroundings undesirable (Falhman et al. 2013)

**State Boredom:** An individual's experience of boredom in a given moment (Falhman et al. 2013)

Hunter and Eastwood (2018) claim that **attentional failures** cause state boredom and suggest further research

**Hypothesis:** State boredom will increase after completing the attentional blink paradigm

## Methods

Multidimensional State Boredom Scale

Practice Trials

Attentional Blink Trials

Control Trials

Multidimensional State Boredom Scale

Demographic Survey

Figure 1 shows the experimental procedure

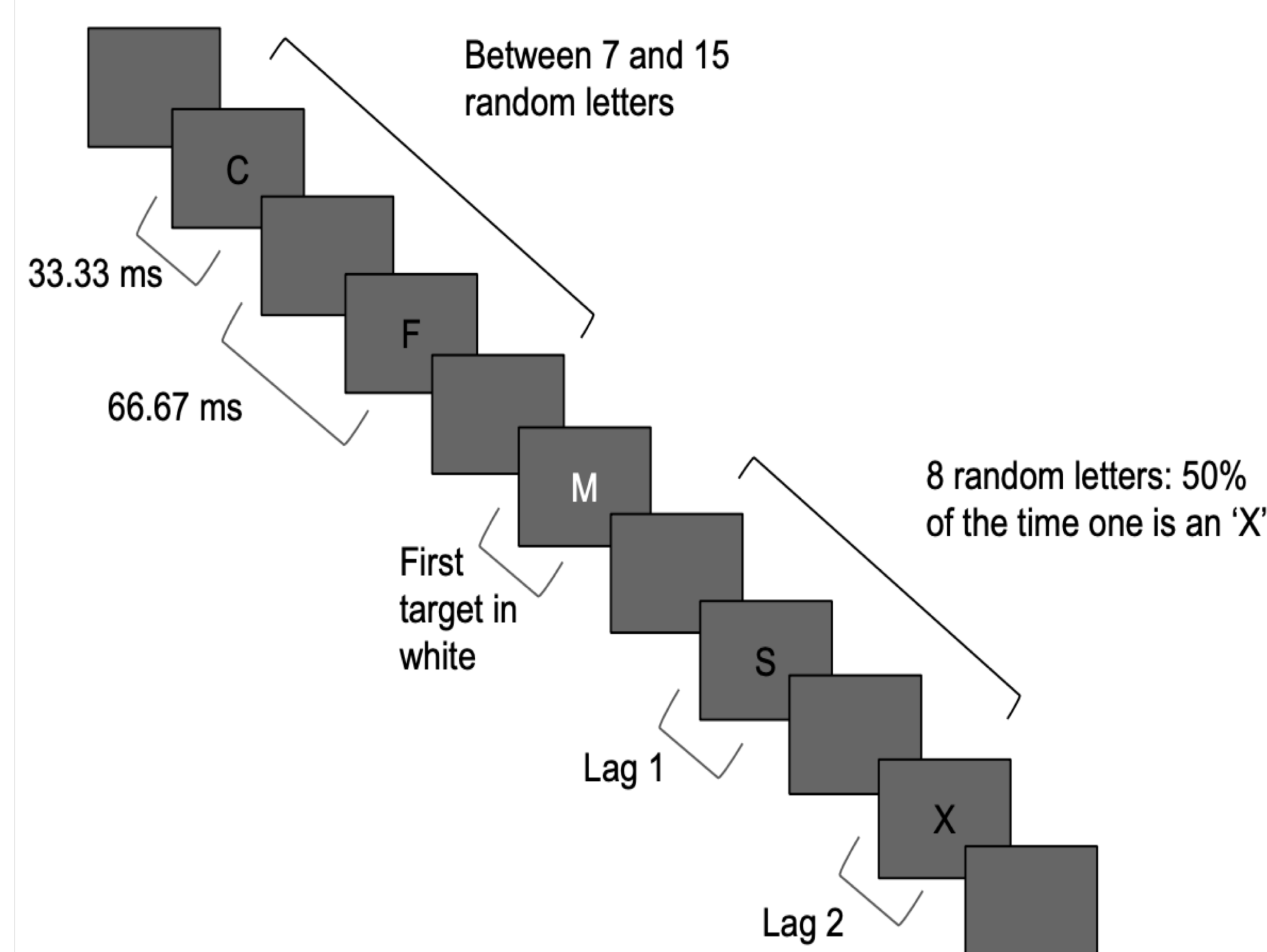


Figure 2 shows the attentional blink paradigm

## Attentional Blink

Significant Difference Between Control and Test

$$t(90)=2.74, p=6.42353 \times 10^{-27}$$

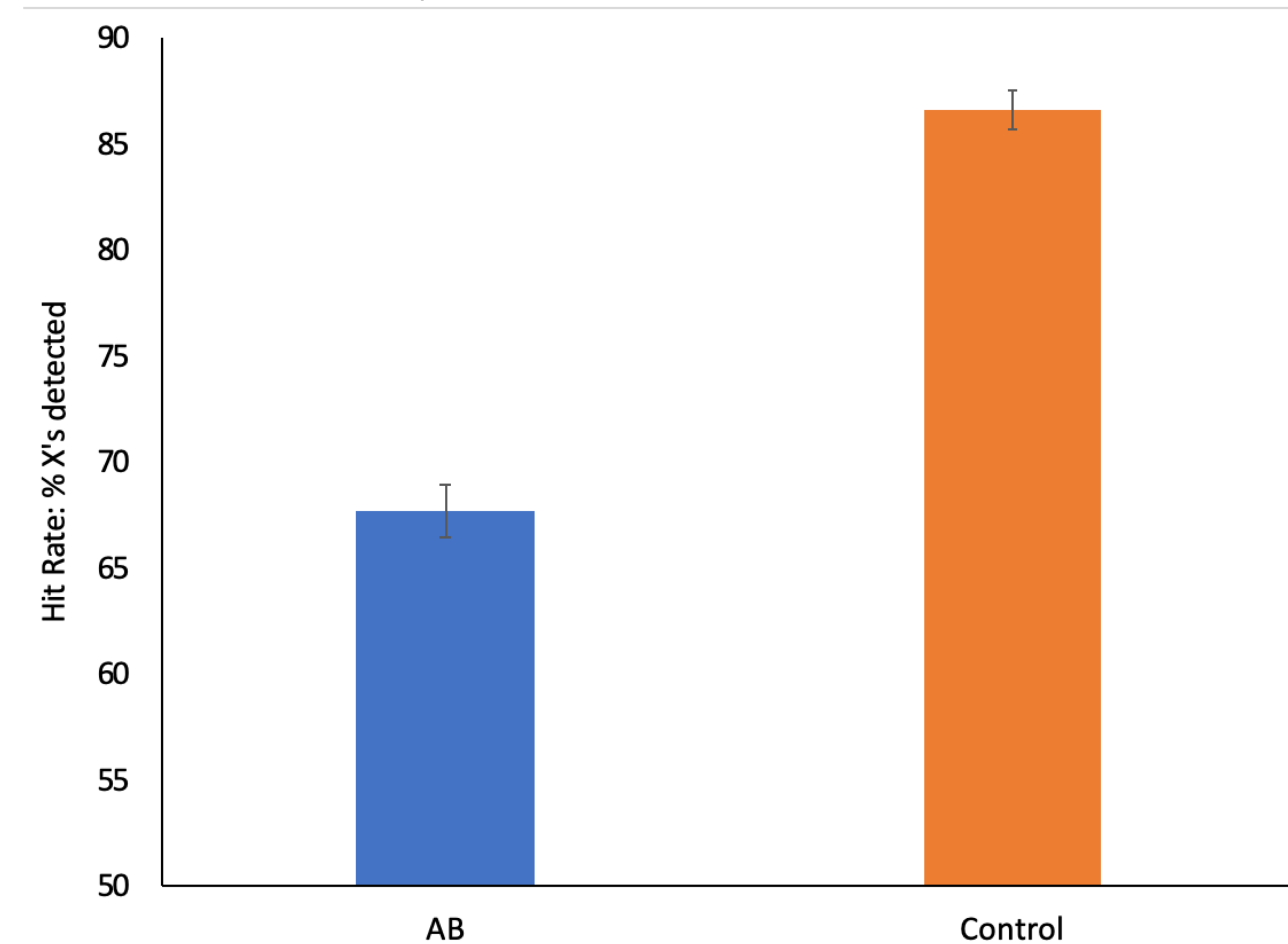


Figure 3A shows the hit rate across all participants for all of the lag positions.

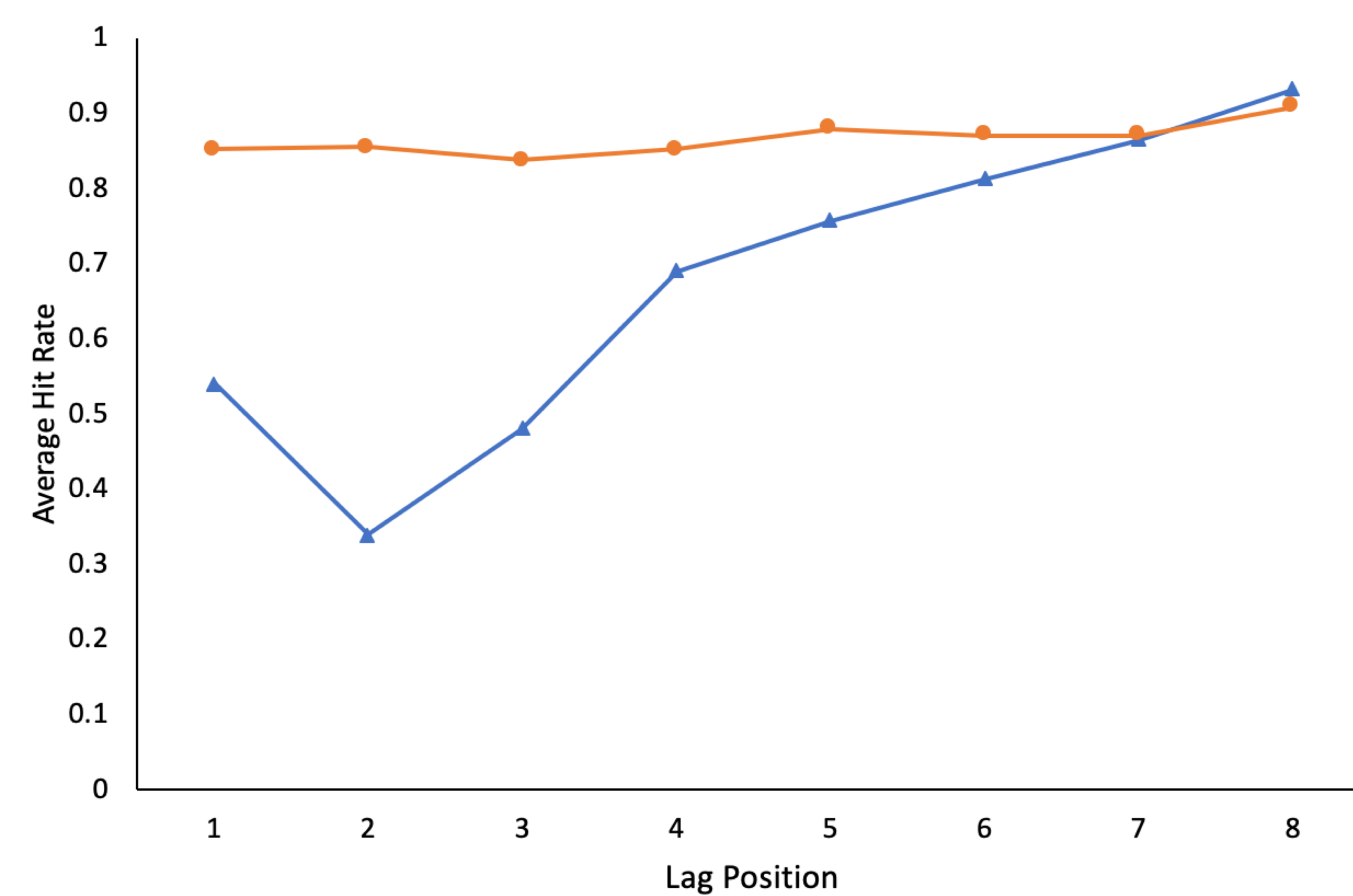
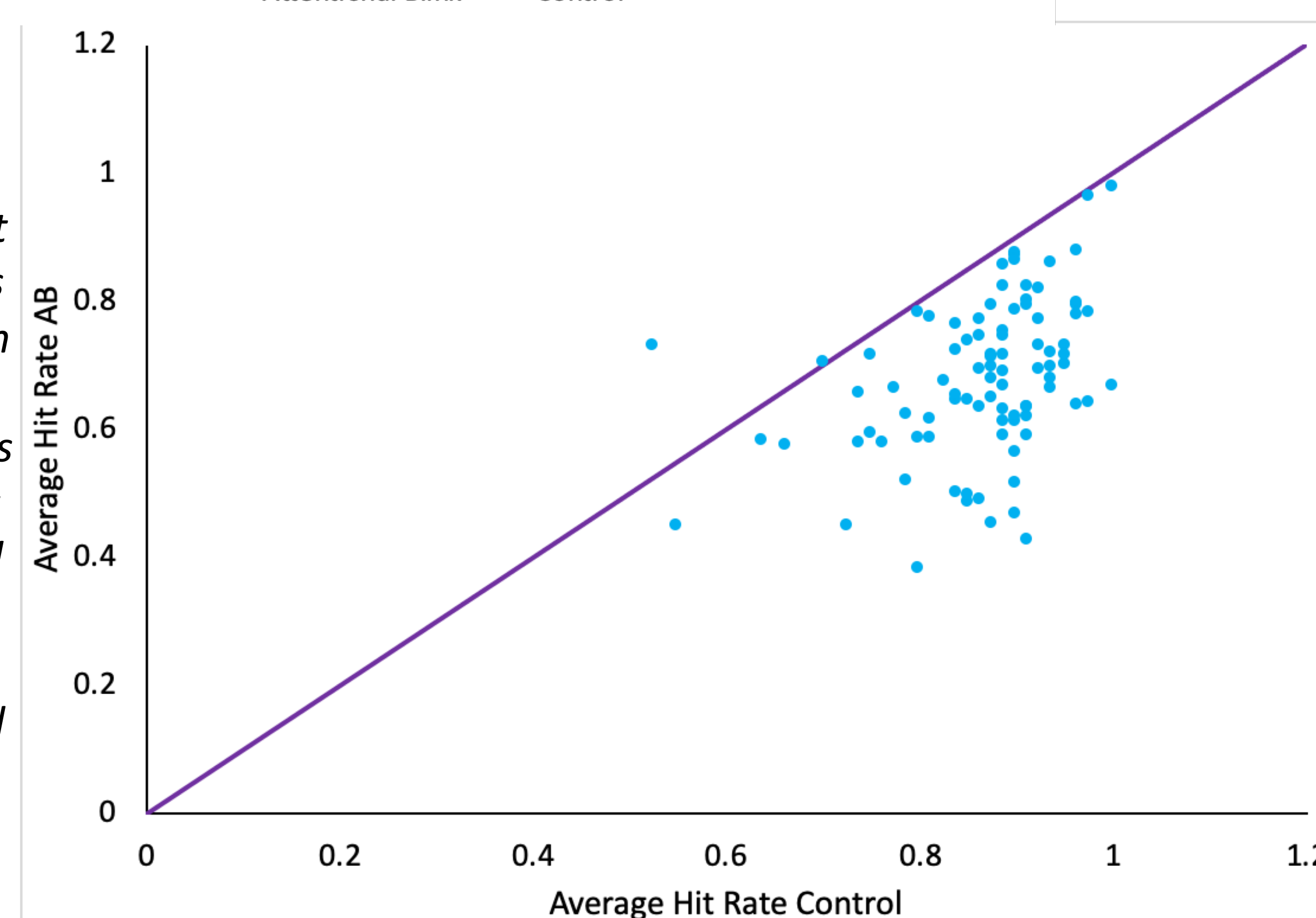


Figure 3B shows the proportion correct for each lag position for both the attentional blink (test data) and the control data.

Figure 4 shows the average hit rate across lag position for all 91 participants comparing the control hit rate to the attentional blink hit rate.



## State Boredom

2-Factor Repeated Measures ANOVA

Significant Interaction  
( $F(4, 360) = 1.453, p = 0.005, np^2 = 0.044$ ).

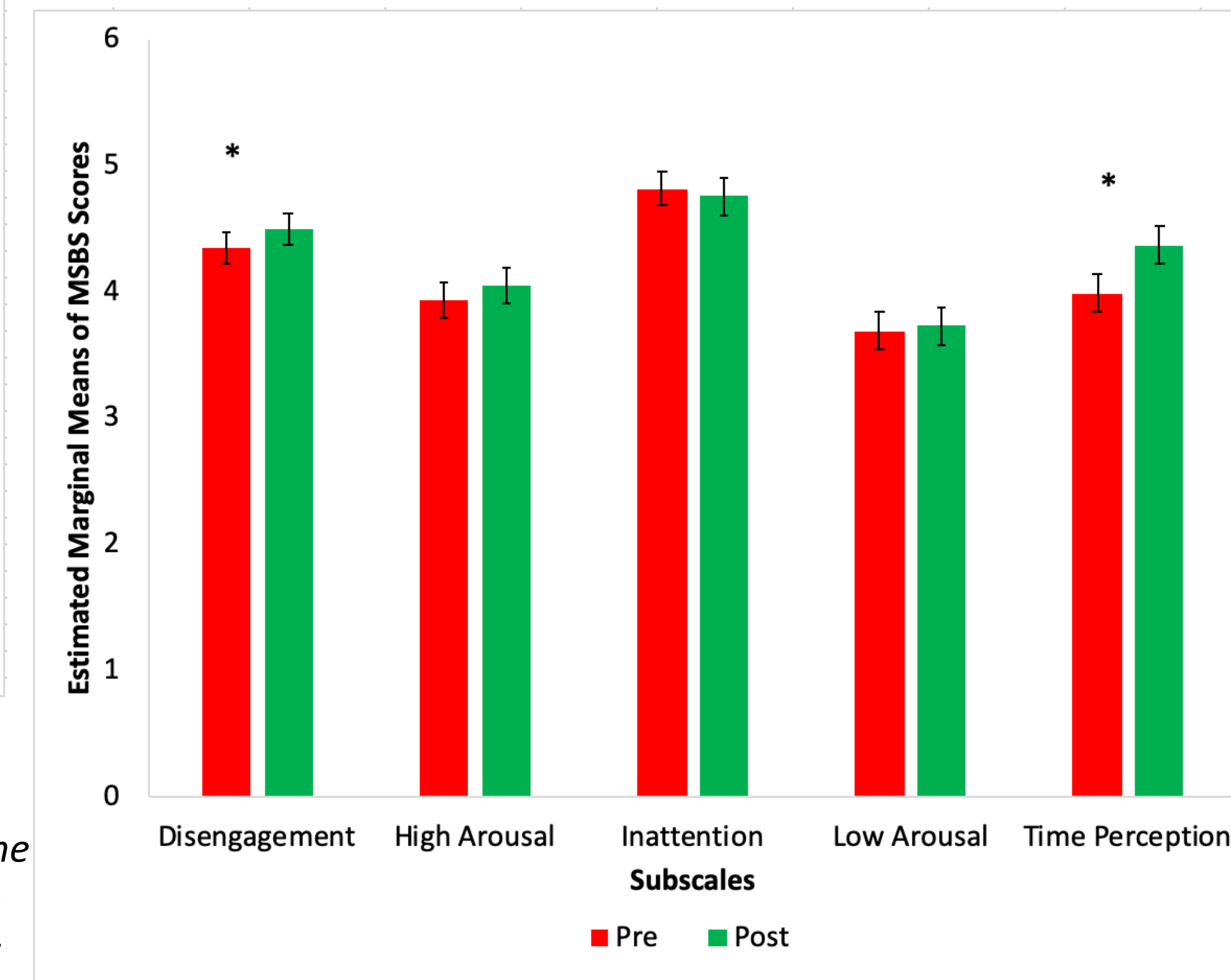


Figure 5 shows the average pre and post MSBS scores across all participants. Significant differences are shown with an asterisks.

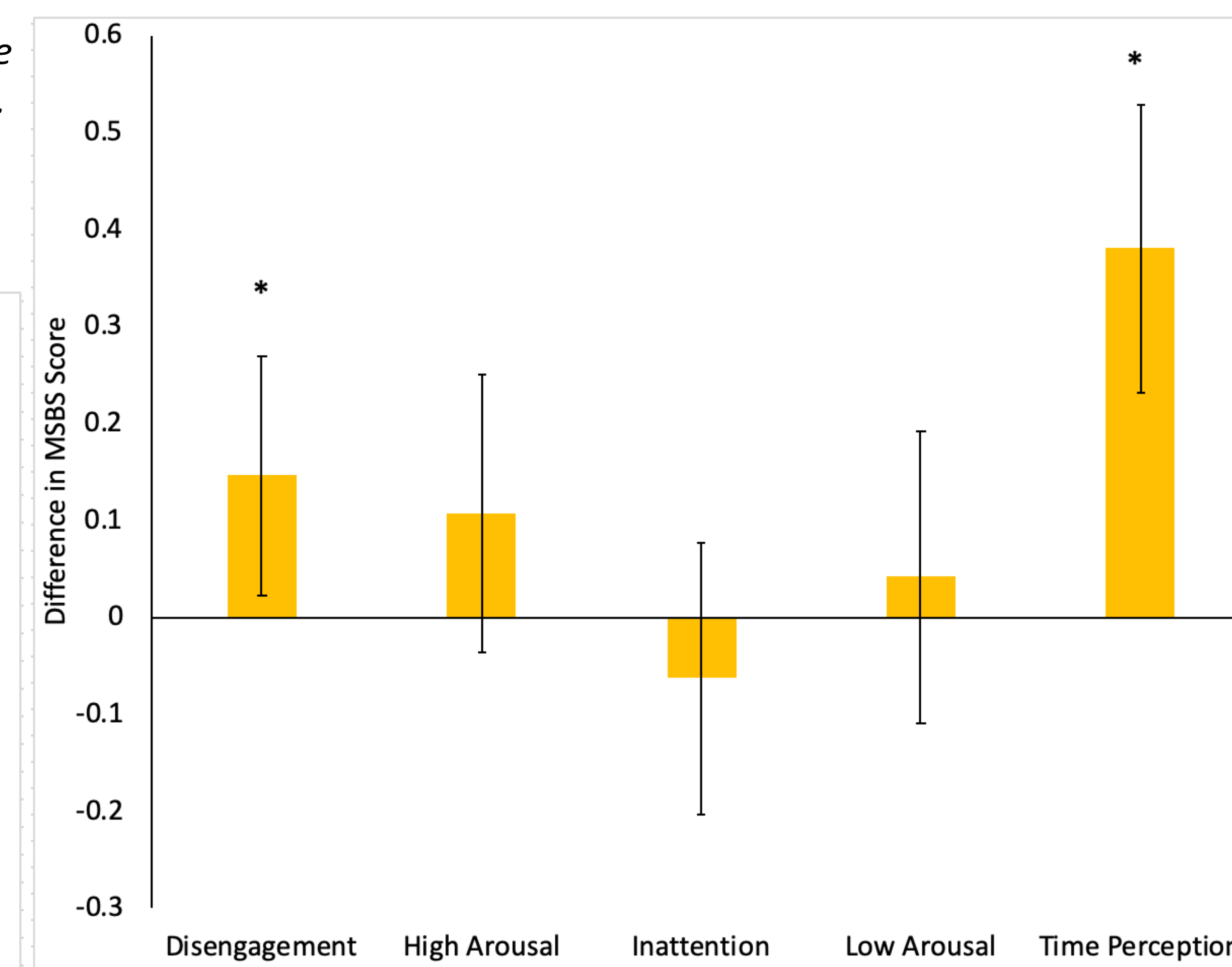


Figure 6 shows the difference in MSBS scores (average post scores - average pre scores).

## Major Findings

1. There was a very strong attentional blink shown, meaning there was evidence of attentional failures by participants.
2. Disengagement and time perception subscales are the only two subscales that showed a significant difference (marked with asterisk) between pre and post MSBS scores after the attentional blink was performed.
3. Participants may take longer than they expect to complete the task, making the perception of time going by skewed (Danckert and Allman, 2005).
4. Disengagement is defined as "a longing to engage in an unspecified satisfying activity" (Baratta & Spence, 2018; p.478).

## Limitations and Future Research

2020-2021 COVID-19 pandemic has increased baseline boredom levels and made people feel that time is passing slower than normal (Driot-Volet et al. 2020)

Repeat the study when the COVID-19 pandemic is over

Repeat study in a lab setting to control number of distractors for participants

## References

- Baratta, P. L. (2018). *Capturing the noonday demon: Development and validation of the State Boredom Inventory*. 17.
- Danckert, J. A., & Allman, A.-A. A. (2005). Time flies when you're having fun: Temporal estimation and the experience of boredom. *Brain and Cognition*, 59(3), 236–245.
- Droit-Volet, S., Gil, S., Martinelli, N., Andant, N., Clinchamps, M., Parreira, L., Rouffiac, K., Dambrun, M., Huguette, P., Dubuis, B., Pereira, B., Network, C., Bouillon, J.-B., & Duthell, F. (2020). Time and Covid-19 stress in the lockdown situation: Time free, «Dying» of boredom and sadness. *PLOS ONE*, 15(8), e0236465.
- Falhman, S. A., Mercer-Lynn, K. B., Flora, D. B., & Eastwood, J. D. (2013). Development and Validation of the Multidimensional State Boredom Scale. *Assessment*, 20(1), 68–85.
- Hunter, A., & Eastwood, J. D. (2018). Does state boredom cause failures of attention? Examining the relations between trait boredom, state boredom, and sustained attention. *Experimental Brain Research*, 236(9), 2483–2492.