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INTRODUCTION

Research highlights the role of adaptive eating behaviors in satisfying bodily and homeostatic needs¹.

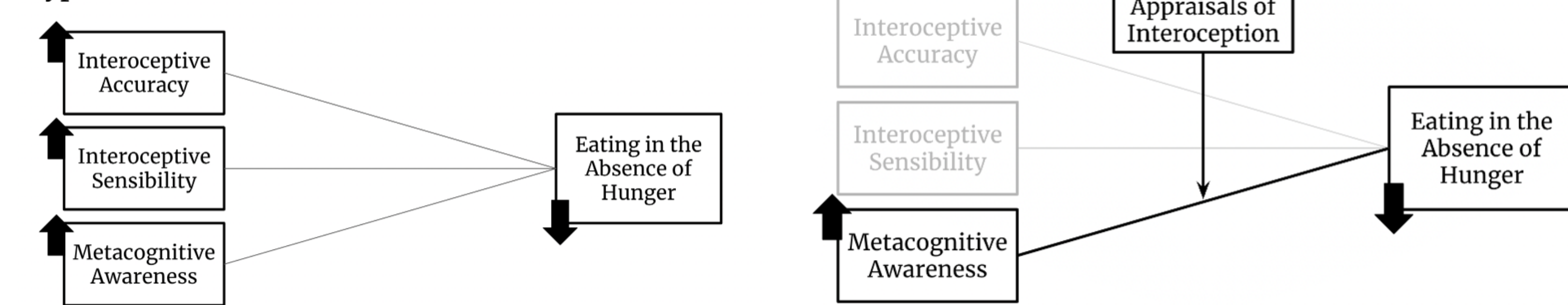
Interoception is related to adaptive eating behavior^{2,3}; yet, it is unclear how the three facets of interoception individually relate to adaptive eating behavior.

Aims: To explore how different facets of interoception and affective appraisal of interoceptive signals are related to adaptive eating behaviors.

Specifically, we examine:

- **Interoceptive Accuracy (IAC):** The objective accuracy of visceral signal detection
- **Interoceptive Sensibility (IS):** The personal appraisal of one's ability to detect internal signals
- **Interoceptive Metacognitive Awareness (IAw):** The metacognitive awareness of one's interoceptive ability derived from their unique IAcc and IS.
- **Affective Appraisals of Interoceptive Signals:** The perception of interoceptive signals as positive or negative

Hypotheses



METHODS

- Participants (n=49) in an introductory psychology class were recruited to participate for class credit.
- Participants completed a collection of questionnaires measuring **interoceptive sensibility** and **affective appraisals**.
 - Interoception Sensory Questionnaire⁴
 - Body Awareness Questionnaire⁵
 - Body Signals Beliefs Questionnaire⁶
- Participants then completed a heart rate discrimination task (HRD)⁷ (Figure 1), followed by a water-load task to simulate fullness.
- Finally, participants completed an Eating in the Absence of Hunger (EiAH) task, during which they were left unsupervised with three servings of a high-sugar, high-fat snack for ten minutes.
- **Interoceptive accuracy** and **interoceptive metacognitive awareness** were operationalized by performance on the HRD task.
- **Adaptive Eating** was operationalized by the amount of snack consumed during the EiAH task.

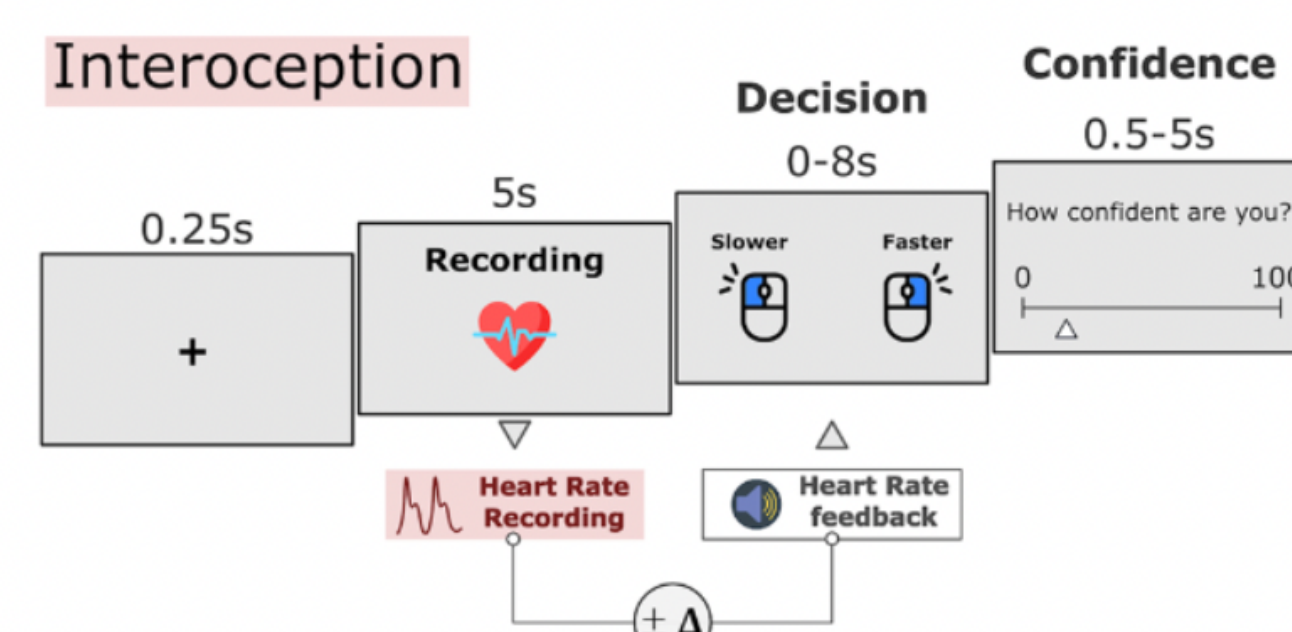
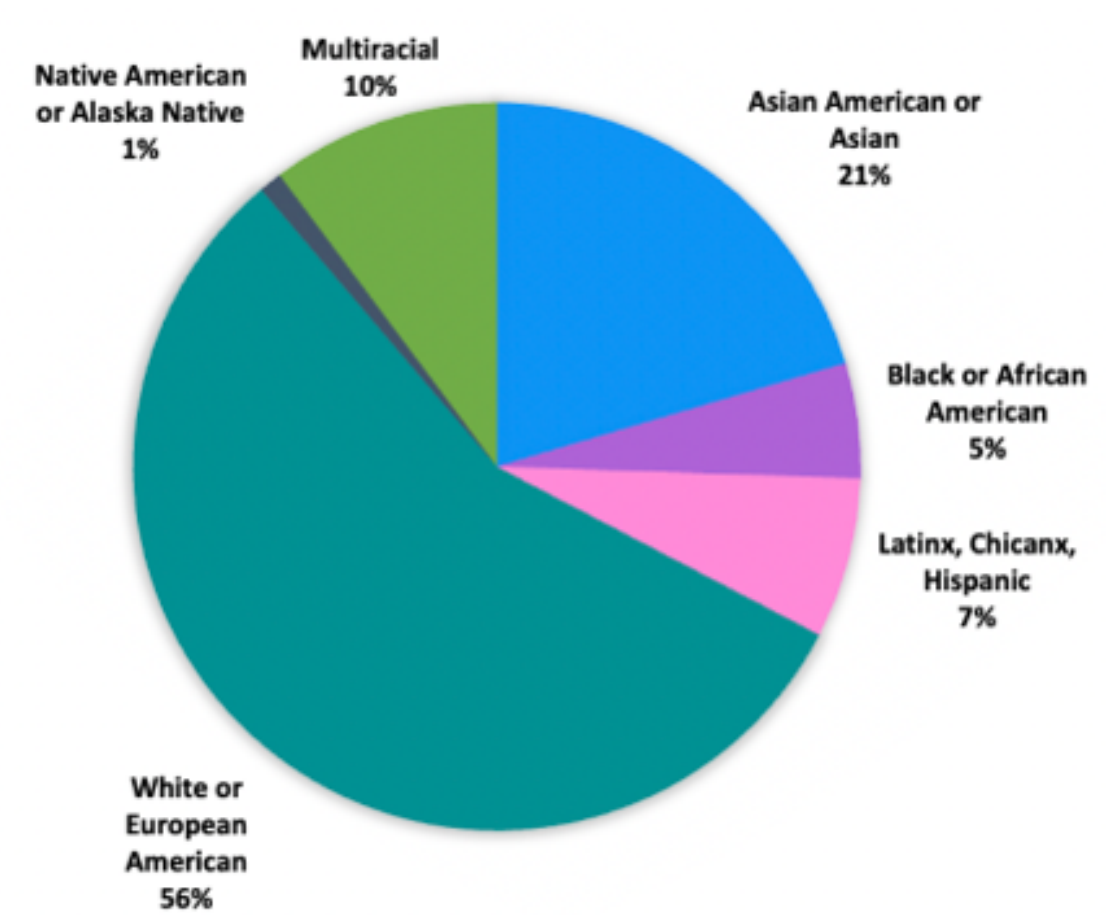


Figure 1. Participants denoted whether a series of beats were faster or slower than their own heart rate, then reported how confident they were in their decision.

Analyses

Pearson bivariate correlations were used to identify the relationships between the three dimensions of interoception, the affective appraisals, and eating in the absence of hunger.

Multiple regression analysis was used to determine whether body signals beliefs moderates relationships between the three dimensions of interoception and eating in the absence of hunger.

RESULTS

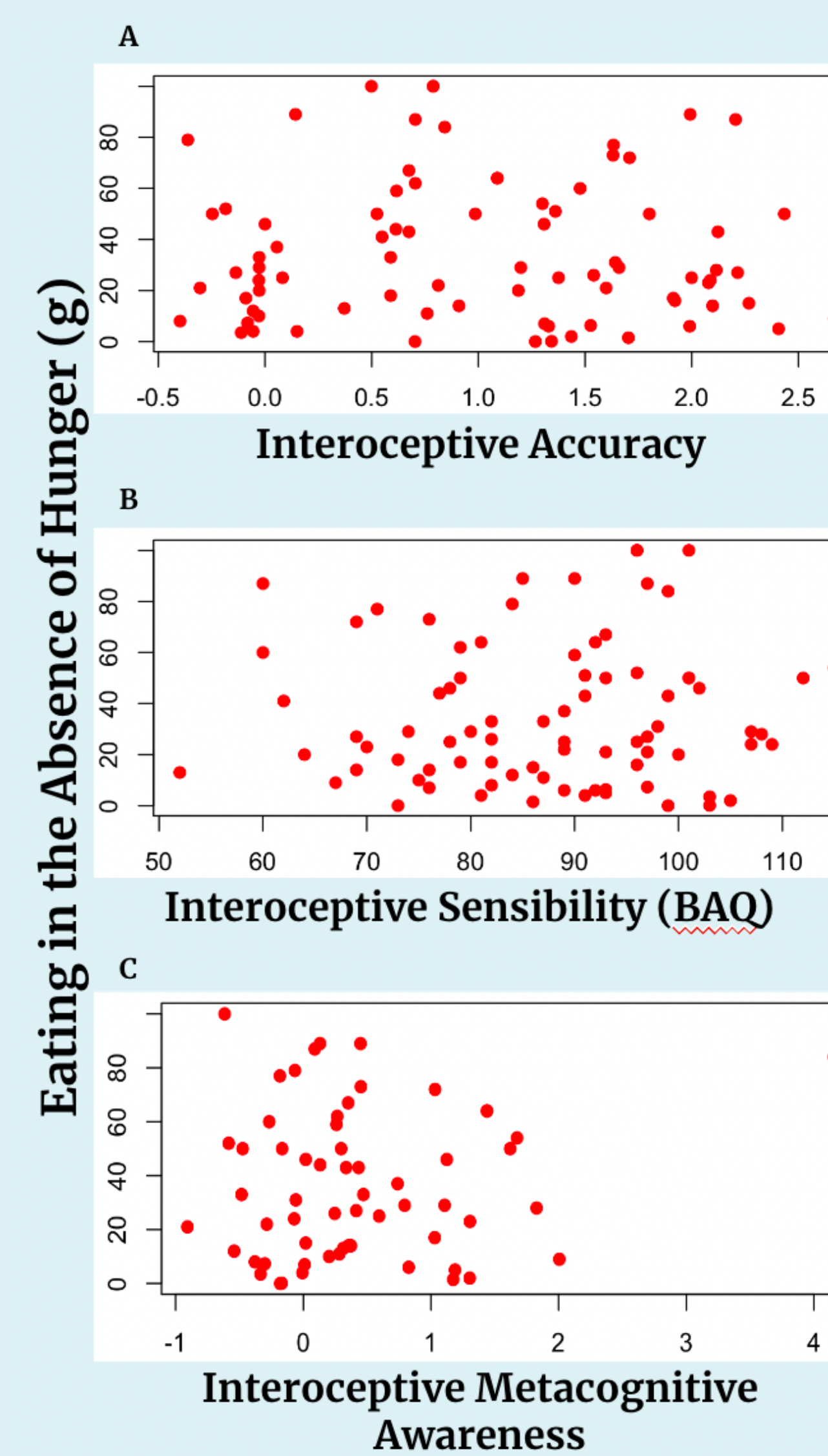


Figure 2. Scatterplots of the relationships between the three facets of interoception and eating in the absence of hunger. No distinguishable mathematical relationships between any of the predictors.
Note. Plot of IS ~ EiAH contains only scores of BAQ, although the regression combined both scores to depict IS.

No significant relationships were identified between EiAH and any facet of interoception.

The intensity and valence of affective appraisals significantly moderated the relationship between interoceptive metacognitive awareness and eating in the absence of hunger.

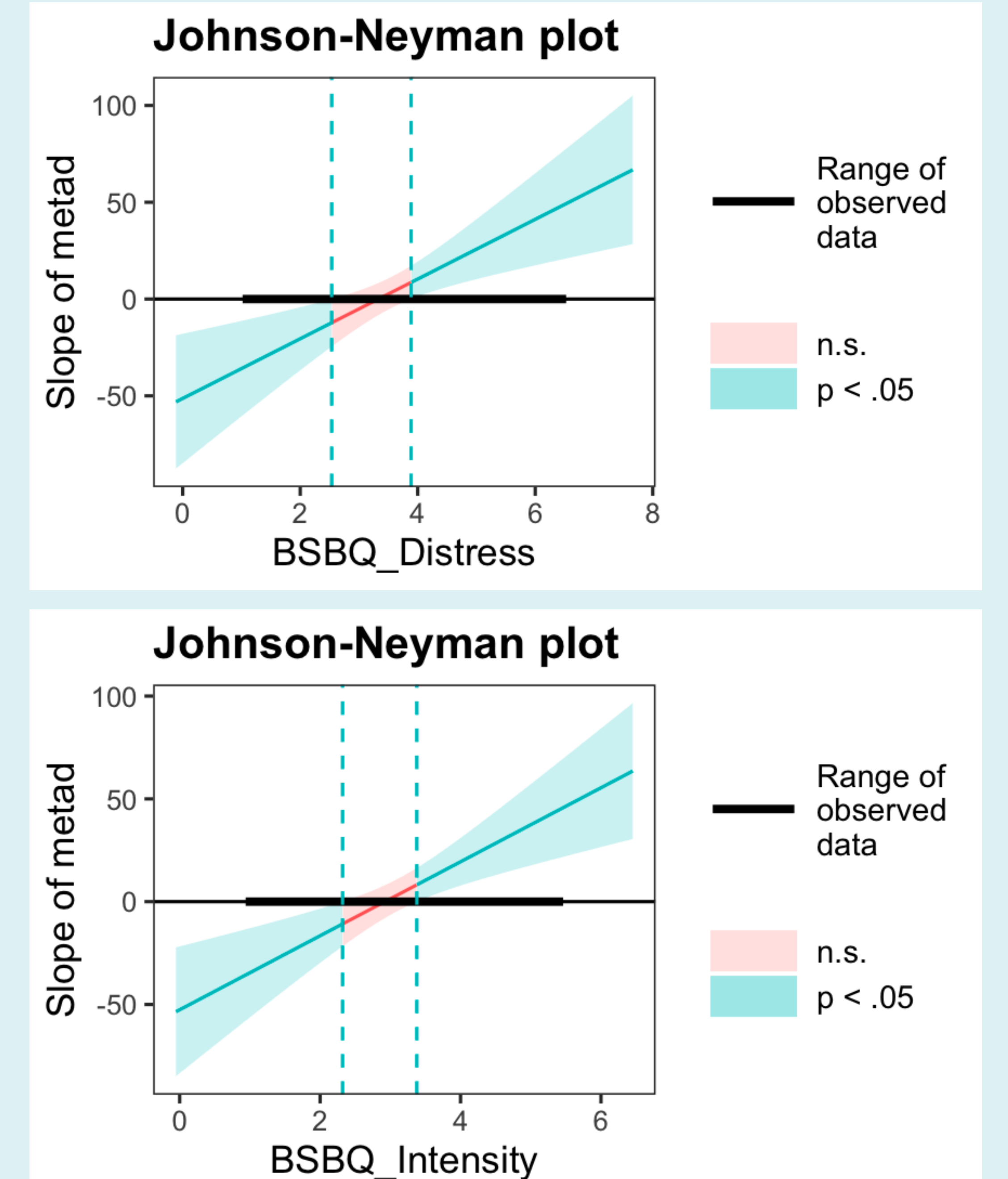


Figure 3. Johnson-Neyman plots generated from simple slopes analyses of the moderation regressions of BSBQ Intensity and Valence subscales over IAw and EiAH.

Discussion

- Null findings concerning the relationships between the facets of interoception and eating in the absence of hunger depart from findings in existing literature.
- Findings are limited by:
 - Small study sample and effect size of EiAH task
 - Methodological fragmentation of interoception
 - Cultural nuances in our data absent in existing literature
- Affective appraisals influence how we use interoceptive to inform eating behaviors.
- Affective appraisals can promote both adaptive and maladaptive eating behaviors, so it is prudent to further research what concepts inform these body beliefs.
- These findings indicate the significance of promoting positive affective appraisals to inform adaptive eating behaviors for individuals, independent of their interoceptive ability.

Acknowledgments



References

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