

# “There's a bug in my plate!” Vicarious Approach Avoidance and Attitudes Toward Insect-Based Foods

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## “Preferences toward insect-based foods can be shaped through Vicarious Approach/Avoidance procedure”

### Introduction

- **Insect-based foods** are a valid alternative to conventional meat, with comparable protein intake and much lower environmental impact (FAO, 2021). However, in Western societies, insects often evoke negative emotions among consumers (Liu & Zhao, 2019).
- **Vicarious Approach/Avoidance** procedure (Zogmaister et al., 2023) can be employed to shape food preferences.

### 2x2 MIXED DESIGN

- BW factor: **regular** vs. **insect** cookies
- WIN factor: **approach** vs. **avoidance** behavior

### PROCEDURE

We presented **short vignettes** where a model enacts an **approach/avoidance behavior** toward a brand of regular or insect cookies.

We measured automatic reactions, intentions of purchasing and consumption, explicit attitudes, and accounted for individual disgust levels.

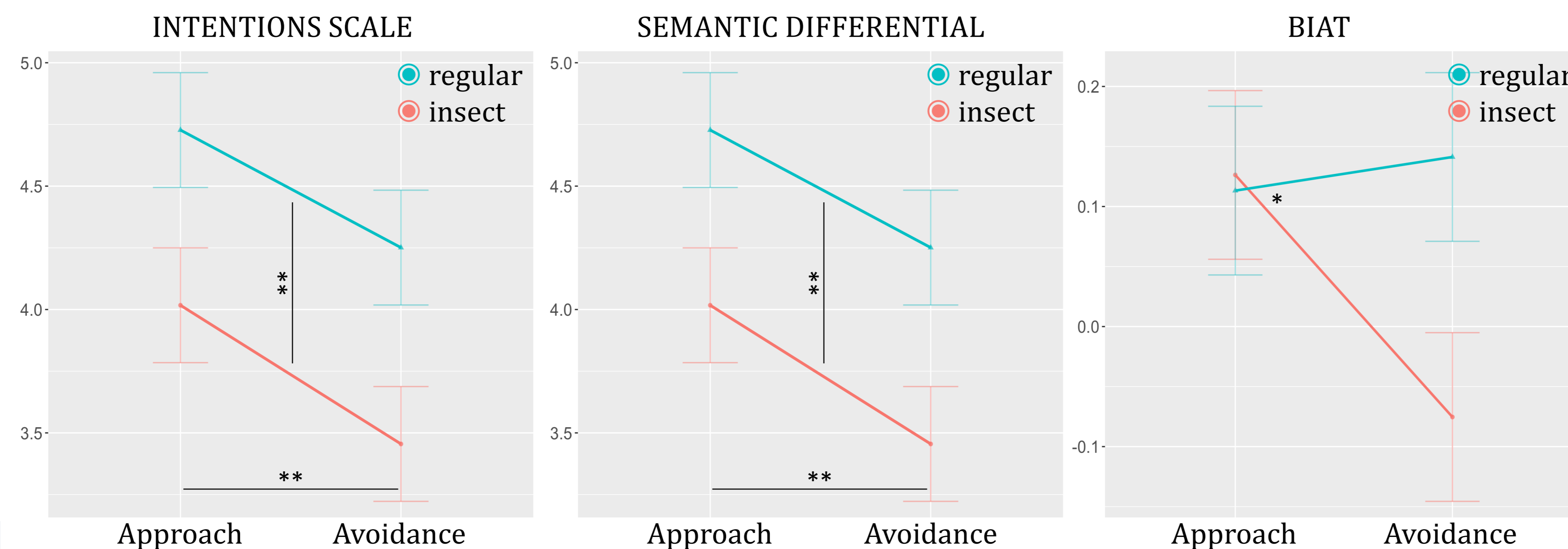
### Hypotheses

- 1) Participants will show a **preference for the approached brand** as compared to the avoided brand;
- 2) The **preference for the approached brand will be stronger for regular cookies** than for cookies containing insect flour.

### Methods & Materials

- Participants** 127 participants (105 females, 22 males, 1 non-binary; 1 “prefer not to say”;  $M_{age} = 26.03$ ,  $SD_{age} = 9.40$ )
- Measures**
- **Brief Implicit Association Test (BIAT)**  
Sriram & Greenwald, 2009;  $\alpha(\text{approach}) = .45$ ,  $\alpha(\text{avoidance}) = .46$
  - **Intention of purchasing and consumption**  
Ad-hoc developed.;  $\alpha(\text{approach}) = .88$ ,  $\alpha(\text{avoidance}) = .86$
  - **Semantic Differential**  
Ad-hoc developed.;  $\alpha(\text{approach}) = .97$ ,  $\alpha(\text{avoidance}) = .96$
  - **Entomophagy Attitude Questionnaire – Disgust scale (EAQ-D)**  
La Barbera et al., 2020;  $\alpha = .94$

### Results



**Condition:**  $F(1, 125)=20.53$ ,  $p<.001$ ,  $\eta^2p=.122$

**Behavior:**  $F(1, 125)=9.27$ ,  $p=.003$ ,  $\eta^2p=.011$

**Condition\*Behavior:**  
 $F(1,125)=0.13$ ,  $p=.909$ ,  
 $\eta^2p<.001$

**Condition:**  $F(1, 111)=18.76$ ,  $p<.001$ ,  $\eta^2p=.081$

**Behavior:**  $F(1, 111)=9.82$ ,  $p=.002$ ,  $\eta^2p=.040$

**Condition\*Behavior:**  
 $F(1,111)=0.07$ ,  $p=.797$ ,  
 $\eta^2p<.001$

**Condition:**  $F(1, 125)=3.37$ ,  $p<.068$ ,  $\eta^2p=.014$

**Behavior:**  $F(1, 125)=3.31$ ,  $p=.071$ ,  $\eta^2p=.011$

**Condition\*Behavior:**  
 $F(1,125)=5.22$ ,  $p=.023$ ,<sup>\*1</sup>  
 $\eta^2p=.018$

### Conclusions

- We replicated results from Zogmaister et al., 2023, showing the effectiveness of the VAA procedure in creating a preference between two brands.
- We demonstrated the efficacy of the VAA procedure with stimuli that could elicit disgust (i.e., insect cookies).
- The manipulation results in **higher intentions** of purchasing and consumption toward the brand associated with the liking reaction and **better explicit attitudes**.
- \*<sup>1</sup>Post-hoc t-test proved a significant VAA effect for spontaneous preference for insect cookies.

### WORK IN PROGRESS

- Comparison between regular and insect-containing cookies;
- Testing the effects in a non-comparative setting (i.e., with a control condition).



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