Emotion Label Priming: Does the Position of An Emotion Perception Question Matter?- Personality Traits

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Introduction

This study investigates if priming emotion recognition influences personality trait inferences of photographed facial expressions. This research is an exploratory extension of the Radeke and Stahelski (2020) study concluding that social perception and personality trait inferences are positively skewed when viewing smiling faces and negatively skewed when viewing scowling faces. The results of this study validates these findings by showing that the position of an emotion recognition question does not significantly alter personality trait inferences.

What is priming?

- Stimulation of people's mental representations of social targets, events, or situations that then influences subsequent evaluations, judgments, or actions (Eitam & Higgins, 2010).

How do emotion labels contribute to emotion recognition?

- Facial expression recognition and emotion labels elicit perception concepts (Nook, Lindquist & Zaki, 2015).
- The prevalence of emotion words elicits activity in semantic priming regions of the brain (Superior Temporal Gyrus, Claustrum, Dorsal Anterior Insula) (Brooks et. al., 2017).

How are perceptions made about face expressions?

- The emotion on a face must be recognized before appraisal can be attained, and cognitive primes (categorization and perceptual prompts) produce significant changes in judgement (Murphy & Zajonc, 1993).
- Perceptions beyond positive/negative valence towards facial expressions are limited without emotion identification (Brooks et. al., 2017).

The role of Big-5 Personality Traits

- "People perceive smiling models as more agreeable, conscientious, emotionally stable, extraverted, and open than models exhibiting neutral expressions" (Radeke & Stahelski, 2020).
- "Scowling male models are judged as less agreeable than scowling female models" (Radeke & Stahelski, 2020).

Materials

Face Stimuli:
- Three face photographs (angry, disgusted, neutral) of a female model (age 79 years) selected from the FACES database created by Ebner et al. (2010).

Emotion Prime Question:
- Identification of the emotion corresponding with the facial expression exhibited by the model: *"please focus on the picture and select the emotion that you believe is being expressed"*
- Randomly placed at the beginning, middle, end, or absent within the survey.

Personality Trait Inferences
- Using a Likert-type scale measures of *Agreeableness, Conscientiousness, Emotional Stability, Extraversion, and Openness:* Big-Five Personality Trait: Mini-Markers 40-adjective subset (Saucier, 1994, 2002)
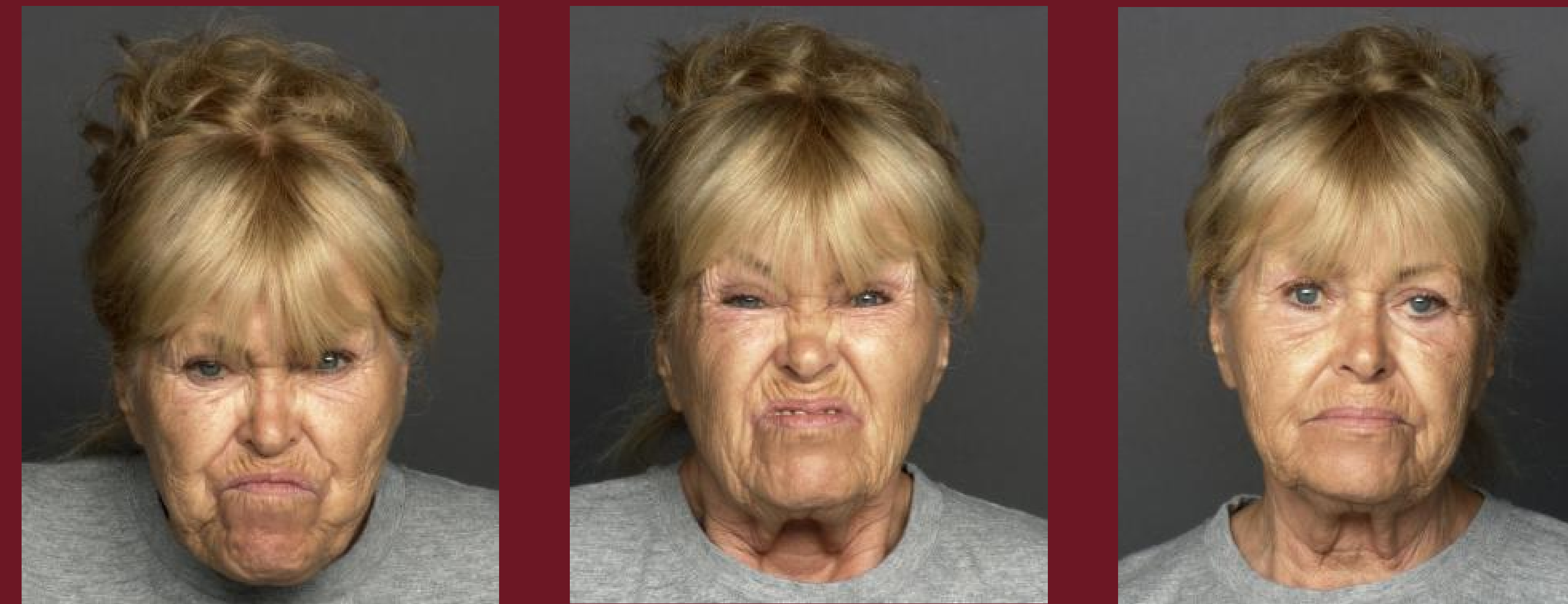
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Procedure

- Participants viewed a model exhibiting one of three facial expression photographs then were prompted to recognize the emotion during one of four prime conditions.
- Big-5 personality trait assessment data were collected in random question order from participants while they viewed each of the facial photographs.

Participants

Two-hundred sixty-eight students from a university located in the Pacific Northwest participated in a SONA system survey via Qualtrics (males 25%, females 73%, non-binary .1%, no gender identified .01%, ages 18-64 years).

Results

Design:
A 3 (angry disgust, neutral) x 4 (beginning, middle, end, no) between-subjects ANOVA and MANCOVA design was analyzed using Jamovi software.

Main Effects & Interactions:
All Big-5 Mini-Marker variables showed significance with facial expression conditions. Emotion prime conditions did not indicate significant relationships with any Big-5 personality trait measures.
There were no significant interactions for facial expressions and emotion prime variables on social perception variables. See attached documents for statistical analyses.

Discussion

Significant interactions between facial expression and Big-5 personality trait variables mirror results of the Radeke & Stahelski (2020) study. The lack of emotion priming significance on personality trait variables further validates the Radeke and Stahelski (2020) study by showing that inferences are not altered.

Limitations

- A lack of generalization to subject's gender and age because inferences were made about only one individual.
- The emotion question was multiple choice, opposed to an open-ended question that would force participants to create the proper facial expression label on their own.