

The Effect of Shared Racial Identity on Emotion Identification Accuracy

Natalie L. Laguer Torres, Colleen C. Frank, De'Jiah Edwards, Ishraj Bhandari,
Jared Cortez, Sera Gonzalez, Kendra Seaman
*The Center for Vital Longevity,
The University of Texas at Dallas*

Introduction

- The FACES database (Ebner et al., 2010)
 - Younger, middle-aged, and older adult face models
 - Happy, sad, disgusted, fearful, angry, and neutral expressions
 - Caucasian/white faces only
- We replicated this work with:
 - Black/African American (B/AA) face models (N = 7)
 - Hispanic/Latine (H/L) face models (N = 5)
- In this study, we examine the influence of shared racial group identity and specific emotions on emotion identification accuracy during online validation of a preliminary sample (N = 48; 16 B/AA, 16 H/L, 16 white)

Method

Photography Session

Goal: Capture images with authentic emotional expressions

1. **Emotion Induction Phase:** Models guided to experience targeted emotions
2. **Personal Experience Phase:** Models encouraged to recall personal experiences associated with targeted emotions
3. **Controlled Expression Phase:** Models instructed to display targeted emotions based on standardized guidelines



Photo Selection

Goal: Identify the two best images for each model with each of the six emotional facial expressions

Online Validation

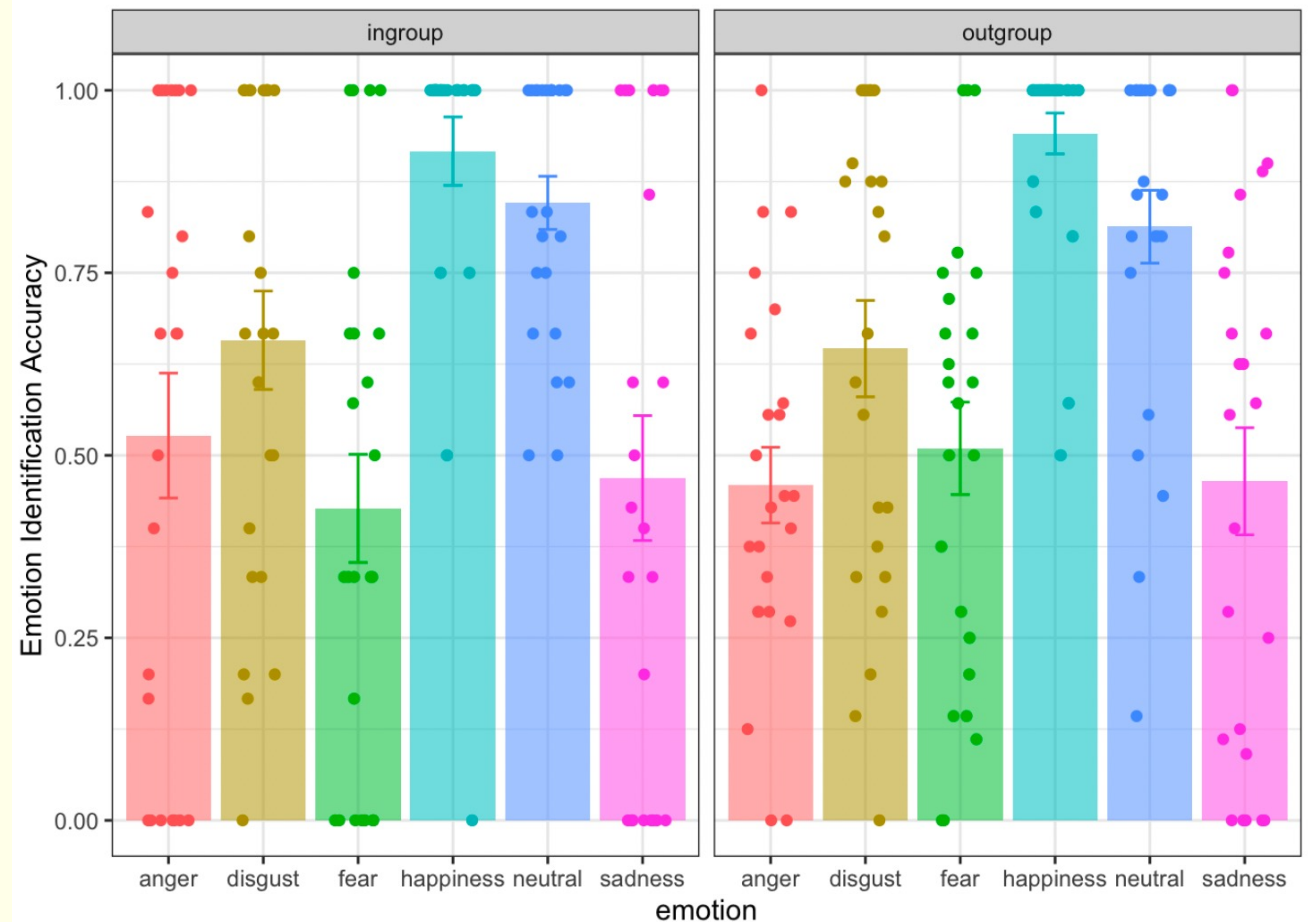
Goal: Validate the two best images for each model with each of the six emotional facial expressions

- Raters viewed a subset of the new photographs (36 images, 12 models) and identified the primary emotion
- We tested if emotion identification accuracy depended on:
 - Specific emotion
 - Shared (in-group) or not shared (out-group) racial/ethnic identity between rater and model

Results

Model 1 – Specific emotion influences emotion identification accuracy

- Emotion identification accuracy depends on the specific emotion being shown, $p < .001$
- Higher accuracy when identifying happy, compared to neutral, facial expressions
- Lower accuracy when identifying angry, fearful, sad, and disgusted, compared to neutral, facial expressions



Model 2 – Accuracy does not differ based on shared identity

- No statistically significant difference in emotion identification accuracy between in-group and out-group, $p = .47$

Model 3 – Specific emotion does not interact with shared identity to affect accuracy

- No statistically significant specific emotion by in-group/out-group interaction, $p = .094$

Discussion

- So far, images from 12 out of 36 ethnic/racial minority models have been validated online
- Preliminary findings show positive emotions (i.e., happiness) are more accurately identified than negative emotions (e.g., anger, fear)
- So far, no evidence that having a shared racial group identity affects emotion identification accuracy
- Validated photos will be shared on the Open Science Framework (OSF) for other researchers to use.
 - This will help diversify scientific research by providing stimuli that represent a more diverse population
 - This is an important first step in creating more inclusive psychological and neuroscience studies