Detecting Accurate Emotions in Faces

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Black citizens account for 13% of the population yet make up 27% of fatal police shootings.

Burghart, B. (2021). *Our visualizations*. Fatal encounters. https://fatalencounters.org/our-visualizations/
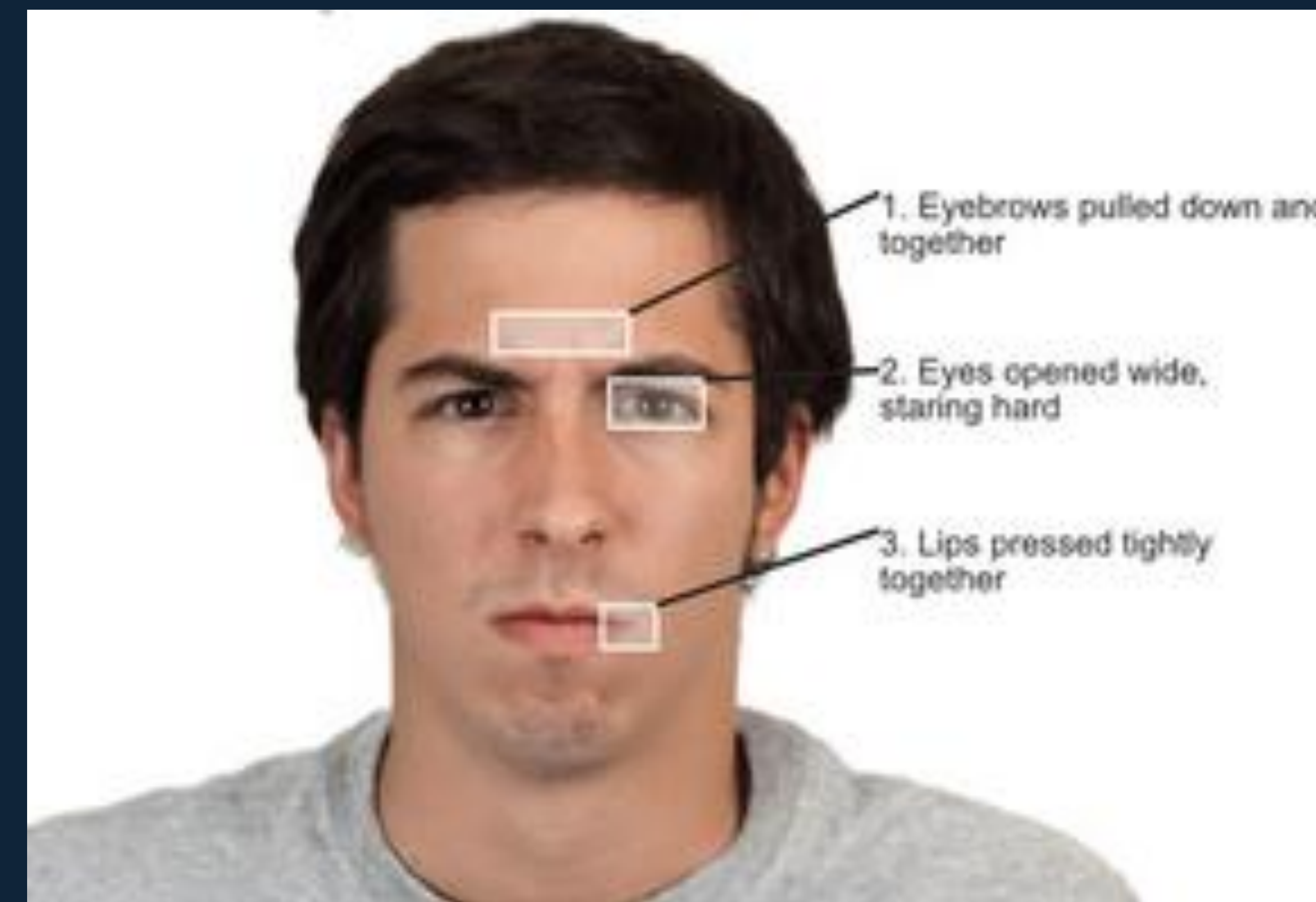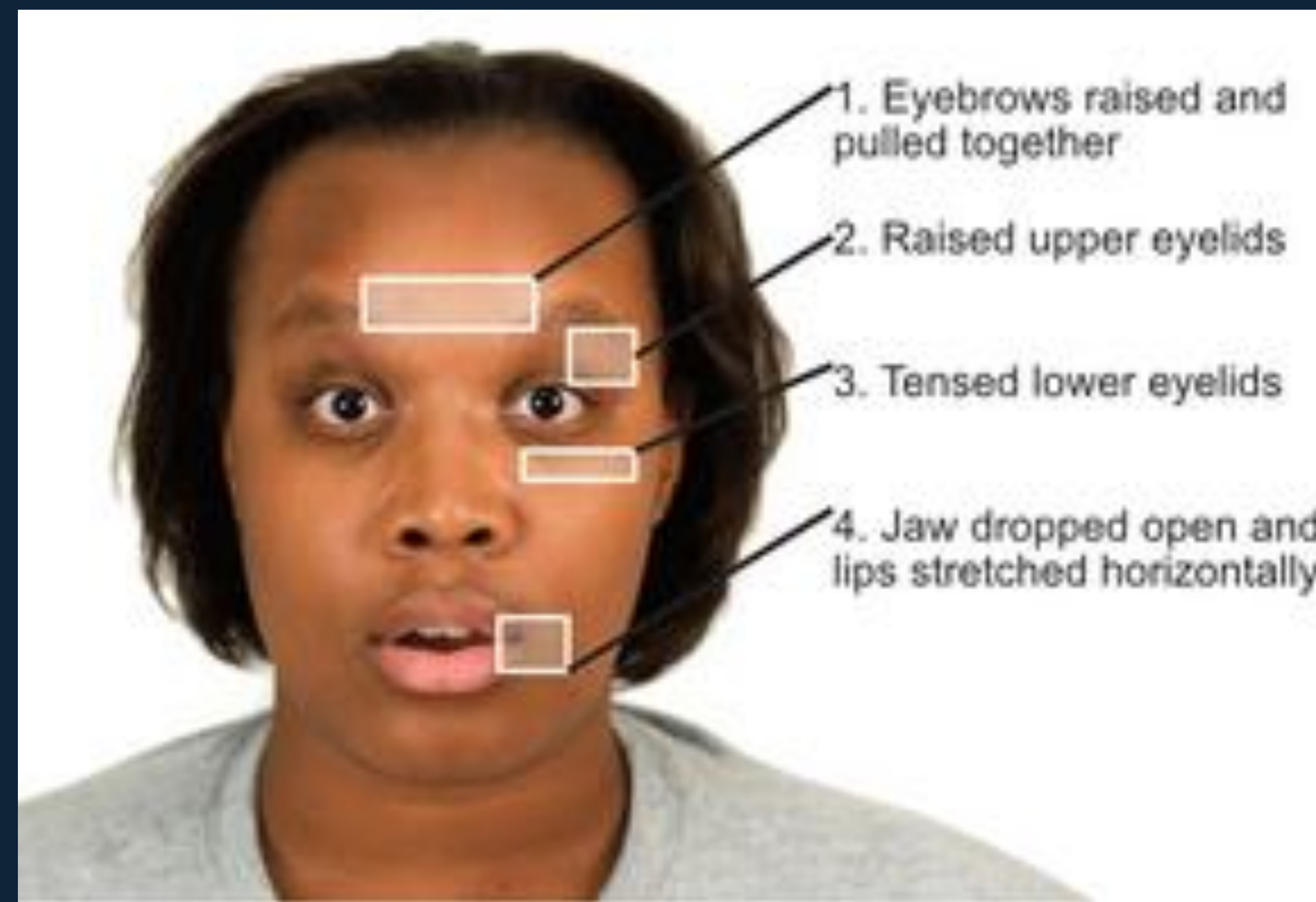
Introduction

- Different emotional displays by others lead to different behaviors by the observer (Marsh et al., 2005).
- Misinterpretation of facial expressions can lead to devastating consequences.
  - Officers can misinterpret expressions which may lead to a higher likelihood of using excessive force (Correll et al., 2010).
- Understanding emotions in yourself and others promotes ethical behavior (Iyer, 2016).
- Reading emotions correctly keeps everyone safe. (Hutcherson, C. A. & Gross, J. J., 2011).

Method

Participants – 2 groups (experimental vs. control)
Pretest – identify emotions in Black, White, Asian, and LatinX faces
Training – emotion recognition vs. emotional intelligence
Posttest – same as Pretest but with new faces

Images like these were used in the emotion recognition training video (the test training video).

Anger Race Bias

One type of implicit bias is anger race bias, in which people tend to **identify Black faces as angry** when they are displaying fearful or neutral expressions.
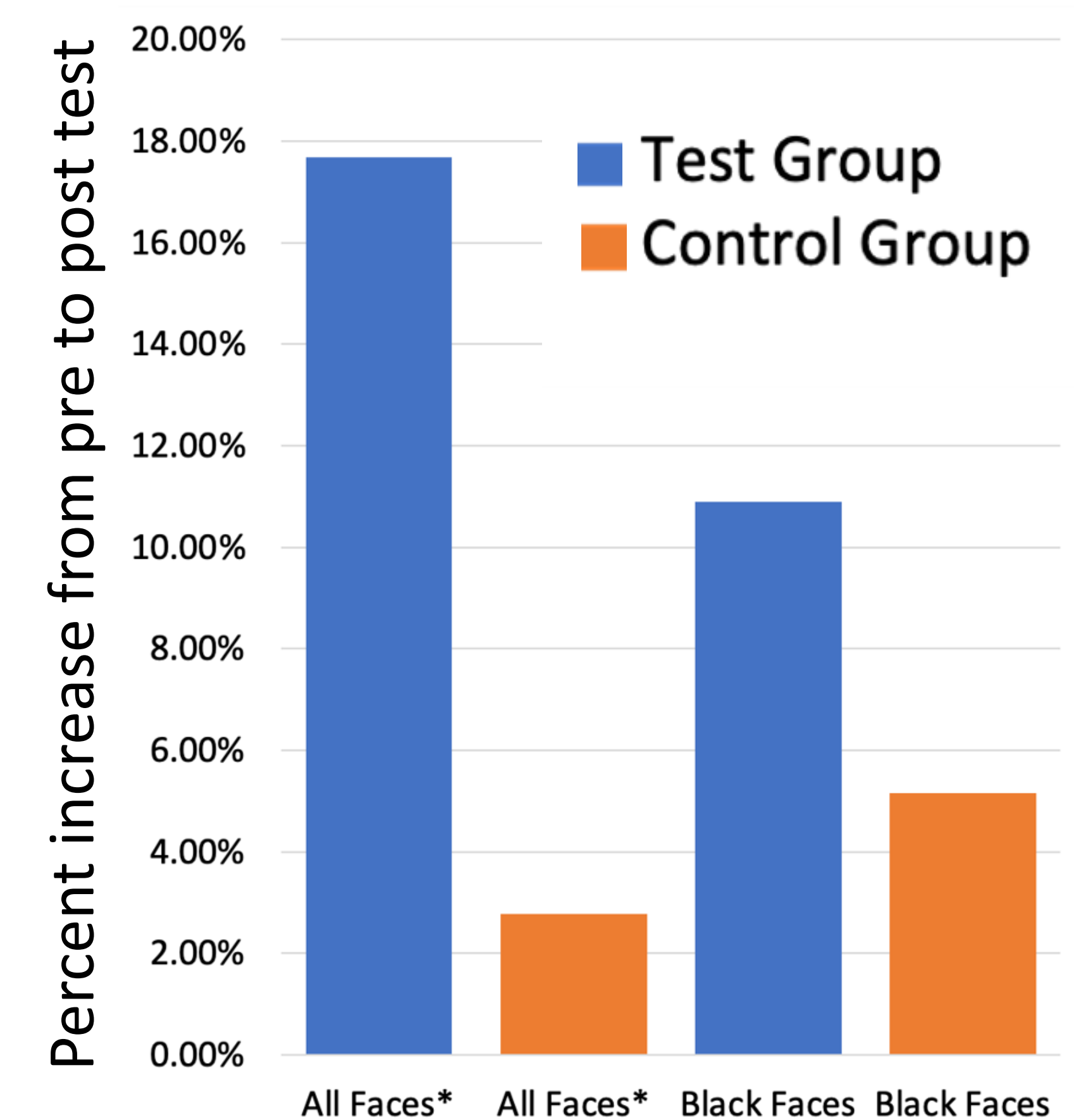
Data Analysis

- Independent Samples *t*-test of first round of data

Results

- Participants who watched the emotion recognition training saw an improvement of over 17% from pre to post-test compared to only about 3% in the control group.
- This preliminary sample is underpowered for significance testing, but provides preliminary support for the theory.

Improvement from pre-test to post-test

The experimental group had a greater improvement from pre to posttest than the control group

Implications

- If our sample continues to show such results as power increases, this will provide feasibility

Limitations

- Convenience Sample
- Static vs. Dynamic Images
- Safety of Setting