



## INTRODUCTION

- Accurately perceiving the emotion of others critically informs social behavior.<sup>1</sup>
- Individuals are more likely to recognize and remember the faces of others who share their racial or gender identity (i.e., in-group members) and less likely to recognize those of other who do not share these characteristics (i.e., out-group members)<sup>2,3</sup>
- This project investigated these implicit biases the relationship between group status (i.e., own-race, own-gender, and own-race-and-gender) on emotion identification of ambiguous emotional faces.

## METHODS

- N=45 healthy participants (Table 1) completed the Graded Emotional Face Task<sup>4</sup> (GEFT; Figure 1) presenting emotional faces i.e., fearful, happy) selected from the NimStim set of facial expressions<sup>5</sup> (morphed with a neutral facial expression to varying degrees of intensity (20-100%).
- Following each stimuli presentation, participants selected which emotion they perceived from a list: neutral, fear, happy, sad, anger, surprise, disgust.
- N=5 subjects either did not disclose race, gender, or ethnicity or endorsed multiple races and were excluded from analyses, resulting in a final N = 40

**Figure 1. Graded Emotional Face Task**

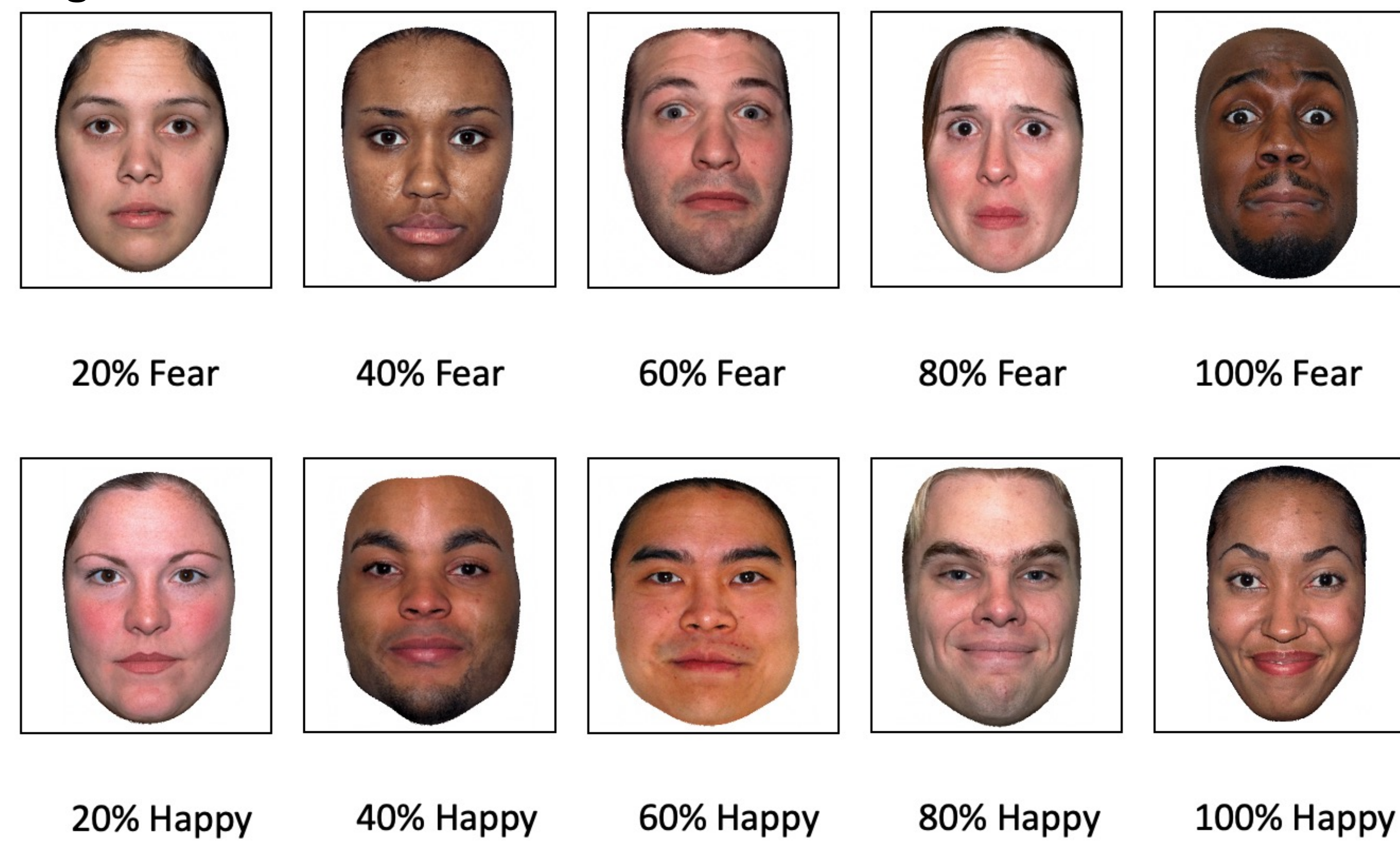
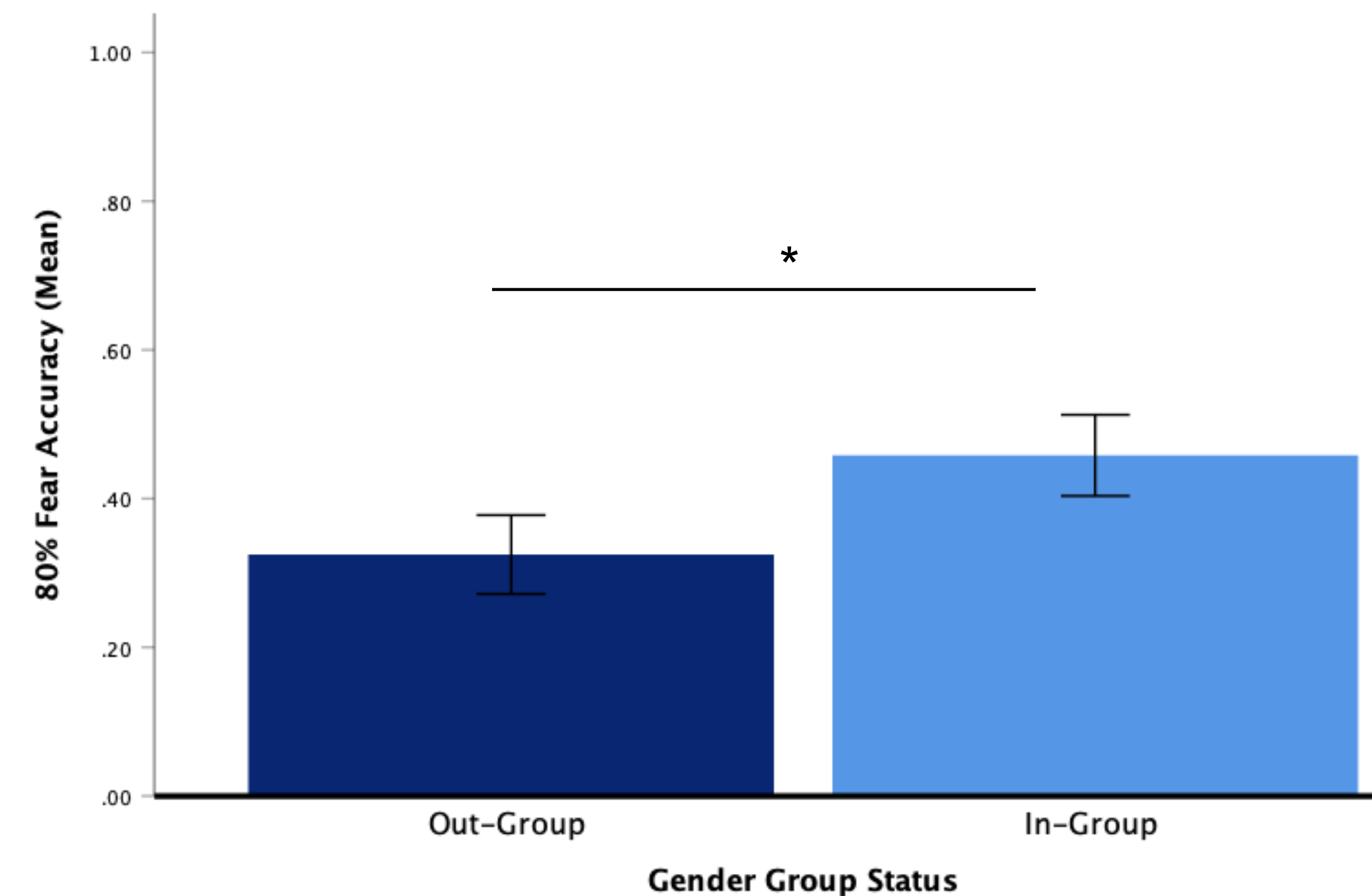


Table 1. Sample Characteristics		N = 40
Age (mean/SD)		19.53 (2.13)
Gender (female)		30 (75.0%)
Race		
White		23 (57.5%)
Black/African-American		4 (10.0%)
Asian		11 (27.5%)
Other or unknown		2 (5.0%)
Ethnicity (Latinx)		6 (12.5%)
Gender – Emotion Accuracy		
80% Fear (out-group)		.33(.34)
80% Fear (in-group)		.46(.35)
60% Happy (out-group)		.93(.17)
60% Happy (in-group)		.82(.26)
Race – Emotion Accuracy		
60% Happy (out-group)		.93(.15)
60% Happy (in-group)		.83(.26)
Race+Gender – Emotion Accuracy		
60% Happy (out-group)		.94(.14)
60% Happy (in-group)		.67(.44)

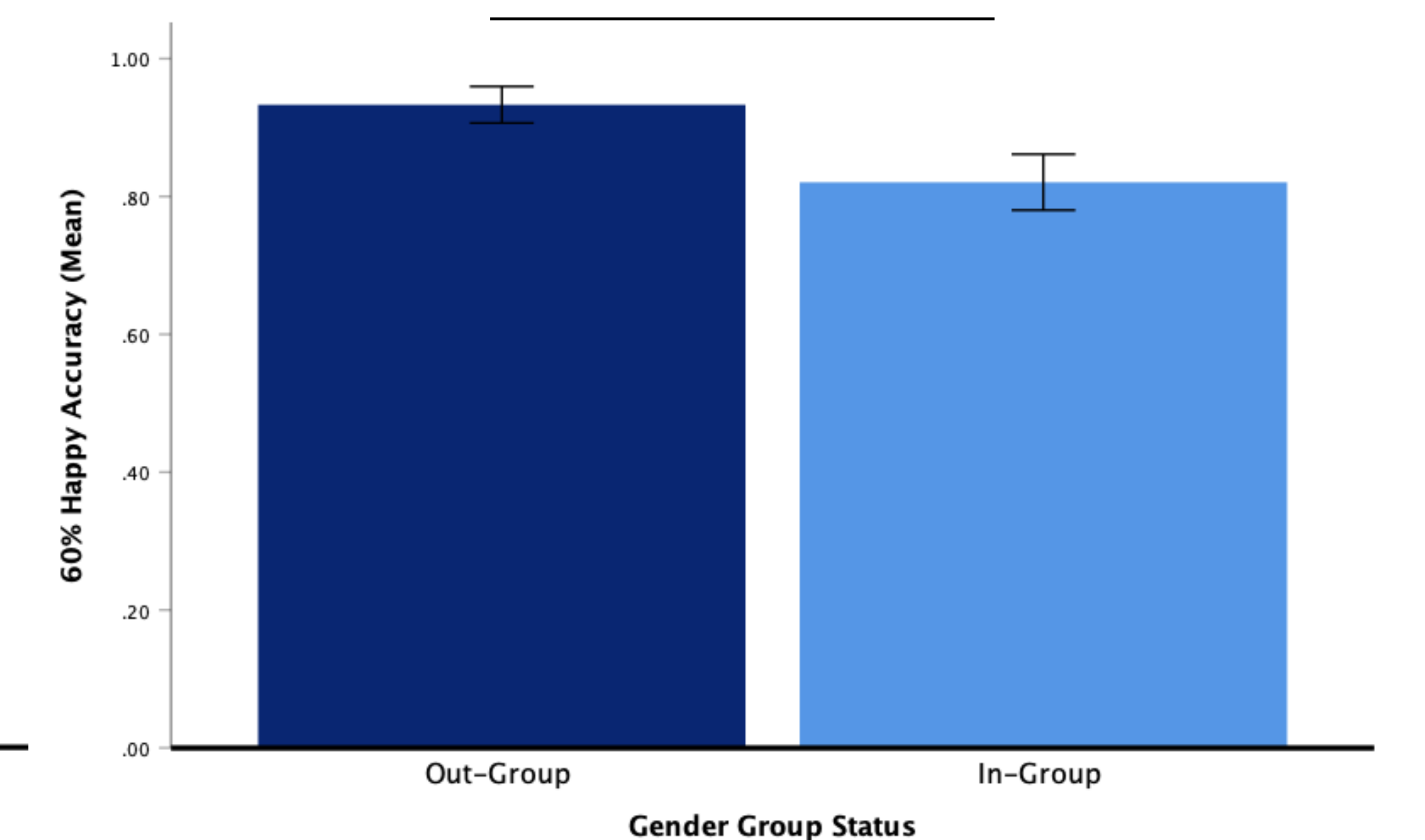
- **Emotion accuracy** was coded as a binary value (1 = correct, 0 = incorrect) if selected emotion matched emotion expressed on face. Neutral responses were excluded from calculations.
- **Group membership variables:**
  - In-group: race, gender, and race+gender if participant matched the target
  - Out-group: race, gender, and race+gender if participant did not match the target
- Paired-samples *t*-tests were employed to assess group differences in emotion accuracy between in-group and out-group faces; significance: two-sided  $p < .05$

## RESULTS

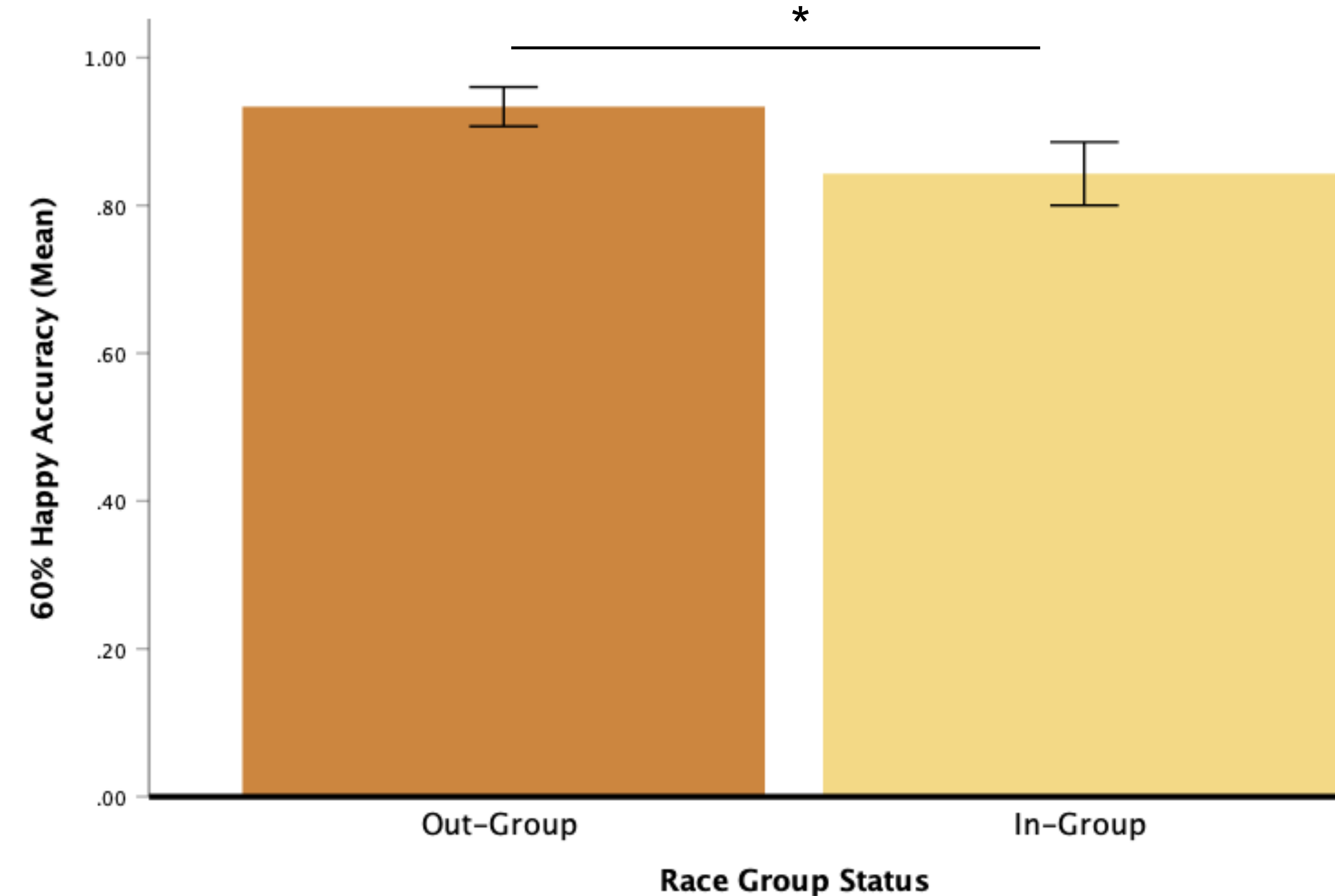
**Figure 2.**



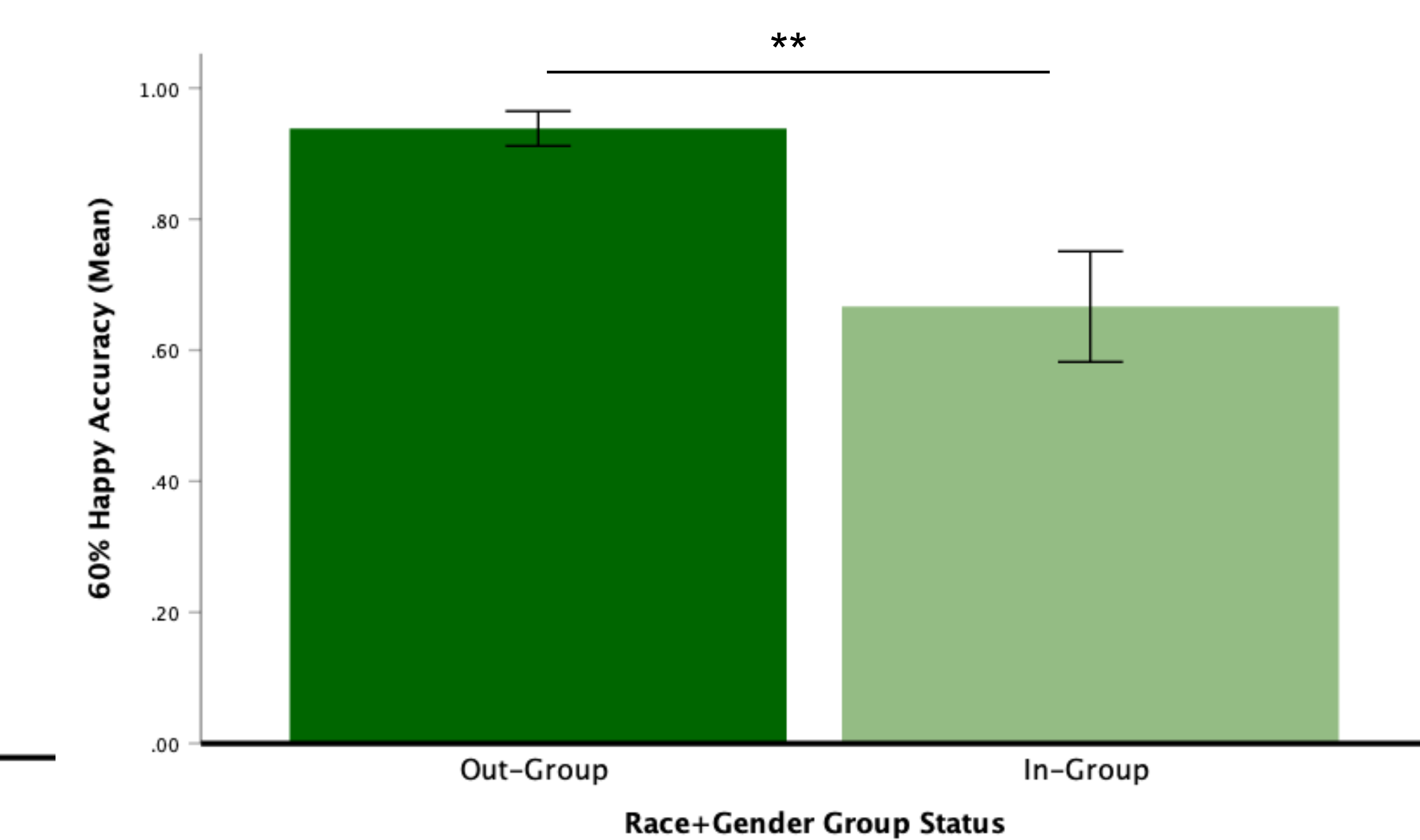
**Figure 3.**



**Figure 4.**



**Figure 5.**



- **Gender:** Individuals were less accurate at identifying the emotion on 80% Fear faces of other-gender than own-gender faces,  $t(39) = -2.16, p = .037$  (Figure 2). They were more accurate at identifying the emotion on 60% Happy faces of other-gender than own-gender faces,  $t(39) = 2.58, p = .014$  (Figure 3).
- **Race:** Individuals were more accurate at identifying the emotion on 60% Happy faces of other-race than own-race faces,  $t(33) = 2.12, p = .041$  (Figure 4).
- **Race+Gender:** Individuals were more accurate at identifying the emotion on 60% Happy faces of other-race+gender than own-race+gender faces,  $t(26) = 3.48, p = .002$  (Figure 5).
- There were no differences between groups in identifying other graded levels of emotion ( $p$ 's > .05)

## CONCLUSION

- Individuals were more accurate at identifying moderate intensity happy faces of out-group members (i.e., race and gender) and more accurate at identifying higher intensity own-gender fearful faces.
- Correct identification of positive emotions in outgroup members may be motivationally relevant and guide approach behaviors; conversely, we may be more motivated to correctly identify fear in ingroup members.

## REFERENCES

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