Something about that face ...

Factors, that influence getting to know someone

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Introduction

You're at a party where you hardly know anyone- until someone looks familiar, maybe from university? When she smiles at you, you recognize her as a fellow student from Jena University... and suddenly, you no longer feel like a stranger.

Emotion vs. Group effect!

Theoretical background:

- Palermo und Coltheart (2004): recognition happy faces→ **faster + more accurately** than sad faces
- Bernstein et al. (2007): **better recognition performance** for as **in- group members** than out-group (based on university affiliation)
- Both show strong effects ... but which one is stronger?

Hypotheses

"People recognize faces better when they are happy and belong to their own social group."

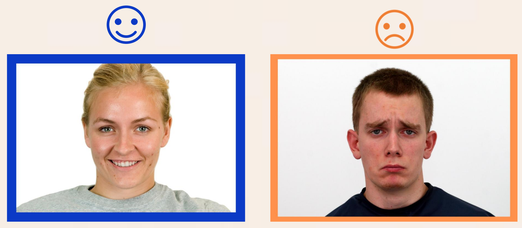
"People who are part of one's own social group are recognized better than people who display a happy emotion."

Methodology

28 Participants (25 female, 2 male, 1 non-binary individual) aged between 19 and 30

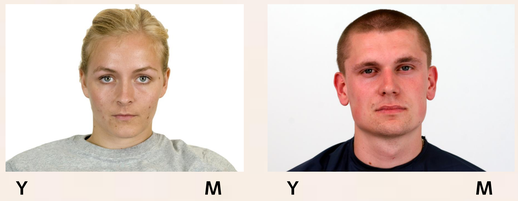
Training phase

- Stimuli: 40 faces from Chicago Face Database
- 20 sad and 20 happy faces
- Blue frame → Jena University
- Orange frame → Milano University
- Presented for 2.5 seconds followed by an attention check ("Sad or Happy?")



Test phase

- Stimuli: 40 neutral face with no label displayed for 2.5 seconds
- 20 learned (10 Jena, 10 Milano), 20 new faces
- Participants pressed
  - 'Y' for familiar faces
  - 'M' for unfamiliar faces

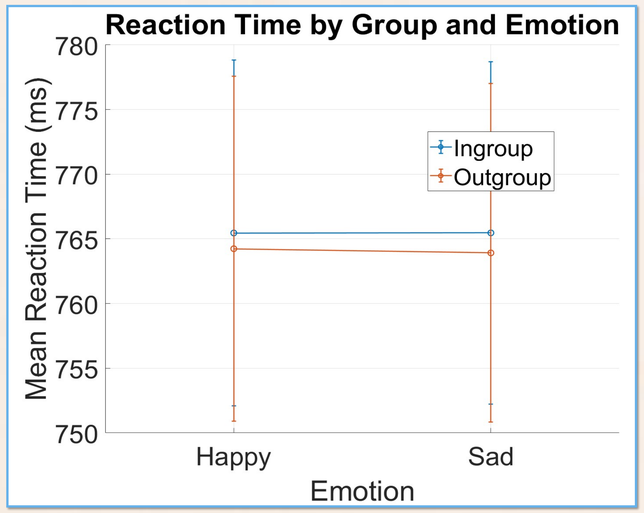


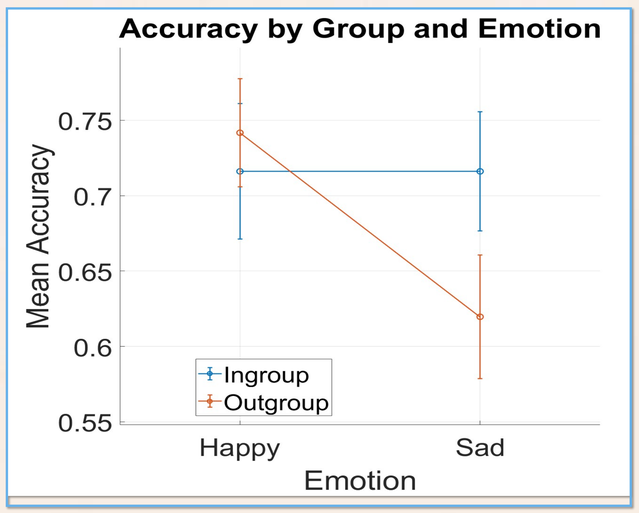
Results

1. ANOVA:
- dependent variable: reaction time
- factors: emotion, group, interaction between emotion and group
- **no statistically significant effects**: p-values: .341 for group, .898 for emotion, .89 for interaction term

2. ANOVA:
- dependent variable: accuracy; **factors:** emotion, group, emotion × group
- No significant effects: emotion $p = .173$, group $p = .245$, interaction $p = .129$

➢ **Trend:** higher accuracy for happy faces and happy ingroup faces





Discussion

Possible reasons for this outcome:

- Small sample size, which limits the statistical power
- Group cues (color frames as university labels)
  → too weak to trigger a strong ingroup effect ?
- Emotional expressions were removed during testing, reducing emotional salience
- Some effects may have been too subtle to detect using only accuracy as a measure.

Suggestions for future research:

- Recruiting a larger sample size
- Strengthen group identity and emotional cues

➢ Test with more personally relevant group labels (e.g. same degree, hometown)

➢ Explore other emotions (e.g. anger) that might trigger stronger effects

- Include additional measures like confidence ratings and more trials
- Keep emotional expressions consistent throughout the task
- Add a short group identity check or priming task before the test

Literature

Palermo, R. & Coltheart, M. (2004). Photographs of facial expression: Accuracy, response times, and ratings of intensity. Behavior Research Methods Instruments &Amp Computers, 36(4), 634–638. https://doi.org/10.3758/bf03206544

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