Face Recognition: (Happy, Neutral, & Angry)

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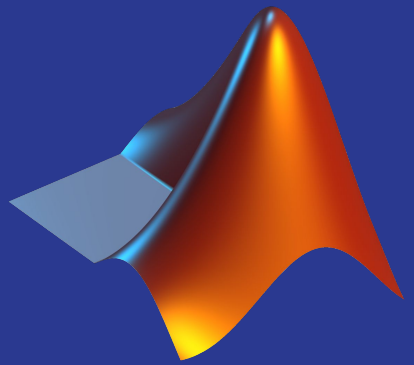


Introduction

Our Task

- Participants will be asked to identify the expression as happy, neutral or angry
- Participants will be shown a face randomly selected from our data set
- Participants will then press the corresponding key to the expression they identified
- Participants will go through 30 trials

Variables in Our Study

- **Independent Variable:** facial expressions being happy, neutral and angry
- **Dependent Variable:** Reaction time and accuracy

Hypothesis

Our group believes that the test subjects will be able to quickly and accurately recognize the facial expressions. We hypothesize that the faces with clear expressions being happy and angry will be recognized quicker and more accurate than neutral faces.

Examples of facial expressions we used

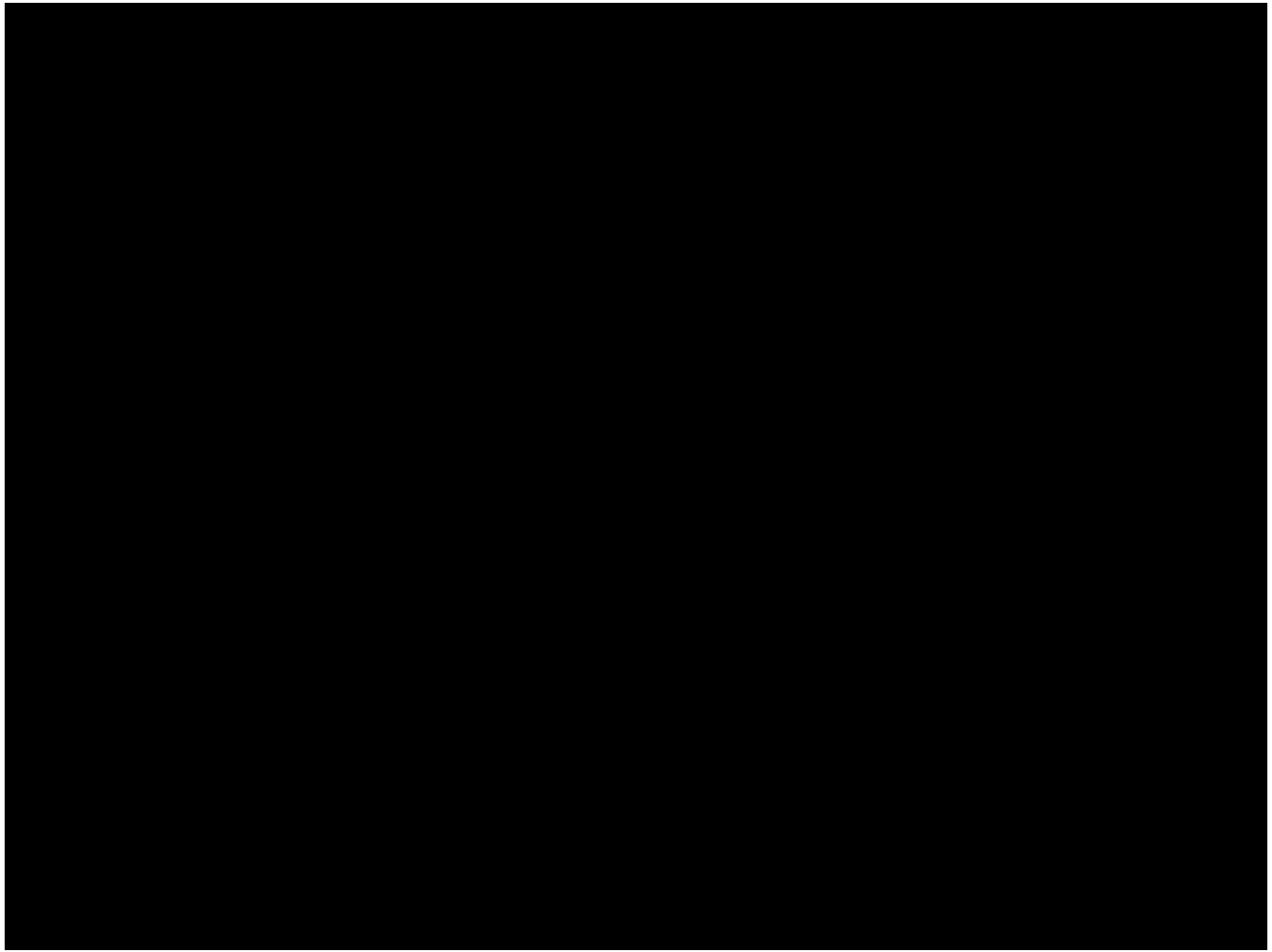
1 = Angry

2 = Happy

3 = Neutral

Task Demo

From Kaia:



Analysis and Results

Mean Reaction time

- Happy = 0.85 seconds
  - Neutral = 0.98 seconds
  - Angry = 0.99 seconds

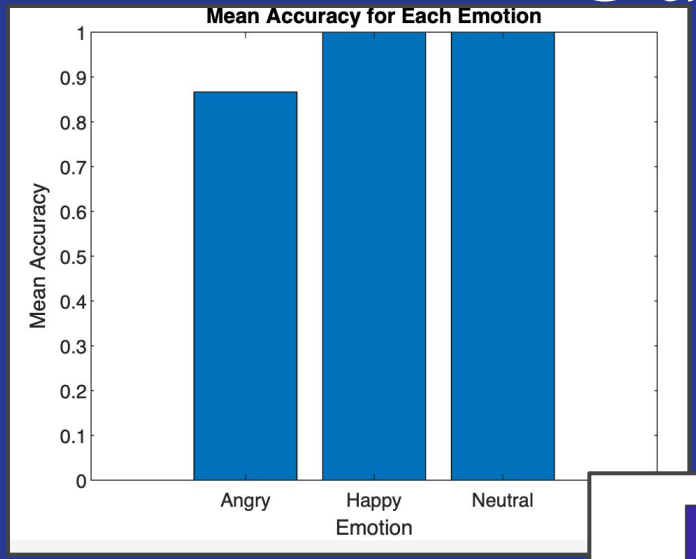
Mean accuracy

- Happy and Neutral = 1
- Angry = 0.87

T-Test

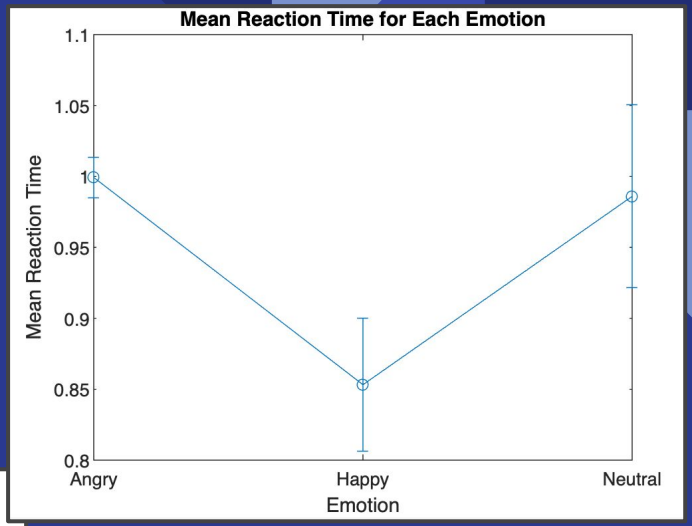
- Happy - Angry = 2.41
- Happy - Neutral = 1.75
- Neutral - Angry = 0.18

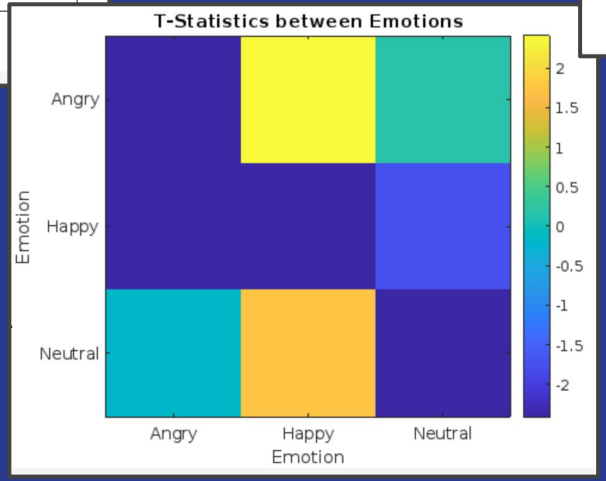
Our Findings



←Accuracy best for Happy and Neutral

Quickest Reaction time for Happy →





From Callum:

Solution

Was our hypothesis correct?

After running three different trials, we came to the conclusion that our hypothesis was **partially** correct due to reaction time being quickest for **Happy** but not for **Angry**.

Limitations

*Initial image reaction is slower for the first image in all trials as the study loads.

*Different computers, wifi speeds and environments were potentially varied between rounds.