

Emotion recognition of perceived genuine or posed expressions

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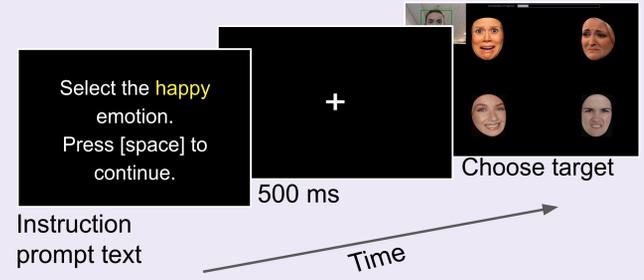
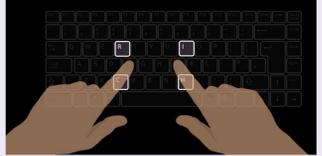
Introduction

- There is limited research on how sincerity of expressions affects emotion recognition
- Naturalistic expressions, taken from real-world media, normed for perceived genuineness



Methods

- N = 130
- Visual search task
- 144 trials
- 2 x 2 array
- Target as a genuine expression amongst posed distractors, or a posed expression amongst genuine distractors



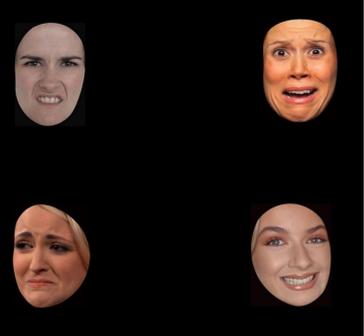
Emotion Task:

Find the target emotion (eg. sad emotion)



Sincerity Task:

Find the genuine or posed expression (eg. genuine expression)



Response time to identify posed emotions is faster than for genuine emotions

Emotion Task

Response times to identify a target emotion

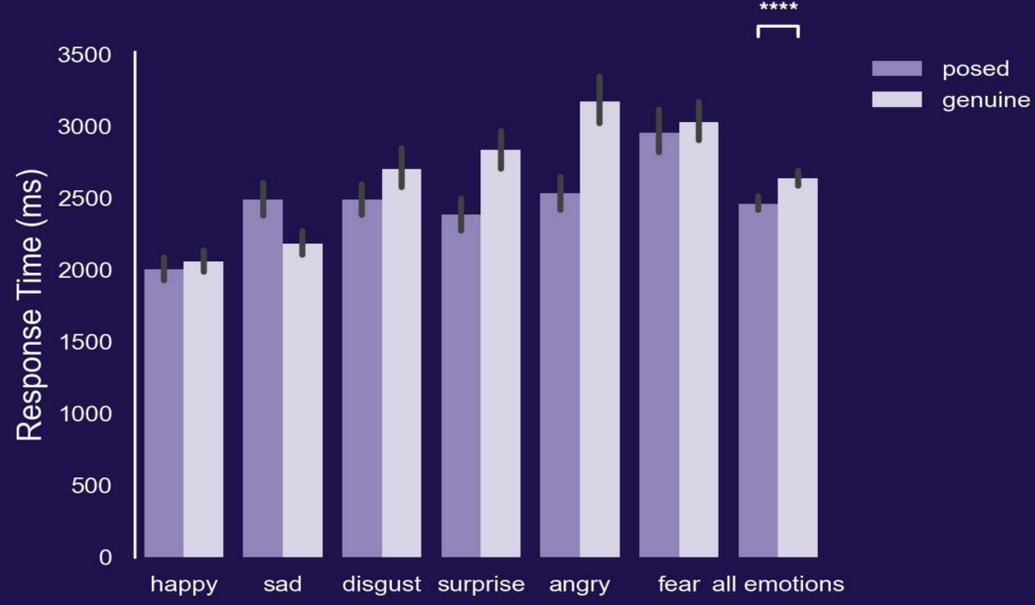


Figure 1 Two-Way ANOVA was conducted and response times were conditioned on accuracy. Sincerity had a main effect on response times such that participants were faster to identify posed emotions than genuine emotions ($p < 0.001$). Response times for emotions were all reliably different from one another ($p < 0.05$) with the exception of disgust and surprise. There is a significant interaction between emotion and sincerity ($p < 0.001$).

Sincerity Task

Response times to identify the posed versus genuine expression

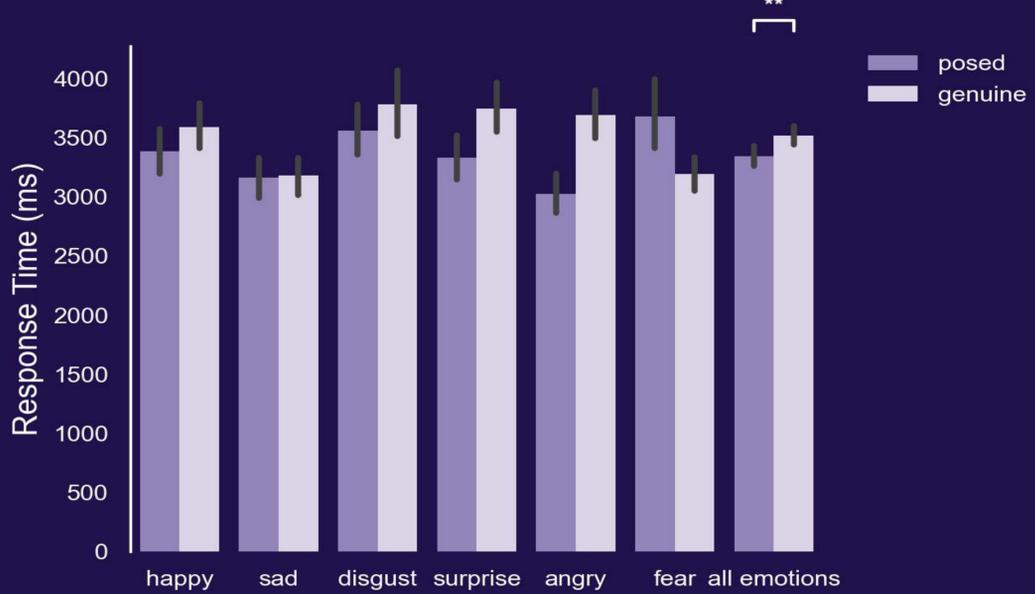


Figure 3 Two-Way ANOVA was conducted and response times were conditioned on accuracy. Sincerity had a main effect on response times such that participants were faster to identify posed expressions ($p < 0.05$). Sincerity of sad expressions were identified reliably faster than all other emotions ($p < 0.05$). There is a significant interaction between emotion and sincerity ($p < 0.001$).

Results

- In both tasks response times for posed expressions were significantly faster than for genuine expressions ($p < 0.05$)

Emotion Task

- Response time to identify emotions: * = ($p < 0.05$)
happy* < sad* < disgust < surprise < anger* < fear*
- Happy (70%) and sad (68%) expressions showed higher accuracy rates compared to disgust, fear, anger and surprise ($p < 0.05$)

Sincerity Task

- Response times were significantly faster to identify the posed or genuine expression when the target was a sad expression ($p < 0.05$)
- Accuracy of identifying the genuine or posed expression did not differ across emotions

Emotion Task

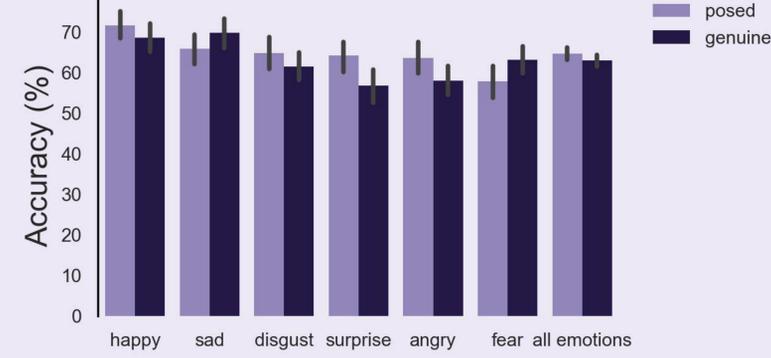


Figure 2 Two-Way ANOVA was conducted. Sincerity had no reliable effect on accuracy. Happy and sad emotions had reliably higher accuracy rates compared to disgust, surprise, anger and fear ($p < 0.05$). There is a significant interaction between emotion and sincerity ($p < 0.001$).

Sincerity Task

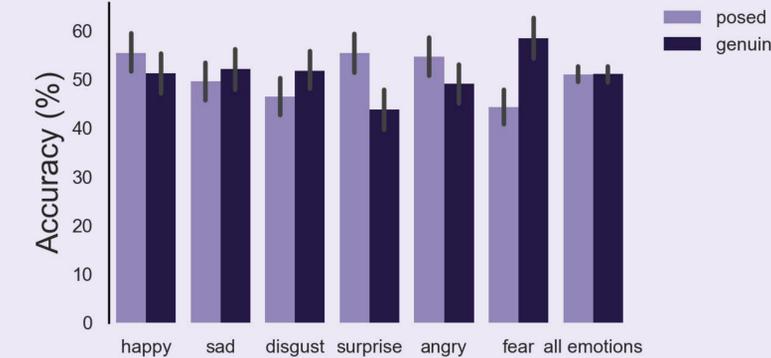


Figure 4 Two-Way ANOVA was conducted. Sincerity had no reliable effect on accuracy. Accuracy rates were not significantly different across emotions. There is a significant interaction between emotion and sincerity ($p < 0.001$).

Discussion

- Posed emotions are recognized faster than genuine emotions but not with greater accuracy
- Naturalistic emotion stimuli have increased real-world validity