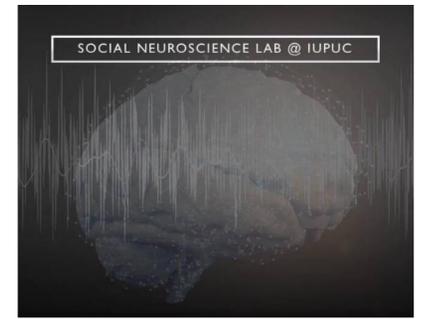




Social Judgments of Point-Light Displays

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INTRODUCTION

There are basic stereotypes of gender and emotions and the actor's gender can affect the way people perceive emotion expressions displayed by that actor [1]. Most research before has focused on information conveyed through facial expressions which is why this study examines how people make judgments based on body movement. This study's purpose is to examine people's abilities to make social judgments of personality, emotionality, and gender provided from biological motion.

Hypotheses:

1. Based on past research, it is expected that there will be a moderately positive correlation between masculinity and dominance and between extraversion and femininity in the gesture and walking videos [2].
2. It is expected that the emotions of fear and anger will be associated with more negative valence ratings while happiness will be associated with more positive valence ratings.
3. It is expected that anger and happiness will be rated higher in arousal than fear.
4. It is expected that anger expressions will be rated more masculine and happy expressions will be rated more feminine, as has been shown in previous research [3].

METHODS

- Participants were recruited through undergraduate courses at IUPUC. Participants had to be 18 or older to participate. Out of the 34 adults who participated, one was excluded for incomplete data (n=33). Of the 33 participants, 23 were females and 10 were males.
- Participants watched 75 point-light display videos of fifteen actors that were recorded using Microsoft Kinect (see Figure 1). Participants were asked to make social judgments of gender, dominance, extraversion, arousal, and valence on 7-point Likert scales.

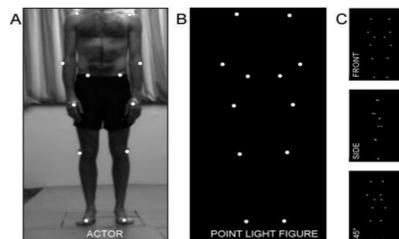


Figure 1. Point-light display representation of the body.

RESULTS

Gesture Videos

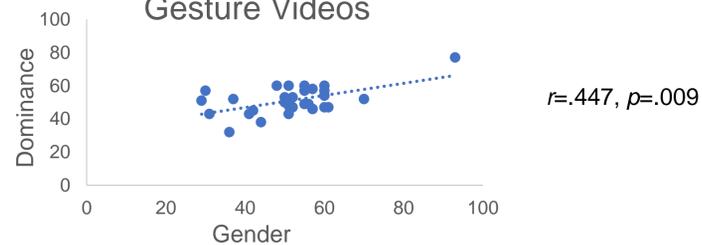


Figure 2. Correlation between gender and dominance in gesture videos

Gesture Videos

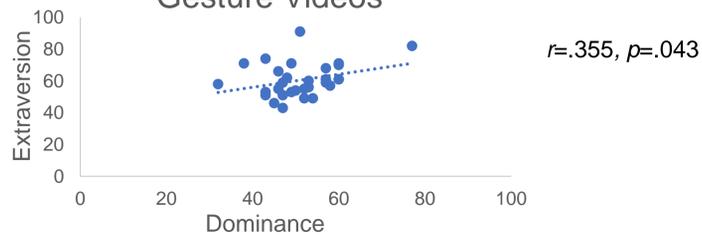


Figure 3. Correlation between dominance and extraversion in gesture videos

Walking Videos

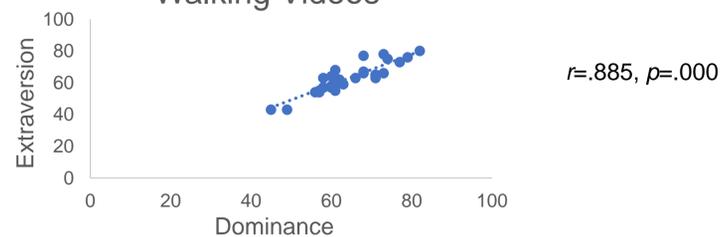


Figure 4. Correlation between dominance and extraversion in walking videos

Emotions and Valence

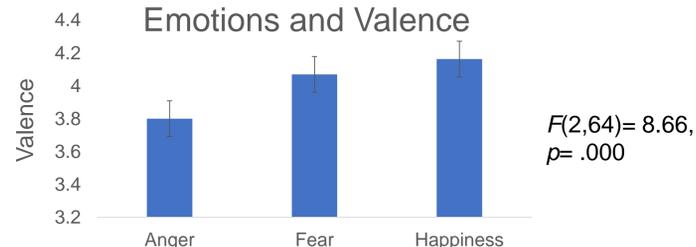


Figure 5. Emotion means for valence ratings

Emotions and Arousal

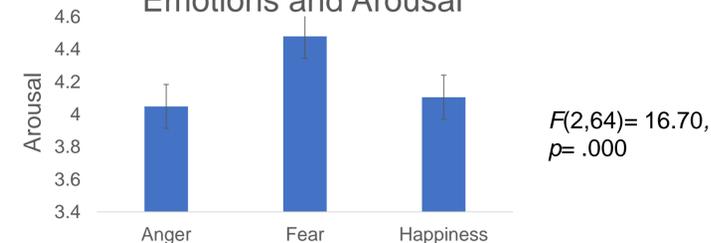


Figure 6. Emotion means for arousal ratings

Emotions and Gender

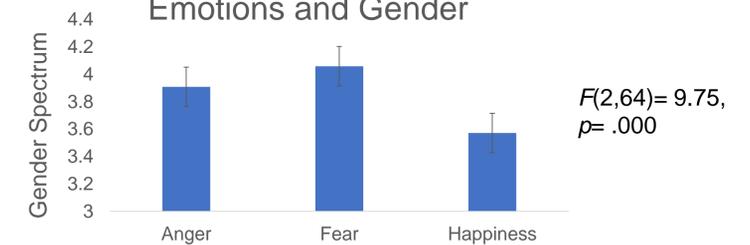


Figure 7. Emotion means for the gender spectrum ratings

DISCUSSION

- Hypothesis 1 was not supported by the data. Instead, there was a moderate positive correlation between gender and dominance for gesture videos which meant that as actors were rated more feminine, they were also rated as more dominant. The data also show a positive correlation between dominance and extraversion for gesture and walking videos. Hypothesis 2 was supported by the results that expressions of happiness were rated as more positive than expressions of anger.
- Hypothesis 3 was not supported. Instead, expressions of fear were more arousing than expressions of happiness or anger. Hypothesis 4 was also not supported by the data, and instead showed that expressions of happiness were rated more masculine than the anger and fear expressions.
- One limitation of this study was the almost homogenous participant sample of mainly female participants. For future research, a more diverse and representative gender sample may show a different association between dominance and femininity and would allow the data to be more generalizable.
- In this study, the ratings were biased toward the lower end of all the scales. A larger sample size may remove this bias.
- Future research may use the Reading the Mind in the Eyes (RMET) and the Adult Autism Quotient (AQ) assessments to examine the relationship between the ability to make social judgments and traits of autism spectrum disorder.

REFERENCES

- [1] Gelder, B. (2009). Why bodies? Twelve reasons for including bodily expression in affective neuroscience. *Phil. Trans. R. Soc. B*, 364, 3475-3484.
- [2] Hess, U., Blairy, S., & Kleck, R. (2000). The influence of facial emotion displays, gender, and ethnicity on judgments of dominance and affiliation. *Journal of Nonverbal Behavior* 24(4), 265-283.
- [3] Smith, J., LaFrance, M., Knol, K., Tellinghuissen, D., & Moes, P. (2015). Surprising smiles and unanticipated frowns: How emotion and status influence gender categorization. *Journal of Nonverbal Behavior*, 39, 115-130.

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