INTRODUCTION

1. Social cognitive ability is related to the communication of actors’ emotional states through movement.
2. Actors with higher levels of social cognition will receive valence and arousal ratings that are more congruent with the negative emotion of anger (see Figure 4 and 5). Individuals that scored higher on social cognitive functioning perceived anger expressions as more arousing, compared to raters who scored low on social cognitive functioning (see Fig. 5).
3. Possible limitations within our study could have been due to the smaller sample size of our actors (N=15), which could have been why Hypotheses 1 and 2 were not supported; as it was found that social cognitive assessments taken by the actors were found to not correlate with valence and arousal ratings given by the participants for the emotional states conveyed by the actors.

Hypotheses:
1. Social cognitive ability is related to the communication of actors’ emotional states through movement.
2. Actors with higher levels of social cognition will receive valence and arousal ratings that are more congruent with the emotional expressions. For example, evaluating anger as a high-arousal and more negative emotion.
3. Arousal ratings will differ based upon raters’ social cognitive functioning abilities.

METHODS AND MATERIALS

Participants were recruited through online classes and given a link that led to the study on a Qualtrics format. Participants were all IUPUC students or faculty. In total, data was collected from 116 participants.

• Within the Qualtrics study, participants completed two social cognitive assessments: the Reading the Mind in the Eyes (RMET) test as well as the Autism Quotient (AQ).
• The participants viewed 75 point-light display videos of fifteen actors that were recorded using Microsoft Kinect software. The PLD videos displayed actors enacting emotion states of happiness, anger, and fear through body movements. The participants were then asked to rate the actors on scales of arousal and valence on 7-point Likert scales.

RESULTS

Figure 2. An example of a point light display [2].

Figure 3. Mean valence and arousal ratings across 3 emotion expressions for actors. Conditions were not significant.

Figure 4. Rater anger valence mean plotted against the RMET, a social cognitive assessment. p= 0.08 and r= 0.16

DISCUSSION

1. Hypotheses 1 and 2 were not supported; as it was found that social cognitive assessments taken by the actors were found to not correlate with valence and arousal ratings given by the participants for the emotional states conveyed by the actors.
2. Hypothesis 3 was partially supported by the results. The participants’ social cognitive assessment scores were correlated with their arousal and valence mean ratings for the actors, particularly for the negative emotion of anger (see Figure 4 and 5). Individuals that scored higher on social cognitive functioning perceived anger expressions as more arousing, compared to raters who scored low on social cognitive functioning (see Fig. 5).
3. Future areas of study related to this research can explore anger as an emotion and its relation to autism spectrum disorder, which is a disorder characterized by deficits in social cognitive functioning.

SELECTED REFERENCES


ACKNOWLEDGEMENTS

1. A special thanks to my two mentors, Dr. Mark Jaime and Dr. Elizabeth DaSilva for helping me during this project.
2. Thank you to IUPUC’s Office of Student Research for funding the materials used in this project.
3. Thank you to Victoria Ewing and Allison Green for providing support during my research project.