

Background

- Research investigating lie detection has failed to find individual difference in ability¹
- Much of this research has focused on high-stakes or contrived lying behaviour^{2,3} (atypical of most lies)
- Contrived lies differ from naturalistic lies in both neural response patterns⁴ and response times⁵
- Purpose of this research is to understand how lie detection accuracy is impacted by social skill when lies are low-stakes and naturalistic

Research Questions

- 1) Are people better than chance at detecting lies?
- 2) Do people with higher social skills have greater lie detection accuracy?

Methodology

- Participants played a social deduction game with 4 other players
- Each team's goal is to win 3 out of the 5 battles
- Lying increases the chance of winning but participants are never forced to lie
- Participants are encouraged to say anything that will help their team to win, but may not reveal their identity

Roles



“Bad Guys”
(Death Eaters)

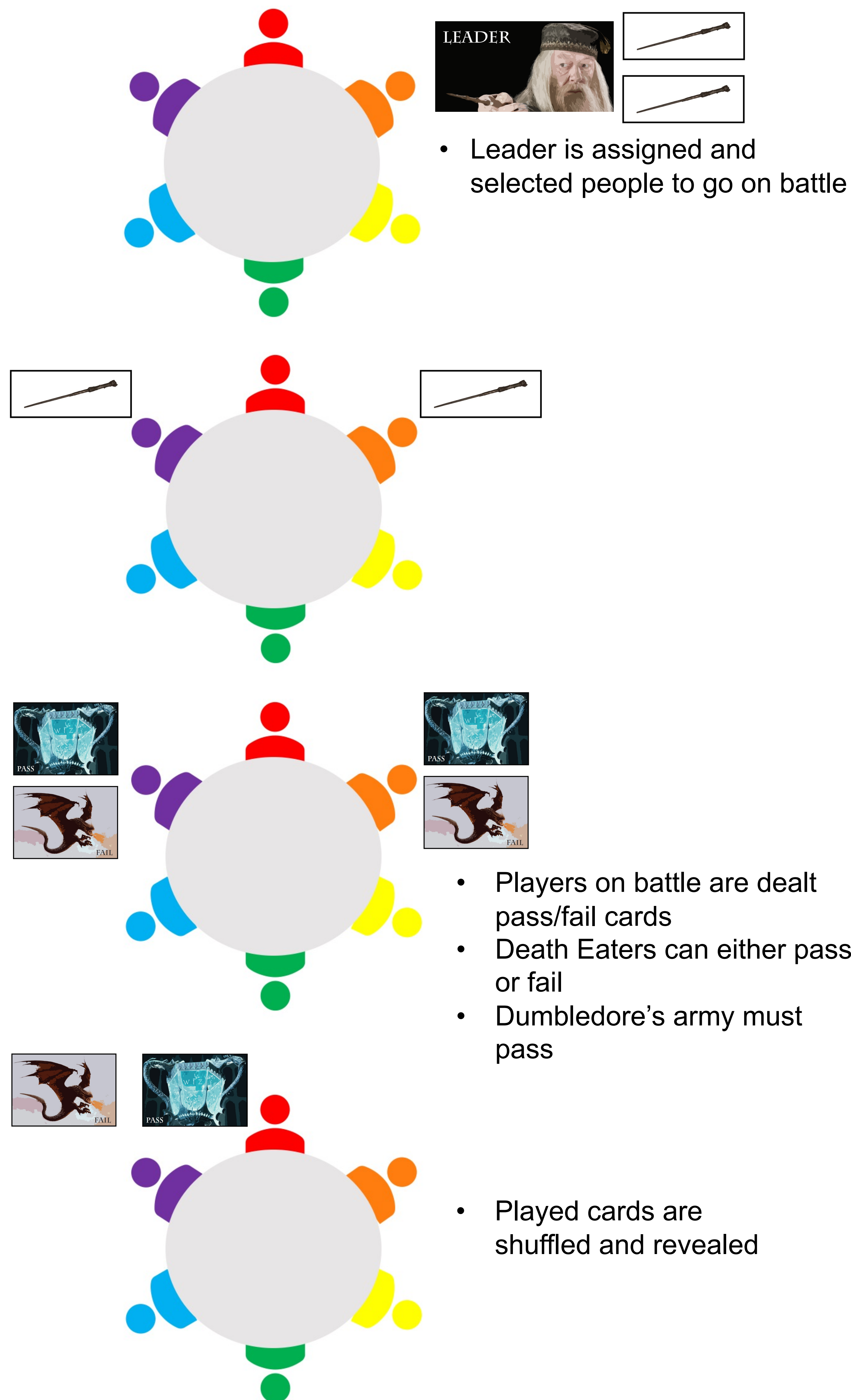
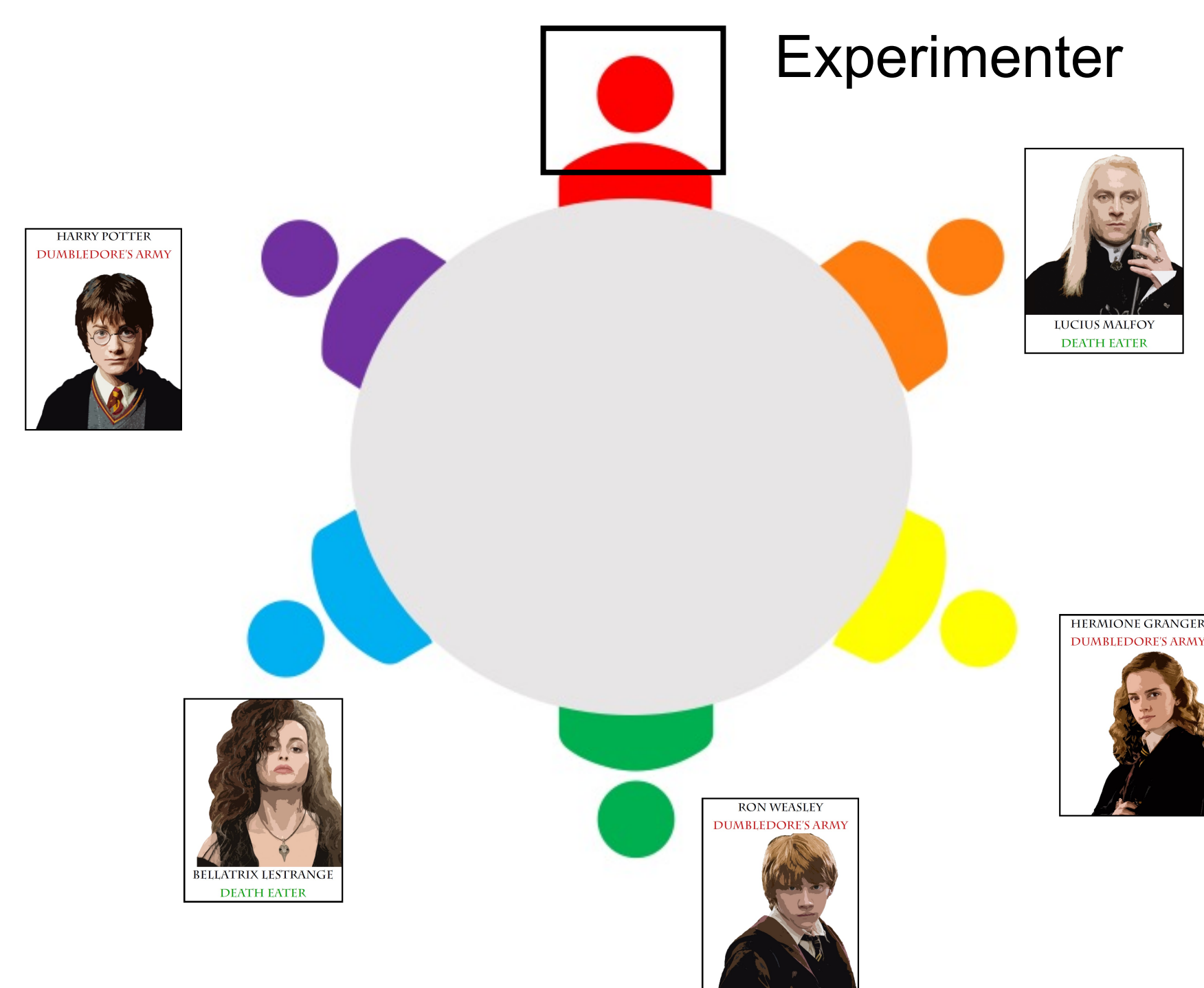
Play as a team
Know one another's identity

“Good Guys”
(Dumbledore's Army)

Do not know one another's identity and thus cannot play as a team

Game Play

- Roles are randomly assigned each round
- Death eaters learn each other's identity

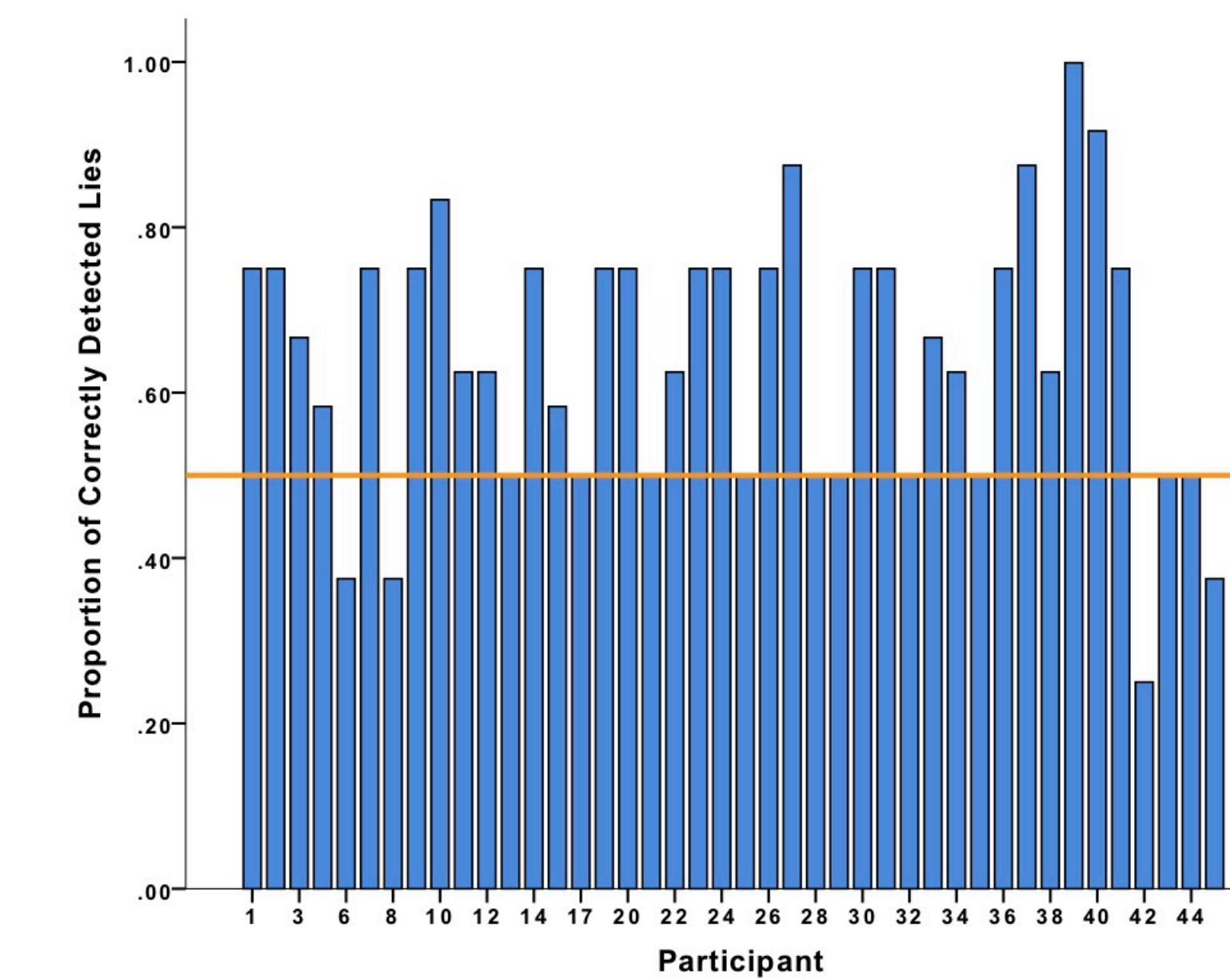


Questionnaires

- After three games, participants completed the Autism-spectrum Quotient (AQ)⁶
- Social skill is operationalized with the “social skill” subscale of the AQ

Results

Q.1 Accuracy > Chance

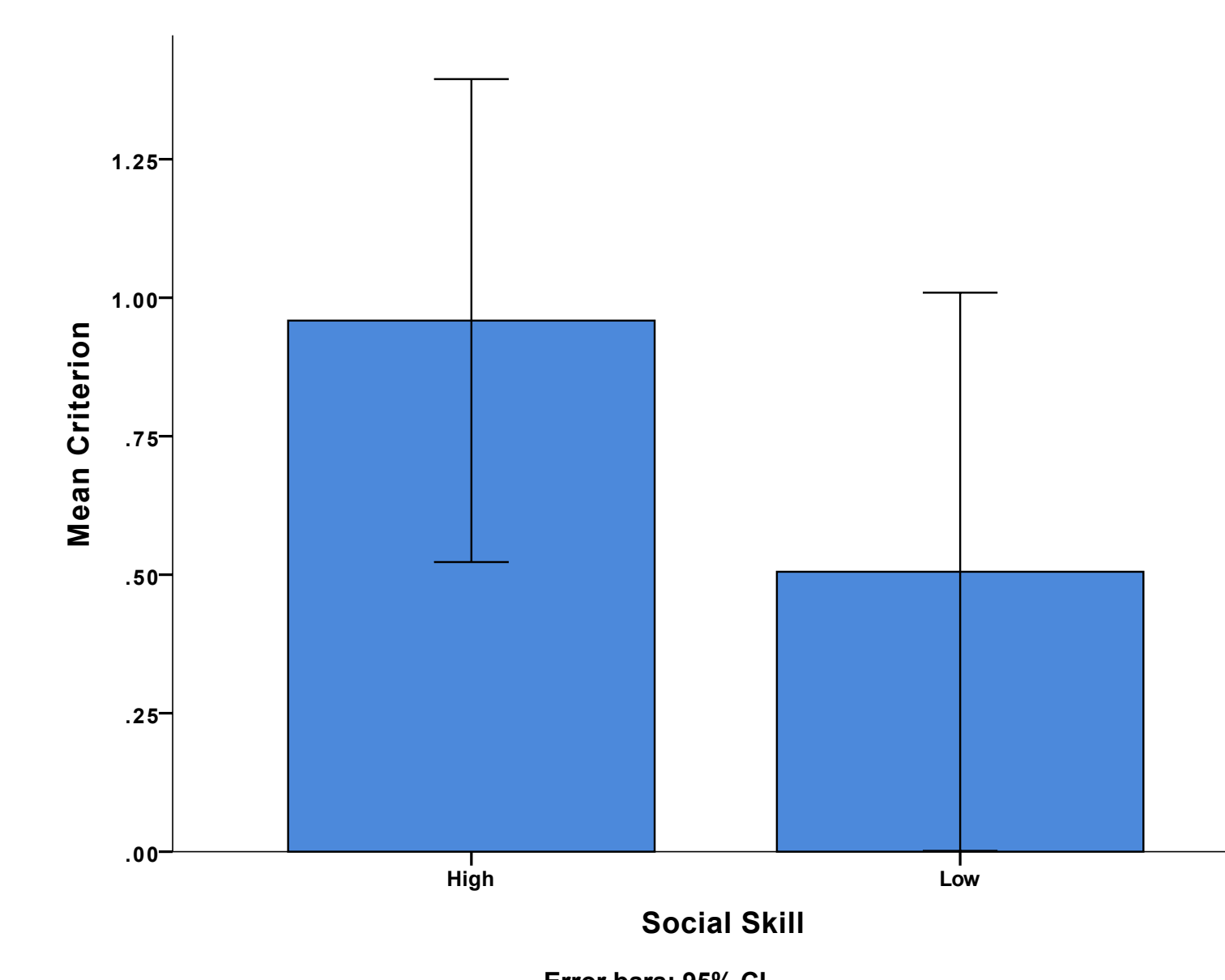
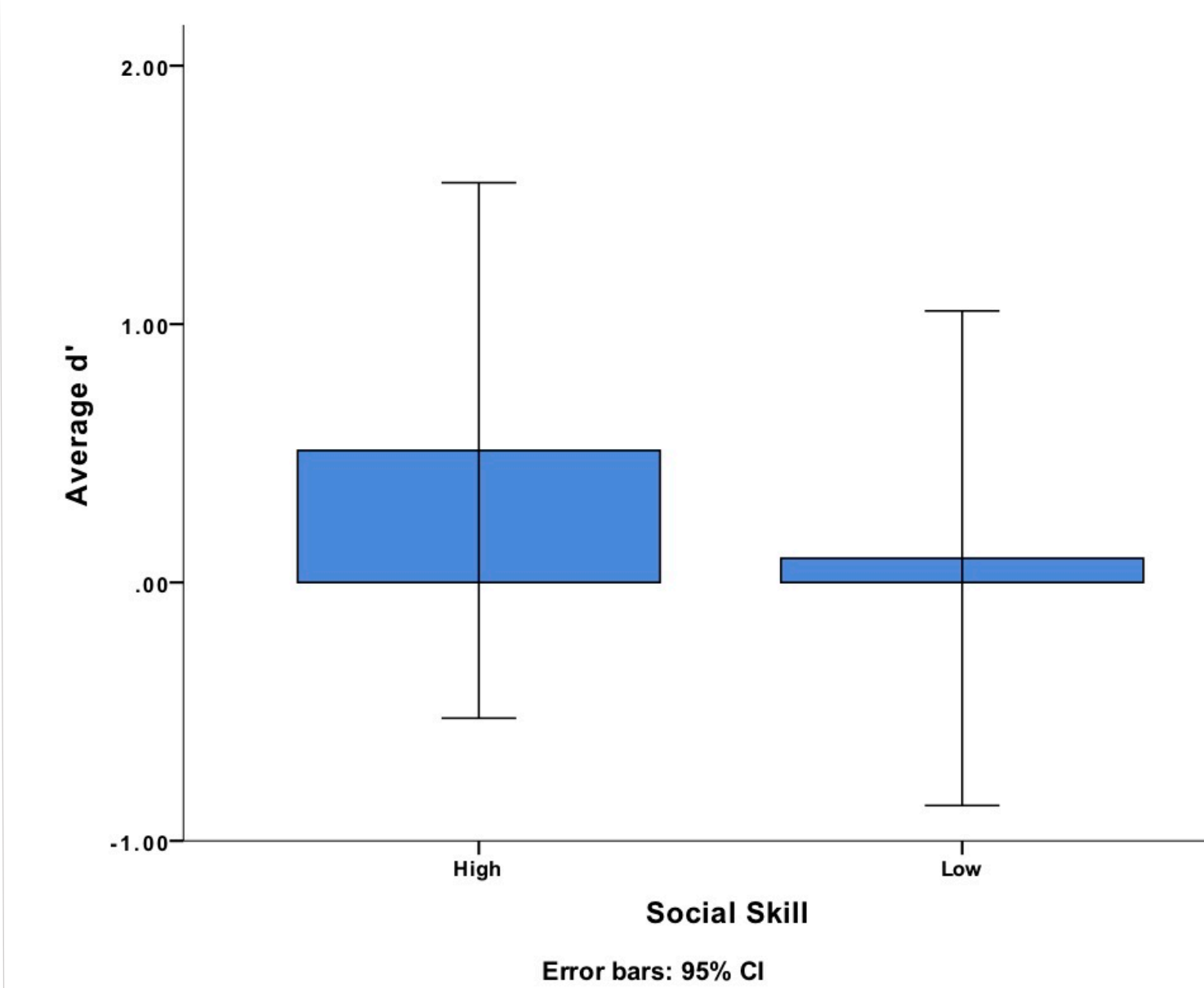


- $M_{accuracy} = .64, SD = .16$
- $t(41) = 5.68, p < .001$
- $M_{difference} = .14$

— Chance is .50

Q.2 High Social Skill

Improved Accuracy



- Social skill does not appear to people's ability to tell truth from lies in real interactions.
- People are more likely to report that others are telling the truth than lying when they are unsure about them, but response bias does not differ as a function of social skill.

Discussion

- One of the first lab investigations of naturalistic low-stakes lying
- Data collection is on-going and we aim to collect 50 groups or 250 participants
- Currently analyses are underpowered and significant trends may emerge with the full sample

References

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- 6 Baron-Cohen, S., Wheelwright, S., Skinner, R., Martin, J., & Clubley, E. (2001). The autism-spectrum quotient (AQ): Evidence from Asperger syndrome/high-functioning autism, males and females, scientists and mathematicians. *Journal of Autism and Developmental Disorders*, 31, 5-17

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