Own attractiveness affects strategies in an economic game

**Background:** The trust game is widely used to investigate economic decision-making in a social context\(^1\). The first player (P1) decides whether to split a small sum of money evenly between self and the second player (P2) or to allow P2 to decide how to split a larger sum of money. Standard game-theory models of self-interested choice suggest that P2 should always act selfishly in an anonymous one-shot game of this sort, and therefore P1 should never place their trust in P2\(^1\). However, experimental studies have shown that P1 often does trust P2 and that P2 often rewards that trust with an unselfish division\(^1\). The presence of an opponent's face\(^2\) – even a robot face\(^3\) or cartoon eyes\(^4\) – has been shown to influence economic decisions. On the basis of this experimental evidence, our study evaluates the effects of whether participants acting as P1 could see an image of their opponent's face and whether the participant believed that their image would be seen by P2. We also examined trusting decisions in relation to measures of the self-rated attractiveness of P1.

**Results**

We used Kruskal-Wallis to compare participants with lower-than-average, average, and higher-than-average self-rated attractiveness (SRA):

### SRA & Trusting Decisions

![Bar chart showing average number of trusting decisions (out of 8)]

- Less (n=22)
- Average (n=33)
- More (n=25)

SRA did not predict overall trusting behaviour. (\(\chi^2 = 1.56, \text{df} = 2, p = .46\))

### SRA & Visibility of P1

![Bar chart showing difference in trusting decisions (P1 Visible - P1 Not Visible)]

- Less (n=22)
- Average (n=33)
- More (n=25)

SRA did predict the difference in trusting behaviour to P2 who would see P1 versus P2 who would not see P1. (\(\chi^2 = 8.05, \text{df} = 2, p = .018\)).

**Conclusions:** People who rated themselves as more attractive than average were more likely to trust P2 when they believed P2 would see them than when they believed P2 would not see them. Conversely, participants who rated themselves as less attractive than average trusted P2 to a greater degree when they believed P2 would not see them than when they believed P2 would see them. This suggests that attractive individuals utilise their perceived physical appearance as part of weighing whether others will treat them fairly or not, and so affects the decisions they make involving trust.

**References:**


To contact the authors email faceresearch@abdn.ac.uk or visit http://www.facelab.org