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## ABSTRACT

People face different decision-making in daily life involving both oneself and others and interpersonal interaction affects people's decision-making progress. The pursuit of social acceptance is one of the most basic social needs. But social exclusion undermines the basic need of belonging to a social group and forming a positive and lasting social relationship. As a universally recognized social norm, fairness principle affects social communication. Generally, people praise and appreciate those who possess a high sense of fairness and dislike those who touch the bottom line of fairness.

The current study is designed to figure out how different types of group interaction (social exclusion/social inclusion) make contributions to social communication, meanwhile, to explore how interaction targets(original partner/potential partner) influence people to make fairness-related decisions from the perspective of a third party in the social decision-making process. A visual ball-tossing game was used to manipulate social exclusion and social inclusion conditions. In a bid to eliminate the confounding effect of self-utility and fairness orientation, a novel revised TPUG(third party ultimatum game)was exploited to investigate the behavioral patterns.

## METHOD

### Participants

80 valid data ranging in age from 17 to 24 years (11 male) participated in the experiment.

### Procedure

The participants were instructed to believe that this was a study on the relationship between task performance and psychological visualization. In order to train their visual visualization ability, they had to imagine the game as vividly as possible.

### Exclusion manipulation

Cyber-ball Game includes 50 trials, everyone pitches immediately after receiving a ball from one of the other two. In order to add more authenticity, virtual players' tossing interval is set at random 1.5 s to 2 s. Out of 50 trials under exclusion condition, participants will receive the ball 10 times at random (20% chance of receiving the ball), after 10 random catches, participants will not receive the ball again. Participants will receive the ball 35 times out of 50 passes from each other (70% chance of receiving the ball) in the inclusion condition, and after receiving the ball 35 times at random, participants will not receive the ball again. Other trials are the other two guys throwing at each other. Once the ball is received, participants can pass it to the player on the left by pressing "f" and "j" to the player on the right.

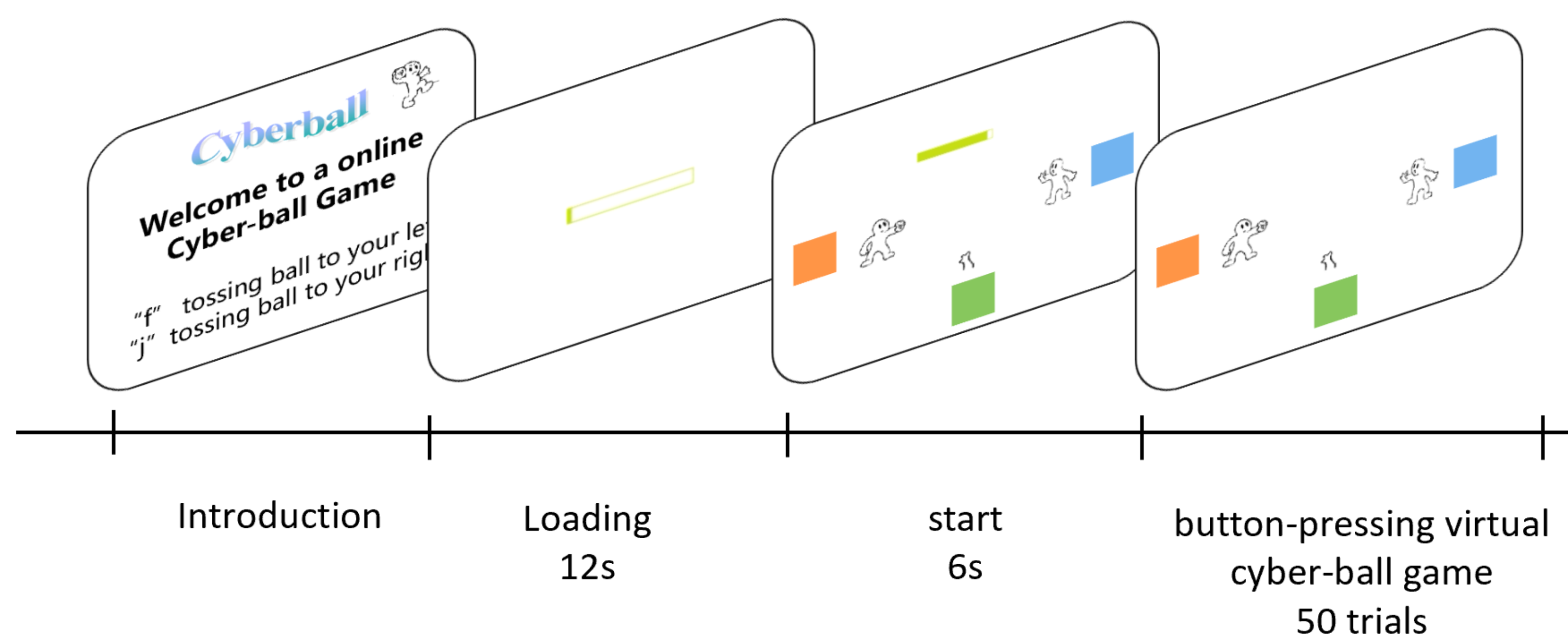


Figure 1. The social exclusion/inclusion manipulation.

### TPUG

In the TPUG, the total amount is ¥10, and there are 9 distribution schemes (1:9 vs. 2:8 vs. 3:7 vs. 4:6 vs. 5:5 vs. 6:4 vs. 7:3 vs. 8:2 vs. 9:1), ranging from unfair-advantage to unfair-disadvantage, including fair scheme (5:5), unfair-advantage scheme (1:9 vs. 2:8 vs. 3:7 vs. 4:6) and unfair-disadvantage proposal (6:4 vs. 7:3 vs. 8:2 vs. 9:1). The dependent variables are the cognitive, emotional responses of the respondents in TPUG, and the specific indexes are the rejection rate of the participants as the third party respondents to proposal in TPUG and a 5-point scale for each proposed proposal in terms of satisfaction (1 = very dissatisfied, 5 = very satisfied) and self-evaluation of anger (1 = not angry, 5 = very angry).

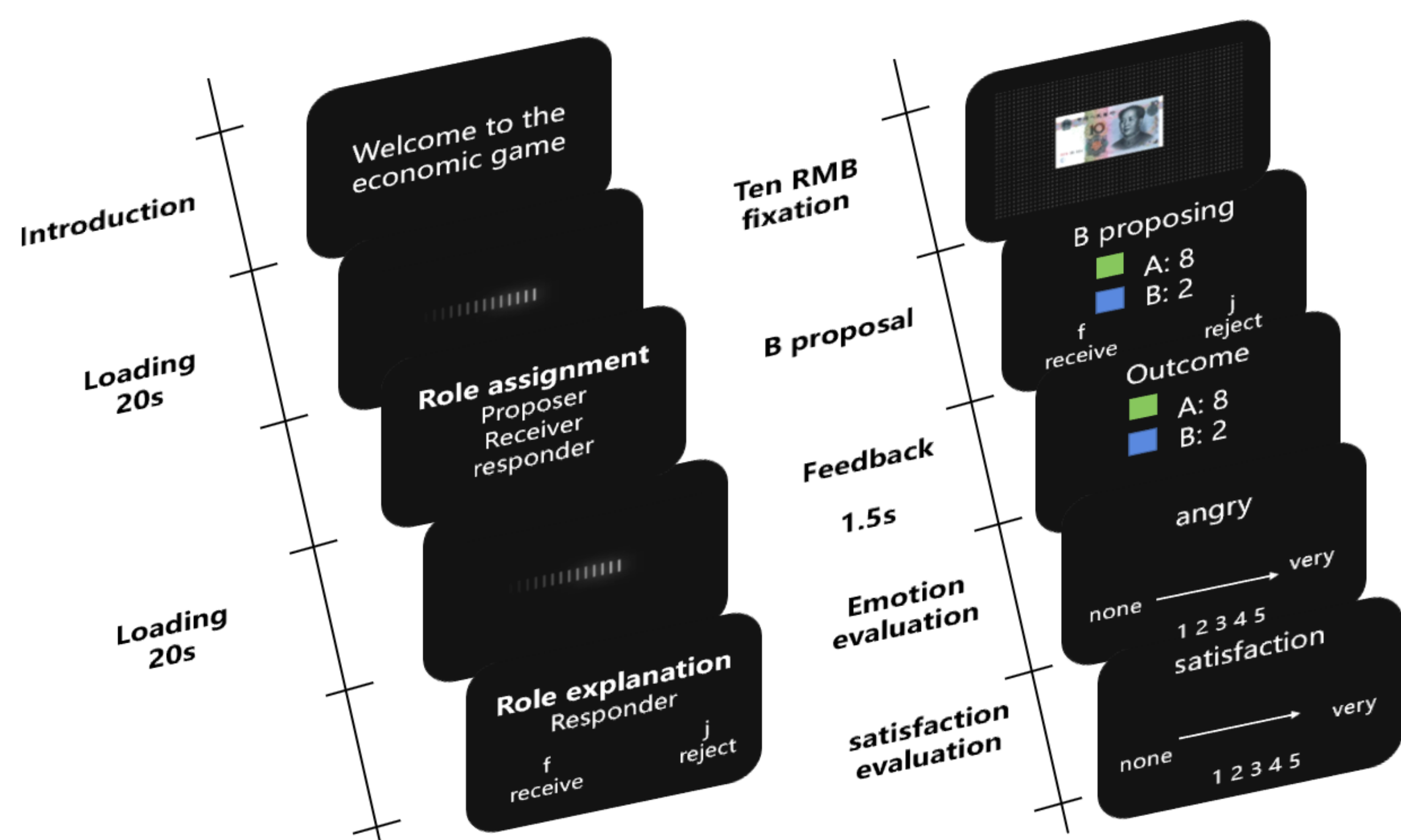


Figure 2. The TPUG procedure.

## RESULTS

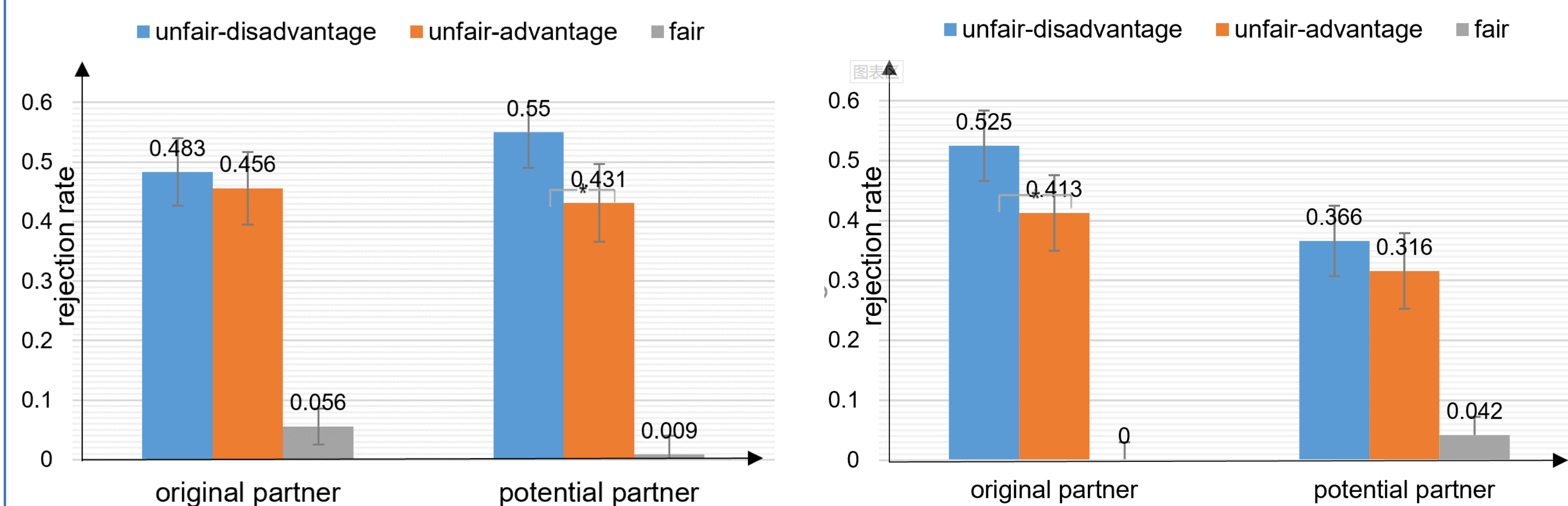


Figure 3. Bar charts displaying the rejection rate of each fairness condition(left: social exclusion; right: social inclusion).

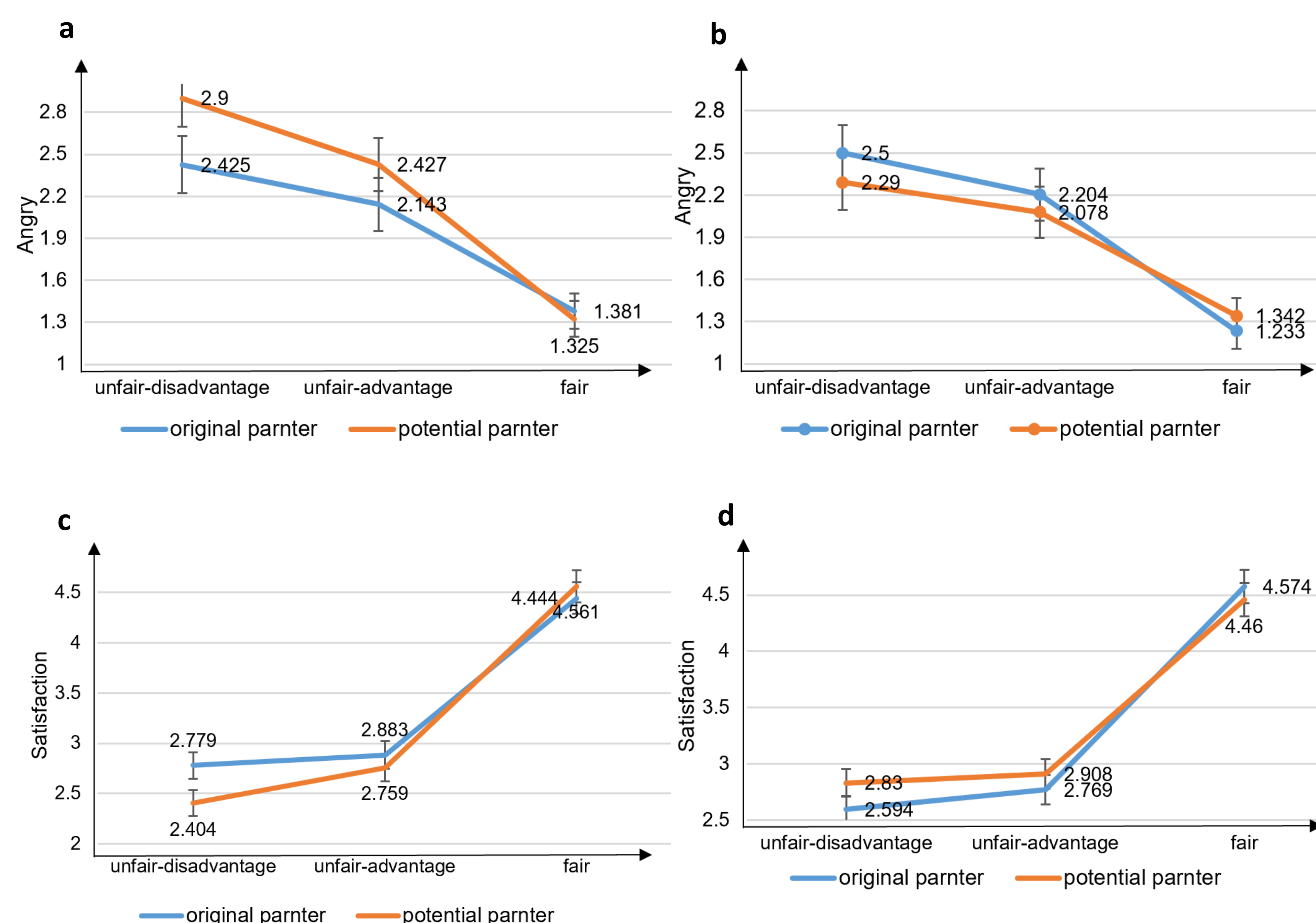


Figure 4. Line charts displaying the changes in anger(a: social inclusion, b: social exclusion) and satisfaction(c: social inclusion, d: social exclusion) evaluation towards proposal varying with the degree changing of fairness condition.

## CONCLUSION

Our result is consistent with previous finding that fairness significantly affects rejection rate, more unfair proposals induce higher rejection rate. Besides, results indicate that the rejection rate of social inclusion is higher, which reflects their higher sense of fairness. Interestingly, when facing adverse situation, acceptance rejection rate of social inclusion is higher than social exclusion. Social acceptance is the embodiment of the basic human belonging needs are met, being accepted by the society is more likely to have a positive mood and pro-social behavior as a result. Social acceptance makes individuals consider the benefit of passive receiver, and become more willing to shoulder the responsibilities of maintaining justice, more inclined to eliminate the disadvantage of adverse situation, embodying the pursuit of their fairness, thus rejection also indicates a punishment for selfish proposers who are dominant.

In addition, different types of group interaction will both promote social interaction, and, to a certain extent, improve the individual susceptibility to the principle of fairness, the outcomes support the hypothesis of social reconnection hypothesis. However, findings also suggest different interaction types own selective concern. Those who are excluded are more concerned about the interests of the exclusion perpetrator, while those who are accepted care more about the status of potential partners. Therefore, previous interaction experience and potential development possibility influence human-friendly behavior.

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