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Implementing Petty Favor in Facilitating Rich-Poor Resource Exchange

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Humans seek to select and exchange resources with wealthy partners for greater benefits. In this study, we examined whether implementing the “petty favor” option (giving a small number of resources to interaction partners prior to resource provision) from rich to cooperative-poor group members facilitates rich-poor selection and cooperation. In total, 216 participants were assigned to the rich group and played a repeated Prisoner’s Dilemma game with selfish-rich or cooperative-poor partner bots. Participants preferred to use the “petty favor” options on cooperative-poor partners and share a large number of resources with them. The findings suggest that the provision of petty favors motivates providers to exchange more resources with cooperators beyond the existing rich-poor boundary.

Keywords
petty favor, rich-poor cooperation, selective play paradigm, structural goal/expectation, bounded generalized reciprocity, Prisoner’s Dilemma game

Introduction

Inequality has shaped the evolution of cooperation since the times of the hunter-gatherer society (Apicella et al., 2014). Inequality in wealth affects social preference (Melamed et al., 2022), facilitates social segregation (Nishi et al., 2015), and decreases subjective well-being and happiness in the segregated population (Buttrick et al., 2017). Given the detrimental consequences of inequality, encouraging resource sharing between the rich and the poor becomes an important issue in human society (Haynie et al., 2021). Evolutionary theorists argue that homophily in social status shapes stable and long-term relationships (Fu et al., 2012), providing critical insight into the emergence of social segregation under inequality. This study scrutinizes ways to overcome wealth homophily to accomplish rich-poor resource sharing using the framework of a Prisoner’s Dilemma game (PDG).

Homophily & cooperativeness in resource exchange

Postulated in various evolutionary mechanisms, such as the green-beard effect and tag-based cooperation, homophily and cooperation are mutually reinforced through resource exchange (Masuda & Fu, 2015). Segregations in social networks emerge primarily in relation to category-based preference; however, group categories and cooperativeness serve as distinct mechanisms for social selection. Participants in a repeated PDG select social partners based on the similarity of their group category but reject them based on their cooperativeness (Melamed et al., 2020). Under wealth disparities, the rich-poor category emerges spontaneously. People categorized as relatively rich prefer ingroup (rich) members over outgroup (poor) members to exchange resources (Jetten et al., 2017; Martinangeli & Martinsson, 2020).

However, category-based preferences for social selection are not always dominant. People tend to select and share resources with social partners who have positive reputations (Melamed et al., 2018; Rand et al., 2011). Recent research on wealth disparity and resource exchange (Hauser et al., 2021) reveals that rich-group players tend to be punished if their contribution is low in proportion to their endowments, regardless of the absolute amount of their contribution. Notably, group permeability refers to the degree to which individuals can move between different groups. In the case of wealth-based group boundaries, permeability is related to the possibility of upward and downward mobility based on the amount of resources people possess. The evolutionary perspective of bounded generalized reciprocity (BGR) explains that ingroup favoritism is derived from the expectation of mutual cooperation for benefits (Yamagishi et al., 1999). In the BGR framework, human groups serve as containers for generalized exchange, and group categories induce a heuristic of mutual cooperation (Yamagishi & Kiyonari, 2000). These findings indicate that people prioritize potential social partners’ cooperativeness over their social categories to create a new boundary for mutual cooperation if the former information is available.

In this study, we apply a selective play paradigm (Hayashi & Yamagishi, 1998) in a repeated PDG to elucidate the way in which people set boundaries for mutual cooperation under the division of rich-poor group categories. This approach allows us to distinguish two social preferences associated with group category: selection (nominating with whom to interact) and action (deciding the amount of resources shared with partners) strategies. Here, we manipulate the visibility of the cooperativeness in PDG to examine whether cooperativeness-based preference could override category-based preference in social selection and resource exchange.

Implementation of petty favor for rich-poor cooperation

In social dilemma games, free riders decrease others’ motivation for resource sharing (Yamagishi & Sato, 1986). According to the structural goal/expectation approach, using punishment as a trigger for mutual cooperation deters free riders from exploiting others and facilitates

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resource exchange (Yamagishi, 1986). The effect of punishment on human cooperation is often strong enough to surpass the effects of kinship and indirect reciprocity (Fehr & Gächter, 2002). Positive interactions are also effective in facilitating resource exchange (Rand et al., 2009). Voluntary punishment and rewards are driven primarily by intrinsic and strategic motives, respectively (Choi & Ahn, 2013). Of these, strategic motives increase through expectations of future cooperation with ingroup members. These findings indicate that implementing a trigger for reward-based interventions is an effective way to facilitate resource exchange within a flexible group boundary determined by cooperativeness.

In this study, we introduce *petty favor provisioning* as a counterpart of punishment to induce behavioral changes in a repeated PDG. Petty favor is implemented as an option to provide a small amount of resources from one's endowment to another interaction partner *before* the PDG. Suppose that players initially plan to invest 100 out of 300 points in their wallet to a partner in PDG. Players without motivation for mutual cooperation may ignore the petty favor option because splitting the initial points for petty favor and PDG (10 and 90 points) is not meaningful for them. Contrastingly, if players are motivated to earn benefits from mutual cooperation, they may think of a petty favor option (e.g., providing 10 points before PDG) as useful to increase the partner's cooperation in forms of reciprocity in PDG. In this case, the players would count the cost for petty favor outside the initial amount and invest the initial amount as originally planned. In other words, we expect that this option would serve as a strategy, such as "you must lose a fly to catch a trout."

Methods

Participants & design

In 2020, 232 Japanese crowdsourcing workers were recruited at Lancers to participate in this experiment. Each participant received 300 yen (approximately $3) as remuneration. After the survey was completed, the top six participants were selected as winners based on the points they earned in the game and were awarded another 1000 yen (approximately $10) as a bonus. This study used a 2 (cooperativeness visibility [between-factor]: visible, invisible) × 2 (partner selection [within-factor]: poor, rich) × 2 (petty favor type [between-factor]: donation, signaling) × 2 (petty favor provisioning [within-factor]: provide, hold) × 3 (contribution [within-factor]: high, medium, low) mixed design (see below for details).

Repeated PDG with a selective play paradigm

We developed a modified repeated PDG incorporating a selective play paradigm (Hayashi & Yamagishi, 1998). At the beginning of the game, participants were shown a picture and a vignette describing rich-poor residential segregation in a virtual city (see Supplementary Materials). Participants were informed that (1) the experiment was a multi-player online experiment, including paired activities among the inhabitants of the city using unique IDs, and (2) they would become either rich inhabitants in the upscale neighborhood or poor inhabitants in the slum district based on the initial points randomly assigned to them. The rich-poor threshold was set at 10,000 points, in which participants were defined as rich inhabitant if they possessed more than 10,000 points. All participants were allocated as rich, in actuality, and all other players were programmed bots whose cooperation rates were manipulated.

Participants played the game for 20 rounds. In Session 1 (Rounds 1–10), each round included two steps: (1) selecting a partner and (2) contributing points to the pair account. Participants had 600 points in each round and were able to choose a partner from rich or poor residential areas. Potential partner points were dynamically set from 500–700 points and 250–350 points in rich and poor residential areas, respectively[1]. After pairing up, participants decided the number of points they wanted to contribute to the pair's account. Partner cooperation rates ranged from 25%–45% for rich residential partners and from 75%–95% for poor residential partners. In other words, the participants made selections between selfish-rich and cooperative-poor partner. The sum of contributions was multiplied by 1.5 and divided equally for each member in the pair.

In Session 2 (Round 11–20), a petty favor provisioning system was implemented between partner selection and contribution. Participants determined whether they would provide 50 of their 600 points to the selected partner or keep the points for themselves. Partners (bots) did not have this option. Note that the partner's cooperation rates were fixed, regardless of the execution of the option, which increased the partner's total amount of contributions with petty favor provisioning. For example, if a partner had 300 points and the cooperation rate was 75%, the partner would provide 263 ([300 + 50] × 0.75) points after receiving a petty favor or 225 (300 × 0.75) points without it. We manipulated the type of petty favor as a donation (giving with anonymity; n = 108) or signaling (giving with the participants' ID; n = 108).

Procedure

The experiment was programmed in oTree (Chen et al., 2016). Following the instructions, the participants completed a practice session, after which they participated in the game. They did not know the total number of rounds in the game. The visibility of potential partners' cooperativeness was manipulated as a between-participant factor. In the invisible condition (n = 104), only potential partners' group categories (rich or poor) were presented. In the visible condition (n = 112), the last-round cooperation rate was presented with their category. Upon completing the game, participants responded to the manipulation checks and demographic questions, which was followed by debriefing[2].

[1] Before the experiment, a simulation was conducted to equalize participants' expected total rewards regardless of the proportion of selfish-rich partners in a 20-round PDG. Based on the calculation, we originally intended to set the rich partner's points ranging between 600 and 800 in each round. However, due to programming errors, the points ranged between 500 and 700 in the experiment. This resulted in an increase in expected total rewards due to the avoidance of selfish-rich partners. See the prior simulation section in Supplementary Materials for more details.

[2] We also measured group identification (Karasawa, 2002), perceived homophily (Ensari et al., 2012), impressions (Fiske et al., 2002) toward both rich and poor residential partners, subjective social status (Adler et al., 2000), and generalized trust (Yamagishi & Yamagishi, 1994). However, we did not include these variables in the main analysis.

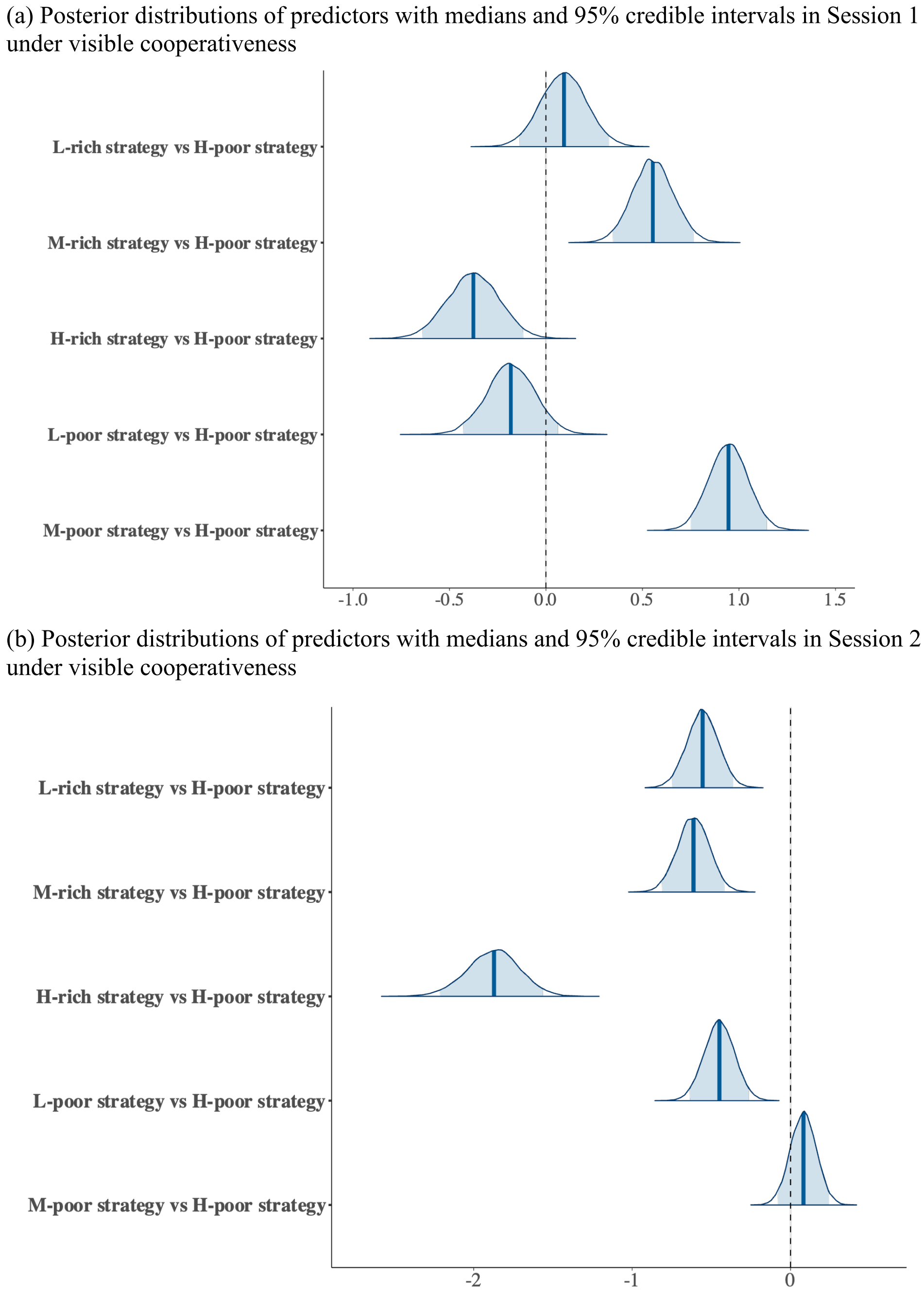

Figure 1. Posterior distributions of predictors with medians and 95% credible intervals under visible cooperativeness (n = 112). All participants played a repeated PDG as rich residential players. The petty favor option was implemented only in Session 2. The participants' behavioral patterns were categorized into six types based on partner selection (rich/poor) and cooperation rates (high [H]/medium [M]/low [L]). The H-poor strategy (choosing a cooperative-poor partner and showing a high-level cooperation rate) served as a baseline for comparison.

Results

We excluded data from 12 participants for duplicate participation and four participants who withdrew their consent for analysis. Finally, data from 216 participants (M_{age} = 42.76 years, SD = 10.63, 129 males and 87 females) were analyzed.

Preferred strategy between Sessions 1 & 2

We created multinomial dependent variables that represented the two-step decision-making process (partner selection→resource sharing) in the experiment. First, we categorized the participants' cooperation rates into three levels: low (cooperation rates < 30%), medium (30% to 50%), and high (> 50%)[3],[4]. If the participants provided 50 points as petty favor in Session 2, their cooperation rates were calculated after subtracting the amount from the

[3] Using cooperation rates as a continuous independent variable resulted in non-convergence when modeling the multistep decision-making process in a Bayesian framework. Therefore, we categorized participants' behavioral patterns and applied them in a multinomial regression model.

[4] Participants' cooperation rates in each round (points given to the pair account divided by the initial points) ranged between 30%–50% (Figure S2). A meta-analysis on cross-cultural variations in cooperation reported that the average cooperation rate among strangers is 33% in Japan (Spadaro et al., 2022).

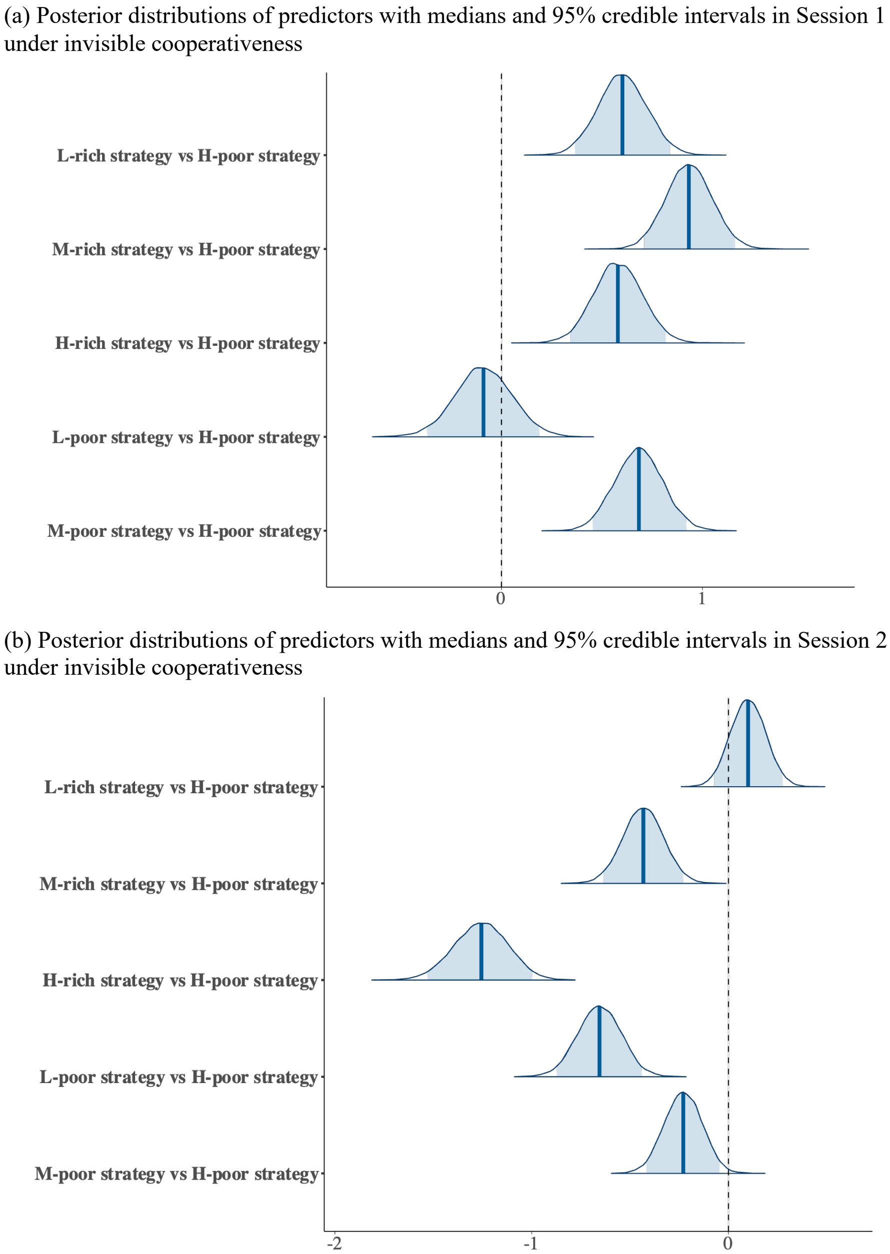

Figure 2. Posterior distributions of predictors with medians and 95% credible intervals under invisible cooperativeness (*n* = 104). All participants played a repeated PDG as rich residential players. The petty favor option was implemented only in Session 2. The participants' behavioral patterns were categorized into six types based on partner selection (rich/poor) and cooperation rates (high [H]/medium [M]/low [L]). The H-poor strategy (choosing a cooperative-poor partner and showing a high-level cooperation rate) served as a baseline for comparison.

initial points (i.e., the denominator was 600 − 50 = 550 points)[5]. Then, the behavioral strategies of each round were categorized based on two-step decision-making strategies, including partner selection (2: cooperative-poor or selfish-rich) × cooperation rate (3: low, medium, or high), and classified into six types: H-poor [high contribution with a cooperative-poor partner], M-poor, L-poor, H-rich, M-rich, and L-rich. Descriptive statistics are reported in the Supplementary Materials.

A Bayesian multinomial regression model was fitted to estimate the preferences for the strategies across 20 rounds in the visible and invisible conditions, respectively. All participants were assigned to the rich residential group. The H-poor strategy was set as the baseline for comparison with the other strategies.

Figures 1 and 2 show the calculated values based on combinations of the parameter estimates and 95% posterior distribution of parameters in the visible and invisible conditions, respectively. In Session 1, the M-poor/M-rich strategies in the visible condition were preferred to the H-poor strategy (Figure 1a). In the invisible condition of Session 1, the H-rich/M-rich/L-rich strategies and the M-poor strategy were preferred over the H-poor strategy (Figure 2a). However, the H-poor strategy was generally preferred over most strategies in both conditions in Session 2 (see Table S3 and Model 1 in the Supplementary

[5] This means that the way to calculate cooperation rates differed between Sessions 1 and 2. If participants contributed 300 points in Session 1, their cooperation rate was 50% (300 / 600). If participants provided 50 points as petty favor and contributed 300 points in Session 2, their cooperation rate was 54.5% [300 / (600 − 50)].

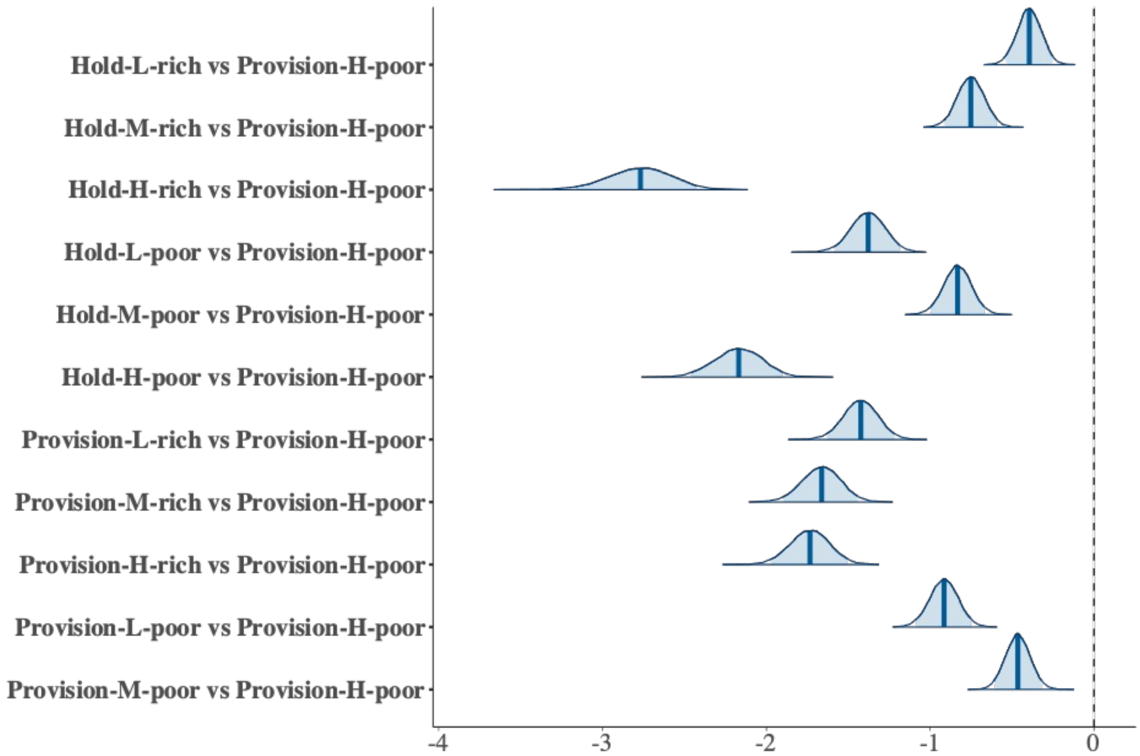

Figure 3. Posterior distributions of predictors with medians and 95% credible intervals (N = 216). All participants played a repeated PDG as rich residential players. Combining participants' cooperation rates (high [H]/medium [M]/low [L]) with decision-making for partner selection (rich/poor) and the provision of petty favors (provision/hold), all behavior patterns were categorized into 12 types. The provision-H-poor strategy (choosing a cooperative-poor partner and providing a petty favor along with a high-level cooperation rate) served as a baseline for comparison.

Materials for details). These findings suggest that implementing the petty favor provisioning system induced higher cooperation with partners who were poor but cooperative.

Petty favor provisioning & cooperation rate

We created a dummy variable to determine whether participants provided petty favors (provision or hold) in each round in Session 2. Participants showed the highest cooperation rate (M = 0.56, SD = 0.28) when they selected poor-cooperative partners and provided petty favors (see Table S2 in the Supplementary Materials for the descriptive statistics of the other strategies)[6].

Reflecting a three-step decision-making process in Session 2, behavioral strategies of each round were classified into 12 types based on partner choice (2: cooperative-poor or selfish-rich) × petty favor provisioning (2: provision or hold) × cooperation rates (3: high, medium, or low). For example, if a participant chose a cooperative-poor partner, provided petty favors, and assigned a high proportion of points to the pair account, the strategy was categorized as the Provision-H-poor strategy (*providing* petty favors along with a *high*-level contribution by choosing the *poor partner*).

Figure 3 shows the estimates of a Bayesian multinomial regression model. The Provision-H-poor strategy (baseline) was the most preferred (see Table S4 and Model 2 in the Supplementary Materials for details). Combined with the results reported in the previous section, these findings indicate that rich players tended to execute the petty-favor option with cooperative-poor partners and made greater contributions to them.

Discussion

Implementing a petty favor facilitates mutual cooperation beyond the rich-poor boundary. The interpretation of the petty favor effect is twofold. First, granting petty favors to cooperative-poor partners can induce a positive mood. Positive mood promotes prosocial behavior (Cunningham, 1988; Salovey et al., 1991) and could subsequently facilitate resource sharing in PDG. Second, expectations of future interactions may work under a permeable resource-based group boundary. The anticipation of future cooperation changes intergroup attitudes and eliminates preferences for ingroups (Misch et al., 2021). In this study, participants might have utilized petty favors as a strategy to establish reciprocal relationships with potential social partners for future interactions.

This study focused only on the situation where rich players selected either selfish-rich or cooperative-poor partners. Future research should include all possible combinations of social categories of players and their partners' cooperativeness to replicate the robustness of the current findings in different settings. Additionally, it may

[6] At the end of the experiment, participants engaged in a manipulation check on whether the sender of petty favor was identifiable (the signaling condition) or unidentifiable (the donation condition) by their interaction partners in Session 2. Of 216 participants, 95 (44%) did not answer correctly and 62 (29%) responded as "unknown." This indicates that the signaling-donation manipulation was not successful. Therefore, we did not include this variable in the analysis.

be possible that participants were aware of the number of points they provided but did not recognize changes in cooperation rates with or without petty favor provision. To address this, participants' cooperation rates should be presented on the computer screen along with the points in each round of the PDG.

The BGR contends that human cooperation is rooted in reciprocal altruism, and cooperators tend to assort each other for evolutionary advantages (Balliet et al., 2014). From this perspective, our findings expand the theoretical context of BGR from intragroup to intergroup cooperation by modifying group boundaries based on cooperativeness.

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Author contribution

JC and TI developed the study concept. JC collected and analyzed the data. JC and TI wrote the manuscript. All authors have read and approved the final manuscript.

Ethical statement

The experiment was approved by the Ethical Review Board of the Graduate School of Education and Human Development, Nagoya University (#20-1454).

Data accessibility & program code

Data and R code have been deposited in the Open Science Framework (https://osf.io/xh25d/)

Supplementary material

The supplementary materials have been deposited in the Open Science Framework (https://osf.io/xh25d/)

References

Adler, N. E., Epel, E. S., Castellazzo, G., & Ickovics, J. R. (2000). Relationship of subjective and objective social status with psychological and physiological functioning: Preliminary data in healthy, White women. *Health Psychology*, *19*(6), 586–592. https://doi.org/10.1037//0278-6133.19.6.586

Apicella, C. L., Azevedo, E. M., Christakis, N. A., & Fowler, J. H. (2014). Evolutionary origins of the endowment effect: Evidence from hunter-gatherers. *The American Economic Review*, *104*(6), 1793–1805. https://doi.org/10.1257/aer.104.6.1793

Balliet, D., Wu, J., & De Dreu, C. K. W. (2014). Ingroup favoritism in cooperation: A meta-analysis. *Psychological Bulletin*, *140*(6), 1556–1581. https://doi.org/10.1037/a0037737

Buttrick, N. R., Heintzelman, S. J., & Oishi, S. (2017). Inequality and well-being. *Current Opinion in Psychology*, *18*, 15–20. https://doi.org/10.1016/j.copsyc.2017.07.016

Chen, D. L., Schonger, M., & Wickens, C. (2016). oTree—An open-source platform for laboratory, online, and field experiments. *Journal of Behavioral and Experimental Finance*, *9*, 88–97. https://doi.org/10.1016/j.jbef.2015.12.001

Choi, J. K., & Ahn, T. K. (2013). Strategic reward and altruistic punishment support cooperation in a public goods game experiment. *Journal of Economic Psychology*, *35*, 17–30. https://doi.org/10.1016/j.joep.2013.01.001

Cunningham, M. R. (1988). What do you do when you're happy or blue? Mood, expectancies, and behavioral interest. *Motivation and Emotion*, *12*(4), 309–331. https://doi.org/10.1007/BF00992357

Ensari, N., Christian, J., Kuriyama, D. M., & Miller, N. (2012). The personalization model revisited: An experimental investigation of the role of five personalization-based strategies on prejudice reduction. *Group Processes & Intergroup Relations*, *15*(4), 503–522. https://doi.org/10.1177/1368430211434576

Fehr, E., & Gächter, S. (2002). Altruistic punishment in humans. *Nature*, *415*(6868), 137–140. https://doi.org/10.1038/415137a

Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, *82*(6), 878–902. https://doi.org/10.1037/0022-3514.82.6.878

Fu, F., Nowak, M. A., Christakis, N. A., & Fowler, J. H. (2012). The evolution of homophily. *Scientific Reports, 2*, 845. https://doi.org/10.1038/srep00845

Hauser, O. P., Kraft-Todd, G. T., Rand, D. G., Nowak, M. A., & Norton, M. I. (2021). Invisible inequality leads to punishing the poor and rewarding the rich. *Behavioural Public Policy*, *5*(3), 333–353. https://doi.org/10.1017/bpp.2019.4

Hayashi, N., & Yamagishi, T. (1998). Selective play: Choosing partners in an uncertain world. *Personality and Social Psychology Review*, *2*(4), 276–289. https://doi.org/10.1207/s15327957pspr0204_4

Haynie, H. J., Kavanagh, P. H., Jordan, F. M., Ember, C. R., Gray, R. D., Greenhill, S. J., Kirby, K. R., Kushnick, G., Low, B. S., Tuff, T., Vilela, B., Botero, C. A., & Gavin, M. C. (2021). Pathways to social inequality. *Evolutionary Human Sciences*, *3*, e35. https://doi.org/10.1017/ehs.2021.32

Jetten, J., Wang, Z., Steffens, N. K., Mols, F., Peters, K., & Verkuyten, M. (2017). A social identity analysis of responses to economic inequality. *Current Opinion in Psychology*, *18*, 1–5. https://doi.org/10.1016/j.copsyc.2017.05.011

Karasawa, K. (2002). Responsibility attribution and support provision in an intergroup context: An examination in a simulated society game. *The Japanese Psychological Research*, *44*(4), 196–208. https://doi.org/10.1111/1468-5884.00022

Martinangeli, A. F. M., & Martinsson, P. (2020). We, the rich: Inequality, identity and cooperation. *Journal of Economic Behavior & Organization*, *178*, 249–266. https://doi.org/10.1016/j.jebo.2020.07.013

Masuda, N., & Fu, F. (2015). Evolutionary models of in-group favoritism. *F1000prime Reports*, *7*, 27. https://doi.org/10.12703/P7-27

Melamed, D., Harrell, A., & Simpson, B. (2018). Cooperation, clustering, and assortative mixing in dynamic networks. *Proceedings of the National Academy of Sciences of the United States of*

America, *115*(5), 951–956. https://doi.org/10.1073/pnas.1715357115

Melamed, D., Munn, C. W., Simpson, B., Abernathy, J. Z., Harrell, A., & Sweitzer, M. (2020). Homophily and segregation in cooperative networks. *The American Journal of Sociology*, *125*(4), 1084–1127. https://doi.org/10.1086/708142

Melamed, D., Simpson, B., Montgomery, B., & Patel, V. (2022). Inequality and cooperation in social networks. *Scientific Reports*, *12*, 6789. https://doi.org/10.1038/s41598-022-10733-8

Misch, A., Paulus, M., & Dunham, Y. (2021). Anticipation of future cooperation eliminates minimal ingroup bias in children and adults. *Journal of Experimental Psychology. General*, *150*(10), 2036–2056. https://doi.org/10.1037/xge0000899

Nishi, A., Shirado, H., Rand, D. G., & Christakis, N. A. (2015). Inequality and visibility of wealth in experimental social networks. *Nature*, *526*(7573), 426–429. https://doi.org/10.1038/nature15392

Rand, D. G., Arbesman, S., & Christakis, N. A. (2011). Dynamic social networks promote cooperation in experiments with humans. *Proceedings of the National Academy of Sciences of the United States of America*, *108*(48), 19193–19198. https://doi.org/10.1073/pnas.1108243108

Rand, D. G., Dreber, A., Ellingsen, T., Fudenberg, D., & Nowak, M. A. (2009). Positive interactions promote public cooperation. *Science*, *325*(5945), 1272–1275. https://doi.org/10.1126/science.1177418

Salovey, P., Mayer, J. D., & Rosenhan, D. L. (1991). Mood and helping: Mood as a motivator of helping and helping as a regulator of mood. In M. S. Clark (Ed.), *Prosocial behavior* (pp. 215–237). SAGE.

Spadaro, G., Graf, C., Jin, S., Arai, S., Inoue, Y., Lieberman, E., Rinderu, M. I., Yuan, M., Van Lissa, C. J., & Balliet, D. (2022). Cross-cultural variation in cooperation: A meta-analysis. *Journal of Personality and Social Psychology*, *123*(5), 1024–1088. https://doi.org/10.1037/pspi0000389

Yamagishi, T. (1986). The provision of a sanctioning system as a public good. *Journal of Personality and Social Psychology*, *51*(1), 110–116. https://doi.org/10.1037/0022-3514.51.1.110

Yamagishi, T., Jin, N., & Kiyonari, T. (1999). Bounded generalized reciprocity: Ingroup boasting and ingroup favoritism. *Advances in Group Processes*, *16*(1), 161–197.

Yamagishi, T., & Kiyonari, T. (2000). The group as the container of generalized reciprocity. *Social Psychology Quarterly*, *63*(2), 116–132. https://doi.org/10.2307/2695887

Yamagishi, T., & Sato, K. (1986). Motivational bases of the public goods problem. *Journal of Personality and Social Psychology*, *50*(1), 67–73. https://doi.org/10.1037/0022-3514.50.1.67

Yamagishi, T., & Yamagishi, M. (1994). Trust and commitment in the United States and Japan. *Motivation and Emotion*, *18*(2), 129–166. https://doi.org/10.1007/BF02249397