

Does Perception of Relational Mobility Affect the Evaluation of Norm-Deviant Altruism?

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Generosity does not always result in a positive reputation. Kawamura and Kusumi (2020) found that altruistic behavior that deviates from social norms was evaluated less favorably than moderately altruistic behavior, and that this tendency was more pronounced in Japan than in the United States. This may be attributed to a lower tolerance for deviance among Japanese individuals. Relational mobility, which influences tolerance for deviance, is generally higher in the United States than in Japan, potentially accounting for these cultural differences. In the present study, Japanese participants preferred an equal distributor over one who gave away everything, perceiving the former as more normative. This finding replicates the results of the previous study. Furthermore, the equal distributor was also newly found to be preferred as a business partner. However, individual differences in perceived relational mobility did not influence participants' evaluations of the distributors. The effects of the degree of participants' altruism and general trust were also examined.

Keywords

altruism, generosity, social norm, relational mobility, general trust, reputation

Introduction

Competitive altruism is a driving force in the evolution of cooperation. Individuals benefit from signaling their prosociality in the “biological market,” where people can choose whom to interact with, and prosocial behavior escalates through a process of reputation-based partner selection (Barclay, 2011). However, generosity does not always lead to a positive reputation (e.g., Herrmann et al., 2008). Kawamura and Kusumi (2020) asked participants to read vignettes about individuals involved in a dictator game scenario and to rate their impressions of various distributors from a third-party perspective. They found that altruistic behavior deviating from social norms was rated less favorably than moderately altruistic behavior, particularly when the degree of deviation was high. The

authors inferred that this negative evaluation resulted from the altruists' deviation from social norms. Moreover, they conducted surveys in both Japan and the United States and found that deviant altruistic behavior was rated less favorably in Japan than in the United States. Japan is known as a “tight” society (i.e., one with low tolerance for deviance; Gelfand et al., 2011), which may explain this cultural difference.

One factor influencing tolerance for deviations is relational mobility. Relational mobility refers to the degree to which individuals can form new relationships and exit undesirable ones (Schug et al., 2010; Yuki & Schug, 2020). Higher relational mobility is associated with greater tolerance for norm violations and moral deviations. In low-mobility societies with few opportunities for new social encounters (e.g., East Asian countries and rural villages), people tend to form closed, long-term commitment-based relationships. These environments limit individuals' ability to freely initiate or terminate interpersonal relationships. As a result, individuals are more concerned about reputational damage and perceive deviant behavior as more costly, making them more likely to view norm violations as inappropriate. Conversely, in high-mobility societies with frequent opportunities for new social interactions (e.g., Western countries and large cities), individuals can more freely form and dissolve relationships. In such contexts, reputational damage from deviant behavior is less consequential, and norm violations are more likely to be tolerated. Altruism in these environments is more often valued as an individual trait, and even norm-deviant altruistic behavior may be viewed positively. Relational mobility is known to be higher in the United States than in Japan (Yuki et al., 2007), which may help explain the observed cultural differences in the evaluation of altruistic behavior.

In this study, I examine the relationship between individual differences in relational mobility and the evaluation of excessive altruism among Japanese participants. Even within the same culture, individuals in high-relational-mobility environments are expected to evaluate those who display excessive altruism more positively, focusing on their altruistic behavior. Moreover, such evaluations are likely influenced by the evaluator's own level of altruism. That is, even among highly mobile individuals, those with higher levels of altruism toward others are particularly likely to value excessive altruism, as altruists are less susceptible to exploitation if they selectively associate with other altruists. Another aim of this study is to examine in greater detail how excessive altruism is evaluated by third parties. Excessive altruism may function as an honest signal (Fehrler & Przepiorka, 2013). While Kawamura and Kusumi (2020) measured “liking” and “respect,” corresponding to communion and agency, it is necessary to assess more directly whether an individual is perceived as a suitable partner in social

exchange. Therefore, the present study additionally investigates evaluations of the target as a recipient of help and as a potential business partner. The pre-registered study plan and data are available at Open Science Framework (<https://osf.io/p592c>).

Study 1

Methods

(1) Participants and procedure

Participants were recruited through Cross Marketing, Inc. (Tokyo, Japan). The experimental design largely followed that of Study 3 in Kawamura and Kusumi (2020; see Supplementary material for details). In addition to “liking,” “respect,” and “norm perception,” participants also rated, after reading each vignette, how much they wanted to help the person when in trouble (“help”) and how suitable they thought the person would be as a business partner (“deal”), using a 7-point scale (1 = *not at all*, 7 = *extremely*). The order of presentation of the two vignettes was randomized for each participant. After reading the vignettes, participants completed scales measuring perceptions of relational mobility in society (Yuki et al., 2007) and the SRAS-DR (Oda et al., 2013).

Data collection continued until 320 participants who answered the manipulation check questions correctly were obtained (see Supplementary material for the sample size rationale). Data were collected based on age to ensure an equal number of participants in each experimental group (40 females and 40 males in each age group: 20–29, 30–39, 40–49, and 50–59 years).

(2) Analyses

Dependent variables included liking, respect, help, deal, and norm perception. To replicate the results of Kawamura and Kusumi (2020), paired *t*-tests were conducted with the significance level set at $\alpha = .01$ (i.e., .05/5; Bonferroni correction). Then, linear mixed models were run with distribution type, degree of perceived relational mobility, degree of altruism toward strangers, and their interactions as fixed effects, and participants as random effects. The function *lmer* in the R 4.4.3 package *lme4* was used (Bates et al., 2015).

Results and discussion

The items assessing liking, respect, and norm perception were highly correlated ($r = .74-.89$; Table S1). Paired *t*-tests indicated that liking in the giving-away-everything condition was lower than in the sharing-50/50 condition, and that giving-away-everything was regarded as more

norm-deviant behavior than sharing-50/50 (Table 1), replicating Kawamura and Kusumi (2020). Contrary to the previous study, however, respect in the giving-away-everything condition was higher than in the sharing-50/50 condition (Table 1). Participants wanted to help the person who gave away everything more than the person who shared 50/50, whereas they thought the person who shared 50/50 was a more suitable business partner than the person who gave away everything (Table 1).

The bivariate correlations among the traits are shown in Table S2. The correlation coefficient between relational mobility and altruism toward strangers was .02. As multicollinearity was not present among the explanatory variables, multiple regression analyses were conducted. Only the distribution type significantly contributed to liking ($\beta = -0.263 \pm 0.085$, $t = -3.08$, $p = .002$), respect ($\beta = 0.271 \pm 0.094$, $t = 2.87$, $p = .004$), help ($\beta = 0.210 \pm 0.080$, $t = 2.62$, $p = .009$), and deal ($\beta = -0.576 \pm 0.091$, $t = -6.34$, $p < .001$; Table S3). No other factors or interactions significantly contributed to these variables. Although perception of relational mobility positively contributed to deal, this contribution was not significant under the conservative criteria after adjustment. Both distribution type and degree of perceived relational mobility significantly contributed to norm perception (distribution type: $\beta = 2.022 \pm 0.094$, $t = 21.44$, $p < .001$; relational mobility: $\beta = -0.216 \pm 0.071$, $t = -3.04$, $p = .002$; Table S3). Although the interaction of these two factors positively contributed, it was not significant under the conservative criteria after adjustment ($\beta = 0.229 \pm 0.094$, $t = 2.43$, $p = .015$). Monetary distributions were perceived as more deviant behavior when perception of relational mobility was lower (Figure 1).

Contrary to the prediction, neither perception of relational mobility nor altruism toward strangers affected participants' evaluations of the distributors. Another finding was that, while norm-deviant altruists were not favored and were less likely to be chosen as business partners, they were more respected and evaluated as individuals whom others want to help compared to those who distribute equally. This suggests that even if norm-deviant altruists fail to comply with norms and incur additional costs, they can still reap rewards. However, the measures of willingness to help and evaluation as a business partner in this survey consisted of only one item each. Because types and costs of help vary considerably, it is unclear what specific situations participants had in mind. Furthermore, multiple criteria likely exist for evaluating a person as a business partner. Therefore, Study 2 diversified the types of help and separated the evaluation of business

Table 1. Mean ratings $\pm$ SD of dependent variables in each condition in Study 1.

	Sharing-50/50	Giving-away-everything	<i>t</i>	<i>p</i>	Cohen's <i>d</i>
Liking	4.7 $\pm$ 1.2	4.4 $\pm$ 1.5	3.05	.002	0.19
Respect	4.5 $\pm$ 1.3	4.8 $\pm$ 1.6	-2.89	.004	0.19
Help	4.6 $\pm$ 1.1	4.8 $\pm$ 1.3	-2.64	.009	0.18
Deal	4.9 $\pm$ 1.1	4.4 $\pm$ 1.4	6.32	< .001	0.46
Norm	3.6 $\pm$ 1.3	5.6 $\pm$ 1.2	-21.32	< .001	1.58

df = 319

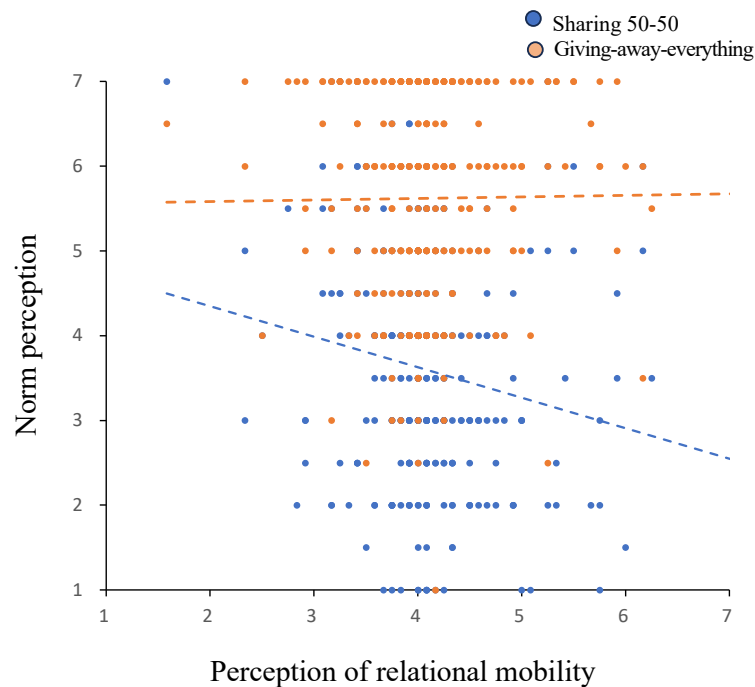


Figure 1. Scatter plot of the scores of norm perception and perception of relational mobility. The dashed lines are the linear approximation.

partners into “reliability” and “competence.”

Another factor that might influence the evaluation of altruism, and which differs between Japan and the United States, is general trust (Yamagishi & Yamagishi, 1994). In societies characterized by high relational mobility, general trust tends to be higher. In contrast, in societies with low relational mobility, maintaining low levels of general trust may be considered adaptive. Indeed, research conducted across 39 countries and regions has demonstrated that general trust is greater in contexts with higher relational mobility (Thomson et al., 2018). The Relational Mobility Scale assesses individuals’ perceptions of relational mobility within their immediate socio-ecological environment, representing a social-environmental factor that influences individual behavior and psychological processes in interpersonal contexts. General trust functions as a psychological mechanism that facilitates the formation and expansion of interpersonal relationships in high-relational-mobility societies. Although Study 1 did not find a significant contribution of relational mobility, it is likely that both the social environment in which individuals are embedded and the extent to which they possess corresponding psychological mechanisms influence their evaluations of others’ altruism. Accordingly, Study 2 examined the influence of general trust, rather than participants’ own altruism. As Study 2 was exploratory in nature, it was not pre-registered.

Study 2

Methods

(1) Participants, procedure, and analyses

Participants were recruited through Cross Marketing,

Inc. (Tokyo, Japan). Except for a few changes, the procedure and analyses were almost identical to those in Study 1. The degree of general trust was employed as an independent variable instead of altruism toward strangers. Participants were asked to rate their trust and assessment of competence for each person in the vignettes, rather than how suitable they thought each person would be as a business partner. These two items were averaged to create the “deal” score. In addition, participants rated how much they wanted to help each person in four situations: (1) in financial trouble, (2) lying down on a railroad crossing as a train approached, (3) having trouble with heavy luggage, and (4) looking for someone to listen to them. These four items were averaged to create the “help” score. After reading the vignettes, participants completed a six-item scale measuring general trust (Yamagishi & Yamagishi, 1994) as well as a scale measuring perceptions of relational mobility in society (Yuki et al., 2007).

Results and discussion

The items assessing liking, respect, norm perception, and deal were highly correlated ($r = .74-.88$; Table S4). Correlations among the four items assessing help were also significant but weaker than those ($r = .21-.71$; Table S5). Internal consistencies of the four “help” items were .77 in the sharing-50/50 condition and .81 in the giving-away-everything condition.

Paired t -tests indicated that liking in the giving-away-everything condition was lower than in the sharing-50/50 condition, and giving-away-everything was regarded as more norm-deviant behavior than sharing-50/50 (Table 2), replicating Kawamura and Kusumi (2020) as well as the results of Study 1. Participants thought the person who

Table 2. Mean ratings $\pm$ SD of dependent variables in each condition in Study 2.

	Sharing-50/50	Giving-away-everything	<i>t</i>	<i>p</i>	Cohen's <i>d</i>
Liking	4.7 $\pm$ 1.4	4.2 $\pm$ 1.6	5.95	< .001	0.37
Respect	4.6 $\pm$ 1.4	4.5 $\pm$ 1.7	0.81	.422	0.05
Help	4.5 $\pm$ 1.1	4.5 $\pm$ 1.2	-0.93	.351	0.04
Deal	4.6 $\pm$ 1.3	4.1 $\pm$ 1.6	6.00	< .001	0.36
Norm	3.5 $\pm$ 1.4	5.3 $\pm$ 1.5	-17.03	< .001	1.22

df = 319

shared 50/50 was more trustworthy and capable than the person who gave away everything (Table 2). Contrary to Study 1, however, neither respect nor help in the giving-away-everything condition differed significantly from those in the sharing-50/50 condition (Table 2). One of the four items constituting willingness to help in this study concerned money. Since the dependent variable was a monetary distribution, the person who chose giving-away-everything might have been judged as economically well-off and thus less likely to be helped. Indeed, when the monetary assistance item was excluded, internal consistency increased to .82 in the sharing-50/50 condition and .84 in the giving-away-everything condition. Therefore, I compared the mean of the remaining three items between the two conditions after excluding this item. No significant difference in willingness to help was observed between the conditions ($t(319) = -0.623$).

The bivariate correlations among the traits are shown in Table S6. The correlation between relational mobility and general trust was .02. As multicollinearity was not present among the explanatory variables, multiple regression analyses were conducted. Distribution type, general trust, and interactions among distribution type, general trust, and relational mobility significantly contributed to liking (distribution type: $\beta = -0.555 \pm 0.092$, $t = -6.05$, $p < .001$; general trust: $\beta = 0.415 \pm 0.081$, $t = 5.10$, $p < .001$; interaction: $\beta = 0.214 \pm 0.074$, $t = 2.87$, $p = .004$; Table S7). Participants with higher general trust tended to like the individuals in the vignettes. Because the second-order interaction was significant, a post hoc analysis was conducted by dividing participants into four groups based on mean scores of general trust and relational mobility, followed by analysis of the effect of distribution type. The significance level was set at $\alpha = .0125$ (i.e., .05/4; Bonferroni correction). Only among participants below average in both general trust and relational mobility was sharing-50/50 not preferred over giving-away-everything (Table S8).

General trust and interaction among distribution type, general trust, and relational mobility also significantly contributed to respect (general trust: $\beta = 0.398 \pm 0.085$, $t = 4.71$, $p < .001$; interaction: $\beta = 0.248 \pm 0.072$, $t = 3.43$, $p < .001$; Table S7). Participants with higher general trust tended to respect the individuals in the vignettes. As with liking, a post hoc analysis was conducted due to the significant second-order interaction. Although no differences in respect between the two conditions were found in any of the four groups, the effect size was highest when relational mobility was above average and general trust was below average (Table S9).

Only general trust significantly contributed to help ($\beta = 0.364 \pm 0.063$, $t = 5.75$, $p < .001$; Table S7). Participants with higher general trust tended to want to help the individuals in the vignettes. Distribution type and general trust significantly contributed to deal (distribution type: $\beta = -0.523 \pm 0.086$, $t = -6.10$, $p < .001$; general trust: $\beta = 0.367 \pm 0.079$, $t = 4.64$, $p < .001$; Table S7). Participants with higher general trust tended to perceive the individuals in the vignettes as more trustworthy and capable. Distribution type and general trust also significantly contributed to norm perception (distribution type: $\beta = 1.778 \pm 0.104$, $t = 17.10$, $p < .001$; general trust: $\beta = -0.275 \pm 0.083$, $t = -3.31$, $p < .001$; Table S7). Participants with higher general trust tended to perceive the individuals in the vignettes as less norm-deviant.

General discussion

Both studies consistently found that an equal distributor was preferred over one who gave away everything and was perceived as more normative, replicating the results of Kawamura and Kusumi (2020). However, results regarding respect were inconsistent. While respect in both studies was measured using two items following Kawamura and Kusumi (2020), further investigation is needed, such as increasing the number of items. Regarding willingness to help, newly examined in this study, Study 1 showed that participants felt more inclined to help a person who gave away everything, whereas Study 2 found no significant difference. The results from Study 2, which measured willingness to help using multiple items, are likely more reliable. Similarly, for the newly examined criterion of suitability as a business partner, the findings from Study 2 are also likely more reliable. In conclusion, it can be stated that positive evaluations of excessive altruism were not observed.

Contrary to the prediction, perception of relational mobility did not affect participants' evaluations of the distributors in Studies 1 and 2, which suggests that the observed cultural differences in how altruistic behavior is evaluated are not explained by differences in perceptions of relational mobility. Another possible interpretation is that, while relational mobility is related to evaluations of norm-deviant altruism, this effect did not appear among Japanese participants because both the degree of relational mobility and its individual variation were smaller than those in the United States. According to Yuki et al. (2007), the mean score on the relational mobility scale for 197 Americans was 4.42 ($SD = 0.82$). In contrast, the mean score in this study was 4.08 ($SD = 0.60$; $\alpha = .70$), with both

the mean and variance being smaller than those reported for the United States. Yuki et al.'s (2007) sample consisted of undergraduate students; if the sample had been as broad in age as in this study, scores would likely have been higher. Moreover, international comparisons have shown that relational mobility in Japan is among the lowest globally (Thomson et al., 2018).

Schug et al. (2010) demonstrated that cultural differences exist, with students in the United States exhibiting higher tendencies toward self-disclosure than Japanese students. They also found that individual differences in relational mobility among Japanese students contribute to variations in self-disclosure. However, the focus of the present study was on the evaluation of others' traits, which differs from participants' own tendency toward self-disclosure. Depending on the target, the influence of individual differences may vary in salience. To investigate the impact of individual differences in relational mobility on evaluations of norm-deviant altruism, it may be necessary to target populations with higher relational mobility scores and greater variance, such as those in the United States.

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Author contribution

RO developed the study concept and design, collected and analyzed the data, and wrote the manuscript.

Ethical statement

This study was approved by the Bioethics Review Committee of Nagoya Institute of Technology (No. 2025-10).

Data accessibility & program code

All the data is accessible at Open Science Framework (<https://osf.io/p592c>)

Supplementary material

Electronic supplementary materials are available as a supplemental file.

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