

# Public charity offer as a proximate factor of evolved reputation-building strategy: an experimental analysis of a real-life situation

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## Abstract

Although theoretical considerations suggest that a considerable portion of human altruism is driven by concerns about reputation, few experimental studies have examined the psychological correlates of individual decisions in real-life situations. Here we demonstrate that more subjects were willing to give assistance to unfamiliar people in need if they could make their charity offers in the presence of their group mates than in a situation where the offers remained concealed from others. In return, those who were willing to participate in a particular charitable activity received significantly higher scores than others on scales measuring sympathy and trustworthiness. Finally, a multiple regression analysis revealed that while several personality and behavior traits (cooperative ability, Machiavellianism, sensitivity to norms, and sex) play a role in the development of prosocial behavior, the possibility of gaining reputation within the group remains a measurable determinant of charitable behavior.

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## 1. Introduction

One of the key questions in evolutionary biology and psychology is why individuals help strangers without the possibility of return (Batson, van Lange, Ahmad, & Lishner, 2003; Bowles & Gintis, 2004; Fehr & Rockenbach, 2004; Gintis, Bowles, Boyd, & Fehr, 2003). Several scholars have proposed that humans evolved in small groups with frequently repeated interactions and reputation-building mechanisms (cf., Fehr & Rockenbach, 2004; Johnson, Stopka, & Knights, 2003). Individual selection can favor cooperative strategies directed towards recipients who have helped others in the past. Nowak and Sigmund (1998) state that cooperation pays because it presents the cooperating individual as a valuable community member. Subsequent repayment is channeled towards these members of the group in various ways, but, ultimately, it frequently involves individuals' privileges or their access to resources (Alexander, 1987). This means that altruistic acts may

enhance the altruist's status and reputation in his/her social group and yield a long-term benefit, in spite of the obvious short-term cost (Wedekind & Braithwaite, 2002).

The effect of reputation building on cooperation with group members has recently been explored using computer simulations and experimental games (Barclay, 2004; Fehr & Fischbacher, 2003; Milinski, Semmann, & Krambeck, 2002a; Wedekind & Milinski, 2000). In reciprocity, trust, and public goods games, players showed a strong preference to give to those who had proven to be generous in previous transactions. It is also well documented that humans are often altruistic to nonreciprocators, even to strangers (e.g., they donate to charities) (Milinski, Semmann, & Krambeck, 2002b; Roberts, 1998; Semmann, Krambeck, & Milinski, 2005). Donations may be given to people outside the social group, but they deeply influence the social attitude of in-group members towards the altruist. For example, a donation to charity organizations that is made in public may function as a conspicuous signal of an individual's propensity to cooperate with group mates (Milinski et al., 2002a).

Experimental games can provide "naturalistic" conditions for examining the impact of the costs and benefits of an altruistic act on decision making, including opportunities for

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reputation formation, the role of punishment in enforcing cooperation, and so on. Such games simulate relatively simple interpersonal relationships, where the behavioral outputs of individuals' decisions can be measured quite well. However, while experimental games potentially reveal key aspects of the "logic" of cooperative transactions, they nevertheless suffer from certain limitations. First, in laboratory experiments, interacting individuals are forced to stay together for periods of various lengths. In contrast, in real interpersonal interactions, individuals frequently have the ability to choose their cooperating partners (Fehr & Fischbacher, 2003). Second, experimenters intentionally recruit subjects who are completely unfamiliar with each other. Unfamiliarity and anonymity, however, are often rare in human groups, where individuals possess knowledge about others' attitudes, behaviors, and personalities. This knowledge deeply influences their decisions to cooperate (Johnson et al., 2003). Third, experimental games sometimes create artificial circumstances that people do not encounter in real situations. For example, players are sometimes allowed to trust only one person, which is different from real-life circumstances where people can form multiple partnerships (Barclay, 2004). Methods different from experimental games and computer simulations are therefore needed to examine real-life situations associated with altruistic acts and to obtain more direct behavioral data regarding altruism.

We designed an experiment around a real-life opportunity for altruistic behavior, incorporated into participants' everyday lives. A representative of an actual charity organization provided an opportunity for students in university seminars to volunteer to assist people in need (elderly or homeless or mentally handicapped people). In one condition, participants' decisions were public, made in the presence of their seminar mates; in the other condition, decisions were private, so others in the group were not aware of them. Hence, rather than performance in a structured game or artificial experiment, participants' natural behavior was observed in their own environment, in the system of social relationships in which they were living at the time. Participants made decisions which they had good reason to believe could influence their classmates' opinions of them.

One of the main objectives of our research was to examine reputation building as an ultimate strategy in a naturalistic real-life context. However, because our experiment is embedded in the everyday lives of subjects, it also provides an excellent opportunity to study proximate factors. We are interested in exploring what environmental and psychological factors evoke altruism towards strangers. Specifically, while reputation enhancement can be pursued consciously, it could also be an indirect result of behavior stemming from norm adherence and/or prosocial personality traits; it is an open question as to how much such factors exercise influence independent of opportunities available for reputation formation.

The social psychological literature classifies the direct motivational causes of charity acts into two comprehensive

groups: situational factors and personality characteristics (Snyder & Lopez, 2002). One situational factor is publicity itself: the environment in which participants can gain information about their group mates' willingness to support people in need. One of the most important conditions for reputation building is social information, whereby group mates gain information about an altruistic individual. In experimental games, this is nothing but the direct observation of contributions in previous transactions. This hardly ever takes place in real-life situations. In real life, we usually gain indirect information about the generosity of others through personal accounts and gossip. A charity offer made in public is a situation in which others become aware of the intentions and attitude of the altruistic individual. This, in itself, can evoke altruistic behavior, since it can earn the approval of group mates. In such a case, the expectation that others should respect an altruistic act can directly motivate the altruistic individual.

However, it is possible that altruism towards strangers is mediated by proximate factors other than publicity (Clary et al., 1998; Omoto & Snyder, 2002). Support for organized charity may be primarily motivated by social responsibility norms and prosocial values (Berkowitz, 1972; Eisenberg-Berg, 1979; Forsyth, 2006). In this case, strong aspirations to adapt to prevailing norms and expectations concerning altruism and cooperation may provide, in themselves, an explanation as to why people offer help to strangers. Adherence to prosocial norms may be expressed very powerfully when altruists declare their intention to offer charity support in the presence of their group mates.

Beyond situational factors, the social psychological literature lists various personality and character traits that may represent direct motivations (as proximate factors) underlying altruism towards strangers. First, the capacity and attitude for helpfulness were found to be strongly associated with contribution to the welfare of other people (Batson et al., 2003; Hogg & Vaughn, 2005; Oswald, 2002; Preston & deWaal, 2002). Cooperative and generous individuals may have personality factors that motivate them to help others, independent of any wish to enhance their popularity in the group. Second, Machiavellianism has a negative impact on generosity, since people with a high level of Machiavellianism have the capacity to manipulate others, to lie about their cooperativeness, and to make lies believable (Byrne & Whiten, 1988; Gunnthorsdottir, McCabe, & Smith, 2002; McIllwain, 2003; Wilson, Near, & Miller, 1996). Third, evidence from evolutionary psychology, social psychology, experimental economics, and cultural anthropology suggests that women are more cooperative, empathic, and caring than men (Geary, 1998; Mealey, 2000).

In order to clarify the role of various situational factors and personal characteristics as proximate mediators in the process of prosocial behavior that yields reputational benefits, we employed a number of instruments in our real-life experiment. While we assume that adherence to social norms and prosocial personality traits each plays a role in

altruistic behavior, we predict that the degree of publicity will remain a measurable determinant of charity support. We assume that the (not necessarily conscious) decision of people as to whether they are willing to help others in need is fundamentally influenced by the information their group mates gain about them and by the positions they will probably take in the group's network of interpersonal relations as a result of their acts.

## 2. Method

### 2.1. Participants

Two hundred fourteen subjects (129 women and 85 men) participated in the experiment. They were second-year and third-year students of the Medical School and the Institute of Biological Sciences at the University of Pécs who took part in our experiment as volunteers; no compensation was provided. Participants were members of 18 different seminar groups, each of which had at least 8 (and at most 14) members. All members of each seminar group were involved in the experiment. The main criterion in selecting subjects for the experiment was to find relatively small groups whose members knew one another. They all had at least some knowledge of the behavioral customs, history, and personalities of the other members in the group. At the same time, it was also important to make sure that the group did not have a stable structure that had been established over a long period of time in which strong ties of friendship had already been formed and every individual had already been given a well-defined rank within the structure. This latter condition was necessary to make sure that group members could change or, to some extent, reevaluate their opinions about each other under the influence of certain events. This dual criterion (group members should know one another but only superficially) could be ensured by studying seminar groups that were formed at the beginning of the academic year, so the members might have known one another only for a few months.

### 2.2. Materials

In the first stage of our study, participants were asked to fill in three different inventories, as follows.

#### 2.2.1. Temperament and Character Inventory (TCI)

For assessing the level of social cooperation skills, the social cooperation scale of the TCI was used (Cloninger, Przybeck, Svrakic, & Wetzel, 1994). The TCI evaluates seven higher-order personality or behavior traits. Cooperativeness is a multifaceted higher-order character trait that consists of the following five aspects or lower-order traits: Social Acceptance/Social Intolerance, Empathy/Social Disinterest, Helpfulness/Unhelpfulness, Compassion/Revengefulness, Pure-Hearted Principles (Integrated Conscience)/Self-Serving Advantage. Participants were provided with statements (42 items) referring to themselves

and were asked to decide whether the statements were valid for them.

Cooperativeness has been formulated to account for individual differences in identification with and acceptance of other people. Highly cooperative persons are described as empathic, tolerant, compassionate, supportive, fair, and principled individuals who enjoy being at the service of others and try to cooperate with others as much as possible. They understand and respect the preferences and needs of others, as well as their own. This capacity is important in teamwork and social groups for harmonious and balanced relationships to flourish (Cloninger et al., 1994).

#### 2.2.2. Mach-IV scale

Machiavellianism was measured with a self-rated 7-point Likert instrument (1=*strongly disagree*, 4=*no opinion*, 7=*strongly agree*) composed of 20 items, such as "Never tell anyone the real reason you did something unless it is useful to do so." The 20 statements are classified into three main areas: (a) views of human nature (nine items), which refer to cognition about people, in particular the degree of cynicism with regard to the motives and behaviors of others; (b) duplicitous tactics (nine items), which are concerned with manipulative methods of dealing with people; and (c) abstract morality (two items). High and low scorers on the test are often referred to as high-Mach and low-Mach persons, respectively. In the light of empirical studies, they differ in many aspects of social behavior, from vocational choice to success at games to sexual strategies (Wilson et al., 1996).

#### 2.2.3. California Psychological Inventory (CPI)

The CPI measures traits that people use to characterize others in their everyday interactions in most cultures. The inventory focuses on the measurement of everyday traits (e.g., dominant, accommodative, trustworthy, etc.) that appear in nearly every form of social relations. While its predecessor, Minnesota Multiphasic Personality Inventory, was primarily designed for clinical practice, the CPI measures differences within a normal personality domain, using the system of notions developed by interpersonal psychology.

The CPI contains 18 scales grouped into 4 classes. We used two of these scales, which are intended to measure adaptation to the community, following norms and compliance with expectations. One of them is sociability, which identifies people who can fit into a community easily and effectively, are sensitive to social norms, and are ready to concentrate all their energy for the sake of maintaining the community. High scores are given to traits such as self-confident, cooperative, helpful, and reliable. The community scale measures how the reactions and responses of individuals meet general expectations set up in the inventory. This scale identifies people who try to conform to social expectations more than the average and who show more readiness to follow social norms. This type is characterized

by traits such as conscientious, careful, responsible, having a practical mentality, and a sense of community.

#### 2.2.4. Sociometry

Sociometry is a commonly used assessment procedure for identifying and classifying individuals according to peer acceptance. Sociometric surveys attempt to capture how individuals fit into the social field in which they live. One of the main tenets of sociometry is that social groups are regarded as networks consisting of systems of personal relationships. One of their essential features is that they are mostly organized on the basis of emotions and sympathy. All members of the group assign positions for others within the community by answering questions such as: who would they choose as friends in important situations of their lives, who do they consider to be the most popular person, and who would they ask to perform some sort of an activity.

Sociometry offers a relatively simple and easy-to-manage tool for the exploration of social networks. The sociometric survey we designed consists of six questions; each refers to a specific situation in real life, concerning sympathy, and trustworthiness (see Appendix A). Subjects were asked to complete a sociometric questionnaire that instructed the participants to nominate three classmates in their seminar group whom they liked the most or respected the most. Peer acceptance scores for each student were calculated by summing these nominations. Following procedures developed in past research (Coie, Dodge, & Coppotelli, 1982; Crick, 1996), scores were then standardized within the seminar groups to adjust for unequal group sizes. The scores obtained in this procedure were used to derive a social variable (social preference) that refers to the extent to which a particular person was popular (how many votes the person obtained from others). The change in social preference (reputation) was measured by the difference between the total score of the first sociometric survey and the total score of the second sociometric survey.

#### 2.3. Procedure

The present study involves a complex experimental procedure with four phases, each built on the previous one. Each phase was characterized by a particular stimulus material and experimental situation. Investigations were conducted in the 18 seminar groups, involving a total of 214 subjects.

##### 2.3.1. Phase 1

An agreement that a psychological survey would be conducted in the first 30–40 min of their several-hour-long seminar sessions had been made in advance with the leaders of the seminar groups. Two experimenters visited a session of each seminar group. The members of the groups (between 8 and 14 students) did not know about their visit in advance. The experimenters told them that participation in the survey was voluntary and anonymous: their responses would be kept confidential, and neither group members nor outsiders would have access to them. Each subject filled out the social cooperation scale of the TCI, the sociability and community

scales of the CPI, and the sociometry questionnaire. They were informed that there was no time limit for the completion of these instruments.

##### 2.3.2. Phase 2

The second encounter took place 4–6 weeks after the first one. We thought it was important to have a relatively long delay between these meetings because we wanted to reduce the possibility that subjects might link the two investigations. We made the second occasion appear as if it was completely independent of the first one, serving an entirely different purpose. The tasks in this second phase were not presented by the experimenters of the first survey. A representative of an actual charity organization was asked to visit each seminar group and make an announcement with the consent, and in the presence, of the seminar leader. This person asked the students to offer their support to unfamiliar people in need on a voluntary basis, free of charge. She passed out sign-up sheets displaying the logo and seal of the charity organization. Each sheet listed seven different activities, targeted at different categories of needed people (taking blood pressure readings, organizing a day for blood donors, collecting donations, providing care for the old, providing care for the physically disabled, providing health care for the homeless, and providing assistance for mentally handicapped children). Participants could mark as many, or as few, of the items as they wished, indicating the type of charitable activity that they would be willing to engage in. Each listed act of charity was restricted to a single occasion and would take approximately 3–4 h to complete. Participants who wished to engage in any of the charitable acts were asked to specify a date by which they would accomplish the task. Participants were informed that a representative of the charity organization would contact them by telephone to arrange the specified activities.

Although all seminar groups were visited by the charity representative, the procedure whereby she compiled participants' statements of their willingness to volunteer differed across two conditions. In 8 groups (91 members in total), although in the presence of other group members, participants indicated their willingness to volunteer in a manner that kept this information private (private offer group). After the representative of the charity organization had explained how to volunteer, everybody filled in a form on his/her own, indicating what sort of assistance, if any, one was willing to provide, for whom, and when. In the other groups (10 groups; 123 members), group members declared their intention to help publicly (public offer group). They came forward by raising their hand, and they announced the specific form, target, and date of their future support.

##### 2.3.3. Phase 3

At the same session when applications for assistance were recorded, but later during the seminar, another sociometric survey was also given to the group members. This survey contained the same questions as the first one. The leader of the

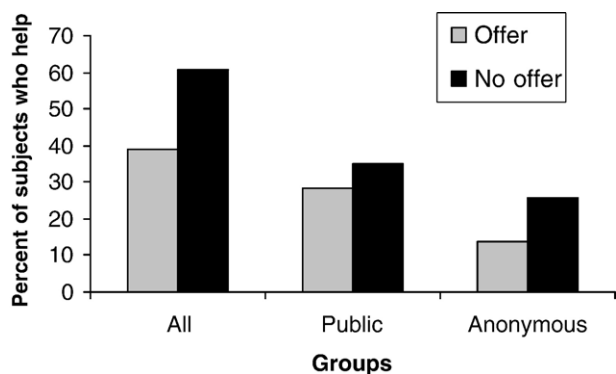


Fig. 1. Percentage of subjects who offered help (gray bars) and who did not offer help (black bars) in public and anonymous offer groups.

seminar group asked the students sometime during the seminar session (usually at the end) to fill out the questionnaire. Reputation gain as a variable was assessed as the difference between the total score of the second sociometric survey and the total score of the first sociometric survey.

The second survey had to be conducted on the same day when the charity offer was requested because the longer is the delay, the greater is the likelihood that the reevaluation of within-group statuses and positions would reflect later social interactions rather than exclusively reflect the impact of charity offers. Sociometric surveys are extremely sensitive to changes in interpersonal relations, so we can trust that we are measuring the effects of the given transaction only if the survey is taken right after the transaction is completed. To minimize demand characteristics, we took care to maximize the likelihood that participants did not realize at all that the two surveys were related. In this context, we asked the subjects at the end of the experiment whether they had realized at any point during the experiment that the surveys were connected to the visit by the charity representative (i.e., that an experiment was underway). Only 4.2% of the students answered yes to this question. The result was not surprising, as the collection of donations or a call to give blood is not an unusual—although also not a frequent—event at the university. The representative of the charity organization performed her task very professionally, and the vast majority of the students did not try to establish any connection between her role and the current experiment. From all this, we may conclude that the subjects, who were not psychology majors, interpreted the request for charity as a real-life situation that was independent of the research activities of the Department of Psychology.

#### 2.3.4. Phase 4

In the final stage of the experiment, participants who had volunteered to engage in charitable activities had the opportunity to carry them out: the representative of the charity organization telephoned each volunteer to schedule meetings with staff members of the organization, who then informed the volunteer about the specific conditions of the charity service and took the volunteer to the location where the charity act was to be performed.

### 3. Results

#### 3.1. Charity offer

Nearly 40% of the subjects were willing to provide one-time support to unknown people who were in need (84 of 214) Fig. 1 shows the distribution of charity offers in private and public groups. As expected, publicity had a profound effect on generosity towards strangers. Significantly more subjects were willing to give assistance if they could make their charity offers in the presence of their group mates than in a situation where the offers were made without the knowledge of others (61 of 123 vs. 23 of 91,  $\chi^2=17.95$ ,  $p<.001$ ).

#### 3.2. Reputation

While, not surprisingly, there is a strong correlation between the first sociometry measure and the second sociometry measure (Pearson=0.77,  $p<.001$ ), the measured differences show a special pattern. Namely, the assistance offered to needy strangers proved to be predictive of the difference between the scores of the two sociometries. In accord with the statement of one of our predictions, a significant relationship was found between publicly made charity offers and the increase in reputation (social preference) within the group [ $F(1,214)=7.42$ ,  $p<.001$ ]. This means that those who expressed their intentions to participate in a particular charitable activity received significantly higher scores in the second survey following the offer than in the first survey taken 1 month before. In fact, in accord with the prediction, the reputation of altruists increased while that of others slightly decreased (1.84 vs.  $-0.68$ ,  $t=2.43$ ,  $p<.05$ ) (Fig. 2).

This association was found exclusively in the groups where offers were made in the presence of others. In the groups in which group members did not learn about the offers made by others, we did not find any difference between the scores of those who were willing to help

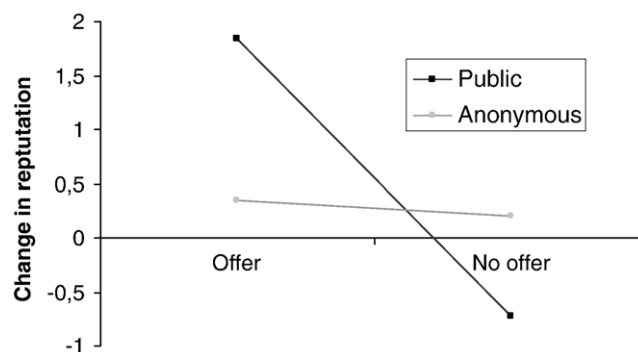


Fig. 2. The effect of charity offer on the reputation of altruists in public and anonymous groups. Reputation was measured as the difference between the score of the second sociometry (Mean=8.26, S.D.=5.5.43) and the score of the first sociometry (Mean=8.68, S.D.=5.16). The minimum individual difference between the two surveys was  $-8$ ; the maximum was  $+10$  (S.D.=2.89).

strangers and the scores of those who were not (0.35 vs. 0.21,  $t=0.83$ ,  $p>.05$ ). In other words, in the private offer groups, the reputation of altruists did not change during the experiment.

### 3.3. Regression analysis: personality and behavioral correlates of generosity

This analysis was designed to explore several possible effects related to charity towards strangers. Table 1 shows the results of logistic multiple regression tests with charity offer as a dependent variable, and publicity (public or private offers), sex, personality traits of cooperativeness, sensitivity to social norms (sociability and community), and Machiavellianism as independent variables.

Eq. (1) shows the causal effect of publicity (offering charity with the knowledge of group mates) on willingness to show altruistic behavior towards strangers in need. Eq. (2) adds the variables of personality dimensions of cooperativeness, and Eq. (3) adds sex. In Eq. (4), Machiavellianism is entered, and, finally, Eq. (5) adds two variables related to the reference group's adherence to norms. At each step of our analysis, we examined the effects of predictor variables on decisions concerning charity as they were entered over time.

Eq. (1) shows, in accordance with previous results, that publicity had consistent and relatively large positive effects on the likelihood of a charity offer. Subjects who had a chance to make their decision public were more likely to offer help to strangers than those whose offers were made without the knowledge of others.

Personality dimensions of cooperativeness, measured on the related scale of TCI, were entered in the next step. Of the five factors, Empathy and Compassion proved to be predictive for altruistic intention. The effect of the other factors did not reach a significant level. This shows that some of the character traits related to altruism have an influence on decisions concerning help toward strangers. However, even though these personality traits were strong predictors of a charity offer, they did not profoundly decrease the effects of publicity on individuals' decisions to help.

In the third step, sex was found to significantly influence charity decisions. As predicted, women were more likely to help unfamiliar people than were men. The results of the fourth step show that Machiavellianism was negatively associated with altruism towards strangers. The higher are the scores individuals obtained in the Mach-IV test (i.e., the stronger is the inclination they had to manipulate and exploit others), the lower is the likelihood that they would be willing to offer help.

Finally, Community (conformity to social expectations and readiness to follow social norms), measured on the related scale of the CPI, was found to slightly affect the charity offer, although it did not profoundly change the effect of publicity on the charity offer. The other variable related to sensitivity to social norms, Sociability, was not predictive of charity service. In general, entering variables into the model in the last three steps (sex, Machiavellianism, and sensitivity to norms) did not appreciably increase the explained domain of charity decisions.

The results of these analyses show that an opportunity to offer help publicly, which in turn may lead to reputational gains, has the greatest impact on charity decisions. The fact that group mates are directly informed of each other's decisions profoundly increases the subjects' willingness to offer help. Two of five personality dimensions (Empathy and Compassion), Machiavellianism, and Community also proved predictive for charity offers, although at a lower level of significance. These variables did not considerably decrease the effect of publicity on a charity offer, nor did they have a profound influence on partial regression coefficients for other predictor variables.

## 4. Discussion

In our experiment, we have made an attempt to study an area of prosocial behavior that has received relatively little attention in previous research. First, we wanted to see whether, under natural circumstances, in groups in an industrial society, the possibility of offering help publicly would lead to an

Table 1  
Results of logistic multiple regression analysis for charity offer

Predictor variables	Eq. (1)		Eq. (2)		Eq. (3)		Eq. (4)		Eq. (5)	
	Odds ratio	Wald	Odds ratio	Wald	Odds ratio	Wald	Odds ratio	Wald	Odds ratio	Wald
Public/anonymous offer	0.108	22.65***	0.043	23.97***	0.061	17.88***	0.048	18.21**	0.229	12.46**
Social acceptance (C <sub>1</sub> )			1.105	0.26	1.204	0.79	1.359	1.87	1.307	0.71
Empathy (C <sub>2</sub> )			0.502	3.72*	0.591	4.42*	0.609	4.74*	0.543	3.97*
Helpfulness (C <sub>3</sub> )			1.038	0.19	1.245	0.53	1.501	1.50	0.983	0.17
Compassion (C <sub>4</sub> )			0.489	16.18***	0.496	14.41***	0.530	11.56**	0.656	7.43*
Integrated conscience (C <sub>5</sub> )			0.759	1.98	0.685	0.79	0.681	3.14	0.765	2.50
Sex					0.274	4.35*	0.287	4.19*	0.722	2.23
Machiavellianism							2.595	3.87*	1.417	3.76*
Sociability (CPI)									0.922	1.34
Community (CPI)									0.616	4.29*
R <sup>2</sup>	.29		.54		.58		.62		.64	

\* $p<.05$ ; \*\* $p<.01$ ; \*\*\* $p<.001$ .

enhanced level of generosity towards strangers, and whether this generosity would increase the prestige and reputation of altruistic people. It is important to note that our research does not rely on game-theoretic experiments (as most of the research addressing this issue today does), but rather investigates an actual social situation in which participants had to form judgments and opinions about the development of their relationships with their group mates within the framework of their own lives. Second, we examined several proximate factors that are thought to mediate a reputation-building strategy. Within this, we wanted to find out whether the effort to improve one's image and status within a group is directly responsible for an altruistic act. To summarize our results, we found the following:

1. Significantly more subjects were willing to give assistance if they could make their charity offers in the presence of their group mates than in a situation where the offers remained concealed from others (Prediction 1). In other words, the opportunity to build reputation within the group enhances the likelihood of providing charity support for strangers.
2. There was a significant relationship between publicly made charity offers and the increase in reputation (social preference) within the group. The reputation of those who publicly offered their assistance increased, while the reputation of the rest decreased. More precisely, this means that individuals who appeared to be obviously generous in the eyes of group mates were regarded as more trustworthy by others and were seen as people worth making friends with. However, there was no such association in groups in which the offers were concealed from others.
3. Regression analyses have also confirmed that publicity for charity offers, as a possible proximate factor of reputation building, plays an important role in making altruistic decisions. When other predictor variables related to prosocial behavior were entered into the model (personality traits of cooperativeness, sex, Machiavellianism, and sensitivity to collective norms), the effect of publicity on a charity offer did not appreciably decrease. This means that, whether conscious or unconscious, individual aspirations to increase reputation and raise status can evoke altruism towards strangers.
4. At the same time, the data suggest that other situational factors and personality characteristics also play a role in altruistic acts as direct motivational factors. Regression analyses have shown several proximate factors that contribute to helping strangers:
  - (a) The willingness to cooperate (measured on a subscale of TCI) proved to be predictive of the likelihood of charity support. Those who characterized themselves as having more empathy and compassion showed more readiness to support a needy person who was totally unknown to them.

- (b) As expected, women—who are regarded as having more empathy, as showing more care, and as being more sociable than men in many investigations—volunteered to participate in charity activities in greater number than men.
- (c) There was a negative relationship between Machiavellianism and intention to provide assistance, in that individuals with high Machiavellianism scores (who are more likely to manipulate and deceive others) are less willing to help strangers than low-Mach individuals.
- (d) Community (conformity to social expectations and readiness to follow social norms) was slightly associated with willingness to offer charity service, although it did not appreciably change the regression coefficients for other predictor variables, including publicity. Sociability, another scale of sensitivity to social norms, did not prove to be predictive of charity offers.

Our results suggest that, whether consciously or not, people see altruism as a sort of a tool that increases their reputation in their group. In this sense, our results appear to support the suggestions of economists, such as Frank (1988), that altruism may constitute an investment that later pays off in others' generosity. The more people behave in a selfless and generous way, the more they can reap the long-term benefits of a cooperative endeavor from their group or society. In real situations, people have a very good idea how well they can trust someone. Also, they know that various kinds of donation to charity may lead to an increase in reputation for virtue.

Naturally, helping unfamiliar people may result from a particular combination of personality traits, socialization effects, and environmental conditions (Batson et al., 2003). In order to clarify the role that reputation gain plays in the wide motivational base of altruism towards strangers, we need to pursue further research. An especially important issue that the present experiment was not able to address is what real long-term benefits generous acts towards unfamiliar people can bring for altruistic individuals. Furthermore, individual differences on altruistic commitment and the ability to gain prestige should be taken into consideration to a larger degree. These issues should, by all means, be resolved in future research.

#### Appendix A. Sociometric survey

1. Who would you prefer to make friends with?
2. Who would you prefer to spend a weekend with?
3. Who would you turn to for help in case a difficulty arises?
4. In your view, who would be the best choice in the group to organize a party or an event?
5. Who would you ask to help you perform a difficult task?

6. Who do you think are the most popular individuals in the group for particular personal qualities and abilities?

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