The presence of others, prosocial traits, Machiavellianism: a Personality X Situation approach.

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The presence of others, prosocial traits, Machiavellianism: a Personality X Situation approach.

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Abstract

The presence of others has long been known to have effects on decisions to engage in more helping behavior, but relatively few studies examined the interaction between observation and various personality traits. In the present study, subjects were asked to volunteer and offer a less and a more costly charity service in public and anonymous conditions. We found that subjects' willingness to offer help increased when group mates were directly informed of each other's decisions. Empathy showed a relative independence of situational factors; ssubjects with higher scores of empathy were more likely to engage in helping activities than those of low empathy, regardless of whether they offered help on public or anonymous conditions and what the perceived degree of cost of altruistic behavior was. Machiavellianism, in contrast, proved to be strongly dependent on the presence of others and the cost of the offered charity act. High-Mach persons were likely to refuse help when the others did not observe them but more willing to give assistance – especially less costly help - if their prosocial behavior occurred with the knowledge of the others. This responsiveness to the strategic distinction between the presence and absence of others is discussed in terms of reputation-gaining and competitive altruism.

Key words: observation, altruism, Machiavellian intelligence

Introduction

The effect of the presence of others has a long history in social psychology (Schroeder et al. 1995, Dovidio et al. 2006). In general, people are concerned about others' perceptions of them, especially in prosocial decision-making. However, being observed by others may lead to a different, even opposite, behavioral output. In case of emergency, a diffusion of responsibility occurs when other bystanders are present. The experiments have revealed that the more bystanders the subjecs thought were present, the less likely the subjects were willing to help (Latané and Darley 1970). They might feel personally less responsible for helping because they come to believe that others will intervene.

In other, non-emergency situations, the presence of others has been found to have a large effect on decisions to engage in more prosocial behavior. In some experiments, using Dictator or Ultimatum Games, participants who were assured that the experimenter would not know how much money they chose to transfer, gave much less money as compared to the situation when their allocation was observed by the experimenter (Hoffman et al. 1994). Participants' contributions in the Public Goods game increased once they realized that their contributions were displayed publicly (Hardy and Vugt 2006). In the presence of other participants, subjects expended much more money for punishing free riders than under anonymous conditions (Kurzban et al. 2007). Even very subtle cues to social presence have large effect on prosocial decisions. In a Public Goods game, people who exchanged mutual oblique eye gazes (but no information about the other's transfers) increased contributions to the public good, compared to a control situation with no eye gaze (Kurzban 2001). When experimenters presented purely a stylized eyespots on a compater screen, which is a very subtle and specific cue of observability, participants' generosity increased in a Dictator game

as compared to the situation when eyespot was not presented (Haley and Fessler 2005). The importance of the eye-detector mechanism was also shown by an experiment in which an image of a robot was presented on the computer screen whose eyes (but not its other parts) resembled those of a human (Burnham and Hare 2007). Subjects who are "watched" by this robot contributed 29 % more to the public good than did subjects in the same setting without robot.

Not surprisingly, cues to social presence in strategic interactions are strongly linked to reputation formation. An individual's prosocial behavior is frequently driven by the desire to acquire a good reputation in her/his own group (Fehr and Fischbacher 2003, Milinski et al 2002). Reputation is valuable in the long run: empirical studies confirmed that human subjects who have been helpful in the past are more likely to receive help from others. For example, players had a higher probability of receiving money in a trust game if they had contributed in the previous Public Goods game (Barclay 2004). Obviously, for reputation to be established, altruistic behavior have to be observed by group members (Semmann et al. 2005). Direct observation of someone's behavior is no doubt the most reliable carrier of reputation, but gossip or written record, which are liable to deception, also provide information about others. The presence of others has a strong effect on decisions concerning volunteerism and donations to charities. A recent, real-life experiment has shown that 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 when the offers remained concealed from the others (Bereczkei et al. 2007).

However, the presence of others, as a particular situational variable, does not elicit altruism independently of personality traits. Most contemporary social psychologists agree that personality characteristics and situational factors can interact to affect people's prosocial decisions (Batson 1991, Graziano et al. 2007). A Person X Situation interaction approach may yield the most comprehensive account of the ways dispositions, motivational states, and contexts combine to determine altruistic behavior. For example, a recent study has revealed that when costs of helping were low, persons low in Agreeableness increased their helping after being exposed to an empathy-focused indication. Persons high in Agreeableness offered help to victims accross a wider range of situational contexts, presumably because of their higher level of prosocial motivation (Graziano et al. 2007).

Various personality traits may influence how an individual evaluates other people's presence and observation, but very few studies have been made on this field. The aim of our study is to investigate whether the effect of the presence of others on altruism is mediated by the altruist's personality attributes. We hypothesize that both prosocial and antisocial personality traits influence the individuals' response to being observed, and their altruistic behavior will also depend on the cost of the particular altruistic act.

It is well-known that the decision of individuals on helping others is deeply influenced by their prosocial characteristics, such as empathy, sense of responsibility, helpfulness, etc.. Empirical studies confirmed that differences in prosocial personality are associated with differences in prosocial actions that range form willingness to help a distressed individual to heroic rescues of people whose lives were in danger (Dovidio et al. 2006). A higher sense of empathy – which is a key component of prosocial personality - increases the likelihood that somebody will help even when the costs of helping are relatively high (Batson 1991, Batson et al. 2003, Bierhoff and Rochmann 2004). This trait is also related to a long-term commitment to helping when working as a volunteer (Davis et al. 1999).

In keeping with previous findings, we predict that highly prosocial persons are relative unaffected by situational manipulations. They are likely to help at higher rates across variations in observation and costs, compared to their peers of lower empathy.

Machiavellism, in contrast, involves certain behavioral tactics by which an individual uses another person as an instrument for achieving his/her goals (Wilson et al. 1996; Gunnthorsdottir et al. 2002, McIllwain 2003). Persons with a high level of Machiavellism – so-called high-Mach persons - successfully manipulate others, and can distract themselves from the emotional effects of situations. They can calmly identify the optimal strategy in each situation and behave in a self-interested way if it is to their advantage. They do not engage in helping activities, except when their interest immediately motivates them to do so (Paal and Bereczkei 2007). Their willingness to help is likely to increase when they believe that generosity is rewarded by the attention and respect of others.

We predict, therefore, that High-Machs should be responsive to the strategic distinction between the presence and absence of others. They should be likely to refuse help when the others do not observe them, but more willing to give assistance if their prosocial behavior occurs with the knowledge of the others. Persons with high level of Machiavellianism are expected to be sensitive to cost as another situational factor. Under the circumstance of observation, they would engage in helping behavior more frequently when help is less costly.

Method

Subjects

194 Hungarian subjects participated in the experiment, 112 women and 82 men. They were second and third-year students of the Medical School at the University of Pécs (Hungary), who took part in our experiment as volunteers without any compensation. They were members of 18 different seminar groups, and each group had at least 8 and at most 14 members. All the members of each seminar group were involved in the experiment.

Materials

For assessing the prosocial personality, the Social Cooperation Scale of Cloninger's Temperament and Character Inventory (TCI) test was used (Cloninger aet a. 1994). 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: Socia Acceptance/Social Intolerance, Empathy/Social Disinterest, Helpfulness/Unhelpfulness, Compassion/Revengefulness, Pure Hearted Principles (Integrated Conscience)/Self-serving Advantage. Highly prosocial 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. (Cloninger et al. 1994).

Machiavellianism is measured with the Mach IV. Scale, a self-rated 7-point Lickert instrument (where 1=strongly disagree, 4=no opinion, 7=strongly agree). It is composed of 20 items, such as "Never tell anyone the real reason you did something unless it is useful to do so". The twenty statements are classified into three main areas: 1. views of human nature (9 items) that refer to cognition about people, in particular the degree of cynicism with regard to the motives and behavior of others; 2. duplicitous tactics (9 items) that are concerned with manipulative methods of dealing with people; 3. abstract morality (2 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).

Procedure

On the basis of an agreement with the leaders of the seminar groups, the experimenters (two of the authors) visited a seminar session of each seminar group (see details in Bereczkei

et al. 2007). The students did not know about the aim of this visit in advance. The experimenters told them that participation in the survey was voluntary and anonymous: their responses would be kept confidential so that not only outsiders but even the other members of the group would not have access to them. Then each subject filled in the Social Cooperation Scale of TCI and the Mach-IV test. They were informed that there was no time limit for the completion of these tests.

The second stage of the survey took place several weeks later. This time we invited a woman on the behalf of a charity organization to ask the students to offer their support to unfamiliar people in need on a voluntary basis free of charge. She handed a sheet over to them which described two forms of support from which the students could make their choice (or could also decide not to provide any help)**.** One choice („Providing assistance for mentally handicapped children") was more costly in terms of physical and emotional expenditure. The other („Organizing a blood donation day") was relatively less costly; it demanded a lower level of effort. The difference in the cost of charity service was confirmed after completing the whole experiment by other students (N=30) who had not participated in the study and were not informed of the experiment. They were asked to estimate which particular activity needs more energy and emotional involvement to be achieved.

Each charity act was restricted to a single occasion and took app. 3-4 hours. The members of each group were asked to say what charity act they would be willing to engage in and when they would decide to accomplish the task. The representative of the charity organization made an appointment with those subjects who had made contact with her on the phone. She organized a meeting where she introduced them to a staff member of the charity organization who informed them about the specific conditions of the charity service.

The variable of observation was manipulated by dividing the groups into two categories according to whether group members could see the others' charity offer or not. In eight of the seminar groups, the potential altruists were asked to publicly declare their intention to help in the presence of group members, therefore the others exactly knew what kind of help they undertook (*public offering condition*). In the other groups, subjects were asked to silently fill in a form, so nobody was informed about their charity offer (*anonymous offering condition*). Although in strict sense both conditions involve "the presence of others" (all group members are in the same seminar room), only the public offering condition ensures a sort of "social presence" because this arrangement enables group members to directly observe the others' behavior and obtain information about their prosocial decisions. In the anonymous condition, group mates cannot learn who are willing to volunteer and who are not.

Results

Observation and volunteerism

Observation was found to have a strong effect on the charity offer. The participants who were given the chance to announce their wish to help publicly in the presence – and with the knowledge - of their group mates show a stronger inclination to provide support than those whose charity offer remained concealed form the group. Subjects in the public offer groups were willing to give assistance more than twice as often as those in the anonymous groups (55/106 vs. 23/88, χ^2 = 11.83, p<0.001). Furthermore, people in the public offer groups were more likely to offer costly help („Providing assistance for mentally handicapped children"), than those in the anonymous groups (31/55 vs. 7/23, χ^2=18.95, p<0,01)

Prosocial factors

Prosocial personality factors seem to strongly determine the willingness to help people in need. Subjects with higher scores on the related subscale of TCI were more helpful than those with lower scores (F(1,194)=2.028, p<0.01).Interaction between Social Cooperation and

Observation was not significant (F(1,176)=0.77, p>0.05), showing that the social presence of others do not profoundly change the relationship between prosocial personality and the likelihood of volunteerism. Social Cooperation proved to be predictive for altruistic intention in both the public and the anonymous groups (t=2.78, p<0.01 and t=2.52, p<0.05, respectively) (Figure 1).

Figure 1 about here

A significant relationship was found between personality factors and the perceived cost of an altruistic act. As Figure 1 shows, subjects who received higher scores on the Social Cooperation scale offered more costly help („Providing assistance for mentally handicapped children"), compared to those who offered less costly help („Organizing a blood donation day") (F(1,191)=7.14, p<0.01). This occurred in both public and anonymous groups (t=2.68, p<0.05; and t=2.06, p<0.05, respectively). However, the Cost X Social Cooperation interaction did not reach a significant level (F(1,169)=1.02, p>0.05), showing that the perceived degree of the cost of altruistic behavior for subjects with high prosocial personality was relatively independent of the presence or absence of others.

Machiavellianism

Machiavellianism has a different effect on helping behavior. In general, it proved to be predictive for charity offers. Subjects who received higher scores on Mach-IV test were less likely to give help than those with lower scores (F (1,189)=5,56 p<0.05). Interaction between Observation and Machiavellianism was significant (F(1,176)=2.52, p<0.01), showing that Machiavellianism may be a personality character mediating between observation and willingness to volunteer. When the presence of others is taken into consideration, a remarkable finding emerges (Figure 2). In the public groups – where offers were made in the presence and with knowledge of others – high-Mach and low-Mach persons offered help with a closely equal probability (t=.416, p>0.05). However, in the anonymous groups – where the offers were made without the knowledge of the others – Machiavellianism had a large effect on volunteering. As Figure 2 shows, in the anonymous condition subjects with higher scores on Mach-IV were more likely to refrain from offering help that those with lower scores (t=7.02, p<0.001).

Figure 2 about here

Their altruistic decisions were also strongly associated with the cost of the altruistic act. In general, Machiavellianism has shown a reverse relationship with the cost of assistance: High-Mach persons were less likely to volunteer than Low-Machs (F(1,184)=4.49, p<0.01). The Machiavellianism X Cost interaction for charity offer proved to be significant (F(1,176)=2.46, P<0.05), showing that cost may be a situational factor underlying the relationship between Machiavellian personality and the willingness to help. As for subjects with a higher level of Machiavellianism, those who were willing to give help chose a less costly form of volunteering than those with lower scores (Figure 2) This especially true for the anonymous offer condition where high-Mach and low-Mach persons significantly differed in how costly a charity act they offered (t=2.30, p<0.05). In the public offer groups no significant difference has been found in this respect (t=0.619, p>0.05).

Discussion

The presence of others has long been known to have effects on decisions to engage in more helping behavior. Prosocial personality characteristics have also been found to have a

strong impact on the likelihood of altruistic actions. However, relatively few studies have attempted to examine how personality characteristics interact with being observed by others when making decisions on prosocial activities.

The present study focused on two situational factors: the presence of others and the cost of helping behavior, and two personality characteristics: prosociality factors and Machiavellianism. In general, the fact that group mates were directly informed of each other's decision profoundly increased the subjects' willingness to offer help. In public groups more than twice as many individuals offered charity service than those in anonymous groups.

The positive effect of the presence of others may be mediated by prosocial personality traits. Our results show that altruistic personality characteristics work relatively independently of situational factors, such as the presence of others and the cost of altruistic acts. Subjects with higher scores of Social Cooperation were more likely to engage in helping activities than those of low on this scale, regardless of whether they offered help on public or anonymous conditions and of the perceived degree of the cost of altruistic behavior. These findings are in line with former results that showed that prosocial factors, especially empathy, involve a relative independence of situational factors. For example, several studies have revealed that empathic concern is likely to induce prosocial behavior in both "easy-escape" and "difficult-escape" situations" (Batson 1991, Bierhoff and Rohmann 2004).

Machiavellianism proved to be much more sensitive to the context of observation. In general, it had a negative effect on the charity offer. Low-Mach subjects were more likely to give assistance to needy persons than high-Machs. The effect of Machiavellianism on charity offers strongly depended on the social presence of others. Subjects with high scores on Mach-IV were not likely to give assistance when they were not observed by the others. However, they increased their help to others when their group mates could observe their behavior. This increase was especially pronounced when the perceived cost of the altruistic act was relatively low. In other words, even if high-Machs decide to volunteer under the pressure of publicity, they decide to offer a low-cost helping act.

This is consistent with the findings of several former studies (Wilson et al. 1998; Gunnthorsdottir et al. 2002, Paal and Bereczkei 2007). Persons with high Machiavellianism can calmly identify the optimal strategy in each situation. They behave in a self-interested way if it is to their advantage. They are also more risk-taking than low-Mach persons in that they may be willing to take chances in interpersonal encounters. In a study that used Trust-game High-Mach persons were willing to trust in their partner but they did not reciprocate trust (Gunnthorsdottir et al. 2002). In other words, as player 1 they cooperated in order to induce their counterpart to engage in a mutually advantageous cooperation. As player 2, however, they defected because in this case they obtained a larger amount of money as if they would have reciprocated some of the amount they had received from their partner.

Contrary to participants of experimental games who were paid at the end of the experiment**,** subjects in our study could not get immediate reward. We speculate that their benefit may result from a more indirect channel: through the reputation they gain in their group. Generosity towards strangers pays because it confers the image of a valuable community member who may obtain a benefit in a future encounter as recipient. Experiments have confirmed that players had a higher probability of receiving a reward in the second game if they had contributed more in the previous (usually public goods) game (Barclay 2004, Fehr and Fischbacher 2003, Milinski et al 2002, Wedekind and Braithwaite 2002). Instead of experimental games, Bereczkei et al. (2007) examined "real-life" conditions with methods very similar to those of the present study. They found that those who were willing to participate in a particular charity activity received a significantly higher score on the scales measuring sympathy and trustworthiness than the others. These results suggest an interpretation of our findings in the present study. When others can observe them, High-Mach

persons may tend to conceal their selfish and exploitative character in order to gain or maintain reputation and prestige in their own groups that may bring long-term benefits for them.

Persons with a high level of Machiavellism might even compete for benefits of reputation. It is possible that the main impulse of their altruism is the endeavor to improve their image among their group mates. Competitive altruism occurs when people go beyond behaving altruistically in the presence of others, and instead actively try to appear more generous than others, and this image is unambiguously demonstrated (Barclay and Willer 2007). High-Mach persons may send dishonest signals of generous intent when they expect reputational benefits for altruism. This is because in public conditions when the participants' decisions are observed, the potential gains from being preferred by others in the future interactions outweigh the cost of being generous. They did not offer help, however, in anonymous conditions because in such circumstances the cost of behaving altruistically outweighs the potential benefits. Future studies may reveal how high-Mach persons evaluate other conditions – e. g. fear of being punished, adherence to social norms in order to adapt their behavior to different situations.

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Figure captions

Figure 1. Social Cooperation scores of individuals who offer or not offer charity service in public and anonymous groups.

Figure 2. Scores of Machiavellianism for individuals who offer or not offer charity service in public and anonymous groups

Figure 1

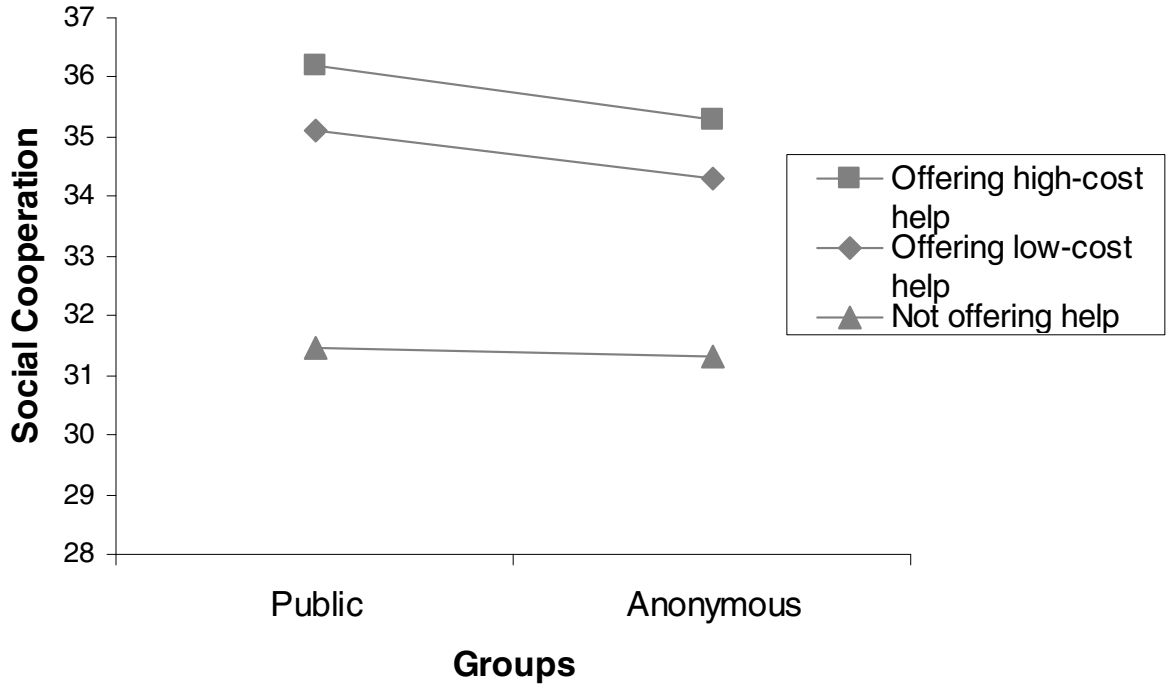

Figure 2