

# FRIENDS OF VICTIMS: PERSONAL RELATIONSHIPS AND SOCIAL PREFERENCES

NOTE: THIS PAPER IS BEING REVISED TO INCORPORATE 2 MORE STUDIES

Deborah A. Small and Uri Simonsohn

University of Pennsylvania

## Abstract

This paper studies the impact of personally knowing a victim on social preferences for the welfare of *other* victims of the same misfortune. We begin with the analysis of a survey of volunteers, which shows that they tend to volunteer for organizations that target misfortunes previously suffered by their friends and relatives. In order to control for informational asymmetries, among other potential confounds, we conducted an experiment in which we randomly assigned participants to befriend a victim (a fellow participant who lost an initial endowment of \$10) or a non-victim and found that participants who were paired with a victim gave more generous dictator offers to *another* anonymous victim.

\*Small: 700 Huntsman Hall, 3730 Walnut Street, Philadelphia PA19104, email: [deborahs@wharton.upenn.edu](mailto:deborahs@wharton.upenn.edu), homepage: <http://marketing.wharton.upenn.edu/people/faculty/small.cfm>. Simonsohn: 562 Huntsman Hall, 3730 Walnut Street, Philadelphia, PA19104, email: [uws@wharton.upenn.edu](mailto:uws@wharton.upenn.edu), homepage: <http://dp.wharton.upenn.edu>. We are thankful to Eli Finkel, George Loewenstein, Jason Riis, Maurice Schweitzer, and attendees of seminars at Princeton and Stanford universities for helpful comments and discussions. We also thank Jessica Goldenberg, Laura Hotaling, Kwan-Kit Lui, Nicole Verrochi, Wesley Williams, and Yingyin Zhou for help with data collection, and the volunteer coordinators from Action Aids, Alzheimer's Association, and the Special Olympics for collaborating with our survey.

Introspection, abundant experimental evidence, and charitable giving totaling \$250 billion in the United States in 2004 (Giving USA, 2004) all suggest that, standard economic assumptions about selfishness notwithstanding, people are willing to forgo personal gain to improve the welfare of others.

Although the precise nature of prosocial behavior is still debated, the fact that people's willingness to engage in it is not constant across people or situations seems uncontroversial. Here we focus on prosocial behavior toward victims (as opposed to public good situations), so for expository purposes we will refer to the potential beneficiaries of prosocial behavior as victims, and to the benefactors as donors.

As we summarize in the following paragraphs, the existing literature on the moderators of social preferences has concentrated on *main effects* of victims' and donors' characteristics, and on the interactions between *specific* victims and donors. It has not addressed, however, why donors exhibit different willingness to help victims of a given *misfortune*, independent of the specific victims involved. This gap is notable, because much of the charitable giving outside the laboratory is directed towards charities that target specific misfortunes, where victims are anonymous, rather than towards specific victims.<sup>1</sup>

Previous research has shown that victims who (i) are identifiable (Kogut & Ritov, 2005a, 2005b; Small & Loewenstein, 2003; Small, Loewenstein, & Slovic, 2005) (ii) are less anonymous (Bohnet & Frey, 1999; Charness & Gneezy, Forthcoming), (iii) are in greater need (Eckel & Grossman, 1996) and (iv) suffer from uncontrollable misfortunes (Fong, 2001; Weiner, 1995), tend to elicit greater sympathy and receive more generous donations.

---

<sup>1</sup> This is perhaps best exemplified by the proliferation of walks and races for specific ailments (i.e. breast cancer, Multiple Sclerosis, etc.)

Other studies have examined the impact of donor characteristics, such as gender (Andreoni & Vesterlund, 2001; Bolton & Katok, 1995; Eckel & Grossman, 1998), race (Eckel & Grossman, 2001), academic major (Carter & Irons, 1991; Frank, Gilovich, & Regan, 1993) and age (Harbaugh, Krause, & Liday, 2000; List, 2004), on prosocial tendencies. The estimated impacts of donor characteristics, however, have proven to be much less consistent (for a review see pages 63-66 in Camerer, 2003).

Finally, previous research shows that victim and donor characteristics interact, particularly when there is a match or similarity that reduces the psychological distance between donors and victims. For example, donors have been shown to care more for victims who (i) belong to their in-group rather than their out-group (e.g. Dovidio et al., 1997; Flippen, Hornstein, Siegal, & Weitman, 1996; Levine, Cassidy, Brazier, & Reicher, 2002), (ii) are more similar to them (Krebs, 1975; Stotland & Dunn, 1989), and (iii) are geographically more proximate to the donor (Charness, Haruvy, & Sonsino, Forthcoming).

Yet as mentioned earlier, the existing literature has not examined variation in willingness to contribute across misfortunes. Why do some people donate money to research on Alzheimer's and others to help nourish children in Africa? Why do some people 'race for the cure' of breast cancer while others walk for multiple Sclerosis? We begin to address this gap here, by examining the role of having a personal relationship with a victim of a specific misfortune on caring for other victims of that same misfortune.

Anecdotal evidence suggests that having a personal relationship with a victim increases a donor's willingness to contribute resources to other victims of the same misfortune. For example, celebrities such as Nancy Reagan, Mia Hamm, and Rob Lowe all promote charities that benefit victims who suffer from an affliction from which a family member suffered.

Our first study consists of a survey that seeks to examine the validity of this anecdotal evidence, by comparing pre-existing personal relationships of volunteers at three different charitable organizations. As predicted, we find that volunteers tend to get involved in organizations that help victims of misfortunes experienced by people they knew prior to volunteering. For example, we find that 89% of volunteers at the *Alzheimer's Association* knew somebody who suffered from Alzheimer's prior to volunteering, compared to 60% of volunteers at *Action AIDS* and 46% of volunteers at the *Special Olympics*.

This positive association between knowing victims of a given misfortune and engaging in prosocial behavior towards other victims of the same misfortune could be explained by any of the following four mechanisms:

- i. *Spurious association*: friends of victims are unobservably different from friends of non-victims, and their greater tendency to provide assistance to other victims is driven by this unobservable heterogeneity rather than by the personal relationship per se. For example, the unobserved characteristic may be geographic distance: people may volunteer for causes that are near their homes, and organizations may locate in areas with high incidences of a particular misfortune, which would lead to a spurious association between knowing a victim of a given misfortune and volunteering for an organization that targets it.
- ii. *Selfish motive*: friends of victims may exhibit a higher (subjective) probability of suffering from the misfortune experienced by a loved one and hence their decision to contribute may be motivated by their own personal gain either directly (e.g. by helping to find a cure for a disease for which they perceive they might contract) or indirectly (e.g. by expecting retribution once they have contracted the disease).

- iii. *Information or salience*: friends of victims may be better informed about ways to contribute to other victims of that misfortune, or may be better informed about the experience of suffering from it. Even if equally informed, personal relationships with victims may act as a reminder to act.
- iv. *Effect on social preferences*: the final and most interesting mechanism is that knowing a victim may directly influence social preferences for the utility of other victims of the same misfortune. In other words, having a relationship with a victim may cause donors to internalize the utility of other victims to a greater extent than donors without such relationships.

In order to assess whether knowing a victim influences prosocial behavior by directly changing people's preferences for the welfare of other victims, we conducted a controlled experiment that first induced "friendship" between randomly-matched participants and subsequently made some "friends" into "victims" (by having them give up a \$10 endowment). We then examined the impact of being "friends" with a subject who became a victim, on amount of money offered, in a dictator game, to another subject who also lost the \$10.<sup>2</sup>

Because the experiment consists of a one-shot, anonymous game, with random matching, and is conducted in a setting where both friends and non-friends of victims obtain the exact same information, explanations (i), (ii), and (iii) were eliminated by design and hence we attribute any remaining influence of knowing a victim to an effect on social preferences.

Consistent with the notion that personal relationships with victims influence social preferences for other victims of the same misfortune, we find that dictators who befriended a

---

<sup>2</sup> In the dictator game one player (the dictator) divides a monetary endowment between herself and one other player (the recipient) who has no option but to accept the payment (unlike the ultimatum game, where the recipient can reject offers). See chapter 2 in Camerer, 2003 for a recent review of the dictator game and other related paradigms.

victim were more generous towards other victims (giving an average of \$3.06 of a \$10.00 endowment) than were dictators who befriended a non-victim (giving an average of \$1.95). In what follows, section I presents the results from the volunteering survey, section II from the dictator game experiment, and section III concludes the paper.

## I. Volunteering Survey

We surveyed volunteers at several local charitable organizations. The survey asked volunteers about their relationships with victims of different misfortunes prior to volunteering. We predicted that a relationship with a victim who has suffered from a particular ailment would be correlated with volunteering choices.

We first obtained a list from [www.volunteermatch.com](http://www.volunteermatch.com) of all volunteer coordinators for local organizations that support victims of specific misfortunes (as opposed to broad charitable organizations, such as the United Way). Six local organizations fit these criteria. We posted the survey on the web, and asked volunteer coordinators from these organizations to forward the survey link to their volunteers. Three of them followed through with their commitment to forward our request, resulting in a total of 116 respondents: 26 from *Action AIDS*, 75 from the *Alzheimer's Association* and 15 from the *Special Olympics*. The request, of course, did not disclose our hypothesis.

The survey consists of a form where respondents could indicate if they knew someone who had experienced each of six different ailments *prior* to volunteering at the current organization (the six ailments were AIDS, Multiple Sclerosis, Alzheimer's disease, Diabetes, Intellectual disability and Breast cancer). For each of the ailments, respondents could specify if they had an acquaintance, colleague, casual friend, close friend, distant relative, parent, sibling, spouse and "other", who suffered from that ailment. Since we only received responses from

volunteers at three of the organizations, the analyses below just compares the responses about the three corresponding misfortunes (AIDS, Alzheimer's disease, and intellectual ability).

### *Results and Discussion*

Based on our hypothesis that having a personal relationship with a victim of a specific misfortune increases caring for other victims of the same misfortune, we expected that volunteers at organizations that target a specific misfortune would have more pre-existing personal relationships with people who suffered from that misfortune than volunteers at organizations that target other misfortunes.

Consistent with this prediction, volunteers knew (prior to volunteering) an average of 1.51 people who suffered from the misfortune targeted by the organization for which they volunteer, and .651 from each of the two misfortunes not targeted by their organization, a statistically significant difference ( $t(346) = 7.36, p < .0001$ ). Moreover, as shown in Figure 1, the data for each of the three misfortunes are consistent with our hypothesis. The figure shows the average number of victims of each of the three misfortunes that volunteers from each of the three organizations knew prior to volunteering.

In the case of AIDS, for example, the figure shows that volunteers at *Action AIDS* knew an average of 1.81 victims of AIDS prior to volunteering, compared to .68 on average known by volunteers at the *Alzheimer's Association*, and .53 known by those at the *Special Olympics*. A t-test contrasting the average number people with AIDS known by volunteers at *Action AIDS*, with the average number of people with AIDS known by volunteers at the two other organizations combined proved significant ( $t(114) = 4.31, p < .0001$ ). Analogous pairwise comparisons also proved significant for Alzheimer's disease ( $t(114) = 4.19, p < .0001$ ) and for

intellectual Disability ( $t(114) = 2.31, p = .023$ ). The p-values from non-parametric Wilcoxon two-sample tests were .0012, <.0001 and .0568 respectively.

\*\*\*Figure 1\*\*\*

Similar results are obtained comparing the percentage of volunteers who knew someone who suffered from the misfortune targeted by their organization (i.e. using a dichotomous dependent variable): 81.6% of volunteers had a personal relationship with a victim of the misfortune targeted by their organization, compared to an average of 46.2% for the other two misfortunes not targeted by it ( $\chi^2(1) = 40.6, p < .0001$ ).

Moreover, as was the case for number of victims, figure 2 shows that the data for each of the three misfortunes are consistent with our hypothesis. The figure reports the percentage of volunteers at each of the three organizations who knew a victim, prior to volunteering, of each of the three misfortunes. Considering AIDS, for example, the figure shows that 65% of *Action AIDS* volunteers knew someone with AIDS prior to volunteering, compared to 43% of volunteers at the *Alzheimer's Association* and 47% of volunteers at the *Special Olympics*. A pairwise comparison of the percentage of volunteers at *Action AIDS* that knew a victim, with that of the other two organizations combined was statistically significant ( $\chi^2(1) = 3.97, p = .046$ ). Once again, such pairwise comparisons were also statistically significant for Alzheimer's disease ( $\chi^2(1) = 20.48, p < .0001$ ) and intellectual disability ( $\chi^2(1) = 3.88, p = .049$ ).

\*\*\*Figure 2\*\*\*

Although the results from our survey are consistent with the pattern of prosocial choices that would be expected if personal relationships with victims of a specific misfortune have an impact on caring for other victims of the same misfortune, the correlational nature of the survey precludes us from making inferences about causality.

In particular, as was discussed in the introduction, friends of victims may act more generously towards other victims of the same misfortune because of any of the following four mechanisms: (i) they are unobservably different from non-friends of victims, (ii) they have a (subjective) higher likelihood of suffering from the same misfortune, (iii) they are better informed about volunteering opportunities for the misfortune their friend has suffered, or about the details of their suffering, and/or (iv) their social preferences are influenced by their personal experience of knowing a victim. In order to assess the causal influence of knowing a victim on social preferences, we conducted an experiment which we report next.

## II. Dictator Game Experiment

We conducted an experiment where pairs of subjects first engaged in a short task that allowed them to get to know each other (i.e. become *friends*). All subjects were given an endowment of \$10 and one subject in half of the pairs (soon to become a recipient in the dictator game) lost their endowment (i.e. became a *victim*). We then compared the amount of money given by dictators whose friend became a victim and that of dictators whose friend did not.

We also manipulated the recipient of the allocation (friend or scholarship fund) to rule out two plausible alternative explanations for why the friend status manipulation might affect generosity towards another victim. The first is that a relationship with a victim may influence social preferences for all kinds of victims, such that friends of victims would give more to all causes (e.g. by manipulating the subject's mood). The second is that participants may use the outcome of their friend as a reference point and hence may be more likely to part with their own money (since their friends have less) than friends of non-victims (whose friends have \$10). If

either of these explanations were true, we would expect friends of victims to give more than friends of non-victims, both to another victim and to the scholarship fund.

We conducted the study in classrooms at the end of six undergraduate classes (ranging in size from 24-97). A total of 280 individuals (62.6% female) participated in exchange for the amount they earned as a result of the allocation task.

#### *A. Relationship Induction*

We paired up participants with the person sitting directly in front of/behind them and moved seats so that they could interact. Each pair of participants engaged in an abridged version of the *Relationship Closeness Induction Task* (RCIT), a task commonly used by psychologists to induce relationships in experiments (for a review see Sedikides, Campbell, Reeder, & Elliot, 1999).

The relationship induction was labeled “Communication task” and consisted of two sets of questions. It instructed each pair of participants to engage in as natural a conversation as possible, using the questions listed. The first set of questions included: 1) *What is your first name?* 2) *Where are you from?* 3) *What year are you in school?* 4) *What are your hobbies?* 5) *What would you like to do after graduating?* The experimenter kept time and asked participants to move from the first list to the second list after 2 minutes. The second set of questions included: 1) *If you could travel anywhere in the world, where would you go and why?* 2) *What is one thing happening in your life that makes you stressed out?* 3) *If you could have one wish granted, what would that be?* 4) *What is one recent accomplishment that you are proud of?* They had 3 minutes to discuss the second set of questions. When time was up, the experimenter instructed participants to return to their seats.

### *B. Dictator Game Setup*

An instructions sheet, read aloud by the experimenter, provided complete information about the procedures (the instructions are included in the appendix). It informed participants that one person within each pair of friends would be making an allocation decision, but that the decision would not affect their friend; rather the allocator would either divide money between herself and another anonymous participant or between herself and a scholarship fund of her university. Highlighting the anonymous nature of the task, participants were told that those who could give to another participant would only know the number of the person affected by their decisions but would never learn the identity of the person with that number.

All participants began the study with an endowment of \$10.<sup>3</sup> Each pair of friends was assigned a unique number. Within each pair, one person was assigned role ‘A’ (soon to be dictators) and the other was assigned role ‘B’ (half of which would become victims by losing their \$10). Each participant, therefore, knew their own number and letter and their friend’s number and letter (e.g., if a participant is assigned 6A, then her friend must be 6B), but did not know anyone else’s number or letter.

We then created victims by randomly selecting some participants to lose their money. Specifically, half of the *B* participants in each session lost their money. To do this, the experimenter flipped a coin in front of all participants; if it came up heads, odd-numbered *B* participants lost their money, if it came up tails, even-numbered *B* participants lost their money. Note that all *A* participants knew that half the *B* participants lost their money, but they knew the identity of only one *B* participant: their friend.

---

<sup>3</sup> Participants did not receive an actual payment of \$10 at the beginning of the experiment. They were informed of their initial endowment through the instructions (see appendix for more details).

After the coin flip, all *A* participants drew a piece of paper designating the recipient to whom they could give money. Before the drawing, instructions informed them that, depending on their draw, their recipient would be either the scholarship fund or a *B* participant who had lost their money. Therefore, half the slips of paper were labeled with the fund's name and the other half with a number corresponding to a *B* participant who lost her money. If an *A* participant drew her own number, she returned the paper and drew another one (i.e. no *A* participant was ever able to give to her own friend). There were no slips of paper representing *B* participants who kept their money. We also had *B* participants draw a piece of paper and make a hypothetical allocation in order to maintain anonymity (this way, subjects could not learn who in the room was an *A* or a *B* based on who was involved in drawing slips of paper). In sum, all *A* participants could give between \$0 and \$10 to either a *B* participant who lost money or to the scholarship fund, which was determined by the piece of paper they drew. Half of the *B* participants, as a result of the coin flip, lost their \$10 and could receive some money from a randomly determined *A* participant, and the other half of *B* participants kept their \$10.

To ensure that participants understood the instructions, participants filled out a short survey following the experiment that asked them to report whether the person with whom they were paired in the communication task lost money as a result of the coin flip in the allocation task. All subjects correctly reported the consequences of the coin flip. They were also asked to indicate how much they knew the person with whom they were matched, on a scale ranging from 1 (never talked to before) to 10 (best friends).

### *C. Results and Discussion*

Figure 3 shows the distribution of allocations made by dictators across conditions. Figure 3a elucidates the tendency toward greater dictator offers from *A* participants whose friend lost the initial endowment in the conditions for which the recipient was another subject who had lost their endowment. Yet, this tendency is not evident in Figure 3b, which shows the conditions for which the recipient was the Scholarship Fund.

\*\*\*Figures 3a and 3b\*\*\*

Figure 4 shows the average contribution in each of the four conditions and further supports the predicted pattern. The first two bars show the average amount of money given to a *B* participant who lost the initial \$10 endowment. As predicted, dictators offered more money if their friend was a victim ( $M = \$3.06$ ) than if she was not ( $M = \$1.95$ ), a statistically significant difference ( $t(71) = -2.25, p = .027$ ).<sup>4</sup> The next set of bars, in contrast, show that dictators whose friend was a victim were slightly less generous towards the scholarship fund ( $M = \$2.45$ ) than dictators whose friend was not a victim ( $M = \$3.08$ ) but this difference was not significant ( $t(67) = .913, p = .364$ ).

\*\*\*Figure 4\*\*\*

Since the distributions depicted in figures 3 and 4 are not normal, we also conducted the pairwise comparisons using the non-parametric Wilcoxon two-sample test. The difference between donations of friends of victims and friends of non-victims towards a fellow subject was also significant when using this test ( $Z = 2.12, p = .034$ ), while the difference in donations to the scholarship fund was also non-significant ( $Z = 1.04, p = .296$ ).

This pattern supports the hypothesis that individuals are more generous to victims of a particular misfortune when they have a personal relationship with someone who has endured the

---

<sup>4</sup> The difference between offers to another subjects are also statistically different across conditions if the single \$10 allocation (see figure 3a) is excluded from the sample. The means are then \$1.95 and \$2.88, with a t-test of  $t(70) = 2.02, p = .047$ .

same misfortune. Furthermore, the fact that average contribution towards the scholarship fund was not influenced by the friend's state rules out the two alternative explanations alluded to earlier. That is, effects of being paired with a victim cannot be attributed to an increase in overall generosity or to a reference-point effect with respect to the friend's outcome.

Thus consistent with our hypothesis, a relationship with a victim causally increases generosity to other victims of the same misfortune. This effect occurs even when we control for information, since all participants had the same information during the task--all knew that half of the *B* participants had lost their \$10 endowment. The only difference was that some *A* participants were "friends" with one of the *B* participants who lost their endowment and others were not.

#### *Pre-existing friendship*

As mentioned previously, at the end of the experiment we asked subject to indicate from 1 (never spoke to before) to 10 (best friends) how much they knew the person with whom they were matched for the communication task (i.e. their "friend"), prior to the experiment. Thus, although we induced friendship between randomly-assigned subjects, we also have a measure of how close the randomly-assigned pairs were prior to this manipulation. We will refer to this variable as *friendship*. The average for *friendship* was 2.28 with a standard deviation of 2.52.

We used *friendship* to further test the hypothesized mechanism for our findings. In particular, for each condition we estimated a regression where the unit of observations was a dictators' offer, the dependent variable was the dollar amount offered, and the key predictor was  $\log(\textit{friendship})$ . If knowing a victim makes people more generous to other victims of the same misfortune, then the closer the dictator was to her friend prior to the experiment, the more she

should give to the randomly matched recipient if her friend became a victim, *but* no such effect should exist if her friend did not become a victim (or if the recipient was the scholarship fund).

The results from these four regressions are presented in table 1. Each column shows the regression estimates for each condition. In particular, columns (1) and (2) correspond to the conditions where the recipient was another subject, and columns (3) and (4) correspond to the conditions where the recipient was the scholarship fund. As predicted, *friendship* significantly increased the amount of money offered ( $p = .068$ ) only in the condition for which the A participant's friend became a victim and the recipient was another subject.

If instead of  $\log(\textit{friendship})$ , the regression is estimated with a dummy variable which takes the value of 1 if  $\textit{friendship} > 1$  and of 0 if  $\textit{friendship} = 1$  as the only predictor, similar results are obtained ( $p = .0129$  in the first column, but still far above .1 in the three other columns). Thus, closeness of a pre-existing relationship with a friend who becomes a victim is also positively related to generosity towards another anonymous victim of the same misfortune. We interpret these results as further support for the hypothesis that having a personal relationship with a victim increases caring for other victims of the same misfortune.<sup>5</sup>

\*\*\*Table 1\*\*\*

#### IV. Conclusions

The existing literature on moderators of social preferences has concentrated on the influence of victims' and donors' characteristics on overall generosity, and on factors that lead specific donors to behave more generously towards specific victims. It has not addressed,

---

<sup>5</sup> Note that, consistent with the comparison of average monetary offers *across* conditions presented earlier, the point estimates of the regressions *within* the conditions where the recipient is the Scholarship Fund suggest that friendship with a subject who lost \$10, *decreases* donations to the Scholarship Fund, though the estimated coefficient is not significantly different from 0.

however, why people exhibit different willingness to help victims of a given *misfortune*, independent of the specific victims involved. This is an important gap, because much of charitable giving outside the laboratory, like that of the volunteers we surveyed in study 1, is directed towards organizations that benefits victims of specific misfortunes rather than towards specific victims or to victims who have certain personal characteristics.

In this paper we bridge this gap by showing that knowing a victim who suffered from a specific misfortune increases caring for other victims of the same misfortune. In particular we surveyed volunteers at different organizations and found that they tended to volunteer for organizations that targeted misfortunes that had been suffered by people they knew prior to volunteering. To rule out mechanisms that could lead to this association other than preferences, we conducted an experiment that randomly matched subjects with another subject who either kept or lost an initial endowment of \$10. Consistent with the hypothesized impact of “friends of victims” on social preferences, we found that subjects who befriended a victim subsequently gave more generous dictator offers to other anonymous victims of the same misfortune.

**Table 1. Amount given as a function of pre-existing friendship with randomly assigned subject (OLS)***Dependent variable: \$ amount given by dictator*

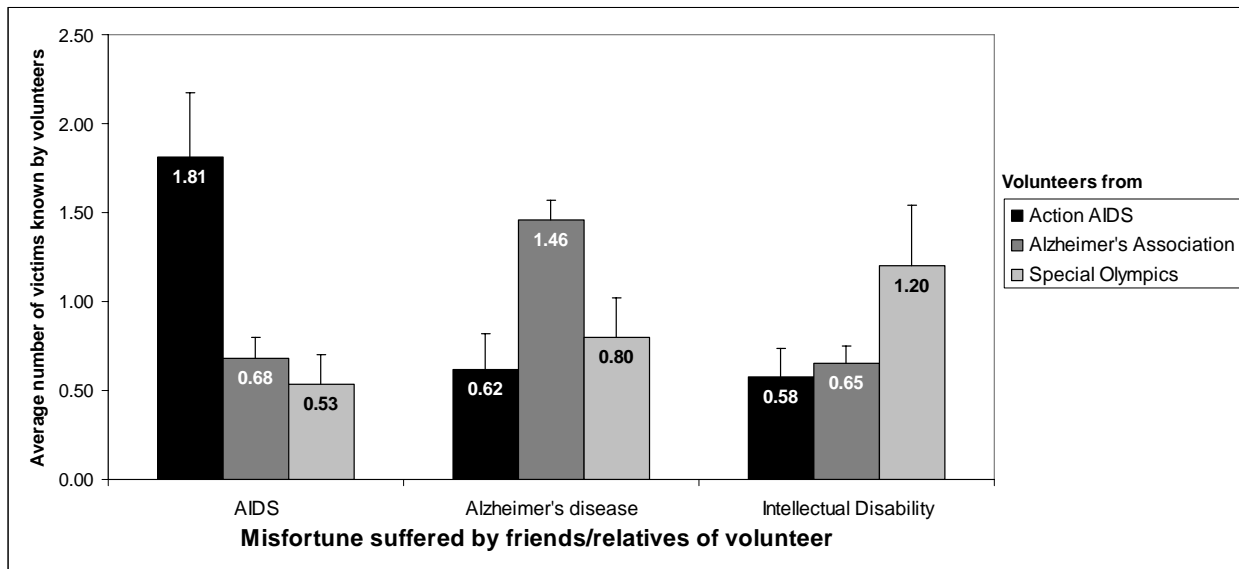
	(1)	(2)	(3)	(4)
Recipient:	Another subject		Scholarship fund	
Friend:	Victim	Non-Victim	Victim	Non-Victim
Intercept	2.759** (0.472)	1.878** (0.360)	2.644** (0.551)	2.510** (0.570)
log(pre-existing friendship) (1-10 scale)	0.858* (0.456)	-0.294 (0.467)	-1.033 (0.858)	0.728 (0.558)
Number of observations <sup>a</sup>	34	31	31	34
R <sup>2</sup>	0.100	0.013	0.048	0.051

Notes:

\*\*, \* significant at the 5% and 10% level respectively

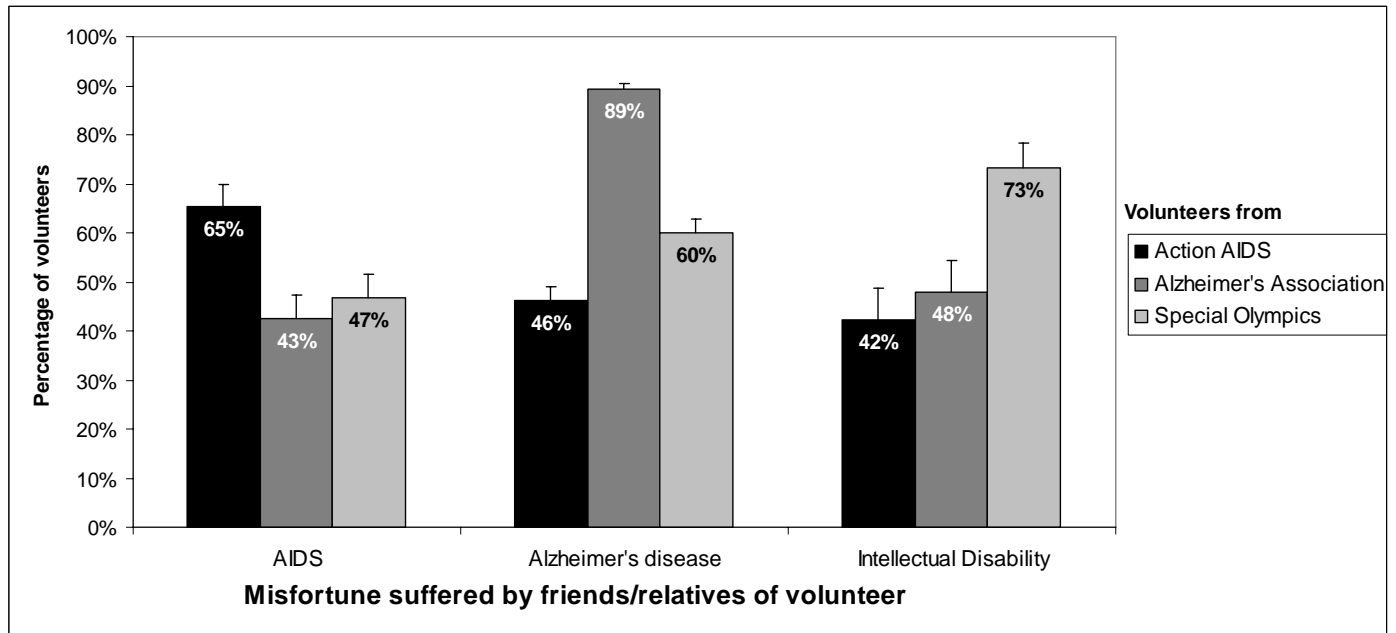
<sup>a</sup> We obtained data on pre-existing friendship for 130 of the 142 pairs of subjects.

**Figure 1. Average number of personal relationships with victims of each misfortune for volunteers at each organization.**



*Note: Lines above bars represent standard errors.*

**Figure 2. Percentage of volunteers who had a personal relationship with a victim, prior to volunteering for their organization.**



*Note: Lines above bars represent standard errors.*

Figures 3a and 3b. Distribution of dollar amounts given by dictators when the recipient is another subject (Figure 3a) and when the recipient is the scholarship fund (Figure 3b).

Figure 3a: Recipient is another subject

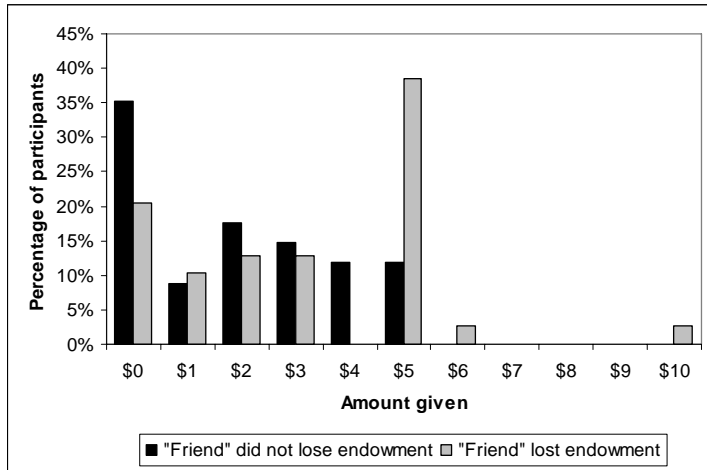
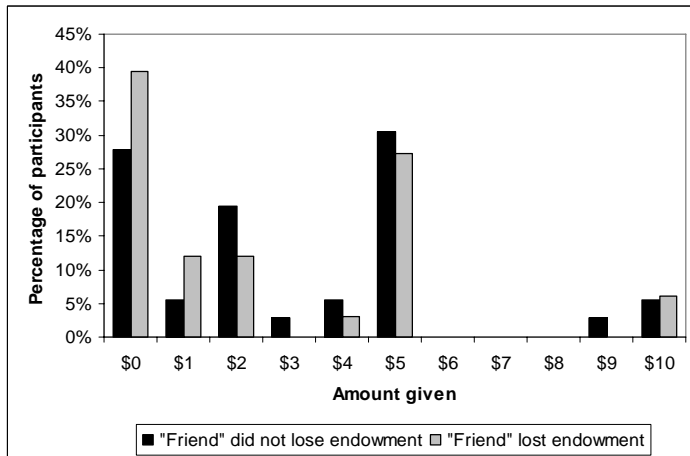
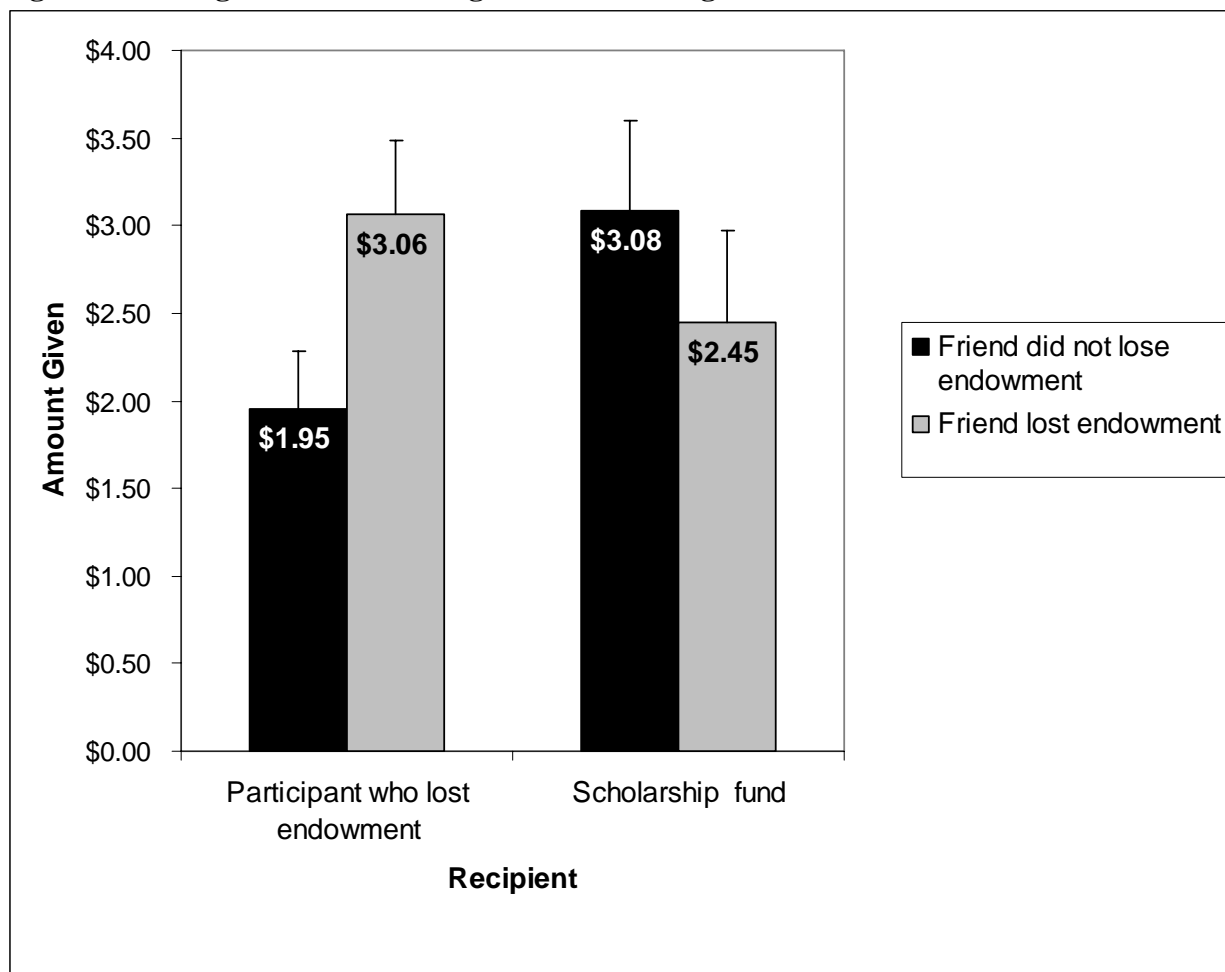


Figure 3b: Recipient is scholarship fund



**Figure 4. Average dollar amounts given in dictator game**

*Note: Lines above bars represent standard errors.*

## Appendix 1 - Experimental Instructions

Thank you for participating in this study. This is a study about how people allocate money. You will be randomly assigned to a certain role and the person who was your partner in the first part of this study will be in a different role. Depending on your role, you may be making allocation decisions or you may be the recipient of such allocations.

All decisions made by participants are anonymous. At the start of the study, you will learn the roles to which you and your partner have been assigned, but at no time will you learn what decisions are made by your partner or by any other participant. Your partner and others will never learn what you do either.

Furthermore, each student has a number and participants will only know the **number** of the person who is affected by their decisions, but will never learn WHO has what number.

For this study, you will be informed through the instructions about all aspects of the procedures. There is **no deception** in this study (i.e. everything in your instructions is indeed happening). All decisions made by participants are **real**.

Payments will be distributed in envelopes in the following class so you will only learn how much you make in the study, but not how much anyone else makes.

**Please stay quiet throughout the experiment and do your best to minimize facial expressions. If others can guess how you are feeling, you will need to be excluded from the experiment.**

PLEASE DON'T TURN THE PAGE UNTIL THE EXPERIMENTER INSTRUCTS YOU TO DO SO.

For this study, each participant starts off with an endowment of \$10.00. Each pair of friends is assigned a *unique* number (no two pairs will have the same number)

You and your partner are assigned number \_\_\_\_\_

Within each pair, one person at random is assigned to be “A” and the other is assigned to be “B”.

You are assigned letter \_\_\_\_\_

Your partner is letter: \_\_\_\_\_

For this study, some Bs will be randomly selected to lose their money. The experimenter will flip a coin: if it turns up **heads** and you are a B with an **odd number, then you** will lose your money. If it turns up **tails** and you are a B with an **even number, then you** will lose your money. If you are an A, you get to keep your money either way but your friend might lose his/her money depending on the coin flip.

PLEASE DON'T TURN THE PAGE UNTIL THE EXPERIMENTER INSTRUCTS YOU TO DO SO.

My number is \_\_\_\_\_

My letter is \_\_\_\_\_

**Instructions for A's:**

At this time all A's will draw a piece of paper, which designates *who* they can give money *to*. If an A draws a number, then that A can give to the B participant who has that number. If an A draws "*Scholarship Fund*", then that A can give to the ***Scholarship Fund***. Each A can give any amount between \$0.00 and \$10.00 to the recipient designated on their piece of paper.

Please draw a piece of paper from the bag when the experimenter approaches you. Remember that this is who any money you give away will go to. **If you draw your own number, please return it to the bag and draw a different number.**

Please write down what your piece of paper says here \_\_\_\_\_

Please decide here how much of your \$10.00 you want to keep for yourself and how much you want to give to the recipient you have drawn.

Keep for self \_\_\_\_\_

Give away \_\_\_\_\_

Total      \$10.00

---

**Instructions for B's**

Although you will not be making an actual money allocation, we are interested in knowing how you think you would have made an allocation if you had been selected to be an A and your friend had been selected to be a B. At this time all B's will draw a piece of paper, which designates *who* they can make a hypothetic decision about. Do your best to imagine that you are in your friend's shoes right now and your friend is in yours.

Please draw a piece of paper from the bag when the experimenter approaches you. Remember that this is who you are making your hypothetical decision about. **If you draw your own number, please return it to the bag and draw again.**

Please write down what your piece of paper says here \_\_\_\_\_

If you had been selected to be an A, please tell us how much of your \$10.00 you would keep for yourself and how much you would give to the recipient you have drawn.

Keep for self \_\_\_\_\_

Give away \_\_\_\_\_

Total      \$10.00

Please wait for the experimenter to collect all forms.

## References

- Andreoni, J., & Vesterlund, L. (2001). Which is the fair sex? Gender differences in altruism. *Quarterly Journal of Economics*, 116(1), 293-312.
- Bohnet, I., & Frey, B. S. (1999). Social Distance and other-regarding Behavior in Dictator Games: Comment. *The American Economic Review*, 89(1), 335-339.
- Bolton, G. E., & Katok, E. (1995). An Experimental Test for Gender Differences in Beneficent Behavior. *Economics Letters*, 48(3-4), 287-292.
- Camerer, C. F. (2003). *Behavioral Game Theory: Experiments in Strategic Interaction*. Princeton, New Jersey: Princeton University Press.
- Camerer, C. F., Ho, T.-H., & Chong, J. K. (2004). Behavioral Game Theory: Thinking, Learning, and Teaching. In S. Huck (Ed.), *Advances in understanding strategic behavior: game theory, experiments and bounded rationality; essays in honor of Werner Guth*: Palgrave Macmillan.
- Carter, J. R., & Irons, M. D. (1991). Are Economists Different, and If So, Why. *Journal of Economic Perspectives*, 5(2), 171-177.
- Charness, G., & Gneezy, u. (Forthcoming). What's in a name? Anonymity and Social Distance in Dictator and Ultimatum Games. *Journal of Economic Behavior and Organization*.
- Charness, G., Haruvy, E., & Sonsino, D. (Forthcoming). Social Distance and Reciprocity: An Internet Experiment. *Journal of Economic Behavior and Organization*.
- Dovidio, J. F., Gaertner, S. L., Validzic, A., Matoka, K., Johnson, B., & Frazier, S. (1997). Extending the benefits of recategorization: Evaluations, self-disclosure, and helping. *Journal of Experimental Social Psychology*, 33(4), 401-420.
- Eckel, C. C., & Grossman, P. (1998). Are women less selfish than men?: Evidence from dictator experiments. *Economic Journal*, 108(448), 726-735.
- Eckel, C. C., & Grossman, P. (2001). Chivalry and solidarity in ultimatum games. *Economic Inquiry*, 39, 171-188.
- Eckel, C. C., & Grossman, P. J. (1996). Altruism in anonymous dictator games. *Games and Economic Behavior*, 16(2), 181-191.
- Flippen, A. R., Hornstein, H. A., Siegal, W. E., & Weitman, E. A. (1996). A comparison of similarity and interdependence as triggers for ingroup formation. *Personality and Social Psychology Bulletin*, 76, 338-402.
- Fong, C. (2001). Social preferences, self-interest, and the demand for redistribution. *Journal of Public Economics*, 82(2), 225-246.
- Frank, R. H., Gilovich, T., & Regan, D. T. (1993). Does Studying Economics Inhibit Cooperation. *Journal of Economic Perspectives*, 7(2), 159-171.
- Giving USA Foundation. (2004). *The Annual Report of Philanthropy for the Year 2004*: Giving USA Foundation.
- Harbaugh, W. T., Krause, K., & Liday, S. (2000). Children's bargaining behavior: Differences by age, gender and height: University of Oregon.
- Hoffman, E., McCabe, K., & Smith, V. L. (1996). Social Distance and Other-Regarding Behavior in Dictator Games. *The American Economic Review*, 86(3), 653-660.
- Kogut, T., & Ritov, I. (2005a). The "Identified victim" effect: An identified group, or just a single individual? *Journal of Behavioral Decision Making*, 18(3), 157-167.
- Kogut, T., & Ritov, I. (2005b). The singularity effect of identified victims in separate and joint evaluations. *Organizational Behavior and Human Decision Processes*, 97(2), 106-116.

- Krebs, D. (1975). Empathy and Altruism. *Journal of Personality & Social Psychology*, 32(6), 1134-1146.
- Levine, M., Cassidy, C., Brazier, G., & Reicher, S. (2002). Self-categorization and bystander non-intervention: Two experimental studies. *Journal of Applied Social Psychology*, 32(7), 1452-1463.
- List, J. A. (2004). Young, selfish and male: Field evidence of social preferences. *Economic Journal*, 114(492), 121-149.
- Sedikides, C., Campbell, W. K., Reeder, G. D., & Elliot, A. J. (1999). The Relationship Closeness Induction Task. *Representative Research in Social Psychology*, 23, 1-4.
- Small, D. A., & Loewenstein, G. (2003). Helping a victim or helping the victim: Altruism and identifiability. *Journal of Risk and Uncertainty*, 26(1), 5-16.
- Small, D. A., Loewenstein, G., & Slovic, P. (2005). *Sympathy and callousness: The impact of deliberative thought on donations to identifiable and statistical victims.*, Working Paper.
- Stotland, E., & Dunn, R. E. (1989). Empathy, self-esteem, and birth order. *Journal of Abnormal & Social Psychology*, 66(6), 532-540.
- Weiner, B. (1995). *Judgments of Responsibility: A foundation for a Theory of Social Conduct.* New York: Guilford Press.