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PREFERENCES FROM THE LAB?
EVIDENCE FROM THE TRUST GAME**

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ABSTRACT

Can we infer social preferences from the lab? Evidence from the trust game

We show that a measure of reciprocity derived from the Berg et al. (1995) trust game in a laboratory setting predicts the reciprocal behavior of the same subjects in a real-world situation. By using the Crowne and Marlowe (1960) social desirability scale, we do not find any evidence that a desire to conform to social norms distorts results in the lab, yet we do find evidence that it affects results in the field.

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One of the standard assumptions in economics is that individuals are motivated by only their material self-interest. In his *Theory of Moral Sentiments* (1759), Adam Smith recognized the possibility that some individuals exhibit social preferences, but it is only in the last twenty years that this assumption has gained a more general acceptance among economists (see for example, Frank, 1988; Rabin, 1993; Fehr et al., 1993; Fehr and Schmidt, 1999; Charness and Rabin, 2000; Fehr and Fischbacher, 2002).

Laboratory experiments have played a crucial role in this acceptance. The laboratory setting allows researchers to control and manipulate the environment, isolating the effects of social preferences from other confounding effects (such as reputation, repeated interaction, etc.). The existence of social preferences has now been documented in hundreds, if not thousands, of papers using laboratory evidence. Experimental economists have used economic games, such as the Berg et al. (1995) trust game, to show that people are willing to forfeit monetary rewards so that anonymous co-players can gain, which violates the self-interest assumption (for a review of this literature, see Fehr and Schmidt, 2002).

However, the validity of using laboratory experiments to measure social preferences has been recently questioned by Levitt and List (2007). In their view, several factors distort the behavior of subjects in the lab. In particular, Levitt and List (2007) claim that lab experiments are biased by the so-called "experimenter effect." As evidence shows, subjects in the lab sometimes try to please the experimenter, responding to subtle social cues that the investigator provides in the instructions and administration of the game (Rosenthal, 1976; Hoffman et al., 1994). This critique is particularly strong when applied to games which attempt to measure social preferences as the subjects may be induced to "look good" in the eyes of the experimenter by exhibiting prosocial behavior, even if they would behave as self-interested individuals outside the laboratory. This concern is supported by evidence that subjects are sometimes more prosocial in the lab than they are in the field (List, 2006; Benz and Meier, 2008; and Gneezy et al., 2004).

One of the most interesting forms of social preferences identified in the lab is reciprocity, which provides a powerful explanation for one of the most fundamental questions in economics, the emergence of cooperation. For example, MacLeod (2007) shows that even a small taste for reciprocity can lead to a large increase in cooperation in relational contracts. However, in light of Levitt and List's (2007) criticism, we are now left wondering whether reciprocal behavior observed in the lab is really an indication of true social preferences and not merely an artifact of the way the evidence is collected.

To answer this question, we designed a study that links a reciprocity measure obtained in the lab to a real-world situation where reciprocity should be the driving factor: alumni's donations to their university. MBA students are generally asked to donate money to their school at the end of their program as a way to reciprocate the benefits of the education they received (which, despite the high tuition, is provided below cost). Since the MBAs are at the beginning of their careers and have similar incomes and wealth, the differences in the amount donated should reflect differences in their true preferences and not differences in their economic status. Finally, unlike other donations, there are no humanitarian or political reasons for giving—MBAs are not particularly concerned about their professors starving.

In order to test whether individuals who are reciprocal in the real-world are also reciprocal in the lab, we compare the MBA students' donation behavior to a measure of reciprocity obtained in the lab: their behavior as the responder in the Berg et al. (1995) trust game. In this game, the amount returned by the responder is a measure of her other-regarding preferences. To address any concern about a potential experimenter effect, we measure each subject's sensitivity to social pressure via the Crowne-Marlowe (1960) social desirability scale. Social desirability is commonly thought of as an individual's tendency to project favorable images of herself during social interaction, which allows us to control for the influence of social pressure or reputational concerns.

We find that responder behavior in the trust game predicts the amount donated to the university. A one standard deviation increase in the fraction of the amount returned to the sender by the responder increases the amount of donation by $31, equal to 31% of the average amount donated. This effect is robust to controlling for wealth and other demographic characteristics.

Interestingly, the amount returned by the responder in the trust game is not correlated with the social desirability scale, whereas the amount donated to the university is. This finding indicates that social pressure has a larger effect in the field than in the lab. As a result, this evidence suggests that, at least in our case, reciprocity is better measured in the lab than the field.

These results are particularly remarkable because the subject pool is a large group of MBA students (*N* = 462) at the University of Chicago. In fact, it is the entire 2008 cohort of campus MBAs who participated in the initial laboratory experience as part of a class at the beginning of their program and were observed in their donation behavior at the end of it (18 months later). Shockingly, 87.9% of Chicago MBA students return a positive amount in the trust game and 83.8% return at least 30% of what was sent to them. This is surprising because an

MBA student, and especially the Chicago MBA student, is often described as the ultimate *homo economicus*—smart and self-interested. This evidence suggests that other-regarding preferences are widespread even among business people.

Our lab setting has three advantages rarely found in other experiments. First, because we incorporate the game into a required course, our sample includes the entire 2008 cohort of students. We thus avoid the problem of self-selection into the lab, which may invalidate generalizations of results obtained in the lab (Levitt and List, 2007). Second, the amount of money at stake (up to $150 in our lab setting) is of the same order of magnitude as the average amount donated ($101). Furthermore, while the stakes in our experiment might be considered small in comparison to many economic decisions, they are at least five times bigger than the average stakes used in most laboratory experiments.

In sum, our paper provides evidence that lab measures are a reasonably accurate way of predicting individual behavior in the field, bolstering support for using laboratory experiments to measure social preferences. It also supports the claim that reciprocity is an important—even characteristic—preference of many, but not all, individuals.

As such, our paper is related to several different bodies of literature. First, it contributes to the growing literature on the correlation between behavior of a single individual in both the lab and the field (Karlan, 2005; Carpenter and Seki, 2006; Ashraf et al., 2006; Benz and Meier, 2008; Meier and Sprenger, 2007, and Fehr and Leibbrandt, 2008). Our approach is novel because in our setting the correlation between the behaviors should be driven by the same trait, but the behaviors are observed in completely different contexts. Second, this paper contributes to the wealth of literature investigating the nature of reciprocity (Cox, 2004; Falk and Fischbalker, 2006; Fehr et al, 1993; Fehr et al., 1997; Fehr and Schmidt, 1999; Fehr and Gächter, 2000; Fehr and Schmidt, 2002; McCabe et al., 1998; Rabin, 1993). Third, it is related to the economic and psychological research on the motivations behind donations, particularly studies that investigate giving to universities (Winston, 1999; Diamond and Kashyap, 1997; Glazer and Konrad, 1996; Rothschild and White, 1995; Harbaugh 1998; List and Price, 2009; Rondeau and List, 2008).

The rest of the paper proceeds as follows. Section 1 discusses the literature. Section 2 describes the data. Section 3 reports the main results. Section 4 presents the effect of the social desirability scale on subjects' behavior. The last section (5) concludes the paper.

1. Literature review

Ever since Adam Smith first articulated it in the *Wealth of Nations*, the self-interest hypothesis has become a key assumption underlying classical and neoclassical economic models. It is only in the last two decades that this assumption has come into question. In their seminal paper, Fehr and Schmidt (1999) conjectured that while some (perhaps many) people might be motivated only by pure self-interest, this need not be the case for *all* people. They theorized that some people may be intrinsically motivated by "social preferences," i.e. fairness concerns, reciprocity and even pure altruism. A person exhibits social preferences if the person cares not only about the resources allocated to him or herself, but also to other agents.

When economists observe what appear to be social preferences in either the lab or the field, they can interpret it in two possible ways. The first interpretation is that the behavior is purely selfish because the individual is only motivated to act in a 'fair' or 'cooperative' manner out of concern for their reputation and/or future payoffs. A second possible interpretation is that the person truly has other-regarding preferences and gets utility from the pay-offs of others. Experimental economists have attempted to disentangle these two possibilities by measuring how much subjects are willing to pay to behave in prosocial ways in carefully controlled laboratory games in which there are no repeated interactions. Several games, particularly the ultimatum game, dictator game, trust game, gift exchange game, and public goods game, are widely used to measure the impact and magnitude of fairness concerns, cooperation, reciprocal behavior, inequity aversion, and altruistic behavior (for a review see Fehr and Schmidt, 2002).

One specific social preference that is of particular interest to economists is reciprocity. A reciprocal individual, according to Fehr and Fischbacher (2002), "responds to actions that are perceived to be kind in a kind manner, and responds to actions that are perceived to be hostile in a hostile manner," even if no material gains (and sometimes even losses) are expected.[1] It is important to note that reciprocity, as it is defined, is not driven by the expectation of future material benefits, which makes reciprocal behavior quite different from self-interested behavior (Fehr and Falk, 2002; Fehr and Fischbacher, 2003; and Gintis, 2000). There are currently many examples of how reciprocal behavior can drive voluntary cooperation (Fehr et al., 1993; Berg et. al, 1995; Bolle and Kritiks, 1998; Brandts and Charness, 1999; Fehr and Falk, 1999, and Gächter

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[1] Fehr and Gächter (2000) distinguish reciprocity from altruism, "Altruism is a form of unconditional kindness; that is, altruism given does not emerge as a response to altruism received"(pg. 160).

and Falk, 2002). For example, Fehr et al. (1993) find that subjects respond positively to high prices (i.e. above the market-clearing price) with higher quality, providing evidence that reciprocal behavior may have a significant impact on the labor market. Subjects in the trust game have also been found to reciprocate by returning higher fractions of money when senders send them larger portions of their endowment (Berg et al., 1995)

Several experiments that measure reciprocal behavior consistently find that the fraction of subjects that behave reciprocally in one-shot situations is between 40 and 60 percent, whereas 20 to 30 percent of subjects do not reciprocate and behave selfishly (Berg et al., 1995; Fehr and Falk, 1999; Gächter and Falk, 2002). This evidence has led Fehr and others to suggest that there may be reciprocating "types" of people (Fehr and Gächter, 2000; Gintis, 2000; Fehr and Fischbacher, 2002) who bear the burden of rewarding or punishing, even if there is no pure economic benefit to them. This result is certainly interesting from a psychological perspective; however, the existence of social preferences may also be of crucial economic importance. According to Fehr and Fischbacher (2002), a failure to adequately account for social preferences leads us to misunderstand competition, cooperation, collective action, determination of material incentives, what contracts or property rights arrangements are optimal, the forces shaping social norms, and market failures. Furthermore, experimental economic evidence, particularly with respect to reciprocity, has been used to substantiate claims about the evolution of cooperative and social behaviors amongst humans (Fehr and Gächter, 2002; Fehr and Fischbacher, 2003; Fehr, 2004; Panachathan and Boyd, 2004; Henrich et al., 2005; Nowak and Sigmund, 2005).

Of course, the significance of such findings depends heavily on the extent to which people who behave reciprocally in the lab are also the type of people who behave reciprocally in the real-world. Levitt and List (2007) criticize using laboratory experiments to measure social preferences because the extent of scrutiny present in the lab is unmatched in most, if not all, real-world situations. In a lab, subjects are keenly aware that their behavior is being observed, monitored, and recorded. According to Levitt and List (2007), this scrutiny may exaggerate the importance of prosocial behavior because the subjects want to look good in the eyes of the experimenter. Subjects who feel watched are more likely to behave in ways that conform to social norms, as a result of concerns for their reputations (see also Bandiera et al., 2004; List, 2006; Benz and Meier, 2008; and Gneezy et al., 2004). They suggest that using the levels of prosocial behavior measured in the lab to infer the levels of prosocial behavior in the field is tenuous at best, a problem which is exacerbated by the heterogeneity in responses to social

pressure in different circumstances. Thus, this critique of lab experiments brings into question the entire body of literature which attempts to understand the importance of social preferences.

Of course, reputation matters in the field, as well. In fact, social preferences may be measured with more, not less, noise in the field due to the existence of reputation effects. "Field measures of preferences are often confounded by all sorts of factors—such as budget constraints, reputational incentives, or information constraints" (Fehr and Leibbrandt, 2008). Since interactions in the fields are more likely to be repeated, it is hard to determine whether the observed behavior in the field is indeed the result of social preferences or reputational concerns. Furthermore, the kind of scrutiny, and more importantly, who is doing the scrutinizing may have a much larger impact on shaping behavior than simply the degree to which behavior is observed, recorded, and monitored. A subject may not care if a researcher thinks he is selfish, but there would be real social consequences if his peers or co-workers thought the he was selfish. This possibility raises the concern that using field experiments to test the validity of lab experiments requires that the field experiment be carefully designed so as to avoid confounding factors (e.g. reputation, competition) and to mitigate the correlation between preferences. As we will describe in the next section, we tried to design this study in a way so as to address these concerns.

Thus far, only a few other studies have combined laboratory experiments with field observations of the same individual in order to better understand the extent to which behavior in the lab is correlated with behavior in the real-world. Benz and Meier (2008) find that the correlation between contributions to the university "Social Fund" in a lab experiment and a real-life setting is between 0.25 and 0.4. However, as the two situations are virtually identical, this result could be interpreted as the desire of students to be consistent in the eyes of the experimenter. Furthermore, it does not speak directly to the validity of inferring social preferences from standard economic games, since it does not use one.

By contrast, we use a standard Berg et al. (1995) trust game, which differs substantially from our real-life setting. In doing so we are very similar to Karlan (2005), who correlates the responder behavior in the trust game to the repayment behavior with respect to a microloan. While Karlan (2005) documents that economic games capture some real-world traits, it does not identify what traits these are. Because the trust game was played face-to-face with other members of their community, individuals may return money in both circumstances out of concern for their reputations or fear of social sanctioning, not necessarily in order to reciprocate or because they are trustworthy.

The paper that is most closely related to ours is Fehr and Leibbrandt (2008), who find that fishermen who are more cooperative and more patient in a lab setting are also less likely to exploit the communal fishing grounds in their daily lives (see also Carpenter and Seki, 2005). However, the main difference between the two papers is that they focus on cooperation while we focus on reciprocity.

2. Data

In this paper, we utilize data from the Templeton-Chicago MBA longitudinal study (TCMLS). As part of a long-term research project on individual characteristics and economic success, the TCMLS collects data from the 2008 MBA cohort at the University of Chicago Booth School of Business (see Reuben et al., 2008).

2.1 The Data Collection Process

The TCMLS data collection process proceeded in several phases. The first phase started when the students first entered the school (September 2006). As part of a mandatory class, the students were asked to complete an extensive survey and to play, among other games, a trust game and a cooperation game.[2] The games were programmed in z-Tree (Fischbacher, 2007) and played in four batches in four large classrooms. In order to give students an incentive to take their decisions seriously, they were paid according to their performance. One of the games was randomly drawn and participants were paid according to their earnings in that game. Students earned on average $78.32, in addition to a $20 show-up fee, which was paid in cash at the beginning of the session.

Because of the mandatory nature of the class, almost all of the students participated: 544 of the 550 MBA students participated in the games. To eliminate any coercive aspect the Institutional Review Board at the University of Chicago required that participants have the opportunity to opt out of the study by refusing consent to the use of all or parts of the data collected for publication. At the time of the game (October 2006), we also asked the students for their consent to collect information on their grades, their careers, and any other information amassed by the school development office. As a result, we were able to collect data on their donations to the school in the May 2008 Class Gift campaign.

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[2] See Reuben et al., 2008 for a full description of all the procedures.

Other data was collected over the course of the two years that the MBA students were attending Chicago Booth (from September 2006 to May 2008). During this time, we sent out several questionnaires, each of which had various degrees of participation. From the point of view of this study, the most important is the Investment Profile Survey, where we asked students about their investment style and wealth.

Out of the 550 MBA students, 473 consented to the use of the main variables in which we were interested. Of the 473 students, eleven either graduated early or late and thus did not graduate with their cohort in June 2008. As a result, they were not a part of the Class Gift campaign. Thus, the final sample size is 462, or 84% of the 550 MBA students.[3]

In this paper, we concentrate on the games and the survey questions that are pertinent to this study. For more information about the other games and the study in general, see Reuben et al. (2008).

2.2 The Trust Game

To measure an individual's degree of reciprocity, we use the participants' behavior in the well-known trust game introduced in Kreps (1990) and Berg et al. (1995). In this game, a first mover is endowed with an amount of money y. The first mover decides how much to send, $s \in [0, y]$, to a second mover. Any amount sent is multiplied by three. The second mover then decides how much to return, $r \in [0, 3s]$, to the first mover. Consequently, the payoff of the first mover equals $y - s + r$, and that of the second mover equals $3s - r$. The amount sent is frequently referred to as a measure of trust, whereas the amount returned as a measure of trustworthiness.[4] In our experiment, first movers were endowed with $50 and could send any multiple of $5.

Each subject played the trust game twice, first in the role of the first mover and then in the role of the second mover. The two trust games were sequential and independent for all players. For each game, subjects were randomly re-matched so that for each decision was played with a different person. In order to have a complete measure of each subject's reciprocity, subjects made their second-mover decision using the strategy method (Selten, 1967). That is,

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[3] We repeated all the analysis with the full sample of 544 students who participated and the results are qualitatively the same.

[4] For a discussion on whether this game really captures trust see Glaeser et al. (2000) and Cox (2004).

they indicated how much to return for all ten possible amounts sent without knowing how much the first mover actually sent.[5]

The subjects' earnings as the second mover were determined by randomly selecting one of these ten decisions. Then, the subjects' earnings for the entire trust game were determined by randomly selecting whether the subjects would get paid for their first mover or second mover decision. The subjects were not given feedback regarding the behavior of other subjects in between decisions. Furthermore, when making a decision, participants did not know what future decisions they would be asked to make. However, subjects did know that their actions in one would not affect their payoff in the others. This design guarantees that all subjects make their decision in the same order and with the same information. Finally, to facilitate any calculations prior to submitting a decision, subjects could use two buttons that would automatically calculate both their payoff and the payoff for the other player, given their selected strategy.

In this paper, following an extensive body of literature (see Berg et al., 1995, McCabe et al., 1998, and Cox, 2004, for examples), we focus on the measure of reciprocity, i.e. the amount that the players return as the second mover in the game. The amount returned varies depending on the amount sent. Thus, we used the return ratio, which is the amount returned divided by the amount that was sent. Since the second mover receives the amount sent multiplied by three, the return ratio ranges from 0 to 3, where a value of 1 indicates that the second mover sent exactly what the first mover sent to them and a value of 1.5 indicates a 50:50 split of the total amount received by the second mover. Any value greater than 1 indicates that the second mover returned to the first mover an amount greater than they sent.

Although we present a basic regression using the return ratio for all possible amounts sent by the first mover, most analyses use the return ratio when the first mover sends $50. We use this as the measure of reciprocity because $50 is the highest possible amount that the first player can send. As such it is also the amount that is most likely to induce the second player to reciprocate and respond in kind by returning a large amount. The difference in the return ratios for different amounts sent can be also seen in the data. While the average return ratio when the first mover

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[5] Although the use of the strategy method may elicit strategies that differ from those used in a strictly sequential environment, in games of low complexity, the strategy method seems to have little to no significant effect on subjects' decisions (Brandts and Charness, 2000). In our context, Vyrastekova and Onderstal (2005) find that the strategy method has no significant effect on the behavior in the trust game.

sent only $5 was 0.78, when the first mover sent their full endowment of $50, the average return ratio was 1.09. Thus, participants were more generous if the first mover was generous to them.

Figure (1) presents the distribution of return ratios when the first mover sends $50. The distribution is not normally distributed. There are several peaks at certain ratios, suggesting that individuals may be using rules of thumb to decide their level of reciprocity in the game. Fifty-six students returned zero when the first mover sent $50, 79 students had a return ratio of 1 and 97 students had a return ratio of exactly 1.5. Thus, over 50% of the sample used explicit rules to decide the amount they would return in the trust game. To address the non-normality of the data, we also performed the analysis presented in this paper using an ordered probit model, without any significant difference in the results (results available upon request).

In addition, to the return ratio it is possible to create several additional variables that capture the degree of reciprocity of a subject. The variable "# of times the subject returned less than was sent" is the number (out of ten possibilities) that the responder returned less than she was sent (return ratio less than one). "# of times returned zero" is the number of times (out of 10) that the subject return zero dollars to the first mover. The "Average Return Ratio" is the mean ratio across all amounts sent. The categorical variable "Reciprocator" equals 1 if a subject on average returned more than she was sent and zero otherwise.

2.3 Class Gift Donation

As Rothschild and White (1995) and Winston (1999) show, university students pay tuition below the cost of production and far below the benefit they receive. As a result, an alumnus finds himself in a situation similar to the one of a responder in the Berg et al. (1995) trust game, who is asked to "reciprocate" the nice gesture done by the sender. As Diamond and Kashyap (1997) show, this exchange relationship between alumni and the university is well understood by the former, who discuss it in focus groups. For these reasons, university donations are a good candidate to identify the real-life degree of the students' reciprocity.

Each spring, just before a cohort graduates, the Student Relations Office and Development Office begin a campaign encouraging the soon-to-be graduates to make a donation to the University of Chicago Booth School of Business (formerly the Graduate School of Business (GSB)). The Templeton Team was in no way involved in the campaign or the collection of this data. We received the data from the Student Relations Office after the campaign was complete. The original file contains information on the donations of all of the

Spring 2008 graduating class. However, only those subjects in the Templeton sample who consented to the use of their admissions and Chicago Booth administrative data were used in the analysis. However, the results were not significantly affected when the analysis was performed on the entire Templeton sample.

The goal of the campaign is to foster generous alumni giving in the future. Therefore, this campaign focuses more on 100% participation than the dollar amount received. The students received emails about the class gift campaign and how to make a donation. In addition, there was a large marketing campaign with posters, emails, a website, giveaways, and puzzle. The marketing materials for the campaign featured caricatures of several popular faculty members. Lastly, the members of the Class Gift Committee usually staffed a table during lunch and other social events. At the table, the committee displayed the incentive gifts that the students could receive for making donations. The following items were available as incentives for the students:

Leader's Circle ($501 or more)	Official Chicago GSB diploma frame, Class of 2008 Coasters featuring Chicago GSB Faculty, and Class of 2008 T-Shirt
Scholar's Circle ($208 to $500)	Class of 2008 Coasters featuring Chicago GSB Faculty and Class of 2008 T-Shirt
Member's Circle ($1 to $207)	Class of 2008 T-Shirt

Diploma Frame   Faculty Coasters   T-shirt

The Class Gift relies heavily on peer-to-peer solicitation; thus, in addition to attending events and receiving emails, the students were directly contacted by their peers on the Class Gift Committee. The Class Gift Committee is comprised of 19 students from the class. Each committee member is assigned approximately 30 students from the 2008 class from whom they were responsible for soliciting donations. The groups were not assigned randomly; the Class Gift Committee members usually had existing relationships with the people they contacted.

Students who donated were acknowledged in the Dean's Report that recognizes people who are Booth donors. However, the specific amount given by each student was not made public. Consequently, the only means by which the students can demonstrate how much they gave was via the giveaway prizes that they received since the giveaways (t-shirts, coasters, diploma frames) depended on the amount of one's gift.

Most students (94.8%) of the sample either paid outright or pledged a donation of at least $1. When the students made their donation, they had the option of either paying outright or pledging to pay their donation by December 31, 2008. Of the students who made a donation, 47.7% paid their donation outright ($N = 209$) and 52.3% pledged their donation. The students who pledged their donation pledged to donate significantly more than those who paid outright ($212.21 versus $108.46). The differences between these means is highly significant (Wilcoxin-Mann-Whitney test, $z = -10.113$, $p < 0.0000$).

Figure (2) shows the distribution of the Original Gift Amount. The distribution of donation amount is not normally distributed and the data could not be transformed. Most results are presented using standard parametric OLS regressions. However, our results are robust using non-parametric analyses. Donations tend to cluster around the minimum amount required to fall into a given category. For example, 15.5% of students ($N = 68$) who gave a donation gave exactly $501, the minimum donation required to receive all three gifts. Similarly, 13.5% of students ($N = 59$) gave $10 or less. Six students donated exactly $1.

After December 31, 2008, we received the data on whether the students actually paid their pledges. In the end, 60.3% ($N = 138$) of the students who pledged to pay a donation defaulted on their pledge. This amounted to a total of $43,027 in defaulted pledges. No students partially defaulted—either the student paid the pledge in full or she did not pay it at all. Although pledged donations were higher than donations that were paid outright overall, there was no statistically significant difference between the average donations the students paid outright and the average donation received from pledged donations, taking into account the fact that students who defaulted paid zero (Wilcoxin-Mann-Whitney test, $z = -1.095$, $p < 0.2734$). However, students who paid their pledges paid significantly more on average ($273.60) than students who paid outright (Wilcoxin-Mann-Whitney test, $z = -7.176$, $p < 0.0000$).

In this analysis, we use two measures of donation amount. "Original Gift Amount" is the initial amount donated by the student to the class gift. This variable includes the donation amount paid outright or pledged by the students. This can be thought of as the more public of the two

donations. The mean Original Gift Amount is $194.32 (standard deviation = 212.05). "Final Gift Amount" is the actual amount donated, which includes the donation amount if paid outright or if the pledge was paid, and zero if the student defaulted on their pledge or did not make a donation. The mean Final Gift Amount is $101.19 (standard deviation = 167.05).

It is important to note that there were no penalties for failing to pay a pledge as the Student Relations and Development Offices are interested in maintaining positive relationships with alumni. Thus, failure to pay resulted in no monetary consequences and the only people who knew the students failed to pay were individuals directly involved in the campaign and researchers in this study. After speaking with individuals in the Alumni Relations Office, they indicated that there was some anecdotal evidence that certain individuals were unable to pay their pledge because they lost their job as a result of the financial crisis. In only two cases did these individuals directly contact the office to indicate their inability to pay. Which individuals were subject to more financial constraints as a result of the financial crisis was not included in the analysis, as the evidence was largely hearsay. This may have decreased our likelihood of obtaining significant results, as otherwise altruistic/reciprocal individuals may have been unable to follow through with their pledge as a result of exogenous factors.

2.3 Other Variables

From the students' admissions data we obtain several demographic variables (i.e. gender, ethnicity, citizenship status, and pre-admission salary). The TCMLS sample is extremely diverse. Just less than 30% of the sample is female. Forty-five percent of the students in the sample are white, 16% are East Asian, 7% are black, 7% are Hispanic, 19% are South or other Asian and 6% are categorized as other. Thirty-eight percent of the students are international students.

We also have information on their parents' education and, more importantly, the students' score on the "social desirability index". The social desirability scale measures the importance individuals give to doing or saying what they consider to be socially desirable. This scale has been used to measure how prone the subject is to both manage others' impressions of them and to deceive themselves regarding the extent to which they do what is socially desirable, both in experimental and field settings (Paulhus, 1984; Rosenthal, 1969). We used a shortened questionnaire of the Crowne-Marlowe social desirability scale (Crowne and Marlowe, 1960), which we call the 'social desirability index' to distinguish it from the longer version. The subjects were asked a series of ten true or false questions, such as "My table manners at home

are _always_ as good as when I eat out in a restaurant," or "I have _never_ been irked when people expressed ideas very different from my own," in which a response of true is likely to be a lie that indicates that the subject has a strong desire to say what they think others want to hear. The greater the social desirability index, the more the subject feels the pressure to conform to social norms. In order to select a set of questions, we ran a pre-test of the survey and picked the questions that were least correlated with each other and thus maximize the variation between subjects. Of the 10 questions, the students answered 'true' to an average of 3.42 questions with a standard deviation of 1.96. The mode number of 'true' answers was 3. Only 15.2% of the sample answered 'true' to 6 or more questions.

One potential confounding factor in university donations is the difference in wealth among individuals. This problem is minimized here given that all the subjects are MBAs at the beginning of their career. Nevertheless, to account for differences in their accumulated wealth, we use self-reported financial wealth as a control on the small sub-sample of students that participated in the Investment Profile Survey. The students were asked "What is the approximate value of your investment accounts (excluding retirement accounts)?" and could choose between several categories: $0 - $30,000; $30,000-$60,000; $60,000-$100,000; $100,000-$150,000; $150,000-$200,000; $200,000-$300,000; I prefer not say; and I don't know. Eighty-three students provided a numerical estimate of their accumulated wealth. The modal response to this question was $0 - $30,000, the median was $30,000-$60,000, and the mean wealth (using the average of the ranges) was $98,070.

To control for differences in expected wealth, we use data on the final job offers for the graduating MBA obtained from Career Services office at the University of Chicago Booth School of Business. This data set included detailed information about the position, firm, and salary of the offers, as well as whether or not the student accepted the offer. The final data was audited, meaning that the observations were double-checked by Career Services. The mean accepted job offer salary was $164,536 and the median was $153,150. Table (1) shows the summary statistics for the data used in this paper. In addition, we obtained the students pre-admission salary from their application to the MBA program. The average pre-admission salary was approximately $65,000 (standard deviation = $31,000). We also obtained the students' G.P.A. upon graduation (mean 3.31, standard deviation = 0.35).

3. Empirical Results

3.1 Main Specification

To test the link between the behavior in the lab and the behavior in the field, we correlated the amount donated to the University with the fraction of money returned by the responder in the trust game. Since the subjects in the trust game played with the strategy method, we have ten conditional responses that can be used as a measure of reciprocity. Reciprocal behavior, however, is maximally elicited when the sender sends the highest possible amount. If the amount of the donation is capturing reciprocity, then the correlation between the amount donated to the University and the return ratio in the trust game should be larger when the first mover sends $50 versus when the first mover sends only $5.

As Table (2) shows, this conjecture is supported by the data. For low amounts sent (less or equal than 20), the return ratio is borderline statistically significant at the 10% level and a one standard deviation increase in the return ratio corresponds to only a $17 increase in the amount given or pledged at the time of the fundraising. As we move toward higher amounts sent, the effect of the return ratio becomes stronger both statistically and economically. A one standard deviation increase in the return ratio at $50 is associated with a $28 increase in the donation and this effect is statistically different from zero at the 1% level. Given that the return ratio at $50 is a better proxy for reciprocity, we will use this ratio in all our subsequent analysis.

Table (3) further explores the relationship between the return ratio in the trust game and the amount donated. In the first three columns, as measure of donation to the University we use the amount given or pledged at the time of the fundraising campaign (May 2008), as in Table (2). The difference with respect to Table (2) is that we now control for other potential determinants of donation. In Column (1), we insert a dummy variable equal to one if the donation was pledged rather than paid outright. This variable is highly economically and statistically significant. Students who give their donation as a pledge promise to donate two times as much as those who pay their donation outright. This control, however, does not reduce the impact of our reciprocity variable measured in the lab. In fact, the coefficient increases by 20 percent when the control is added. In Column (2), we insert two additional dummies; one for whether the student is a member of the Class Gift fundraising committee and the second, for whether the student is a LEAD facilitator, i.e. she was chosen to instruct and coordinate a series of social and learning activities for a group of students in the younger cohort (the 2009 cohort). Fundraising committee members clearly face a social pressure to lead by example, donating a higher amount. A similar

story can be said for the thirty-four LEAD facilitators who, while not directly in charge of fundraising, play a leadership role in the Booth community. We find that in both cases, these additional motives significantly add to the amount donated. Committee members donate twice as much as regular students, while LEAD facilitators give 50 percent more than regular students. These controls have no effect on the return ratio.

Finally, in Column (3), we control for other demographic characteristics that may affect donation: gender, race, US Citizenship (on the premise that US students are more used to charity and donations), GPA (on the premise that people with a higher GPA may have benefitted more from the school and so may donate more), and whether the father had higher education (as a proxy of wealth or entitlement). Of all these variables, only US Citizenship and father's education turn out to be significant at conventional levels. Surprisingly, however, they both have a negative coefficient. As we will discuss in the following pages these results do not hold when we adjust our measure of donation. The important result is that the coefficient on return ratio is unchanged.

Since the decision to contribute in cash is different from the decision to pledge (especially given that 60 percent of the people who pledged defaulted), in Columns (4) to (6), we restrict our analysis to the students who paid their gift in cash at the time of the fundraising campaign. The correlation between the behavior as a responder in the trust game and the donation amount is almost the same as before. By contrast, when we restrict the sample to people who pledged but defaulted, the coefficient of the return ratio in the trust game drops by half and becomes statistically insignificant. This result is not surprising if we think that people who pledged and defaulted are a combination of people who intended to donate, but forgot or were severely affected by the financial crisis, and people who from the beginning pledged with the intention of not following through their pledge.

Finally, in Columns (10)-(12), we use as the dependent variable the final gift amount, which equals the amount actually paid either in May or in December when the pledge was due. Obviously, we set the amount equal to zero for those who defaulted on their pledge. The results are very similar to the ones in Columns (1) to (3); in fact, the coefficient of the return ratio is almost identical (only the standard deviation of the coefficient is slightly lower). By contrast, the coefficients and statistical significance of the other control variables are quite different: committee members and lead facilitators do not appear to donate significantly more, while women donate significantly less, and people with a higher GPA significantly more.

Since the final gift amount is the actual amount donated, from now on—unless otherwise specified—we will use this variable as the measure of donation.

3.2 Controlling for Wealth

One of the limitations of our results is that we have not controlled for wealth, a variable that standard economic theory suggests would affect donations. It is possible, albeit unlikely, that the reciprocal behavior in the trust game is correlated with how wealthy a student is, which may also affect his or her willingness to donate at the end of the program.

This problem is reduced, but not eliminated, by the fact that all the subjects are students in the same program at the same stage in their career. To try to address this problem more directly, we present here some regressions that control for several proxies we have of their wealth and income. Unfortunately, we have this information only for a subset of students, so we lose both sample size and power.

Columns (1) and (2) in Table (4) show the effect of controlling for wealth. As previously mentioned, 83 of the 163 students who participated in a survey regarding their portfolio investment in the spring of 2008 responded to the question regarding their wealth. As Column (2) shows wealth does not predict donations and does not affect the coefficient of the return ratio.

In Columns (3) and (4), we control for the salary these MBAs expect to receive after graduation (i.e., starting the month following their donation). Note that this salary was not known at the time the game was played, but was known at the time the donation was made. The salary amount does not affect the amount donated and does not alter the coefficient of the return ratio.

In Columns (5) and (6), we control for the salary these MBAs had before they entered into the program. This salary is a better indication of the level of wealth these people had coming in the program. Once again, the level of salary does not affect the amount of donation and does not alter the coefficient of the return ratio.

In the subsequent columns, we combine these proxies of wealth. Obviously, the size of the sample is further reduced. In Columns (7) and (8), we control both for the declared measure of wealth and the exit salary. These controls do not affect the amount of donation and do not alter the coefficient of the return ratio, although the statistical significance drops to only 10% due to the size of the sample.

In Columns (9) and (10), we control for the declared measure of wealth, the exit salary and the entry salary. In this reduced sample, the return ratio is not statistically significant, even

when we do not control for these measures of wealth. Nevertheless, it is important to point out that the coefficient of the return ratio is virtually unchanged when we add these controls, a sign that the size of the coefficient itself is not due to an omitted variable correlated with wealth. The same story applies when we control for the other determinants of donations studied in Table (3) (see Columns (11) and (12)). Overall, there is no evidence that the effect of the return ratio on the amount of donations is due to our failure to control properly for wealth.

3.3 Robustness to Alternative Measures of Reciprocity from the Trust Game

So far we have chosen one particular measure of the responder behavior in the trust game as a measure of reciprocity. Given that we used the strategy method, we have several hypothetical responses for each player and, hence, we could potentially use other measures.

In Table (5), we experiment with these alternative measures. One reciprocity measure, shown in Column (1), was the number of cases in which the responder returns less than what the sender sent him. A higher number here indicates less reciprocal behavior. Consistently, we find that the number of times that a subject returned less than they were sent is negatively correlated with the amount donated to the Class Gift and this correlation is statistically significant at the 1% level. In Column (2), we measure reciprocity as the number of cases in which the responder returns a zero amount. Once again, a higher number here indicates less reciprocal behavior. Similarly, we find that the more often the subject returns zero in the Trust Game, the less she donated and this effect is statistically significant at the 10% level. In Column (3), we use the average return ratio across all possible sent amounts as the reciprocity. Not surprisingly (since this is an average of the regressions in Table (2)) the effect is positive and statistically significant at the 1% level. Finally, in Column (4) we use as our measure of reciprocity, Reciprocator, a dummy variable equal to one if the subject on average (across all the possible amounts sent) returned more than what was sent to him. Once again, this measure of reciprocity has a positive and statistically significant effect on donations.

In Columns (5) to (8), we repeat the same exercises inserting our preferred measure of reciprocity: the return ratio when the amount sent is $50. As Table (5) shows, while the return ratio remains statistically significant, all the other measures do not. Hence, we conclude the return ratio when the first mover sends $50 is the best measure of reciprocity.

3.4 Reciprocity vs. Other Measures of Prosocial Behavior

Is reciprocity just one facet of a general prosocial behavior or does it represent a separate dimension, independent from others? To answer this question, we explore the richness of the TCMLS and test whether other measures of prosocial behavior have similar predictive power.

We assess the relationship between donation behavior and cooperative behavior shown in an 8-person prisoner dilemma (for a full description of this game see Reuben et al., 2008). The choice most related to reciprocity is the decision to cooperate conditional on the seven other players cooperating. We are able to identify this possibility because we have the subjects play with the strategy method so we can ask them how they would play conditional on the other seven players cooperating. We create a dummy variable equal to 1 if they answer they would cooperate. As Columns (1) to (3) of Table (6) show, this variable is not correlated with the amount donated. The coefficient is negative, which is opposite of what we would expect, but it never reaches statistical significance. In Columns (4) to (6) we repeat the same exercise by using instead the decision to cooperate regardless of the other players' decision. So the variable Unconditional Cooperation equals one if a subjects chooses to cooperate regardless of the other players' decision. The effect of this variable on the amount donated goes in the expected direction, but it is never statistically significant.

4. The Effect of Social Desirability

Levitt and List (2007) claim that the lab evidence is distorted by the so-called experimenter effect (i.e. subjects' tendency to follow subtle and involuntary cues provided by the experimenter and therefore behave in the way the experimenter desires). They suggest that this effect will lead individuals to behave more prosocially in the lab than they otherwise would in the field. The tendency to "act" in a way that pleases others is not unique to the lab, but it could affect the behavior in the field as well. The extent to which subjects modify their behavior to look good depends on two factors: 1) how much they feel compelled to please others, and 2) how important the opinion of the observers is to them.

In the psychology literature, individual differences in the tendency to please others have been measured with the Crowne-Marlowe (1960) social desirability scale. Since, *ceteris paribus*, prosocial behavior will be more pronounced among people who more like to please others, we will use the Crowne-Marlowe (1960) social desirability scale to test how much behavior is distorted by the scrutiny of different audiences. As far as the audience is concerned,

there are important differences. In the trust game (as in every anonymous lab game), the only observer is the experimenter. By contrast, in the donation, we must distinguish between the pledged amount, which is observed by the experimenter, the alumni development officials, and the other students, and the actual donation amount (if different from the pledged), which is only visible to the experimenter and the alumni development officials.

Therefore, the most likely situation in which prosocial behavior is affected by the audience is the original donation amount. For this reason, in Columns (1) to (3) of Table (7A) we analyze whether the original donation amount is correlated with the social desirability index. As we can see, students with a higher social desirability index do donate more, at least if we count the full value of the pledges. In columns (4) to (6) we repeat the exercise by replacing the original donation amount with the actual donation amount. In this case we find no correlation. The difference between the original donation and the final donation is that the latter is only observed by the development officers (and us), while the former is also observed by the fellow students. The observed difference in correlation suggests that students' prosocial behavior is not sensitive to being observed by the school's staff and faculty, but it is sensitive to being observed by their peers. This finding is consistent with Glazer and Konrad (1996) who suggest that wealth/status seeking individuals are subject to social pressure to make charitable donations as a signal to their peers. It appears that it is this pressure that makes them pledge large sums, but subsequently fail to follow through at a time when their peers cannot observe their actions.

Having established that the social desirability index is a good measure of the pressure subjects feel to please others, in Columns (7) to (9), we test whether this pressure exists in the lab. As Table (7A) shows, there is no effect of the social desirability index on the amount returned by the receiver in the trust game. Individuals who score high on social desirability do not return more (or less) in the trust game. Given that the sender is unaware of who they have been paired with, this is not entirely surprising. However, it suggests that the desire to do what they consider to be socially desirable does not significantly influence their behavior in the lab.

In Table (7B), we show that our main results in Table (3) are robust to inserting the social desirability index. As in 7A, it is still the case that the social desirability index has an effect on the original donation amount (Columns (1) to (3)), but not on the final donation amount (Columns (4) to (6)). Furthermore, the coefficient and significance of the effect of the return ratio on the donation amount is nearly identical to our main results in Table (3).

In sum, we find no evidence that prosocial behaviors are exaggerated in the lab. In fact, 87.9 % of the students return something in the trust game, while 94.8 % donate at least a dollar in the fund raising campaign. However, we do find evidence that the identity of the people watching has an effect on behavior. The fact that nearly 95% of the students donate when other students are watching, but only 65% end up donating when just the school is watching shows that students are much more sensitive to the social pressure coming from their peers than from their school. To the extent the subjects remembered that their donation data could also be observed by the experimenters, we can also conclude that they do not seem to distort their behavior to please the experimenter.

If prosocial behavior is accentuated by peer scrutiny, we would expect that a selfish person with a high level of social desirability be more likely to pledge high amounts, but also more likely to default on the pledge. To explore this issue, Table (8) (and Figure (3)) presents a cross-tabulation that divides the sample into "economists" (individuals who returned zero when they were sent $50 in the trust game, i.e. the economically-rational decision) and "non-economists" who return a positive amount. It also divides the sample into individuals who are above the median versus at or below the median in social desirability. In general, "economists" give significantly less than "non-economists," both in the original gift amount and the final gift amount (Wilcoxin Mann-Whitney test: $z = 1.1918$, $p \leq 0.0552$; $z = 2.082$, $p \leq 0.0373$, respectively). Furthermore, as predicted, "economists" who score above the median on the social desirability index promise to pay an average of $186.61, but end up paying only $43.75. This difference between the original and final gift amounts is largest for "economists" with high social desirability, which is exactly what we would predict. [6]

Our findings suggest that Levitt and List (2007) are correct to worry about possible distortions in prosocial behavior due to the subjects' desire to look good in the eyes of observers. However, their conjecture that these effects are most pronounced in the lab, does not seem to be supported by our data. Only future research will be able to determine how general this result is. It

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[6] Consistent with the analysis of Frank et al. (1993), who suggest that economically-rational thinking and training in economics may translate into selfish behavior in both the lab and the field, MBA students whose undergraduate major was economics were more likely to behave like "economists" in the lab (18.9% versus 10.3%), a difference that is statistically significant at the 5% level. Economics majors also donated slightly less, but the difference was not statistically significant (Wilcoxin Mann-Whitney test: $z = 1.397$, $p \leq 0.1625$).

is possible that MBA students are different from the typical undergraduate lab subjects in that they care less about looking good in the eyes of their professors. Still, our findings provide a method to test this conjecture: check whether prosocial behavior is correlated with the Crowne-Marlowe (1960) social desirability scale.

5. Conclusions

The main contribution of this paper is to show that measures of social preferences derived in the lab have external validity. In fact, the predictive power of these measures is very high if compared with the existing psychological literature. Mischel's (1968) review of the personality assessment literature concluded that correlations between behaviors in similar environments is rarely larger than 0.30. We find that the correlation between behaviors in completely different environments exhibits a correlation of 0.29. However, as our analysis suggests, the secret is to create laboratory experiments that closely identify the fundamental trait (in this case reciprocity) that one is interested in. Generalized "prosocial behavior" is too wide a category—people might exhibit reciprocity, but not cooperate unconditionally and vice versa.

The second result of this paper is to show that lab experiments are not necessarily distorted by an experimenter effect. In fact, we find that our field data exhibit greater distortions due to social pressure than our lab experiment. One question our findings raise is how generalizeable these results are. We might not have found an experimenter effect because the particular design of our experiment (large experiment, composed of multiple games, administered within a class, played with a computer, etc.), which may have reduced the influence of the experimenter in shaping subject behavior. Only future research will be able to tell, but the Crowne-Marlowe social desirability scale appears to be an interesting instrument to further test whether pressure to behave in a certain way influences behavior in the lab.

Finally, our results provide evidence of the existence and pervasiveness of other-regarding preferences. The fact that 87.9% of Chicago MBAs (among the most rational, competitive and money-driven people in the world) return a positive amount in the trust game and 83.8% return at least 30% of what was sent to them suggests that social preferences are widespread even among business people and that economic models must take these preferences into serious consideration.

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Figure 1: Distribution of Fraction Returned in the Trust Game
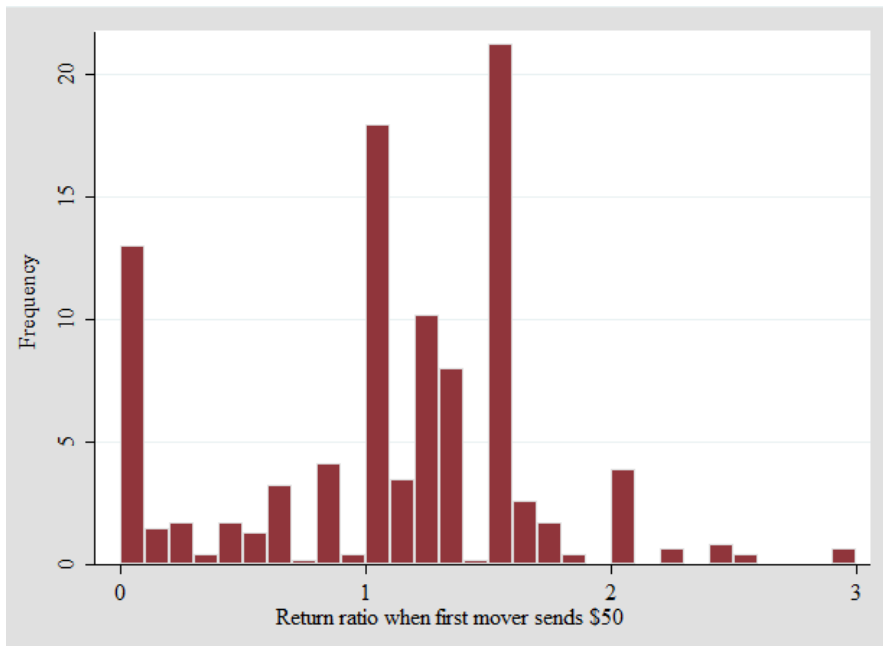
This plots the distribution of the amount returned (in dollars) by the second mover in a Berg et al. (1995) Trust Game when the first mover sent $50.

Figure 2: Distribution of Donations to the Class Gift
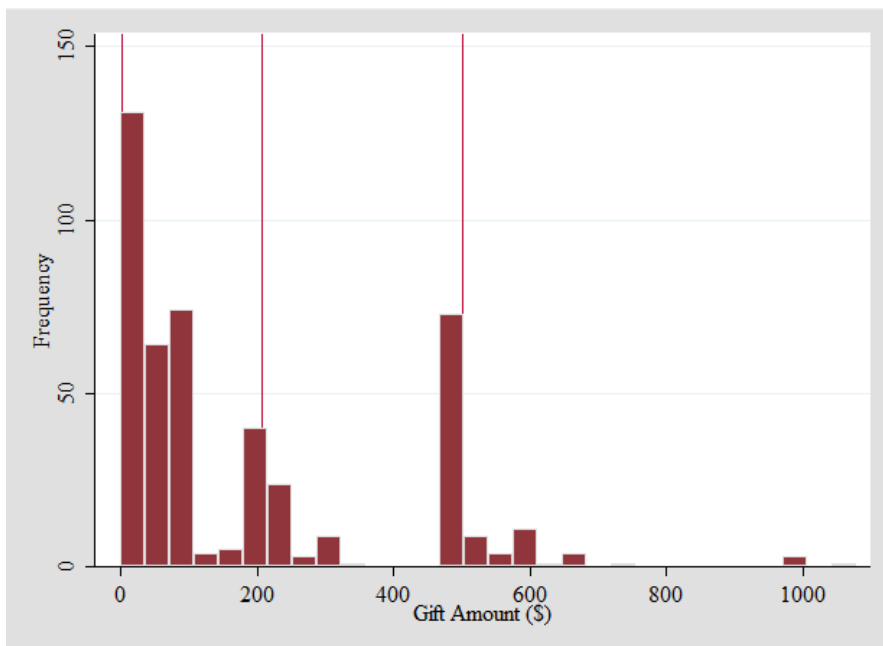
This plot reports the distribution of the amounts donated (in dollars) to the Class Gift. Reference lines have been added to the cut points beyond which the donor received reward, i.e. at $1, $208, and $501.

Figure 3: "Economists" and the Social Desirability Index
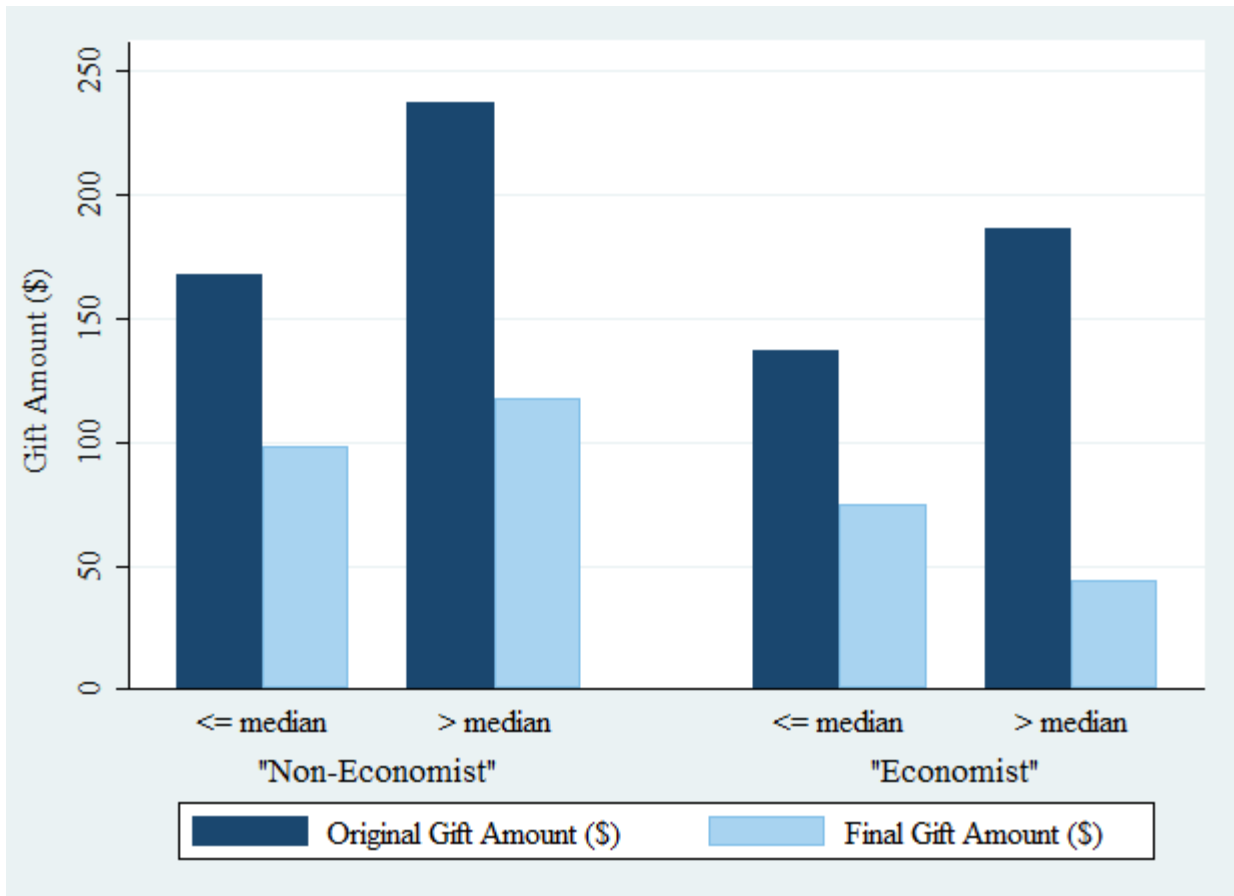
This figure presents the cross-tabulations of the mean gift amounts for both the Original Gift Amount and Final Gift Amount, divided by the behavior in the Berg et al. (1995) Trust Game and the level of Social Desirability Index. We classify as individuals as "Economist" if they behave in the trust game according to how economic theory suggests (i.e. return $0). We classify as individuals as "Non-Economist" if they return a positive amount and above or below median in social desirability scale. This figure illustrates graphically the tabulations in Table (8).

Table 1: Summary Statistics:

Panel A reports the summary statistics for all the variables used in this paper. *Original Gift Amount* is the initial amount donated or pledged by the student to the class gift. *Final Gift Amount* is the actual amount of the donation, which corresponds to the donation amount if paid outright or the pledge was fulfilled, and zero if the student either did not make a donation or if the student defaulted on her pledge. *Donation Category* is the incentive category into which a student's initial donation falls (equal to 1 if the subject made no donation; equal to 2 if the subject donated between $1 and $207; equal to 3 if the subject donated between $208 and $500; equal to 4 if the subject donated $501 or more). *Donation Pledged* is a dummy variable that is equal to 1 if the subject pledged to pay a donation by December 31, 2008 rather than paying it outright and equal to zero otherwise. *Return ratio if the first mover sends $5* is the ratio between the amount returned and the amount sent when the first mover sends $5. The same applies to *Return ratio when the first mover sends $10* through *Return ratio when the first mover sends $50*. *# of times the subject returned less than was sent* is the number of times (out of 10) that the student returned less than the first mover sent. *# of times the subject returned zero* is the sum (out of 10) of the number of times that the subject returned zero. *Average Return Ratio* is the mean return ratio across all possible amounts sent. *Reciprocator* is a dummy variable that is equal to 1 if the subject, on average, returned more than was sent to her. *Unconditional Cooperative Type* is a dummy variable that is equal to 1 if the subject chose to cooperate and zero if the subject chose to defect in an 8-person Prisoner's Dilemma game, regardless of the other players' strategies. *Conditional Cooperative Type* is a dummy variable that is equal to 1 if the subject chose to cooperate and zero if the subject chose to defect if all the other players are cooperating in an 8-person Prisoner's Dilemma game. *Committee Member* is a dummy variable that is equal to 1 if the subject was a member of the Class Gift fundraising committee. *LEAD Facilitator* is a dummy variable that is equal to 1 if the subject was a facilitator in the Leadership Effectiveness and Development class. *Female* is a dummy variable that is equal to 1 if the subject is female and zero if the subject is male. *Race Black* is a dummy variable that is equal to 1 if the subject is black and zero otherwise. *U.S. Citizen* is a dummy variable that is equal to 1 if the subject is a citizen of the United States and zero otherwise. *GPA* is the student's final grade point average in the MBA program. *Father B.A. or higher* is a dummy variable that is equal to 1 if the father has a bachelor's degree or above and zero otherwise. *Estimated wealth* is the self-reported value of the students' personal wealth. *Accepted Job Offer Salary* is the post-graduation salary in thousands of dollars for job offer accepted by the student. *Pre-Admission Salary* is the salary reported by the student on the admission application. *Social Desirability Index* is a variable equal to the number of times (out of 10) the subject indicated true on our shortened version of the Crowne-Marlowe social desirability scale (Crowne & Marlowe, 1960).

Panel B shows the break down of how students made their donations and the summary statistics of the original gift amount in each category.

Panel A						
	Mean	Median	Std. Dev.	Min	Max	Obs
Measures of Donation						
Original Gift Amount ($)	194.32	100	212.05	0	1080	462
Final Gift Amount ($)	101.19	25	167.05	0	1000	462
Donation Category (1-4)	2.57	2	0.90	1	4	462
Donation Pledged (Yes=1)	0.50	0	0.50	0	1	462
Defaulted on Pledged Donation	0.60	1	0.49	0	1	229
Measures of Trustworthiness						
Return ratio if first mover sent $5	0.78	1	0.70	0	3	462
Return ratio if first mover sent $10	0.81	1	0.69	0	3	462
Return ratio if first mover sent $15	0.85	1	0.63	0	3	462
Return ratio if first mover sent $20	0.93	1	0.60	0	3	462
Return ratio if first mover sent $25	0.98	1	0.56	0	3	462
Return ratio if first mover sent $30	1.02	1	0.56	0	3	462
Return ratio if first mover sent $35	1.04	1.14	0.56	0	3	462
Return ratio if first mover sent $40	1.05	1.13	0.57	0	3	462
Return ratio if first mover sent $45	1.05	1.11	0.58	0	3	462
Return ratio if first mover sent $50	1.09	1.2	0.60	0	3	462
# of times the subject returned less than was sent	3.70	3	3.93	0	10	462
# of times returned zero	1.58	0	2.96	0	10	462
Average Return Ratio	0.96	1	0.53	0	3	462
Reciprocator (1 = returns more, on average, than was sent)	0.54	1	0.50	0	1	462
Measures of Cooperation						
Unconditional Cooperative Type	0.32	0	0.47	0	1	462
Conditional Cooperative Type, when 7 other players cooperate	0.49	0	0.50	0	1	462
Other Variables						
Committee Member	0.04	0	0.19	0	1	462
LEAD Facilitator	0.07	0	0.26	0	1	462
Female	0.29	0	0.46	0	1	462
Race Black	0.06	0	0.25	0	1	462
U.S. Citizen	0.62	1	0.49	0	1	462
G.P.A.	3.31	3.31	0.35	2.48	4.05	461
Father B.A. or higher	0.85	1	0.36	0	1	462
Estimated Wealth ($1000)	98.07	45	161.55	15	650	83
Accepted Job Offer Salary ($1000)	164.54	153.15	67.20	45	830	372
Pre-Admission Salary	64.64	65.92	31.03	0	300	386
Social Desirability Index	3.42	3	1.96	0	10	462

Panel B						
	Mean	Median	Std. Dev.	Min	Max	Obs
No Donation	0	0	0	0	0	24
Paid Outright	108.46	50	145.06	1	640	209
Pledged and Paid	273.60	208	222.12	5	1000	91
Pledged and Defaulted	305.87	250	228.85	1	1080	138

Table 2: Original Class Gift Donation as Function of Amount Returned in the Trust Game

This table shows the OLS estimates of a linear regression model where the dependent variable is the *Original Gift Amount*. *Return ratio if the first mover sends $5* is the ratio between the amount returned and the amount sent when the first mover sends $5. The same applies to *Return ratio when the first mover sends $10* through *Return ratio when the first mover sends $50*. Heteroskedasticity robust standard errors are reported in parentheses. * significant at 10%, ** significant at 5%; *** significant at 1%

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Return ratio if first mover sends 5	24.78*									
	(13.35)									
Return ratio if first mover sends 10		19.85								
		(13.35)								
Return ratio if first mover sends 15			25.73*							
			(14.24)							
Return ratio if first mover sends 20				28.01*						
				(15.17)						
Return ratio if first mover sends 25					36.04**					
					(16.35)					
Return ratio if first mover sends 30						39.96**				
						(16.12)				
Return ratio if first mover sends 35							41.01**			
							(16.07)			
Return ratio if first mover sends 40								43.54***		
								(16.02)		
Return ratio if first mover sends 45									43.00***	
									(15.67)	
Return ratio if first mover sends 50										46.24***
										(15.17)
Constant	165.95***	169.20***	163.54***	159.27***	150.10***	144.39***	142.62***	139.76***	140.03***	135.13***
	(13.30)	(13.74)	(14.61)	(16.42)	(17.98)	(18.48)	(18.81)	(18.71)	(18.48)	(18.45)
Observations	463	463	463	463	463	463	463	463	463	463
R-squared	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02

Table 3: Determinants of Donation

This table shows the OLS estimates of a linear regression model using donation amount as the dependent variable. Columns 1-3 report the regression using the *Original Gift Amount* as the dependent variable. Columns 4-6 report the regression using the *Original Gift Amount* as the dependent variable for only students who paid their gift outright. Columns 7-9 report the regression using the *Original Gift Amount* as the dependent variable for only students who pledged their donation and subsequently defaulted. Columns 10-12 report the regression using the *Final Gift Amount* as the dependent variable. *Original Gift Amount* is the initial amount donated or pledged by the student to the class gift. *Final Gift Amount* is the actual amount of the donation, which corresponds to the donation amount if paid outright or the pledge was fulfilled, and zero if the student either did not make a donation or if the student defaulted on her pledge. *Return ratio if the first mover sends $50* is the ratio between the amount returned and the amount sent when the first mover sends $50. *Donation Pledged* is a dummy variable that is equal to 1 if the subject pledged to pay a donation by December 31, 2008 rather than paying it outright and equal to zero otherwise. *Committee Member* is a dummy variable that is equal to 1 if the subject was a member of the Class Gift fundraising committee. *LEAD Facilitator* is a dummy variable that is equal to 1 if the subject was a facilitator in the Leadership Effectiveness and Development class. *Female* is a dummy variable that is equal to 1 if the subject is female and zero if the subject is male. *Race Black* is a dummy variable that is equal to 1 if the subject is black and zero otherwise. *U.S. Citizen* is a dummy variable that is equal to 1 if the subject is a citizen of the United States and zero otherwise. *GPA* is the student's final grade point average in the MBA program. *Father B.A. or higher* is a dummy variable that is equal to 1 if the father has a bachelor's degree or above and zero otherwise. Heteroskedasticity robust standard errors are reported in parentheses. * significant at 5%; ** significant at 1% *** significant at 0.1%

	Original Gift Amount			Original Gift Amount if Paid Outright			Original Gift Amount if Defaulted on Pledge			Final Gift Amount		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10	(11)	(12)
Return ratio when first mover sends $50	55.30***	56.42***	55.53***	58.68***	55.86***	57.54***	19.59	27.74	22.29	52.66***	52.85***	55.07***
	(14.71)	(14.61)	(14.74)	(13.95)	(14.09)	(14.54)	(34.47)	(34.21)	(34.24)	(12.40)	(12.49)	(12.54)
Donation Pledged (Yes = 1)	193.98***	187.38***	189.06***									
	(17.34)	(17.05)	(17.25)									
Committee Member		182.79***	188.90***		208.04*	206.19*		133.34**	108.69		43.09	63.42
		(51.80)	(51.26)		(107.91)	(110.31)		(64.82)	(65.73)		(57.78)	(56.65)
LEAD Facilitator		91.62**	92.97**		40.92	42.20		143.26**	168.54**		29.87	27.24
		(36.56)	(37.79)		(47.49)	(50.29)		(70.20)	(74.60)		(35.78)	(36.66)
Female			-12.39			-2.27			43.22			-27.89*
			(18.85)			(18.24)			(44.57)			(16.00)
Race Black			13.58			-45.03			30.11			-46.76*
			(36.67)			(29.94)			(63.19)			(26.51)
U.S. Citizen			-38.24**			-31.77*			-87.03**			-7.53
			(17.90)			(18.14)			(42.54)			(15.56)
G.P.A.			7.02			33.40			-22.37			32.73
			(25.60)			(25.42)			(65.41)			(24.14)
Father B.A. or higher			-49.94**			-3.71			-72.42			-17.79
			(24.43)			(24.39)			(61.64)			(22.31)
Constant	38.11**	26.70	71.45	34.49**	30.77**	-59.50	284.65***	252.72***	428.99*	44.00***	40.00***	-40.22
	(16.71)	(16.39)	(88.47)	(14.29)	(14.42)	(80.41)	(39.47)	(39.49)	(230.73)	(13.02)	(13.23)	(81.19)
Observations	462	462	461	233	233	233	138	138	137	462	462	461
R-squared	0.238	0.283	0.297	0.061	0.110	0.133	0.003	0.070	0.125	0.036	0.041	0.061

Table 4: The Impact of Wealth and Income on Final Donation Amount

This table shows the OLS estimates of a linear regression model where the dependent variable is the *Final Gift Amount*, controlling for different measures of wealth. For each measure of wealth, we run the regression with the variable and without it for the sample for which the measure of wealth is available. Columns 1 and 2 perform the regressions using *Estimated Wealth* as the control. *Estimated wealth* is the self-reported value of the students' personal wealth. Columns 3 and 4 use the *Accepted Job Offer Salary* as a control. *Accepted Job Offer Salary* is the post-graduation salary in thousands of dollars for job offer accepted by the student. Columns 5 and 6 use the *Pre-Admission Salary* as a control. *Pre-Admission Salary* is the salary reported by the student on the admission application. Columns 7 and 8 use both *Estimated Wealth* and *Accepted Job Offer Salary* as controls. Columns 9 and 10 use all three measures of wealth as controls. Columns 11 and 12 perform the same regressions as in 9 and 10, but with controls. For other variables, see Appendix 1. Heteroskedasticity robust standard errors are reported in parentheses. * significant at 5%; ** significant at 1% *** significant at 0.1%

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Estimated Wealth		Accepted Job Offer Salary		Pre-Admission Salary		Both Wealth and Accepted Job Offer Salary		With Wealth, Post-Salary, Pre-Salary		With Wealth, Post-Salary, Pre-Salary, plus Controls	
Return ratio when first mover sends $50	68.02**	68.76**	54.75***	54.75***	50.47***	50.65***	57.09*	52.93*	51.14	48.74	46.52	53.10
	(31.14)	(31.24)	(14.36)	(14.38)	(13.56)	(13.71)	(30.08)	(29.97)	(30.87)	(31.07)	(35.03)	(36.30)
Estimated Wealth ($1000)		0.03						-0.05		-0.06		-0.00
		(0.13)						(0.11)		(0.15)		(0.16)
Accepted Job Offer Salary ($1000)				0.03				-0.45		-0.32		-0.76*
				(0.10)				(0.27)		(0.26)		(0.40)
Pre-Admission Salary ($1000)						0.40				0.01		-0.54
						(0.28)				(0.51)		(0.64)
Committee Member											-86.62*	-81.04
											(47.74)	(55.67)
LEAD Facilitator											14.82	37.17
											(40.34)	(50.62)
Female											-91.89**	-110.74**
											(38.74)	(44.00)
Race Black											-15.41	-1.67
											(41.23)	(56.87)
U.S. Citizen											25.60	50.65
											(42.07)	(47.48)
G.P.A.											-59.85	-41.38
											(70.33)	(68.06)
Father B.A. or higher											-59.53	-93.86
											(77.06)	(79.00)
Constant	72.59**	69.07**	49.56***	44.78*	46.26***	20.29	75.08**	159.23***	81.84***	143.86**	344.36	459.96*
	(29.71)	(32.65)	(15.63)	(22.94)	(14.05)	(23.34)	(29.65)	(57.79)	(30.06)	(62.23)	(252.52)	(272.36)
Observations	83	83	372	372	386	386	74	74	65	65	65	65
R-squared	0.043	0.044	0.036	0.036	0.032	0.037	0.037	0.058	0.029	0.043	0.113	0.164

Table 5: Breakdown of Relationship between Trust Game Outcomes and Donation

This table shows the OLS estimates of a linear regression model where the dependent variable is the Final Gift Amount. # of times the subject returned less than was sent is the number of times (out of 10) that the student returned less than the first mover sent. # of times the subject returned zero is the sum (out of 10) of the number of times that the subject returned zero. Average Return Ratio is the mean return ratio across all possible amounts sent. Reciprocator is a dummy variable that is equal to 1 if the subject, on average, returned more than was sent to her. Donation Pledged is a dummy variable that is equal to 1 if the subject pledged to pay a donation by December 31, 2008 rather than paying it outright and equal to zero otherwise. Committee Member is a dummy variable that is equal to 1 if the subject was a member of the Class Gift fundraising committee. LEAD Facilitator is a dummy variable that is equal to 1 if the subject was a facilitator in the Leadership Effectiveness and Development class. Female is a dummy variable that is equal to 1 if the subject is female and zero if the subject is male. Race Black is a dummy variable that is equal to 1 if the subject is black and zero otherwise. U.S. Citizen is a dummy variable that is equal to 1 if the subject is a citizen of the United States and zero otherwise. GPA is the student's final grade point average in the MBA program. Father B.A. or higher is a dummy variable that is equal to 1 if the father has a bachelor's degree or above and zero otherwise. Heteroskedasticity robust standard errors are reported in parentheses. * significant at 5%; ** significant at 1% *** significant at 0.1%

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Trust Game Variables								
# of times subject returned less than first mover sent	-4.90***				2.66			
	(1.82)				(2.62)			
# of times the subject returned zero		-4.69*				3.32		
		(2.42)				(2.90)		
Return Ratio Average			48.10***				-18.20	
			(15.03)				(25.72)	
Reciprocator				60.09***				24.57
				(14.85)				(21.36)
Return Ratio 50					67.65***	64.54***	68.62***	40.08**
					(18.27)	(15.30)	(21.35)	(18.12)
Other Variables								
Committee Member	59.86	59.11	64.05	61.07	63.38	63.12	62.35	63.31
	(56.23)	(56.51)	(56.68)	(56.95)	(57.36)	(57.41)	(57.02)	(56.67)
LEAD Facilitator	28.86	31.25	30.73	31.48	27.09	25.65	26.23	28.66
	(37.26)	(37.40)	(37.21)	(36.69)	(36.67)	(36.69)	(36.57)	(36.65)
Female	-24.71	-31.99*	-25.26	-23.24	-29.12*	-24.14	-28.68*	-26.21
	(16.02)	(17.31)	(16.04)	(15.91)	(16.00)	(17.09)	(15.81)	(16.06)
Race Black	-48.11*	-46.92*	-49.29*	-44.58*	-44.95*	-44.81*	-45.35*	-46.34*
	(27.49)	(27.69)	(26.71)	(26.75)	(26.66)	(26.75)	(26.60)	(26.46)
U.S. Citizen	-8.96	-8.25	-7.17	-8.23	-7.44	-8.19	-7.96	-7.52
	(15.65)	(15.69)	(15.62)	(15.52)	(15.60)	(15.50)	(15.52)	(15.54)
G.P.A.	33.09	33.40	38.21	31.76	31.49	30.46	30.22	32.80
	(24.36)	(24.44)	(24.40)	(24.23)	(23.97)	(24.09)	(23.98)	(24.19)
Father B.A. or higher	-17.93	-15.92	-18.48	-17.20	-17.15	-18.15	-17.29	-17.79
	(22.87)	(22.74)	(22.58)	(22.49)	(22.31)	(22.39)	(22.40)	(22.30)
Constant	36.72	24.69	-45.29	-11.51	-59.95	-48.60	-29.03	-38.07
	(81.21)	(80.63)	(82.18)	(80.44)	(85.55)	(82.02)	(80.81)	(81.59)
Observations	461	461	461	461	461	461	461	461
R-squared	0.035	0.029	0.045	0.054	0.063	0.063	0.062	0.064

Table 6: OLS Regression of Cooperation Game on Final Donation Amount

This table shows the estimates of a linear regression model where the dependent variable is the *Final Gift Amount*. *Unconditional Cooperative Type* is a dummy variable that is equal to 1 if the subject chose to cooperate and zero if the subject chose to defect in an 8-person Prisoner's Dilemma game, regardless of the other players' strategies. *Conditional Cooperative Type* is a dummy variable that is equal to 1 if the subject chose to cooperate and zero if the subject chose to defect if all the other players are cooperating in an 8-person Prisoner's Dilemma game. *Donation Pledged* is a dummy variable that is equal to 1 if the subject pledged to pay a donation by December 31, 2008 rather than paying it outright and equal to zero otherwise. *Committee Member* is a dummy variable that is equal to 1 if the subject was a member of the Class Gift fundraising committee. *LEAD Facilitator* is a dummy variable that is equal to 1 if the subject was a facilitator in the Leadership Effectiveness and Development class. *Female* is a dummy variable that is equal to 1 if the subject is female and zero if the subject is male. *Race Black* is a dummy variable that is equal to 1 if the subject is black and zero otherwise. *U.S. Citizen* is a dummy variable that is equal to 1 if the subject is a citizen of the United States and zero otherwise. *GPA* is the student's final grade point average in the MBA program. *Father B.A. or higher* is a dummy variable that is equal to 1 if the father has a bachelor's degree or above and zero otherwise. Heteroskedasticity robust standard errors are reported in parentheses.* significant at 5%; ** significant at 1% *** significant at 0.1%

	(1)	(2)	(3)	(4)	(5)	(6)
	Conditional Cooperation			*Unconditional Cooperation*		
Conditional Cooperative Type	-6.92	-6.72	-3.31			
	(15.54)	(15.58)	(15.65)			
Unconditional Cooperative Type				29.54	29.30	33.74*
				(17.95)	(18.06)	(18.44)
Other Variables						
Committee Member		39.13	57.28		42.15	61.47
		(58.49)	(57.69)		(59.31)	(58.47)
LEAD Facilitator		31.12	29.34		28.28	26.77
		(36.76)	(37.74)		(37.21)	(38.13)
Female			-25.92			-27.14*
			(16.26)			(16.26)
Race Black			-43.07			-49.66*
			(27.89)			(28.32)
U.S. Citizen			-9.57			-11.92
			(15.70)			(15.78)
G.P.A.			29.54			27.24
			(24.31)			(24.29)
Father B.A. or higher			-16.06			-17.82
			(23.13)			(23.08)
Constant	104.57***	100.74***	30.76	91.66***	88.10***	29.72
	(11.25)	(11.56)	(80.48)	(8.66)	(8.41)	(80.60)
Observations	462	462	461	462	462	461
R-squared	0.000	0.005	0.022	0.007	0.012	0.031

Table 7a: Impact of Social Desirability Index on Real-World Donation and Trust Game Behavior

This table shows the OLS estimates of a linear regression model where the dependent variable is the *Original Gift Amount* in Columns 1-3, the *Final Gift Amount* in Columns 4-6, and the *Return ratio when the first mover sends $50* in the trust game in Columns 7-9. *Social Desirability Index* is a variable equal to the number of times (out of 10) the subject indicated true on our shortened version of the Crowne-Marlowe social desirability scale (Crowne & Marlowe, 1960). *Donation Pledged* is a dummy variable that is equal to 1 if the subject pledged to pay a donation by December 31, 2008 rather than paying it outright and equal to zero otherwise. *Committee Member* is a dummy variable that is equal to 1 if the subject was a member of the Class Gift fundraising committee. *LEAD Facilitator* is a dummy variable that is equal to 1 if the subject was a facilitator in the Leadership Effectiveness and Development class. *Female* is a dummy variable that is equal to 1 if the subject is female and zero if the subject is male. *Race Black* is a dummy variable that is equal to 1 if the subject is black and zero otherwise. *U.S. Citizen* is a dummy variable that is equal to 1 if the subject is a citizen of the United States and zero otherwise. *GPA* is the student's final grade point average in the MBA program. *Father B.A. or higher* is a dummy variable that is equal to 1 if the father has a bachelor's degree or above and zero otherwise. Heteroskedasticity robust standard errors are reported in parentheses. * significant at 5%; ** significant at 1% *** significant at 0.1%

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Original Donation Amount			**Final Donation Amount**			**Trust Game (Return ratio when first mover sends $50)**		
Social Desirability Index	12.52***	11.90***	9.55**	4.31	4.14	4.34	0.01	0.01	0.01
	(4.73)	(4.53)	(4.48)	(3.67)	(3.71)	(3.71)	(0.01)	(0.01)	(0.01)
Donation Pledged (Yes = 1)	191.01***	185.09***	186.90***						
	(17.43)	(17.24)	(17.61)						
Committee Member		172.91***	179.41***		36.69	55.45		-0.09	-0.12
		(50.22)	(50.12)		(59.40)	(58.71)		(0.11)	(0.11)
LEAD Facilitator		93.99***	94.79***		31.77	29.40		0.03	0.04
		(34.63)	(35.99)		(36.38)	(37.32)		(0.10)	(0.10)
Female			-10.73			-26.21			0.03
			(19.28)			(16.14)			(0.06)
Race Black			13.95			-44.87			0.06
			(35.70)			(27.83)			(0.13)
U.S. Citizen			-31.99*			-5.98			-0.03
			(18.02)			(15.81)			(0.06)
G.P.A.			6.33			30.73			-0.06
			(25.64)			(24.37)			(0.09)
Father B.A. or higher			-44.14*			-14.19			0.04
			(25.96)			(23.18)			(0.08)
Constant	56.88***	48.66***	93.39	86.48***	83.34***	6.86	1.04***	1.04***	1.21***
	(16.73)	(16.19)	(92.03)	(13.45)	(13.62)	(83.17)	(0.05)	(0.06)	(0.31)
Observations	462	462	461	462	462	461	462	462	461
R-squared	0.227	0.269	0.280	0.003	0.007	0.025	0.002	0.003	0.006

Table 7b: Reputation Effects versus Social Preferences

This table shows the OLS estimates of a linear regression model where the dependent variable is the donation amount. Columns 1-3 report the regression results using the *Original Gift Amount* as the dependent variable. Columns 4-6 report the regression results using the *Final Gift Amount* as the dependent variable. *Social Desirability Index* is a variable equal to the number of times (out of 10) the subject indicated true on our shortened version of the Crowne-Marlowe social desirability scale (Crowne & Marlowe, 1960). *Donation Pledged* is a dummy variable that is equal to 1 if the subject pledged to pay a donation by December 31, 2008 rather than paying it outright and equal to zero otherwise. *Committee Member* is a dummy variable that is equal to 1 if the subject was a member of the Class Gift fundraising committee. *LEAD Facilitator* is a dummy variable that is equal to 1 if the subject was a facilitator in the Leadership Effectiveness and Development class. *Female* is a dummy variable that is equal to 1 if the subject is female and zero if the subject is male. *Race Black* is a dummy variable that is equal to 1 if the subject is black and zero otherwise. *U.S. Citizen* is a dummy variable that is equal to 1 if the subject is a citizen of the United States and zero otherwise. *GPA* is the student's final grade point average in the MBA program. *Father B.A. or higher* is a dummy variable that is equal to 1 if the father has a bachelor's degree or above and zero otherwise. Heteroskedasticity robust standard errors are reported in parentheses. * significant at 5%; ** significant at 1% *** significant at 0.1%

	(1)	(2)	(3)	(4)	(5)	(6)
	Original Donation Amount			**Final Donation Amount**		
Return ratio when first mover sends $50	57.30***	58.81***	58.11***	52.14***	52.35***	54.64***
	(16.32)	(16.15)	(16.33)	(12.38)	(12.47)	(12.52)
Social Desirability Index	16.47***	15.43***	14.08***	3.61	3.43	3.71
	(5.18)	(4.93)	(4.95)	(3.69)	(3.73)	(3.70)
Committee Member		230.29***	235.07***		41.34	61.90
		(50.98)	(51.24)		(58.70)	(57.65)
LEAD Facilitator		80.91**	79.47*		30.10	27.11
		(40.46)	(40.48)		(35.63)	(36.46)
Female			-24.01			-27.80*
			(21.36)			(16.06)
Race Black			36.29			-48.06*
			(41.39)			(26.52)
U.S. Citizen			-3.69			-4.37
			(19.51)			(15.50)
G.P.A.			-14.48			33.87
			(30.14)			(24.20)
Father B.A. or higher			-44.12			-16.22
			(28.87)			(22.39)
Constant	75.82***	63.31**	160.31	32.22*	28.89	-59.36
	(25.71)	(25.66)	(109.67)	(17.66)	(17.88)	(83.45)
Observations	462	462	461	462	462	461
R-squared	0.052	0.110	0.123	0.038	0.043	0.063

Table 8: "Economists" and the Social Desirability Index

This table presents the cross-tabulations of the mean, standard deviation and number of observations available for the *Original Gift Amount*, *Final Gift Amount*, *Donation Pledged*, and the number of students who defaulted on a pledged donation, divided according to whether the individual is an "Economist" (i.e. returned zero when the sender sent $50) or a "Non-economist" (i.e. returned a positive amount when the sender sent $50) and whether the individual's score on the social desirability scale was "above the median" or "equal to or below the median". *Social Desirability Index* is a variable equal to the number of times (out of 10) the subject indicated true on our shortened version of the Crowne-Marlowe social desirability scale (Crowne & Marlowe, 1960).

	Social Desirability	Original Gift Amount ($)	Final Gift Amount ($)	Donation Pledged (Yes=1)	Defaulted on Pledged Donation
Economist (i.e. returned zero when sender sent $50)					
Mean	Equal to or below median	137.36	74.75	0.286	0.625
Standard Deviation		192.83	136.23	0.460	0.518
N		28	28	28	8
Mean	Above median	186.61	43.75	0.679	0.684
Standard Deviation		215.68	108.03	0.476	0.478
N		28	28	28	19
Non-economist (i.e. returned a positive amount when sender sent $50)					
Mean	Equal to or below median	167.87	98.53	0.451	0.598
Standard Deviation		188.69	159.82	0.499	0.493
N		226	226	226	102
Mean	Above median	237.59	117.57	0.556	0.590
Standard Deviation		234.82	185.20	0.498	0.494
N		180	180	180	100

Appendix A: Ordered Probit Analysis of the Determinants of Original Gift Amount

This table shows the marginal effects estimates of an ordered probit model where the dependent variables are the donation categories of the *Original Gift Amount*. Each panel represents the analysis for a single donation category. Panel I shows the marginal effects for the "No Donation" category, II shows "Member's Circle", III shows "Scholar's Circle", and IV shows "Leader's Circle. The final rows are a calculation of the expected value of the contribution using the minimum donation necessary to achieve a category, the mean donation for a category, and the median donation for each category. This number is comparable to the coefficient in a standard linear regression. Heteroskedasticity robust standard errors are reported in every second row in parentheses.

	1	2	3	4	5
Panel I					
No Donation (mean = $0)					
Return ratio when first mover sends $50	-0.0308**	-0.0224**	-0.0218**	-0.0217**	-0.0234**
	(0.011)	(0.008)	(0.007)	(0.007)	(0.008)
Donation Pledged (Yes = 1)		-0.0961***	-0.0923***	-0.0926***	-0.0951***
		(0.017)	(0.017)	(0.017)	(0.018)
Committee Member			-0.0289***	-0.0291***	-0.0295***
			(0.008)	(0.008)	(0.008)
LEAD Facilitator			-0.0260**	-0.0246**	-0.0251**
			(0.008)	(0.008)	(0.008)
Female				0.0065	0.0032
				(0.009)	(0.009)
Race Black				0.0134	0.0262
				(0.021)	(0.027)
U.S. Citizen				0.0051	0.0051
				(0.008)	(0.008)
G.P.A.				-0.0191	-0.0216
				(0.012)	(0.012)
Father B.A. or higher					0.0217**
					(0.008)
Panel II					
Member's Circle ($1-207) (mean = 54.788)					
Return ratio when first mover sends $50	-0.0703**	-0.0896**	-0.0929**	-0.0960***	-0.1054***
	(0.024)	(0.028)	(0.028)	(0.029)	(0.030)
Donation Pledged (Yes = 1)		-0.3226***	-0.3283***	-0.3391***	-0.3483***
		(0.036)	(0.037)	(0.037)	(0.038)
Committee Member			-0.2649*	-0.2988**	-0.3184**
			(0.106)	(0.105)	(0.103)
LEAD Facilitator			-0.1930*	-0.1881*	-0.1983*
			(0.079)	(0.081)	(0.082)
Female				0.0272	0.0138
				(0.036)	(0.037)
Race Black				0.0480	0.0799
				(0.061)	(0.054)
U.S. Citizen				0.0229	0.0236
				(0.035)	(0.036)
G.P.A.				-0.0845	-0.0970
				(0.052)	(0.054)
Father B.A. or higher					0.1371*
					(0.056)

Panel III					
Scholar's Circle ($208-500) (mean = $235.893)					
Return ratio when first mover sends $50	0.0228**	0.0330**	0.0351**	0.0368**	0.0414**
	(0.008)	(0.011)	(0.012)	(0.012)	(0.013)
Donation Pledged (Yes = 1)		0.1097***	0.1144***	0.1191***	0.1249***
		(0.017)	(0.018)	(0.018)	(0.019)
Committee Member			0.0428***	0.0428**	0.0424*
			(0.011)	(0.014)	(0.017)
LEAD Facilitator			0.0437***	0.0446***	0.0470***
			(0.011)	(0.012)	(0.012)
Female				-0.0108	-0.0055
				(0.015)	(0.015)
Race Black				-0.0209	-0.0392
				(0.030)	(0.034)
U.S. Citizen				-0.0086	-0.0091
				(0.013)	(0.014)
G.P.A.				0.0324	0.0381
				(0.020)	(0.021)
Father B.A. or higher					-0.0411**
					(0.014)
Panel IV					
Leader's Circle ($501 or more) (mean = $524.488)					
Return ratio when first mover sends $50	0.0783**	0.0790***	0.0796***	0.0808***	0.0875***
	(0.026)	(0.024)	(0.024)	(0.024)	(0.024)
Donation Pledged (Yes = 1)		0.3090***	0.3062***	0.3127***	0.3185***
		(0.031)	(0.032)	(0.032)	(0.033)
Committee Member			0.2511*	0.2850*	0.3055*
			(0.115)	(0.118)	(0.119)
LEAD Facilitator			0.1754*	0.1681*	0.1763*
			(0.078)	(0.078)	(0.080)
Female				-0.0229	-0.0115
				(0.030)	(0.031)
Race Black				-0.0404	-0.0668
				(0.051)	(0.047)
U.S. Citizen				-0.0193	-0.0196
				(0.029)	(0.030)
G.P.A.				0.0712	0.0806
				(0.043)	(0.044)
Father B.A. or higher					-0.1177*
					(0.050)
Observations	463	463	463	462	443
Expected Value of the Contribution (using min)	43.900	46.353	47.088	48.039	52.343
Expected Value of the Contribution (using mean)	42.594	44.310	44.939	45.800	49.884
Expected Value of the Contribution (using median)	40.501	42.029	42.606	43.409	47.262

Appendix B: Ordered Probit Analysis of the Determinants of Final Gift Amount

This table shows the marginal effects estimates of an ordered probit model where the dependent variables are the donation categories of the *Final Gift Amount*. Each panel represents the analysis for a single donation category. Panel I shows the marginal effects for the "No Donation" category, II shows "Member's Circle", III shows "Scholar's Circle", and IV shows "Leader's Circle. The final rows are a calculation of the expected value of the contribution using the minimum donation necessary to achieve a category, the mean donation for a category, and the median donation for each category. This number is comparable to the coefficient in a standard linear regression. Heteroskedasticity robust standard errors are reported in every second row in parentheses.

Panel I			
	1	2	3
No Donation (mean = $0)			
Return ratio when first mover sends $50	-0.0918**	-0.0909**	-0.0994**
	(0.032)	(0.032)	(0.032)
Committee Member		0.1194	0.0639
		(0.116)	(0.115)
LEAD Facilitator		-0.0676	-0.0376
		(0.068)	(0.071)
Female			0.0223
			(0.043)
U.S. Citizen			0.0163
			(0.039)
G.P.A.			-0.2071***
			(0.057)
Father B.A. or higher			0.0474
			(0.051)
Panel II			
Member's Circle ($1-207) (mean = 54.788)			
Return ratio when first mover sends $50	0.0225*	0.0224*	0.0253*
	(0.009)	(0.009)	(0.010)
Committee Member		-0.0437	-0.0207
		(0.055)	(0.045)
LEAD Facilitator		0.0113	0.0079
		(0.007)	(0.012)
Female			-0.0059
			(0.012)
U.S. Citizen			-0.0041
			(0.010)
G.P.A.			0.0526**
			(0.019)
Father B.A. or higher			-0.0099
			(0.009)

	Panel III		
Scholar's Circle ($208-500) (mean = $235.893)			
Return ratio when first mover sends $50	0.0255**	0.0252**	0.0279**
	(0.010)	(0.010)	(0.010)
Committee Member		-0.0305	-0.0171
		(0.027)	(0.029)
LEAD Facilitator		0.0194	0.0108
		(0.020)	(0.021)
Female			-0.0062
			(0.012)
U.S. Citizen			-0.0046
			(0.011)
G.P.A.			0.0581**
			(0.018)
Father B.A. or higher			-0.0136
			(0.015)
	Panel IV		
Leader's Circle ($501 or more) (mean = $524.488)			
Return ratio when first mover sends $50	0.0438**	0.0433**	0.0463**
	(0.016)	(0.015)	(0.015)
Committee Member		-0.0452	-0.0261
		(0.035)	(0.041)
LEAD Facilitator		0.0369	0.0189
		(0.043)	(0.039)
Female			-0.0102
			(0.019)
U.S. Citizen			-0.0076
			(0.019)
G.P.A.			0.0964***
			(0.028)
Father B.A. or higher			-0.0238
			(0.028)
Observations	462	462	461
Expected Value of the Contribution (using min)	27.270	26.957	29.025
Expected Value of the Contribution (using mean)	30.656	30.312	32.703
Expected Value of the Contribution (using median)	28.424	28.105	30.320