

# Hey Look at Me: The Effect of Giving Circles on Giving<sup>◇</sup>

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## Abstract

Theories abound for why individuals give to charity. We conduct a field experiment with a Yale service club to test the impact of a promise of public recognition on giving. Some may claim that they respond to an offer of public recognition not to improve their social standing, but rather to motivate others to give. To tease apart these two theories, we conduct a laboratory experiment with undergraduates, and find no evidence to support the alternative, altruistic motivation. We conclude that donations increase after promises of public recognition primarily because of individuals' desire to improve their social image.

**Keywords:** prosocial behavior, experiments, voluntary contributions, social image

**JEL:** D64, C90, L30

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# 1 Introduction

Models from both economics and psychology suggest that individuals may be particularly concerned with the visibility of their actions to others in the context of pro-social behavior (Benabou and Tirole 2006). Charitable organizations understand individuals' desire to receive recognition for their generosity, and provide a plethora of opportunities for lasting social recognition such as printing donors' names in newsletters and renaming town civic centers in order to recognize large gifts.

Public announcements of gifts may influence giving behavior in two ways: by providing social image benefits and by offering the opportunity to encourage others to give. Benabou and Tirole (2006) develop a model of pro-social behavior that focuses on concern for social image as one of the principal motivations for charitable giving. On the other hand, Vesterlund (2003) develops a theoretical model where donors may publish their gifts in order to provide a quality signal to others, hence making them more likely to give too. Thus in this case, altruists may give more in the presence of public recognition if they believe knowledge of their gifts will positively influence future gifts of others. Here we provide evidence from a field experiment to test whether promising social recognition for a donation increases the willingness to donate. We then differentiate between these two motivations, simple social image rewards and the aspiration to influence others' choices, in a controlled laboratory setting.

Organizations commonly provide recognition, in discreet giving "circles." These giving circles not only provide social image benefits, but also confer a distinct status to contributors at different levels by giving them a title. Veblen (1899) suggested that social comparisons are an important driver of individual behavior. Giving in public may offer another opportunity for conspicuous consumption as suggested by Heffetz (2011). Harbaugh (1998) analyzes data from charitable organizations with giving circles, suggesting individuals give strategically in order to enter a higher circle.

We conducted a field experiment with a telephone fundraising campaign targeting 4,168 prior donors to Dwight Hall, a service organization at Yale University that solicits support from alumni independently of Yale University's core alumni fundraising appeals. Prior to the experiment, Dwight Hall had instituted a "giving circles" framework whereby individuals who give above specific thresholds are listed in a public newsletter in three circles. We randomly assigned some individuals to a treatment where they were told about the practice of publishing names in the newsletters. Within that group, we randomized which level of giving was mentioned. We find that mentioning the newsletter increases the probability of giving, and this result is both economically and statistically significant. The sub-treatment on the amount of the threshold did not lead to statistically significant differential giving amounts.

With some exceptions, models of contribution behavior made in public assume most analysis of public giving to charities assumes individuals are motivated by the potential social image benefits of their gifts. A model of social image presented by Benabou and Tirole predicts that as charitable giving becomes more socially visible, individuals will be more likely to contribute as contribution yields greater social image benefits. This has been supported empirically by laboratory evidence: Linardi and McConnell (2011) find that individuals volunteer more when their volunteering is observable to others. Ariely, Bracha and Meier (2009) show evidence that individuals exert more effort in generating gifts for charity when their work is publicly observable. In addition, Lacetera and Macis (2010) shows that individuals are more likely to donate blood when they receive publicly announced awards. In related evidence, Soetevent (2011) finds that individuals give more when their gift is made in the open and visible to their peers.

An alternative motivation for donors who give in the presence of public recognition could be: “Hey look at me, follow my lead,” as compared to the social recognition motivation, summarized as “Hey look at me, aren’t I generous!” Vesterlund (2003) provides a theoretical model in which individuals may give more to a charity if contributions are publicly announced and the charity’s quality is unknown. Indeed, evidence from a field experiment conducted by Rondeau and List (2008) suggests that challenge gifts given at the start of fundraising campaigns are highly motivating. Potters, Sefton and Vesterlund (2005) find larger donations in public goods games when gifts are announced sequentially and the quality of public goods is unknown.

The giving circles we study differ from challenge grants in important ways. Publicized giving circles offer simultaneous visibility as opposed to sequential gifts which are a characteristic of leader or challenge grants. Furthermore, unlike challenge grants where wealthy and connected individuals send a signal with their gift, giving circles offer social visibility among peers. Evidence from Shang and Croson (2009) suggests that individuals are influenced to give more when informed of others’ gifts, but only when the gift size of others is comparable to their own. Giving circles may provide an opportunity to effectively signal to peers and influence their gifts in future charitable contribution campaigns.

Teasing apart these two theories is difficult in a field experiment. We considered an approach in the field, such as finding an “event” (rather than a cause or specific charity) for which to fundraise and then randomizing whether a promise of public recognition is announced before the event (to stimulate more giving) or after the event (to appeal to one’s desire for social recognition, and nothing more). However, since most “events” are repeated, or at a minimum part of a larger cause, we were not convinced such a design would satisfactorily tease apart these theories. We thus decided to turn to a lab experiment, where the separation between rounds of giving is more distinct and more

plausible.

In a laboratory setting with undergraduates, we set up a three-round experiment with individuals making decisions to keep \$5 or donate all or part of it to the Global Fund to Fight Malaria, AIDS and Tuberculosis. Individuals' decisions in the second round are written on the board for the entire room to see. In a "signaling" treatment, everyone is told that the names will be written on the board after a second period and before a third period while in a "social image" treatment, everyone is told that the names will be written on the board after the third period, at the end of the experiment. If subjects are partly motivated by a desire to signal to others, we would expect to see higher gift amounts in the signaling treatment. However we find no statistically significant difference between giving in the two treatments. The evidence thus points toward social image rather than a desire to influence others as the more significant motivation for charitable giving.

Our work is related to evidence from Andreoni and Petrie (2004) and Savikhin and Sheremeta (2010), which illustrates how removing anonymity influences willingness to give in a public goods game. However, our lab experiment differ from public goods games by offering very diffuse and limited private benefits. Individuals receive no monetary benefit from the amount of total gifts given to the Global Fund over the course of the experiment. Our experiment therefore abstracts away from concerns about fairness and punishment which are important social motivators in public goods games conducted in the lab (Fehr and Gächter 2000) but may not be a primary determinant of charitable contributions. Furthermore, our work provides an opportunity to identify whether the motive for giving in public can be primary linked to a desire for prestige or a hope that a public gift will influence others. In prior work that identifies donors, gifts have the potential to provide direct social benefits as well as to influence the gifts of others.

The paper proceeds as follows. Section II describes the experimental design and results of the field experiment. Section III describes the experimental design and results of the lab experiment. Section IV concludes.

## **2 Field Experiment**

### **Experimental Design**

We conducted a natural field experiment in collaboration with Dwight Hall, a service club at Yale University, as part of their annual phone-a-thon campaign. The campaign took place over the course of eight months from October 2007 to May 2008 and was staffed by a rotating group of volunteers

from student groups on campus. The sample frame consisted of all (4,168) alumni in Dwight Hall's prior-donor database who had a valid phone number and had not already made a donation between January 2007 and October 2007. Volunteers made calls one to two times a week in the evening. Calls were made by a rotating crew of volunteers from across Yale's student groups. As many as three attempts were made to reach potential donors. The call began by informing donors that the purpose of the annual campaign is to raise funds to support the many Dwight Hall groups. This was followed by a request for a gift, at which point we applied treatments with differing information regarding the recognition that donors would receive in the newsletter.

Dwight Hall regularly publishes the names of donors who give above \$100 dollars sorted in three distinct circles in the annual newsletter sent to alumni. The "Friends" circle includes any gift above \$100 and below \$500, the "Benefactor" circle includes gifts of at least \$500 but less than \$1000, and the "Patrons" circle includes any gift of \$1000 or more. These giving circles have never been mentioned in any prior annual phone-a-thon. Our primary treatment mentions in the phone call the potential for publicly disclosing gifts on a newsletter to alumni. In principle, any and all subjects could have already known that donors above certain thresholds get this recognition, if they noticed on prior newsletters. Thus, the intervention can be thought of as providing a combination of increased salience and potentially new information.

Potential donors were randomly assigned into the following four treatment scripts with equal probability:

- **Control:** We are hoping you will continue your support to Dwight Hall with a gift of \$100.
- **100 circle:** We are hoping you will continue your support to Dwight Hall with a gift of \$100. With a donation of at least \$100, you will become a member of our Friend donor circle. Friends will be listed by name in the Dwight Hall Fall 2008 newsletter.
- **500 circle:** We are hoping you will continue your support to Dwight Hall with a gift of \$100. With a donation of at least \$500, you will become a member of our Benefactor donor circle. Benefactors will be listed by name in the Dwight Hall Fall 2008 newsletter.
- **100 circle and 500 circle:** We are hoping you will continue your support to Dwight Hall with a gift of \$100. With a donation of at least \$100, you will become a member of our Friends donor circle. With a donation of at least \$500, you will become a member of our Benefactor donor circle. Both Friends and Benefactors will be listed by name in the Dwight Hall Fall 2008 newsletter.

The random assignments were implemented by the researchers using a Stata script after being pro-

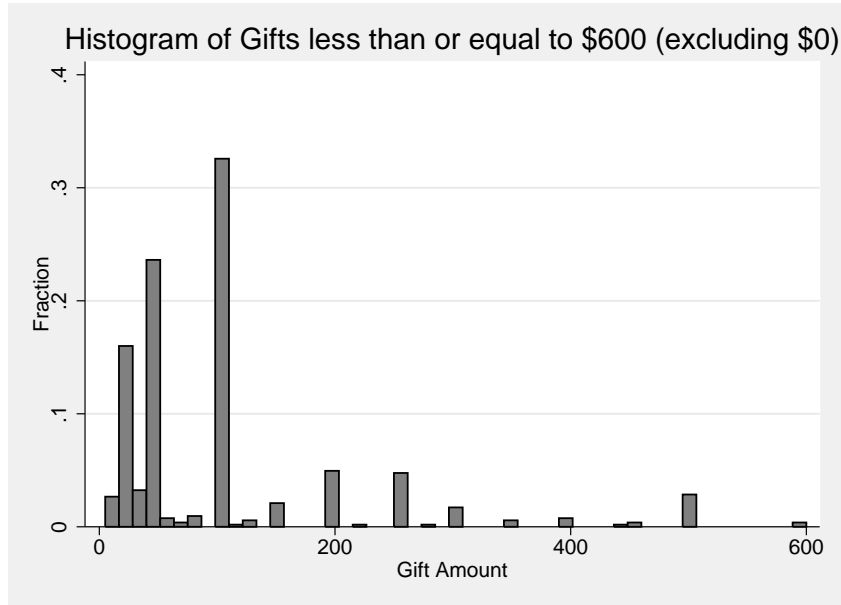


Figure 1

vided a list by Dwight Hall of those to be called. The researchers then gave the list to Dwight Hall staff, and callers then looked up each callee prior to calling to know which treatment to use in their phone call. The randomization was not stratified, as prior donor behavior was not available at the time of the start of the experiment and the sample size was deemed sufficiently large. Table 1 includes summary statistics and a check of the orthogonality between assignment to treatment and observable characteristics such as prior giving of the individuals.

## Results

Of the 4,168 individuals targeted for the campaign, 13% made a donation. The average gift size for those who gave was \$186. Figure 1 presents the distribution of gifts greater than \$0 and less than \$600. The majority of individuals give in round number amounts (such as \$50, \$100, \$150, etc), which limits our power to detect small but strategic change in gift amounts designed to cross a giving circle threshold.

In Table 2 Panel A, we consider the impacts of the treatment on five outcome variables: the probability of any gift, the probability of a gift below the threshold of being published in the newsletter, the probability of a gift large enough to publish in Friends circle, the probability of a gift large enough to publish in the Benefactor circle and the log of the gift amount (after adding one, to avoid dropping those who did not give). We find a 2.7% increase in the probability of making any gift across all

three treatments that mention the possibility of publishing names in a newsletter. Mentioning the newsletter increases the possibility of a gift of at least \$100 by 1.8% and the probability of a gift of at least \$500 by 0.5%. We see a positive but not significant increase in the probability of a donor making a gift below the level that would qualify for inclusion in the newsletter. Gift size increases by 14%. We see slightly larger effects from the treatments which mention the \$500 gift needed to enter the *Benefactor* circle, but we cannot detect statistically significant differences across the treatment cells.

We also consider the potential for a heterogeneous response to treatment depending on prior gift size in Table 2 Panel B. Overall, we see that the response to treatment is increasing in the average amount of prior gifts. This would seem to be a natural consequence of the mechanics of the treatment, since the reward is only to those who give above \$100. Although the results are qualitatively similar, we do not see statistically significant effects based on the “circle” that donors occupied prior to the experiment.<sup>1</sup> The fact that we see a positive response to the opportunity to be published in a newsletter but a relatively low incidence of gifts near strategic circle cut-off points (as observed by Harbaugh 1998) suggests that the charitable organization may not have chosen the optimal circle levels to maximize contributions.

Andreoni and Petrie (2004) suggest that the opportunity to give anonymously may be an effective mechanism for increasing gifts in public. Consistent with evidence from Glazer and Konrad (1996), we see a very low rate of anonymous giving in our study, with 24 out of 4,168 individuals choosing to make anonymous gifts (0.58% of the total). A test of equality of the proportion making an anonymous gift between the control group and the treated group where individuals were informed about the newsletter yields a z-statistic of 0.652. The results of our analysis are unchanged regardless of whether we include anonymous gifts.<sup>2</sup>

### 3 Lab Experiment

The results from our field experiment leave open the important question of whether donors give more when they know their gift could be public because of concern for their social image or because they believe they could positively influence the donations of others. We turn to the controlled environment of a laboratory experiment to answer this question. Our laboratory design incorporates elements of the field (individuals made contributions to a real charity) with control over the timing of when gifts are revealed and the opportunity for future donations.

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<sup>1</sup>Results available from author upon request.

<sup>2</sup>Results available from the authors upon request.

## Experimental Design

We conducted a series of experiments with Yale University's Behavioral Lab. The first wave of sessions was conducted in and around April 2010, and the second wave was conducted in September and October of 2010. The experimental protocols and forms can be found in Appendix 1.

The lab experiment consisted of two treatments: an **Image** treatment and a **Signaling** treatment. Across both treatments, all subjects began by making a decision to divide \$5 between themselves and the Global Fund to Fight AIDS, Malaria and Tuberculosis (GF). This first round establishes a baseline of subjects' behaviors without the opportunity for public recognition. The rest of the experiment consisted of two additional rounds where subjects decided how to divide \$5 between themselves and GF. The treatments were designed to hold constant all aspects of the choice to give in the second round except for the opportunity to influence the choice of others in the third and final round, described in greater detail below.

### Signaling Treatment

Decision #2: Subjects were instructed that they would make two more rounds of decisions and were told that the amount they gave and their name would be written on the board following their decision in round 2 and prior to their decision in round 3.

After the experimenter collected decision sheets, she wrote each subject's full name and donation decision #2 on the black board in the room.

Subjects then made decision #3.

### Image Treatment

Decision #2: Subjects were told that they would make two more rounds of decisions and that the amount they gave and their name would be written on the board following their decision in Round 3.

Subjects made decision #3.

The experimenter then wrote each subject's full name and donation decision #2 on the black board in the room.

After making all three decisions and after all names were written on the board, each subject was then given two survey forms (the "Big Five Survey" and the "Lab Survey" – see Appendix 1) which measured personality traits associated with leadership skills and information about whether subjects knew others participating in the experiment. While the subjects completed the surveys, the

experimenter paid the subjects and subjects were debriefed about the objective of the experiment (see the “Debrief form” in Appendix 1).<sup>3</sup>

The opportunities for image seeking are identical across the two treatments. However, in the “signaling” treatment, individuals have an additional motive: their gifts could influence the gifts of others in later rounds. Therefore our experiment allows us to measure the strength of the signaling motivation.

## Results

We conducted 19 sessions of the experiment with a total of 94 subjects. Summary statistics are presented in Table 1. Consistent with what we see in the field, the average gifts are higher in Round 2 when they will be published for the group to see. In Table 3, we present the results of analysis of the central hypothesis. Panel A focuses on how gifts change when subjects know their gifts will be publicized prior to a round where others will give again. Overall, subjects in the signaling treatment gave \$0.13 more in the second round than those in the image treatment (controlling for their decision in round 1), though the increase is not statistically significant. This represents a 4% increase in giving, relative to the image treatment. Subjects respond slightly more to the signaling treatment when they have friends in the room (defined as people they had conversed with in the past), though the effect again is not statistically significant. In order to account for potential session level effects, Panel B examines the average of average gifts at the group level. Groups give \$0.05 less in the second round in the signaling treatment (controlling for average gifts in the first round) and the difference is not statistically significant.

In Panel B, we consider whether gifts in the final (unpublicized) round change when gifts are publicly announced in the second round. We find that individuals do not give statistically significantly more when gifts are publicized in prior rounds. We also measure whether the average of session level average gifts changes when gifts are publicized in prior rounds. We see an increase in round three giving but the difference is not statistically significant. We also consider whether announcing gifts in round 2 affects the variance of gifts in round 3, considering the possibility that gifts converge to a norm when publicly revealed. Instead, we find that publicizing gifts creates greater noise. The standard deviation of round 3 gifts increases significantly when gifts are revealed in round 2 in the signaling condition. We conclude that providing information from peer giving is a stimulus, albeit in different directions for different individuals, and is thus akin in this setting to increasing the noise and thus the variance of giving.

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<sup>3</sup>This step was required by Yale’s IRB.

Since treatments were assigned at the cluster level, individual actions may be correlated within experimental sessions. Cameron et al (2008) illustrate that with a small number of clusters (19 experimental sessions in our case), cluster standard errors can be biased downward. We do not include conventional cluster standard errors for this reason. We use the procedure described by Cameron et al (2008) to conduct a “wild bootstrap.” Using the wild bootstrap methodology, the t-statistic for the null hypothesis that the difference between signaling and image treatments is zero, is  $t = 0.44$  with a p-value well beyond conventional levels of significance. We conclude that we see no statistically or economically significant distinction between the two treatments, suggesting that individuals primary motivation is the impact of their gift on their social image and not the opportunity to influence others.

## 4 Conclusion

We present evidence from a combination of a natural field experiment and a laboratory experiment that supports the hypothesis that public recognition is an important factor influencing the decision to donate to charity. Methodologically, we demonstrate how field and laboratory experiments can complement each other. In this instance, the field experiment demonstrated an effect which had two theoretically plausible explanations, and the laboratory experiment then followed with the purpose of separating out the confounding theories.

It could be that individuals in our laboratory experiment do not increase their gifts when they have the opportunity to signal to others because they rationally conclude that their gifts will have no influence on others’ behavior. Evidence from Potter, Sefton and Vesterlund (2007) suggests that sequentially giving does not increase donations in public goods game when the quality of the public good is commonly known. However, in the case of the Global Fund, there is no reason to believe that all individuals will have perfect information about the quality of this charity.

Substantively, we conclude that the promise of social recognition by charities to donors works not because individuals see it as an opportunity to influence others, but rather to increase one’s social status. Individuals may give either because they want to be seen by others as altruistic or to avoid being seen as someone who is ungenerous as suggested by evidence from Savakhin and Sheremeta (2011). The signaling explanation may be popularly given since it provides a rationalization for otherwise selfish behavior. However, in the laboratory experiment we find no evidence that individuals increase their gifts when gifts have the opportunity to influence others’ contributions. Naturally, this could be a consequence of the laboratory setting, and in other settings individuals might be more responsive to the opportunity to influence others’ gifts. Further work to understand what those cir-

cumstances are would be beneficial, both for understanding more about the science of giving, and also practically for learning how to spread good information about effective charities. Regardless, these experiments provide clear justification for the common fundraising practice of publicly recognizing donors, and also provide clear evidence that social status, and not pure altruism, is an important driver of charitable giving.

However, we would not necessarily interpret our results to mean that organizations should shut down a potential opportunity to signal to others. Although in this laboratory context we did not find that the leader gift signaled quality, this could certainly be the case in other settings, with other lead donors for example.

Individuals may be able to maintain a sense of their identity as modest and altruistic if their motives blur between altruism and prestige. The billionaire's pledge, a pledge for billionaires to donate half of their wealth to charity, is motivated as a way to "encourage others to give."<sup>4</sup> Benabou and Tirole's (2006) model of social image and pro-social behavior illustrates that in equilibria, gift giving could decrease with public recognition if the recognition dampens the signal of one's altruism and if giving in public is seen as image-seeking only. The difficulty of differentiating between signaling and image-seeking motives may therefore be crucial to the success of fundraising campaigns that publicly recognize donors.

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<sup>4</sup>Peter Singer, Giving Pledge Media Release, December 8, 2010: <http://givingpledge.org/Content/media/PressRelease.12.8.pdf>

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Table 1: Summary Statistics

Panel A: Field Experiment: Summary Statistics and Balance Verification

|                                     | Control             | 100 circle          | 500 circle         | 100 and 500 circle  | P-value from F test regression on treatment assignment |
|-------------------------------------|---------------------|---------------------|--------------------|---------------------|--|
| Married                             | 0.410<br>(0.492)    | 0.390<br>(0.488)    | 0.430<br>(0.495)   | 0.412<br>(0.492)    | 0.46   |
| Male                                | 0.468<br>(0.499)    | 0.444<br>(0.497)    | 0.486<br>(0.500)   | 0.483<br>(0.500)    | 0.29   |
| Age                                 | 41.196<br>(18.114)  | 43.016<br>(18.693)  | 41.687<br>(18.536) | 41.119<br>(18.954)  | 0.27   |
| Average Prior Gift                  | 58.005<br>(415.773) | 52.367<br>(239.899) | 80.292<br>(822.55) | 83.592<br>(783.602) | 0.62   |
| Largest Last gift >\$0 and <\$100   | 0.109<br>(0.312)    | 0.124<br>(0.33)     | 0.137<br>(0.345)   | 0.119<br>(0.324)    | 0.26   |
| Largest Last gift >\$100 and <\$500 | 0.032<br>(0.175)    | 0.022<br>(0.145)    | 0.036<br>(0.186)   | 0.035<br>(0.184)    | 0.18   |
| Missing any demographic variables   | 0.505<br>(0.500)    | 0.459<br>(0.499)    | 0.492<br>(0.500)   | 0.488<br>(0.500)    | 0.19   |

Panel B: Lab Experiment: Summary Statistics

|                          | Image            | Signaling        |
|--------------------------|------------------|------------------|
| Gift Amount Round 1      | 1.412<br>(1.663) | 2.174<br>(1.985) |
| Gift Amount Round 2      | 1.578<br>(1.692) | 2.302<br>(1.836) |
| Gift Amount Round 3      | 0.990<br>(1.343) | 1.791<br>(2.007) |
| Friends in Room (Binary) | 0.255<br>(0.440) | 0.349<br>(0.482) |
| Average Session Size     | 5.1              | 4.7              |
| Number of Sessions       | 10               | 9                |

Standard deviations in parentheses

Table 2: Field Experiment Results  
OLS

Panel A: Primary Treatment Effects

| Dependent Variable:                                      | (1)                | (2)                          | (3)                  | (4)                  | (5)                 | (6)                | (7)                | (8)                | (9)                 | (10)               |
|--|--------------------|------------------------------|----------------------|----------------------|---------------------|--------------------|--------------------|--------------------|---------------------|--------------------|
|  | Binary: Gave > \$0 | Binary: Gave > \$0 & <=\$100 | Binary: Gave >=\$100 | Binary: Gave >=\$500 | Log (1+Gift Amount) |                    |                    |                    |                     |                    |
| Any treatment  | 0.027**<br>(0.012) | 0.018**<br>(0.008)           | 0.009<br>(0.008)     | 0.018**<br>(0.008)   | 0.005<br>(0.011)    | 0.004<br>(0.004)   | 0.005*<br>(0.003)  | 0.004<br>(0.004)   | 0.140**<br>(0.052)  | 0.059<br>(0.063)   |
| Treatment: Announced \$100 Giving Circle                 |                    | 0.0121<br>(0.0149)           |                      | 0.007<br>(0.011)     | 0.005<br>(0.011)    | 0.004<br>(0.004)   |                    | 0.004<br>(0.004)   |                     | 0.193**<br>(0.067) |
| Treatment: Announced \$500 Giving Circle                 |                    | 0.0387**<br>(0.0149)         |                      | 0.013<br>(0.011)     | 0.026**<br>(0.011)  | 0.004<br>(0.004)   |                    | 0.007*<br>(0.004)  |                     | 0.167**<br>(0.067) |
| Treatment: Both \$100 and \$500 Giving Circles Announced |                    | 0.0313**<br>(0.015)          |                      | 0.007<br>(0.011)     | 0.024**<br>(0.011)  | 0.007*<br>(0.004)  |                    | 0.007*<br>(0.004)  |                     | 0.473**<br>(0.067) |
| Constant   | 0.110**<br>(0.010) | 0.110**<br>(0.011)           | 0.053**<br>(0.007)   | 0.053**<br>(0.008)   | 0.057**<br>(0.007)  | 0.005**<br>(0.002) | 0.005**<br>(0.002) | 0.005**<br>(0.002) | 0.473**<br>(0.0443) | 0.473**<br>(0.044) |
| Number of observations                                   | 4168               | 4168                         | 4168                 | 4168                 | 4168                | 4168               | 4168               | 4168               | 4168                | 4168               |
| R-squared  | 0.001              | 0.002                        | 0.000                | 0.000                | 0.001               | 0.002              | 0.001              | 0.001              | 0.001               | 0.003              |

Robust standard errors in parentheses. Probit estimates in Appendix tables. \*\* p<0.01, \* p<0.05, \* p<0.1

Panel B: Heterogeneity by Prior Average Gift

| Dependent Variable:                                      | (1)                | (2)                          | (3)                  | (4)                  | (5)                  | (6)                    | (7)                | (8)                    | (9)                | (10)               |
|--|--------------------|------------------------------|----------------------|----------------------|----------------------|------------------------|--------------------|------------------------|--------------------|--------------------|
|  | Binary: Gave > \$0 | Binary: Gave > \$0 & <=\$100 | Binary: Gave >=\$100 | Binary: Gave >=\$500 | Log (1+Gift Amount)  |                        |                    |                        |                    |                    |
| Any treatment  | 0.011<br>(0.014)   | 0.003<br>(0.010)             | 0.003<br>(0.010)     | 0.008<br>(0.011)     | 0.005<br>(0.004)     | 0.004<br>(0.0129)      | -0.002<br>(0.004)  | 0.005**<br>(0.002)     | 0.059<br>(0.062)   | 0.031<br>(0.075)   |
| Any treatment<br>X Log(Average Prior Gift+1)             | 0.009*<br>(0.006)  | 0.004<br>(0.004)             | 0.004<br>(0.004)     | 0.005<br>(0.004)     | 0.005<br>(0.00518)   | 0.004<br>(0.00518)     | 0.005**<br>(0.002) | 0.005**<br>(0.002)     | 0.045*<br>(0.025)  | 0.019<br>(0.030)   |
| Treatment: Announced \$100 Giving Circle                 |                    | 0.005<br>(0.017)             |                      | 0.001<br>(0.013)     | 0.004<br>(0.005)     | 0.004<br>(0.00518)     |                    | -0.005<br>(0.005)      |                    | 0.045<br>(0.075)   |
| Treatment: Announced \$500 Giving Circle                 |                    | 0.013<br>(0.017)             |                      | 0.009<br>(0.013)     | 0.009<br>(0.013)     | 0.00281<br>(0.0130)    |                    | -0.005<br>(0.006**)    |                    | 0.045<br>(0.075)   |
| Treatment: Both \$100 and \$500 Giving Circles Announced |                    | 0.014**<br>(0.007)           |                      | 0.002<br>(0.005)     | 0.002<br>(0.00515)   | 0.0120**<br>(0.00515)  |                    | 0.006**<br>(0.002)     |                    | 0.077**<br>(0.030) |
| X Log(Average Prior Gift+1)                              |                    | 0.017<br>(0.017)             |                      | -0.001<br>(0.013)    | 0.0171<br>(0.0129)   | 0.0171<br>(0.0129)     |                    | 0.001<br>(0.005)       |                    | 0.101<br>(0.075)   |
| Treatment: Both \$100 and \$500 Giving Circles Announced |                    | 0.009<br>(0.007)             |                      | 0.005<br>(0.005)     | 0.00360<br>(0.00516) | 0.00360<br>(0.00516)   |                    | 0.004*<br>(0.002)      |                    | 0.038<br>(0.030)   |
| X Log(Average Prior Gift+1)                              |                    | 0.064**<br>(0.005)           |                      | 0.019**<br>(0.004)   | 0.045**<br>(0.004)   | 0.0449**<br>(0.00381)  |                    | 0.00585**<br>(0.00149) | 0.309**<br>(0.022) | 0.309**<br>(0.022) |
| Log(Average Prior Gift+1)                                |                    | 0.144**<br>(0.013)           |                      | 0.060**<br>(0.010)   | 0.085**<br>(0.010)   | 0.0846**<br>(0.0101)   |                    | 0.016**<br>(0.00397)   | 0.660**<br>(0.059) | 0.659**<br>(0.059) |
| Missing Prior Gift                                       |                    | -0.008<br>(0.013)            |                      | 0.014<br>(0.010)     | -0.023**<br>(0.010)  | -0.0225**<br>(0.00971) |                    | -0.00612<br>(0.00379)  | -0.090<br>(0.056)  | -0.089<br>(0.056)  |
| Constant   |                    |                              |                      |                      |                      |                        |                    |                        |                    |                    |
| Number of observations                                   | 4168               | 4168                         | 4168                 | 4168                 | 4168                 | 4168                   | 4168               | 4168                   | 4168               | 4168               |
| R-squared  | 0.170              | 0.170                        | 0.034                | 0.035                | 0.138                | 0.140                  | 0.040              | 0.040                  | 0.189              | 0.191              |

Robust standard errors in parentheses. Probit estimates in Appendix tables. \*\* p<0.01, \* p<0.05, \* p<0.1

Table 3: Laboratory Experiment Results  
OLS

| Dependent Variable:   | Panel A: Round 2 Behavior     |   |  |
|---|-------------------------------|---|--|
|   | Gift Amount in Round 2<br>(1) | Gift Amount in Round 2<br>(2)                                   | Average gift in Round 2, by session<br>(3)           |
| Signaling treatment (gift revealed to group between round 2 and round 3)                              | 0.126<br>(0.220)              | 0.024<br>(0.320)  | -0.050<br>(0.211)                                    |
| Signaling treatment (gift revealed to group between round 2 and round 3)<br>X Has Friends in the Room |                               | 0.199<br>(0.422)  |  |
| Control variable: Has Friends in Room   |                               | 0.0912<br>(0.285)   |  |
| Control variable: Amount given in round 1   | 0.784***<br>(0.060)           | 0.782***<br>(0.061)   | 1.028***<br>(0.088)                                  |
| Control variable: Average Amount given in round 1, by session   |                               |   | 0.125<br>(0.194)                                     |
| Constant  | 0.472***<br>(0.168)           | 0.451**<br>(0.210)  |  |
| Observations  | 94                            | 94  | 19   |
| R-squared   | 0.669                         | 0.672   | 0.816  |
| Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1                                 |                               |   |  |
| Dependent Variable:   | Panel B: Round 3 Behavior     |   |  |
|   | Gift Amount in Round 3<br>(1) | Standard deviation of round 3 gift amount,<br>by session<br>(2) | Average of round 3 gift amount, by<br>session<br>(3) |
| Signaling treatment (gift revealed to group between round 2 and round 3)                              | 0.391<br>(0.503)              | 0.373*<br>(0.197)   | 0.156<br>(0.262)                                     |
| Signaling * Average Gift in Round 2 by Others is Higher than Respondent's Gift                        | -0.362<br>(0.488)             |   |  |
| Average Gift in Round 2 by Others is Higher than Respondent's Gift                                    | 0.288<br>(0.228)              |   |  |
| Control variable: Amount given in round 1   | 0.734<br>(0.138)              |   |  |
| Control variable: Amount given in round 2   | 0.063<br>(0.136)              |   |  |
| Control variable: Standard Deviation of Round 2 gift amount, by session                               |                               | 0.133<br>(0.264)  |  |
| Control variable: Standard Deviation of Round 1 gift amount, by session                               |                               | 0.938***<br>(0.240)   |  |
| Control variable: Average of Round 2 gift amount, by session  |                               |   | 0.780**<br>(0.298)                                   |
| Control variable: Average of Round 1 gift amount, by session  |                               |   | 0.135<br>(0.255)                                     |
| Constant  | -0.304<br>(0.263)             | -0.554<br>(0.318)   | -0.332<br>(0.254)                                    |
| Observations  | 94                            | 19  | 19   |
| R-squared   | 0.711                         | 0.781   | 0.803  |
| Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1                                 |                               |   |  |

## Appendix1: Experimental Protocol, Instructions, Forms, Debrief and Survey

All supporting documents are provided below. Note that the experimental protocol description below refers to the relevant document names in quotation marks.

### **Recruitment**

Students were recruited primarily through emails sent by Yale University's Behavioral Lab manager on the Lab's listhost (see "Recruitment Email" for email example), as well as through campus flyers ("Recruitment flyer"). The recruitment informed students of available time slots for the experiment, and asked them to get in touch with an email address to schedule and confirm a time slot. The first wave of sessions was conducted in and around April 2010, and the second wave was conducted in September/October of 2010.

### **Experimental Protocol**

When subjects arrived at the experiment, they were greeted by the experimenter. The same person served as experimenter throughout all sessions. Though assistance was provided in some sessions by other research assistants, only the experimenter spoke to the subjects during the experiment.

Upon arrival, subjects were asked to show the experimenter their Yale University student ID and were assigned a subject ID number. The subjects were then asked to sit down in the seat designated by a card to correspond to their ID number.

In their seats, subjects found an informed consent form ("Consent Form").

After all subjects registered for a session had arrived, or when five minutes had passed since the start of the official appointment time, the door was closed, the consent forms were collected, and the experiment began.

*Decision #1:* First, each subject was given the "Decision #1" sheet. The experimenter read the instructions out loud. After all subjects had entered their choices, the decision sheets were collected.

The remainder of the experiment differed depending on the treatment group.

### **Signaling Treatment**

*Decision #2:* Next, the decision #2 sheets ("Decision #2 – Signaling") were distributed. Once again, the experimenter read the instructions out loud, waited for subjects to write down their choices, and collected the decision sheets.

After the experimenter collected the decision sheets, she wrote each subject's full name and donation decision #2 on the black board in the room.

*Decision #3:* Next, decision #3 sheets (“Decision #3”) were handed out to the subjects. The experimenter read the instructions out loud, waited for the subjects to write down their choices, and collected the decision sheets.

*Survey:* Next, each subject was then given two survey forms (the “Big Five Survey” and the “Lab Survey”). While the subjects completed the surveys, the experimenter calculated each subject’s payment, and prepared the appropriate amounts.

After all subjects had completed their surveys, the experimenter collected the survey forms. Subjects were then called out of the room in order of their subject ID number. Subjects were paid in private, initialed for the receipt of their money, and received a debrief form (“Debrief form”).

### **Image Treatment**

*Decision #2:* After the decision #1 forms were collected, decision #2 sheets (“Decision #2 – Image”) were distributed. The experimenter read the instructions out loud, waited for the subjects to write down their choices, and collected the decision sheets.

*Decision #3:* Next, decision #3 sheets (“Decision #3”) were handed out to the subjects. The experimenter read the instructions out loud, waited for the subjects to write down their choices, and collected the decision sheets.

The experimenter then wrote each subject’s full name and donation decision #2 on the black board in the room.

*Survey:* Next, each subject was then given two survey forms (the “Big Five Survey” and the “Lab Survey”). While the subjects completed the surveys, the experimenter calculated each subject’s payment, and prepared the appropriate amounts.

After all subjects had completed their surveys, the experimenter collected the survey forms. Subjects were then called out of the room, in order of their subject ID number. Subjects were paid in private, initialed for the receipt of their money, and received a debrief form (“Debrief form”).

## Decision #1

Thank you for coming. During this experiment, please do not talk to other participants, if you have any questions please raise your hand and an experimenter will come to you to answer it in private. Today you will be participating in an experiment in decision making. All the decisions you make today will be real. Any money you earn today will be given to you in cash at the end of the experiment. Any money you donate to a charity will be sent directly to the charity by the experimenters.

Decision #1: You will be given \$5. You must decide how much of the \$5 to keep for yourself and how much you'd like to give to The Global Fund to Fight AIDS, Tuberculosis and Malaria.

Your decision: \_\_\_\_\_ (Enter how much you will keep)

## Decision #2 – Signaling

Decision #2: Again, you will be given \$5. You must decide how much of the \$5 to keep for yourself and how much you'd like to give to The Global Fund to Fight AIDS, Tuberculosis and Malaria. **Your name and your contribution decision will be provided to the other participants after they make this same decision (decision #2).** Note that after the information is revealed to everyone, there will be a third and final decision in which you will again allocate \$5 to either yourself or the Global Fund to Fight AIDS, Tuberculosis and Malaria, but that final decision will be kept private.

Your decision: \_\_\_\_\_ (Enter how much you will keep)

## Decision #2 – Image

Decision #2: Again, you will be given \$5. You must decide how much of the \$5 to keep for yourself and how much you'd like to give to The Global Fund to Fight AIDS, Tuberculosis and Malaria. **After all individuals have made all of their decision, your name and your contribution decision will be provided to the other participants after they finish the study.** Note that there will be a third and final decision after this one in which you will again allocate \$5 to either yourself or the Global Fund to Fight AIDS, Tuberculosis and Malaria, but that final decision will be kept private.

Your decision: \_\_\_\_\_ (Enter how much you will keep)

## Decision #3

Decision #3: You must decide how much of the \$5 to keep for yourself and how much you'd like to give to The Global Fund to Fight AIDS, Tuberculosis and Malaria. This decision will be kept private.

Your decision: \_\_\_\_\_ (Enter how much you will keep)

## Debrief Form

### Debrief Form:

The purpose of this study is to learn why individuals give more when their gifts are publicly recognized. The experiment is designed to determine whether the informational content of one's gift as a signal to others is more important than the positive social image benefits from a public gift.

### Lab Survey

Did you come with anyone to the lab today? YES \_\_\_\_\_ NO \_\_\_\_\_

How many of the people in this room have you had a conversation with \_\_\_\_\_

Appendix 2: Field Experiment Results  
 Probit (marginal effects)

Panel A: Primary Treatment Effects

| Dependent Variable:                                      | Binary: Gave > \$0<br>(1) | Binary: Gave > \$0<br>(2) | Binary: Gave > \$0 & <=\$100<br>(3) | Binary: Gave > \$0 & <=\$100<br>(4) | Binary: Gave >=\$100<br>(5) | Binary: Gave >=\$100<br>(6) | Binary: Gave >=\$500<br>(7) | Binary: Gave >=\$500<br>(8) |
|--|---------------------------|---------------------------|-------------------------------------|-------------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Any treatment  | 0.029**<br>(0.013)        |                           | 0.009<br>(0.009)                    |                                     | 0.019**<br>(0.010)          |                             | 0.006<br>(0.004)            |                             |
| Treatment: Announced \$100 Giving Circle                 |                           | 0.013<br>(0.015)          |                                     | 0.007<br>(0.011)                    |                             | 0.006<br>(0.012)            |                             | 0.005<br>(0.005)            |
| Treatment: Announced \$500 Giving Circle                 |                           | 0.039***<br>(0.015)       |                                     | 0.013<br>(0.011)                    |                             | 0.026**<br>(0.011)          |                             | 0.005<br>(0.005)            |
| Treatment: Both \$100 and \$500 Giving Circles Announced |                           | 0.032**<br>(0.015)        |                                     | 0.008<br>(0.011)                    |                             | 0.025**<br>(0.012)          |                             | 0.0076*<br>(0.004)          |
| Constant   | -0.260***<br>(0.010)      | -0.260***<br>(0.010)      | -0.192***<br>(0.009)                | -0.192***<br>(0.009)                | -0.214***<br>(0.009)        | -0.213***<br>(0.009)        | -0.061***<br>(0.007)        | -0.061***<br>(0.007)        |
| Number of observations                                   | 4,168                     | 4,168                     | 4,168                               | 4,168                               | 4,168                       | 4,168                       | 4,168                       | 4,168                       |
| R-squared  | 0.0016                    | 0.0026                    | 0.0006                              | 0.0008                              | 0.0019                      | 0.0038                      | 0.006                       | 0.0073                      |

Robust standard errors in parentheses. Probit estimates in Appendix tables. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Panel B: Heterogeneity by Prior Average Gift

| Dependent Variable:  | Binary: Gave > \$0<br>(1) | Binary: Gave > \$0<br>(2) | Binary: Gave > \$0 & <=\$100<br>(3) | Binary: Gave > \$0 & <=\$100<br>(4) | Binary: Gave >=\$100<br>(5) | Binary: Gave >=\$100<br>(6) | Binary: Gave >=\$500<br>(7) | Binary: Gave >=\$500<br>(8) |
|--|---------------------------|---------------------------|-------------------------------------|-------------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Any treatment  | 0.017<br>(0.014)          |                           | 0.004<br>(0.011)                    |                                     | 0.00754*<br>(0.004)         |                             | 0.000<br>(0.000)            |                             |
| Any treatment X Log(Average Prior Gift+1)  | 0.000<br>(0.004)          |                           | 0.001<br>(0.003)                    |                                     | -0.001<br>(0.001)           |                             | 0.000<br>(0.000)            |                             |
| Treatment: Announced \$100 Giving Circle   |                           | 0.009<br>(0.017)          |                                     | 0.001<br>(0.013)                    |                             | 0.004<br>(0.005)            |                             | 0.000<br>(0.000)            |
| Treatment: Announced \$100 Giving Circle X Log(Average Prior Gift+1)                 |                           | 0.000<br>(0.005)          |                                     | 0.002<br>(0.004)                    |                             | -0.001<br>(0.001)           |                             | 0.000<br>(0.000)            |
| Treatment: Announced \$500 Giving Circle   |                           | 0.017<br>(0.017)          |                                     | 0.010<br>(0.013)                    |                             | 0.005<br>(0.005)            |                             | 0.000<br>(0.000)            |
| Treatment: Announced \$500 Giving Circle X Log(Average Prior Gift+1)                 |                           | 0.002<br>(0.005)          |                                     | -0.001<br>(0.004)                   |                             | 0.000<br>(0.001)            |                             | 0.000<br>(0.000)            |
| Treatment: Both \$100 and \$500 Giving Circles Announced                             |                           | 0.024<br>(0.016)          |                                     | -0.001<br>(0.013)                   |                             | 0.0116**<br>(0.005)         |                             | 0.000<br>(0.000)            |
| Treatment: Both \$100 and \$500 Giving Circles Announced X Log(Average Prior Gift+1) |                           | -0.001<br>(0.005)         |                                     | 0.002<br>(0.004)                    |                             | -0.002<br>(0.001)           |                             | 0.000<br>(0.000)            |
| Log(Average Prior Gift+1)  | 0.0535***<br>(0.004)      | 0.0533***<br>(0.004)      | 0.0195***<br>(0.003)                | 0.0194***<br>(0.003)                | 0.0160***<br>(0.003)        | 0.0154***<br>(0.003)        | 0.000<br>(0.000)            | 0.000<br>(0.000)            |
| Missing Prior Gift   | 0.167***<br>(0.010)       | 0.167***<br>(0.010)       | 0.0680***<br>(0.008)                | 0.0677***<br>(0.008)                | 0.0537***<br>(0.008)        | 0.0519***<br>(0.008)        | 0.000<br>(0.000)            | 0.000<br>(0.000)            |
| Constant   | -0.312***<br>(0.016)      | -0.311***<br>(0.016)      | -0.204***<br>(0.012)                | -0.203***<br>(0.012)                | -0.0972***<br>(0.018)       | -0.0936***<br>(0.017)       | -0.001<br>(0.001)           | -0.001<br>(0.001)           |
| Number of observations   | 4,168                     | 4,168                     | 4,168                               | 4,168                               | 4,168                       | 4,168                       | 4,168                       | 4,168                       |
| R-squared  | 0.2395                    | 0.2404                    | 0.0855                              | 0.086                               | 0.2983                      | 0.3018                      | 0.4073                      | 0.4165                      |

Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1