NBER WORKING PAPER SERIES

HEY LOOK AT ME: THE EFFECT OF GIVING CIRCLES ON GIVING

Dean Karlan Margaret A. McConnell

Working Paper 17737 http://www.nber.org/papers/w17737

NATIONAL BUREAU OF ECONOMIC RESEARCH 1050 Massachusetts Avenue Cambridge, MA 02138 January 2012

We would like to thank the staff of Dwight Hall and Jacob Marcus for their help in implementing the field experiment. We are grateful to Lint Barrage and the staff of the Decision Lab at Yale for assistance running lab experiments at Yale, and to ISPS and the Economic Growth Center at Yale for funding support. Thanks to Brooke Berman, Ya-Ting Chuang and Angela Vargas for research assistance. We thank Sera Linardi for input on experimental design. The views expressed herein are those of the authors and do not necessarily reflect the views of the National Bureau of Economic Research.

NBER working papers are circulated for discussion and comment purposes. They have not been peer-reviewed or been subject to the review by the NBER Board of Directors that accompanies official NBER publications.

© 2012 by Dean Karlan and Margaret A. McConnell. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

Hey Look at Me: The Effect of Giving Circles on Giving Dean Karlan and Margaret A. McConnell NBER Working Paper No. 17737 January 2012 JEL No. H0,J01

ABSTRACT

Theories abound for why individuals give to charity. We conduct a field experiment with donors to a Yale University 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 charitable gifts increase in response to the promise of public recognition primarily because of individuals' desire to improve their social image.

Dean Karlan
Department of Economics
Yale University
P.O. Box 208269
New Haven, CT 06520-8629
and NBER
dean.karlan@yale.edu

Margaret A. McConnell Harvard University 9 Bow St Cambridge, MA 02138 mmcconnell@gmail.com

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, and in particular giving when public recognition is promised or expected. 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 benefit 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) suggests that giving circles make social comparisons salient and may therefore provide an opportunity for conspicuous consumption for other consumption goods. 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, an alumni organization at Yale University. 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 subtreatment on the amount of the threshold did not lead to statistically significant differential giving amounts.

With some exceptions, most of the analyses of social giving in public 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 (2009) find that individuals volunteer more when their volunteering is observable to others. In addition, Lacetera and Meier (2010) shows that individuals are more likely to donate blood when they receive publicly announced awards. Soetevent (2011) finds that individuals are more likely to give in a door to door campaign when their gift can be observed by the solicitor.

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!". Giving circles offer a way for individuals to signal to their peers the importance of giving to a particular cause in that moment. 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) finds larger donations in public goods games when gifts are announced sequentially and the quality of public goods is unknown. However, this evidence cannot distinguish between the desire to influence others and an image seeking motivation.

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, if peers mimic the lead donor) 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 we believe the separation 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.

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 alumni in Dwight Hall's priordonor database who had a valid phone number and had not already made a donation between January 2007 and October 2007. There were a total of 4,168 individuals. 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.

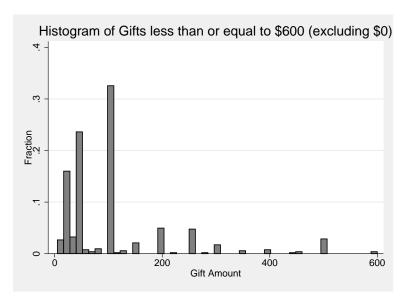


Figure 1

- 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.

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.¹

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.

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 5betweenthemselvesandtheGlobalFundto between themselves and GF. The treatments were designed to hold constant all aspects of the choice

¹Results available from author upon request.

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 1d) 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).²

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. In Table 3 we present the main results of the laboratory experiment. Panel

²This step was required by Yale's IRB.

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, though the effect again 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 are 16% more likely to increase their gift in round 3 if they gave less than others in round 2, but we see no statistically significant increase in this tendency when gifts are announced prior to the final round. 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.

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 also estimate our main treatment effects in column (3) of Table 3 at the session level in order to account for session level behavior. We see that the average gift in signaling sessions is 0.05\$ less than the average gift in the image treatment. We again conclude that we see no statistically or economically significant distinction between the two treatments.

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 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. In fact, in January 2011 (after the experiment was conducted), journalists in the AP reported that as much as two thirds of the Global Fund's annual expenses were misspent.³, underlining the potential for incomplete information about the quality of charities in practice.

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, i.e., to be seen by others as someone who gives to the charity. 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 to support this alternative. Naturally this could be a consequence of the laboratory setting, and in other settings, within the laboratory or without, one could imagine a scenario in which such public recognition does indeed motivate others to give. Further work to understand what those circumstances 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. 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." 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 campaigns that publicly recognize donors.

³Michael Gleason, "Putting fraud in global health spending in context," Washington Post, February 6, 2011.

⁴Peter Singer, Giving Pledge Media Release, December 8, 2010: http://givingpledge.org/Content/media/PressRelease_12_8.pdf

References

- [1] Andreoni, J. (1989), "Giving with Impure Altruism: Applications to Charity and Ricardian Equivalence," *Journal of Political Economy*, **97** (6), 1447-1458.
- [2] Benabou, R. and Tirole, J. (2006), "Incentives and Prosocial Behavior," *American Economic Review*, **96** (5), 1652-1678.
- [3] Benabou, R. and Tirole, J. (2007), "Identity, Dignity and Taboos: Beliefs as Assets," CEPR Discussion Papers 6123, C.E.P.R. Discussion Papers.
- [5] Linardi, S. and McConnell, M. (2011), "No Excuses for Good Behavior," *Journal of Public Economics*, **95(5-6)**: 445-454.
- [5] Lacetera, N. and Macis, M. (2010), "Social image concerns and prosocial behavior: Field evidence from a nonlinear incentive scheme," *Journal of Economic Behavior & Organization*, **76(2)**, 225-237.
- [6] Potters, J., Sefton, M. and Vesterlund, L. (2005), "After you–endogenous sequencing in voluntary contribution games," *Journal of Public Economics*, **89(8)**, 1399-1419.
- [7] Potters, J., Sefton, M. and Vesterlund, L. (2007), "Leading-by-example and signaling in voluntary contribution games: an experimental study," *Economic Theory*, **33(1)**. 169-182.
- [8] Roundeau, D. and List, J. (2008), "Matching and challenge gifts to charity: evidence from laboratory and natural field experiments," *Experimental Economics*, **11(3)**, 253-267.
- [9] Soetevent, A. (2011), "Payment Choice, Image Motivation and Contributions to Charity: Evidence from a Field Experiment," *American Economic Journal: Economic Policy*, **3(1)**, 180-205.
- [10] Veblen, T. (1899), The Theory of the Leisure Class, New York, NY.
- [11] Vesterlund, L. (2003), "The Informational Value of Sequential Fundraising," *Journal of Public Economics*, 87(3-4): 627-657.

Table 2: Field Experiment Results OLS

		(1) (2)	(3)	(3) (4)	(5)	(5) (6)	(2)	(7) (8)	(6)	(9) (10)
Any treatment	0.027**		600'0		0.018**		.500.0		0.140***	
	(0.012)		(0.008)		(0.00)		(0.003)		(0.052)	
Treatment: Announced \$100 Giving Circle		0.0121		0.007		0.005		0.004		0.059
Treatment: Announced \$500 Giving Circle		0.0387***		0.013		0.026**		0.004)		0.193***
		(0.0149)		(0.011)		(0.011)		(0.004)		(0.067)
Treatment: Both \$100 and \$500 Giving Circles Announced		0.0313**		0.007		0.024**		0.007*		0.167**
Constant	0.110***	0.110***	0.053***	0.053***	0.057***	0.057***	0.005**	0.005**	0.473***	0.473***
	(0.010)	(0.011)	(0.007)	(0.008)	(0.007)	(0.007)	(0.002)	(0.002)	(0.0443)	(0.044)
Number of observations R-squared	4168	4168	4168	4168	4168	4168	4168	4168	4168	4168
Robust standard errors in parentheses. Probit estimates in Appendix tables. *** p<0.01, ** p<0.05, * p<0.1	pendix tables. **	* p<0.01, ** p<).05, * p<0.1							
Panel B: Heterogeneity by Prior Average Gift										
Dependent Variable:		Binary: Gave > \$0 (1)	Binary: Gave	Binary: Gave > \$0 & <\$100 (3) (4)	Binary: Ga (5)	Binary: Gave >= \$100 (5) (6)	Binary: Gav	Binary: Gave >= \$500 (7) (8)	Log (1+G (9)	Log (1+Gift Amount) (9) (10)
Any treatment	0.011		0.003		0.008		-0.002	(-)	0.059	()
	(0.014)		(0.010)		(0.011)		(0.004)		(0.062)	
Any treatment	*6000		0.004		0.005		0.005***		0.045*	
X Log(Average Prior Gift+1)	(0.006)		(0.004)		(0.004)		(0.002)	0	(0.025)	
reatment: Announced \$100 Giving Circle		0.005		0.001		0.004		-0.002		0.031
Torio sairio 0000 bosonicas itasament		(0.017)		(0.013)		(0.0129)		(0.00)		(0.0/5)
V oc/ Assess Dries (Fig. 1)		0.003		0.004		0.000333		0.00		0.019
A Log(Average Filot Gill+1)		(0.007)		(0.003)		(0.00516)		(0.002)		(0.030)
Hearment: Announced 4500 Giving Oncie		(510.0)		0.003		(0.0028)		0.005		0.045
Treatment: Announced \$500 Giving Circle		0.014**		0.002		0.0120**		0.006***		0.077**
X Log(Average Prior Gift+1)		(0.007)		(0.005)		(0.00515)		(0.002)		(0.030)
Treatment: Both \$100 and \$500 Giving Circles Announced		0.017		-0.001		0.0171		0.001		0.101
		(0.017)		(0.013)		(0.0129)		(0.005)		(0.075)
Treatment: Both \$100 and \$500 Giving Circles Announced		0.009		0.005		0.00360		0.004*		0.038
X Log(Average Prior Gift+1)		(0.007)		(0.00)		(0.00516)		(0.002)		(0.030)
Log(Average Prior Gift+1)	0.064***	0.064***	0.019***	0.019***	0.045***	0.0449***	0.00585***	0.006***	0.309***	0.309***
Missing Prior Gift	0.144***	0.144***	0.060***	0.060***	0.085***	0.0846***	0.0155***	0.016***	0.660***	0.659***
	(0.013)	(0.013)	(0.010)	(0.010)	(0.010)	(0.0101)	(0.00397)	(0.04)	(0.059)	(0.059)
Constant	-0.008	-0.008	0.014	0.014	-0.023**	-0.0225**	-0.00612	-0.006	-0.090	-0.089
	(0.013)	(0.013)	(0.010)	(0.010)	(0.010)	(0.00971)	(0.00379)	(0.004)	(0.056)	(0.056)
Number of observations	4168	4168	4168	4168	4168	4168	4168	4168	4168	4168
P-sculpted	0.170	0.170	0.034	0.035	0.138	0.140	0.040	0.040	0 180	0 101

Table 3: Laboratory Experiment Results OLS

		OLS		
Panel A: Round 2 Behavior	Sehavior			
	Dependent Variable:	Gift Amount in Kound 2 : (1)	Girt Amount in Round 2 (2)	Average girt in Kound 2, by session (3)
	Signaling treatment (gift revealed to group between round 2 and round 3)	0.126	0.024	-0.050
		(0.220)	(0.320)	(0.211)
	Signaling treatment (gift revealed to group between round 2 and round 3)		0.199	
	Control variable: Has Friends in Room		0.0912	
	Control variable: Amount given in round 1	0.784***	(0.285) 0.782***	
		(0.060)	(0.061)	
	Control variable: Average Amount given in round 1, by session			1.028***
	Constant	0.472***	0.451**	0.125
		(0.168)	(0.210)	(0.194)
	Observations	94	94	19
	R-squared	0.669	0.672	0.816
				3. 07
Panel B: Kound 3 benavior	senavior	Gave More in Round 3 than in Round 2	Standard deviation of round 3 gift amount, by session	Average of round 3 gift amount, by session
	Dependent Variable:	(1)	(2)	(3)
	Signaling treatment (gift revealed to group between round 2 and round 3)	-0.008	0.373*	0.156
	Signaling * Average Gift in Round 2 by Others is Higher than Respondent's Gift	-0.034 -0.034	(0.197)	(0.502)
	Average Gift in Round 2 by Others is Higher than Respondent's Gift	(0.080) 0.166**		
	Control variable: Amount given in round 1	(0.078) 0.051* 0.0500)		
	Control variable: Standard Deviation of Round 2 gift amount, by session	(0.026)	0.133	
	Control variable: Standard Deviation of Round 1 gift amount, by session		(0.264) 0.938***	
			(0.240)	
	Control variable: Average of Round 2 gift amount, by session			0.780**
	Control variable: Average of Round 1 gift amount, by session			(0.259) 0.135 (0.255)
	Constant	-0.124*	-0.554	-0.332
		(0.066)	(0.318)	(0.254)
	Observations	94	19	19
	R-squared	0.143	0.781	0.803

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 conversat	ion with	

Appendix 2: Field Experiment Results Probit (marginal effects)

Panel A: Primary Treatment Effects (1)	y: Gave > \$0 (2) (2) (2) 0.013 (0.015) 0.032** (0.015) 0.032** (0.015) 4.168 0.0026 5. *** p<0.01, ** p<0.1 (2) (0.009)	Binary: Gave > \$0 & (3)	(4) (4) (0.007 (0.011) (0.011) (0.011) (0.011) (0.011) (0.009) 4,168 (0.009) 4,168 (0.009) (0.009) (0.009)	Binary: Gave >= \$100 (5) (0.019** (0.010) (0.012) (0.011) (0.011) (0.011) (0.013) (0.009) 4,168 4,168 (0.009)	(6) (6) 0.006 (0.012) 0.026** (0.011) 0.025** (0.012) -0.213*** (0.009)	Binary: Gave >= \$500 (7) (8) 0.006 (0.004) 0.005 (0.005)	(8) (8) (9) (9) (9)
Toperiorin Variable: (1) (2) (2) (1) (2) (2) (0.013) (0.029** (0.013) (0.015) (0.015) (0.015) (0.015) (0.015) (0.015) (0.015) (0.015) (0.015) (0.016) (0.016) (0.016) (0.016) (0.016) (0.016) (0.016) (0.016) (0.016) (0.016) (0.017) (0.014) (0.009) (0.017)	9. Gave > \$0 (2) (2) (0.013) (0.015) (0.015) (0.015) (0.015) (0.016) 4.168 (0.010) 4.168 0.0026 S. *** p<0.01, ** p<0.1 (2) (2)	0.009 (0.009) (0.009) (0.009) (0.009) (0.009) (0.009) (0.009) (0.009) (0.009) (0.009) (0.009) (0.009) (0.009) (0.009) (0.009)	(4) 0.007 0.007 0.0013 0.0013 0.008 0.011) 1.192*** 0.009) 8 <\$100 (4)	0.019** (0.010) (0.010) (0.009) (0.009) (0.009)	(6) (6) 0.006 (0.012) 0.026** (0.011) 0.025** (0.012) -0.213*** (0.009)	0.004)	(8)
0.029** (0.013) 0.013 (0.015) 0.013 ag Circle (0.015) 0.032** (0.015) 0.032** (0.015) 0.0026 eses. Probit estimates in Appendix tables. *** p<0.01, ** p<0.0 Dependent Variable: Binary: Gave > \$0 (0.017) 0.017 0.000 (0.004) 0.0009 0.0000 0.0007 0.017 0.000	0.013 (0.015) 0.039*** (0.015) 0.032** (0.015) 0.0026 8. *** p<0.01, ** p<0.1 7; Gave > \$0 (2)	0.009 0.009) 0.009) 0.009) 0.0006 0.0006 0.004 0.004 0.0011)	0.007 0.001) 0.0013 0.001) 0.008 0.011) 192*** 0.009) 0.009) 8.<\$100	0.019** (0.010) -0.214*** (0.009) 4,168	0.006 (0.012) 0.026** (0.011) 0.025** (0.012) -0.213***	0.006	0 005
9 Circle (0.013) 19 Circle (0.015) 19 Circle (0.015) 19 Circle (0.015) 10.032** (0.015) 10.280*** (0.015) 10.016 10.017	0.013 (0.015) 0.039*** (0.015) 0.032** (0.015) 0.0026 8. *** p<0.01, ** p<0.1 7; Gave > \$0 (2)	(0.009) (0.009) (0.009) (0.009) (0.009) (0.0009) (0.0009) (0.0009) (0.0009) (0.0009) (0.0009) (0.0009) (0.0009) (0.0009) (0.0009)	0.007 0.011) 0.013 0.008 0.011) 1.92*** 0.009) 0.009) 0.009) 0.009) 0.009) 0.009 0.009)	(0.010) -0.214*** (0.009) 4,168 0.0019	0.006 (0.012) 0.026** (0.011) 0.025** (0.012) -0.213***	(0.004)	0 005
1g Circle (0.013) 1g Circle (0.015) 1g Circle (0.015) 1g Circles Announced (0.015) 1g Circles Announced (0.016) 1g Circles Announced (0.010) 1g Circle (0.010) 1g Circle (0.014) 1g Circle (0.017)	0.013 (0.015) (0.015) (0.015) (0.016) (0.010) 4.168 0.0026 5. *** p<0.01, ** p<0.1 (2) (2)	0.192*** -0.192*** -0.192*** -0.192*** -0.0009) (C C C C C C C C C C C C C C C C C C C	0.007 0.011) 0.013 0.008 0.011) 1.92*** 0.009) 0.009) 0.009) 0.009) 0.009) 0.009) 0.009(4)	-0.214*** (0.009) 4,168 0.0019	0.006 (0.012) 0.026** (0.011) 0.025** (0.012) -0.213***		0 005
(0.015) (0.015) (0.039*** (0.015) (0.015) (0.015) (0.016) (0.017) (0.010) (0.010) (0.010) (0.010) (0.010) (0.010) (0.011) (1) (2) (1) (2) (1) (2) (3) (4) (4) (5) (6) (6) (6) (7) (7) (7) (8) (8) (8) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9	(0.015) (0.039*** (0.032** (0.015) (0.015) 4,168 4,168 0.0026 5. *** p<0.01, ** p<0.1 7; Gave > \$0 (2) (0.017)	(C -0.192*** -0.1009) (C (0.009) (C (0.009) (C 4,168 0.0006 05, p<0.1 (3) 0.004 (0.001)	0.011) 0.013 0.011) 0.001) 0.011) 1.192*** 0.009) 4,168 0.009) 8,<\$100	-0.214*** (0.009) 4,168 0.0019	(0.012) 0.026** (0.011) 0.025** (0.012) -0.213*** (0.009))
ng Circle (0.015) siving Circles Announced (0.015) -0.260*** (0.013) -0.260*** (0.010) 4,168 4,168 0.0016 0.0026 esses. Probit estimates in Appendix tables. *** p<0.01, *** p<0.01 Dependent Variable: Binary: Gave > \$0 (1) (2) (0.014) 0.017 0.017 0.000 0.000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000	0.039*** (0.015) (0.015) (0.032** (0.016) -0.260*** (0.010) 4,168 0.0026 S. *** p<0.01, ** p<0.0 (2) (2) (2) (2) (2) (2) (2) (2) (2) (2)	0.192*** -0.192*** -0.192*** -0.009) (C	0.013 0.011) 0.011) 1.192*** 0.009) 4,168 0.009 8,<\$100	-0.214*** (0.009) 4,168 0.0019	0.026** (0.011) 0.025** (0.012) -0.213***		(0.005)
(0.015) 9iving Circles Announced (0.016) -0.260*** (0.010) 4,168 (0.010) 4,168 (0.010) 4,168 (0.0016) 0.0016 (0.0017) 9 Circle (0.004) (0.004) (0.007) 9 Circle (0.005) 9 Circle (0.007)	(0.015) (0.032** (0.015) -0.260*** (0.010) 4,168 0.0026 S. *** p<0.01, ** p<0.1 (2) (2) (2) (3) (4) (5) (6) (7) (7) (7) (8) (9) (9) (1) (1) (1) (1) (1) (2) (3) (4) (5) (6) (7) (7) (7) (8) (9) (9) (1) (1) (1) (1) (1) (1) (1) (1	(C -0.192*** -0.192*** -0.192*** -0.009) (C -0.0006 05, * p<0.1 0.004 0.004 0.004 0.0011 0.0	0.011) 0.008 0.008 0.009) 0.009) 0.009) 0.0008 (4,168	-0.214*** (0.009) 4,168 0.0019	(0.011) 0.025** (0.012) -0.213*** (0.009)		0.005
0.032** 0.016) -0.260*** (0.010) 0.016) 0.010 0.0016 0.0026 0.0026 0.0016 0.0017 0.017 0.001 0.000	0.032.** (0.015) -0.260*** (0.010) +,168 0.0026 S. *** p<0.01, ** p<0. (2) (2) (2) (0.017)	(0.009) (0.009) (0.009) (0.009) (0.009) (0.0006 05, p<0.1 (0.004 (0.004) 0.004	0.008 (192*** 0.009) 4,168 0.0008 0.0008 (4)	-0.214*** (0.009) 4,168 0.0019	0.025°° (0.012) -0.213*** (0.009)		(0.005)
0.01019) -0.260*** (0.010) 4,168 0.0016 0.0026 0.0026 0.0017 0.017 0.017 0.017 0.004) 0.009 0.000 0.0009 0.0009 0.0009 0.0009 0.0017 0.017	(0.015) -0.260*** (0.010) 4,168 0.0026 S. *** p<0.01, ** p<0.0 (2) (2) (2) (3) (4) (6) (6) (7) (6) (7) (7)	0.009) (((0.009) (((0.009) (((0.009) (((0.006) (0.006) (((0.006) (0.004) (0.004) ((0.004) ((0.001) (0.004) ((0.001) (0.004) ((0.001) ((0.004) (0.001) ((0.004) (0.001) ((0.004) (0.001) ((0.001) ((0.004) (0.001) ((0.004) (0.001) ((0.004) (0.001) ((0.004) ((0.004) (0.001) ((0.004) (0.001) ((0.004) (0.001) ((0.004) (0.001) ((0.004) (0.001) ((0.004) (0.001) ((0.004) (0.004) (0.004) ((0.004) (0.004) ((0.004) (0.004) ((0.004) (0.004) ((0.004) (0.004) ((0.004) (0.004) ((0.004) (0.004) ((0.004) (0.004) (0.004) ((0.004) (0.004) (0.004) ((0.004) (0.004) (0.004) ((0.004) (0.004) (0.004) ((0.004) (0.004) (0.004) ((0.004) (0.004) (0.004) (0.004) ((0.004) (0.004) (0.004) (0.004) (0.004) ((0.004) (0.004	0.009) 4.168 0.0008 0.0008 8 <\$100	-0.214*** (0.009) 4,168 0.0019	(0.012) -0.213*** (0.009)		0.0076*
(0.010) (0.010) (0.010) (0.010) (0.010) (0.010) (0.010) (0.010) (0.0026 (0.002	(0.010) 4,168 0.0026 S. *** p<0.01, ** p<0.0 y: Gave > \$0 (2) (2) (2) (3)	(0.009) (0.009) (0.009) (0.009) (0.009) (0.009) (0.004) (0.004) (0.004) (0.001)	0.009) 4,168 0.0008 8 <\$100 (4)	(0.009) 4,168 0.0019	(600:0)	-0.061***	(0.004)
4,168 4,168 0.0016 0.0026 0.0016 0.0026 0.0016 0.0026 0.0017 (2) 0.017 0.017 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	4,168 0.0026 S. *** p<0.01, ** p<0. y: Gave > \$0 (2) 0.009	4,168 0.0006 05, *p<0.1 Binary: Gave > \$0 & (3) 0.004 0.0011	8. <\$100 (4)	4,168 0.0019		(0.007)	(0.007)
0.0016 0.0026	0.0026 S. *** p<0.01, ** p<0. y: Gave > \$0 (2) 0.009 0.009	0.0006 0 05, p=0.1 Binary: Gave > \$0 8 (3) 0.004 (0.011)	8 <\$100 (4)	0.0019	4,168	4,168	4,168
reses. Probit estimates in Appendix tables. *** p<0.01, ** p<0.00 Dependent Variable: Binary: Gave > \$0 (1) (2) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2	s. *** p<0.01, ** p<0.1 y: Gave > \$0 (2) 0.009 (0.017)	05, * p<0.1 Binary: Gave > \$0 & (3) 0.004 0.001) 0.001	& <\$100 (4)		0.0038	0.006	0.0073
Dependent Variable: Binary: Gave > \$0 (1) (2) (2) (3) (2) (4) (5) (4) (6) (4) (6) (6) (6) (6) (6) (6) (6) (6) (6) (6	y: Gave	Binary: Gave > \$0 8 (3) 0.004 (0.011)	& <\$100 (4)				
(1) (2) 0.017 0.017 0.014) 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.001 0.001 0.002		(3) 0.004 (0.011)	(4)	Binary: Gave >= \$100	9 >= \$100	Binary: Gave >= \$500	e >= \$500
0.017 0.004 (0.014) (0.011) age Prior Giff+1) (0.004) (0.003) nounced \$100 Giving Circle (0.007) age Prior Giff+1) (0.005) nounced \$500 Giving Circle (0.005)		0.004 (0.011) 0.001		(5)	(9)	(7)	(8)
age Prior Gift+1) nounced \$100 Giving Circle nounced \$100 Giving Circle nounced \$500 Giving Circle nounced \$500 Giving Circle nounced \$500 Giving Circle 0.005 0.007 0.007 0.007 0.007		0.001		0.00754*		0.000)	
age Prior Gift+1) (0.004) (0.003) nounced \$100 Giving Circle (0.017) nounced \$100 Giving Circle (0.007) age Prior Gift+1) (0.005) nounced \$500 Giving Circle (0.005) nounced \$500 Giving Circle (0.007) nounced \$500 Giving Circle (0.007)	0.009			-0.001		0.000	
0.009 (0.017) 0.000 (0.005) 0.017 (0.017)	0.009 (0.017)	(0.003)		(0.001)		(0.000)	
(0.017) 0.000 (0.005) 0.017 (0.017) 0.002	(0.017)		0.001		0.004		0.000
0.000 (0.005) 0.017 (0.017) 0.002		0)	(0.013)		(0.005)		(0.000)
(0.005) 0.017 (0.017) 0.002	0.000	0	0.002		-0.001		0.000
0.017 (0.017) 0.002	(0.005)	0)	(0.004)		(0.001)		(0.000)
(0.017)	0.017	0 (0.010		0.005		0.000
0.002	(0.017)	9)	(0.013)		(0.005)		(0.000)
(3000)	0.002		10000		0.000		00000
Osiving Circles Announced 0.024	0.024	<u> </u>	-0.001		0.0116**		0.000
(0.016)	(0.016)	0)	(0.013)		(0.005)		(0.000)
Giving Circles Announced	-0.001	0	0.002		-0.002		0.000
ift+1) (0.005) (0.005)			(0.004)	***	(0.001)	000	(0.000)
(0.004) (0.003)			(0.003)	(0.003)	(0.003)	(0.000)	(0.000)
0.167*** 0.0680***			0.0677***	0.0537***	0.0519***	0.000	0.000
(0.010) (0.010) (0.008)			(0.008)	(0.008)	(0.008)	(0.000)	(0.000)
-0.311*** -0.204***	•		0.203***	-0.0972***	-0.0936***	-0.001	-0.001
(0.016) (0.016) (0.012) (0.01			(0.012)	(0.018)	(0.017)	(0.001)	(0.001)
observations 4,168 4,168 4,168			4,168	4,168	4,168	4,168	4,168
			0.086	0.2983	0.3018	0.4073	0.4165

Appendix 2: Laboratory Experiment Results Probit (Marginal Effects)

anel A: Round 3 Behavior	
	Round 2
Dependent Variable:	(1)
gnaling treatment (gift revealed to group between round 2 and round 3)	0.003
	0.000
gnaling * Average Gift in Round 2 by Others is Higher than Respondent's Gift	-0.004
	(0.006)
verage Gift in Round 2 by Others is Higher than Respondent's Gift	0.005
	(800.0)
ontrol variable: Amount given in round 1	0.000
	(0.001)
ontrol variable: Standard Deviation of Round 2 gift amount, by session	
ontrol variable: Standard Deviation of Round 1 gift amount, by session	
onstant	-0.006
	(0.010)
pservations	94
-squared	0.4175