



# Hey look at me: The effect of giving circles on giving



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## ARTICLE INFO

### Article history:

Received 30 December 2013

Received in revised form 9 June 2014

Accepted 16 June 2014

Available online 12 August 2014

### JEL classification:

D64

C90

L30

### Keywords:

Prosocial behavior

Experiments

Voluntary contributions

Social image

## ABSTRACT

We conduct a randomized field experiment with a Yale service club and find that the promise of public recognition increases giving. Some may claim that they give when offered public recognition in order to motivate others to give too, rather than for the more obvious expected private gain from increasing one's social standing. To tease apart these two theories, we also conduct a laboratory experiment with undergraduates. We find that patterns of giving are more consistent with a desire to improve social image than a purely altruistic desire to motivate others' contributions. We discuss the external validity of our lab findings for other settings.

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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) develop a model of pro-social behavior that focuses on social image as one of the principal motivations for giving publicly to charity. 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.

Organizations commonly provide recognition in discreet giving circles. These giving circles provide social image benefits by conferring a distinct status to contributors for giving at different high levels. Veblen (1899) suggested that social comparisons are an important driver of individual behavior. Likewise, public giving may be an example of conspicuous consumption as suggested by Heffetz (2011). Theoretical models illustrate that fundraisers can increase donations both if donors get prestige when they donate (Harbaugh, 1998) and if donors are giving to send a signal about their "altruism" (Cartwright and

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Patel, 2013). These explanations all make the point, from different constructs, that some contributions to charity are also private consumption.

Limited empirical work exists on public recognition of donors from the field, with the exception of important empirical evidence from Harbaugh (1998), which analyzes observational data from a university that uses giving circles, and argues that individuals give strategically in order to enter a higher circle. From the laboratory, Linardi and McConnell (2011) find that individuals volunteer more when their volunteering is observable to others. Ariely et al. (2009) present evidence that individuals exert more effort in generating gifts for charity when their work is publicly observable. Soetevent (2011) finds that individuals give more when their donations are provided in cash and therefore more visible to others. In addition, Lacetera and Macis (2010) show that individuals are more likely to donate blood when they receive publicly announced awards. Finally Li and Riyanto (2009) find support from a lab experiment for Harbaugh (1998)'s model of prestige in giving circles.

However, the anticipation of a public announcement of one's gift may generate greater donations for two reasons: by providing donors with social image benefits, as just discussed, but also by offering donors the opportunity to encourage others to give in the future. In simpler terms, the first reason is akin to donors saying "Hey look at me, aren't I generous!" and the second is akin to donors saying "Hey look at me, follow my lead."

The second reason, giving publicly in order to encourage others to give, could occur through one of at least two mechanisms, either because the gift provides a quality signal to others or because the gift influences the gifts of others through mimicry or social influence. For the quality mechanism, 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 publicly unknown but privately known by the lead donor. Indeed, evidence from a field experiment conducted by Roundeau and List (2008) suggests that challenge gifts, unconditional gifts intended to motivate other to give, are highly effective at increasing contributions. Similarly, Potters et al. (2005) find larger donations in public goods games when gifts are announced sequentially and the quality of public goods is unknown. The second mechanism is through peer persuasion (DeMarzo et al., 2003), where a donor effectively persuades others to mimic their contribution. If there is conformity in behavior around giving (Bernheim, 1994), individuals might correctly assume that their gift would have some influence even if all agents were perfectly informed about the quality of the charity. Here we provide evidence from a randomized field experiment to test whether promising social recognition for a donation increases the willingness to donate. We then differentiate between the two broad motivations, simple social image rewards versus the aspiration to influence others' choices, in a controlled laboratory setting. We do not test separately the quality signal versus persuasion or conformity mechanism.

We conducted a field experiment with a telephone fundraising campaign targeting 4168 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. Individuals appeared to respond to the potential for public recognition, but not in a strategic way.

Teasing apart the two reasons explained above (social status versus desire to motivate others to give) 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 only to one's desire for social recognition). 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. The laboratory is not meant to perfectly mimic the field but instead allows us to compare two different types of public giving motives in a controlled setting. Our experimental design is related to work by Reinstein and Riener (2012) who find mixed evidence in the lab for reputation seeking and some evidence for signaling to others.

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 AIDS, Tuberculosis and Malaria. Individuals' decisions in the second round are written on the board for the entire room to see. In an influence 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 influence others, we would expect to see higher gift amounts in the influence treatment. However we find no statistically significant difference between giving in the two treatments. The evidence thus suggests that the additional opportunity to influence others does not motivate individuals to increase their gifts. This evidence points toward social image rather than a desire to influence others as the more significant motivation for charitable giving. This is not dispositive evidence, however, both because of arguably large standard errors (and thus assessing whether the result should or should not be considered a precise null), as well as questions regarding the contextual elements of the lab and translating results on other-regarding preferences to the outside world.

The paper proceeds as follows. [Section 2](#) describes the experimental design and results of the field experiment. [Section 3](#) describes the experimental design and results of the lab experiment. [Section 4](#) concludes.

## 2. Field experiment

### 2.1. 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 (4168) 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. Since volunteers had to read different scripts for different potential donors they were not blinded to the experimental design. 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. We do not have a measure of effort by the callers, and thus one could argue, and we have no data to refute, that the caller worked harder on the giving circle script than the other.

Dwight Hall regularly published the names of donors who give above \$100 dollars sorted in three distinct circles in the annual newsletter sent to alumni. The "Friends" circle included any gift above \$100 and below \$500, the "Benefactor" circle included gifts of at least \$500 but less than \$1000, and the "Patrons" circle included any gift of \$1000 or more. Although giving circles, in some implementations, imply joint activities and extensive within-circle interaction, in the context we are examining here, the circle merely refers to public identification, via the newsletter, of being in the same giving tranche (with a name to the tranche). Furthermore, no differential private benefits, such as retail discounts or private access to club activities, are included in the giving circles.<sup>2</sup> These giving circles had never been mentioned in any prior annual phone-a-thon. Our primary treatment mentioned in the phone call the potential for publicly disclosing gifts in a newsletter to alumni. Since contribution rates over \$500 were relatively low (<1%) we focus on only the "Friends" and "Benefactor" recognition as part of our experimental manipulation. In principle, any subjects who had received prior communications from Dwight Hall could have already known that donors above certain thresholds get this recognition. The intervention can be thought of as providing a combination of increased salience and potentially new information. Thus, our estimates may be an underestimate of the effect of the giving circles on giving, as those who were already fully aware of, and acting because of, the giving circle may not be affected by the treatment.

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.

For all the scripts we include a specific request for \$100. The reason is that Dwight Hall felt that asking for a specific amount was essential for generating significant contributions (consistent with principles identified in [Andreoni, 2006](#)). In order to hold this element constant we include this ask for \$100 in all treatments but we cannot rule out the possibility that this diluted our overall treatment effect. In addition to the control message, we include two treatments which simply mention either the friends or the benefactor treatment in addition to asking for at least \$100. We expect that these treatments would increase the salience of the public recognition from giving at those levels. We also include a fourth treatment that mentions both the friends and benefactor circles. The reason for this treatment was to determine whether the presence of two distinct giving circles heightened social comparisons ([Veblen, 1899](#)), thereby increasing giving. This fourth treatment was added for practical reasons, in order to provide more options (but not too many as to thwart action) in the hopes of offering the relevant threshold amount for a particular donor.

<sup>2</sup> While it is unlikely since the circles had been in place before our experiment, some individuals in our experiment may have incorrectly perceived that a circle would imply some private benefit.

**Table 1**  
Summary statistics: means and standard deviations.

Treatment	Control	100 Circle	500 Circle	100 Circle and 500 circle	P-value from F test: regression on treatment
Panel A: Field experiment: summary statistics and balance verification					
Married	0.410 (0.492)	0.390 (0.488)	0.430 (0.495)	0.412 (0.492)	0.46
Male	0.468 (0.499)	0.444 (0.497)	0.486 (0.500)	0.483 (0.500)	0.29
Age	41.196 (18.114)	43.016 (18.693)	41.687 (18.536)	41.119 (18.954)	0.27
Average prior gift	58.005 (415.773)	52.367 (239.899)	80.292 (822.55)	83.592 (783.602)	0.62
Largest last gift >\$0 and <\$100	0.109 (0.312)	0.124 (0.33)	0.137 (0.345)	0.119 (0.324)	0.26
Largest last gift >\$100 and <\$500	0.032 (0.175)	0.022 (0.145)	0.036 (0.186)	0.035 (0.184)	0.18
Missing any demographic variables	0.505 (0.500)	0.459 (0.499)	0.492 (0.500)	0.488 (0.500)	0.19
Treatment	Image	Influence			
Panel B: Lab experiment: summary statistics					
Gift amount round 1	1.412 (1.663)	2.174 (1.985)			
Gift amount round 2	1.578 (1.692)	2.302 (1.836)			
Gift amount round 3	0.990 (1.343)	1.791 (2.007)			
Friends in room (binary)	0.255 (0.440)	0.349 (0.482)			
Average session size	5.1	4.7			
Number of sessions	10	9			

Standard deviations in parentheses.

We randomly assigned individuals on the call list with equal probability to the four treatment groups. The researchers then gave the randomized 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 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.

## 2.2. Results

Of the 4168 individuals targeted for the campaign, 13% made a donation. The average gift size for those who gave was \$186. Fig. 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 the 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 percentage point 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 percentage points and the probability of a gift of at least \$500 by 0.5 percentage points. 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. Average gift size increases by 14 percentage points. 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 three treatment cells that mention the newsletter.

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.<sup>3</sup> This would seem to be

<sup>3</sup> Because relatively few prior donors give \$500 we do not have power to detect heterogeneous treatment effects by the circle occupied in the previous campaign.

**Table 2**  
Field results: OLS estimation.

Dependent variable	Binary: gave >\$0		Binary: gave >\$0 & <\$100		Binary: gave ≥\$100		Binary: gave ≥\$500		Log (1 + gift amount)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Panel A: Primary treatment effects										
Any treatment	0.027** (0.012)		0.009 (0.008)		0.018** (0.009)		0.005* (0.003)		0.140*** (0.052)	
Treatment: announced \$100 giving circle		0.0121 (0.0149)		0.007 (0.011)		0.005 (0.011)		0.004 (0.004)		0.059 (0.063)
Treatment: announced \$500 giving circle		0.0387*** (0.0149)		0.013 (0.011)		0.026** (0.011)		0.004 (0.004)		0.193** (0.067)
Treatment: both \$100 and \$500		0.0313** (0.015)		0.007 (0.011)		0.024** (0.011)		0.007* (0.004)		0.167* (0.067)
Giving circles announced										
Constant	0.110*** (0.010)	0.110*** (0.011)	0.053*** (0.007)	0.053*** (0.008)	0.057*** (0.007)	0.057*** (0.007)	0.005** (0.002)	0.005** (0.002)	0.473*** (0.0443)	0.473*** (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
Panel B: Heterogeneity by prior average gift										
Any treatment		0.011 (0.014)	0.003 (0.010)		0.008 (0.011)		−0.002 (0.004)		0.059 (0.062)	
Any treatment × log(average prior gift + 1)		0.009* (0.006)	0.004 (0.004)		0.005 (0.004)		0.005*** (0.002)		0.045* (0.025)	
Treatment: announced \$100 giving circle			0.005 (0.017)	0.001 (0.013)		0.004 (0.0129)		−0.002 (0.005)		0.031 (0.075)
Treatment: announced \$100 giving circle × log(average prior gift + 1)			0.005 (0.007)	0.004 (0.005)		0.001 (0.005)		0.005** (0.002)		0.019 (0.030)
Treatment: announced \$500 giving circle		0.013 (0.017)		0.009 (0.013)		0.00281 (0.013)		−0.005 (0.005)		0.045 (0.075)
Treatment: announced \$500 giving circle × log(average prior gift + 1)		0.014** (0.007)		0.002 (0.005)		0.012** (0.005)		0.006*** (0.002)		0.077** (0.030)
Treatment: both \$100 and \$500		0.017 (0.017)		−0.001 (0.013)		0.017 (0.0129)		0.001 (0.005)		0.101 (0.075)
Treatment: both \$100 and \$500 Giving circles		0.009 (0.007)		0.005 (0.005)		0.004 (0.005)		0.004* (0.002)		0.038 (0.030)
Log(average prior gift + 1)	0.064*** (0.005)	0.064*** (0.005)	0.019*** (0.004)	0.019*** (0.004)	0.045*** (0.004)	0.0449*** (0.00381)	0.00585*** (0.00149)	0.006*** (0.001)	0.309*** (0.022)	0.309*** (0.022)
Missing prior gift	0.144*** (0.013)	0.144*** (0.013)	0.060*** (0.010)	0.060*** (0.010)	0.085*** (0.010)	0.0846*** (0.010)	0.0155*** (0.004)	0.016*** (0.004)	0.660*** (0.059)	0.659*** (0.059)
Constant	−0.008 (0.013)	−0.008 (0.013)	0.014 (0.010)	0.014 (0.010)	−0.023** (0.010)	−0.023** (0.010)	−0.006 (0.004)	−0.006 (0.004)	−0.090 (0.056)	−0.089 (0.056)
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.

- \*  $p < 0.1$ .  
 \*\*  $p < 0.05$ .  
 \*\*\*  $p < 0.01$ .

a natural consequence of the mechanics of the treatment, since the social reward is only relevant to those who give above \$100. 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. Alternatively, it may be that individuals respond to the potential for public recognition instinctively (by increasing the tendency to give) but not strategically (in order to receive greater prestige) in this setting.

Andreoni and Petrie (2004) examine whether public recognition influences giving in the lab, finding that the opportunity to give anonymously increases overall gifts despite the fact that very few individuals take the opportunity to give anonymously. Consistent with these results and evidence from Glazer and Konrad (1996), we see a very low rate of anonymous giving in our study, with 24 out of 4168 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

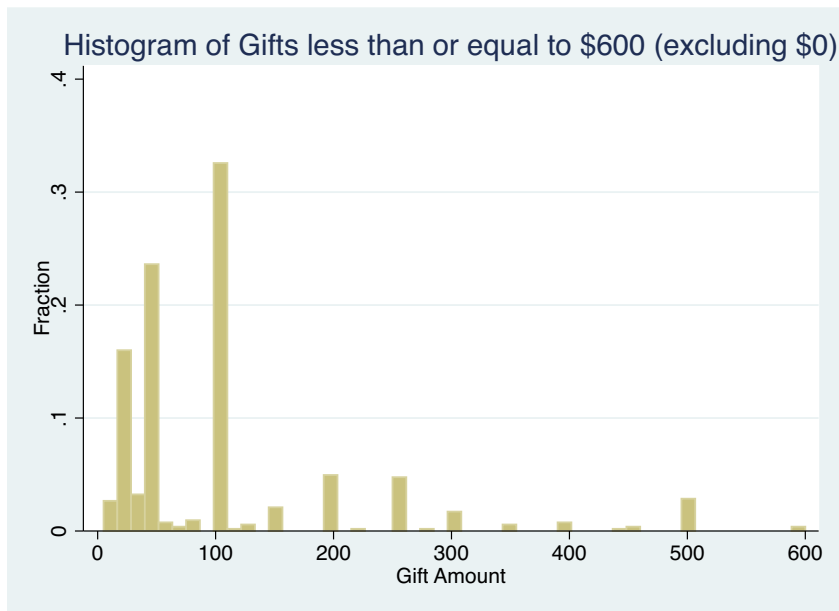


Fig. 1. Histogram of gifts less than or equal to \$600 (excluding \$0).

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.

### 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 influence others to give more. 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.

#### 3.1. 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 *Influence* treatment. Across both treatments, all subjects began by making a decision to divide \$5 between themselves and the Global Fund to Fight AIDS, Tuberculosis and Malaria (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. Subjects were paid for all three rounds. 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.

##### *Influence treatment*

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

The experimenter wrote each subject's full name and donation decision #2 on the black board in the room. Subjects 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 in round 2 and their name would be written on the board following their decision in Round 3.

Subjects made decision #3.

The experimenter 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" in Appendix 1) which measured personality traits associated with leadership skills and information about whether subjects knew others participating in the experiment. After 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>4</sup>

The opportunities for image seeking are identical across the two treatments. However, in the "influence" treatment, individuals have an additional motive: their gifts could influence the gifts of others in the third round.<sup>5</sup> Therefore our experiment allows us to measure the strength of the influence motivation. Since the nature of the publicity differs across lab and field settings, we do not expect to directly compare the level of gifts in each of the two experiments.

### 3.2. Results

We conducted 19 sessions of the experiment with a total of 94 subjects. Summary statistics are presented in Table 1. One potential concern about the laboratory experiment is that because subjects did not choose the charity, they did not feel altruistically toward the charity and may have had less motivation to influence others. However we do see a positive willingness to give, with average gifts of \$1.76 in the first round of giving where gifts are not publicized so there is no social recognition motivation for giving. Unfortunately, our laboratory sessions were not balanced on donations in round 1. For this reason, we run all estimations with and without controls for round 1 behavior.

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.<sup>6</sup> In Table 3, we present analysis of the relative importance of the influence and social image motivations. Panel A focuses on how gifts change when subjects know their gifts will be publicized prior to a round where others will give again. When we do not account for round 1 behavior, subjects in the influence treatment gave \$0.72 more in the second round than those in the image treatment which is an economically but not statistically significant increase in giving. However, once we control for the decision made in round one, the influence treatment increases giving by only \$0.13, which is not statistically significant. Because our sample size is relatively small, we cannot precisely estimate a zero impact of the influence treatment. We also consider whether the treatment effects changes when subjects have friends in the room (defined as people they had conversed with in the past). Both with and without controlling for first round behavior, subjects give slightly more in the influence treatment when they have friends in the room, though the effect again is not statistically significant. In order to account for potential session level effects, we also estimate treatment effects by considering the average treatment effects on average gifts at the session level. When we consider only the average difference in average gifts in round 2, there is a significant difference between the influence and image treatments, with an increase of \$0.88 or a 56% increase. However, these differences likely represent imbalances in the lab experiment treatments. Controlling for first round behavior, groups give \$0.05 less in the second round in the influence treatment 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 gifts in the third round increase when gifts in the second round are publicized. However, as above, this effect is no longer significant once we control for first round behavior. We test whether the influence treatment has a larger impact when there are friends in the room. We find a small and not statistically significant increase in the effectiveness of the influence treatment when there are friends in the room. 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 due to the influence treatment but the difference is not statistically significant once we control for first round giving.<sup>7</sup> Finally, we consider how the influence treatment affects the variance in behavior after gifts are publicized, considering the hypothesis 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 influence condition. This increase in variance persists once we control for the variance in round 1. 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

<sup>4</sup> This step was required by Yale's IRB.

<sup>5</sup> It could be that subjects in the influence treatment decide to strategically give less in order to prevent free-riding by other subjects. However this contradicts evidence reported that average contributions increase from round 1 to round 2 across all treatments.

<sup>6</sup> Note that we cannot causally determine whether gifts increase between rounds because of increased social recognition since there may be other factors changing over time. Our experiment is not determined to measure the impact of social recognition but instead to distinguish between influence and social image motivations.

<sup>7</sup> We see no statistically significant differences between the response to the influence treatment by individuals' level of giving compared to the group average in round 2.

**Table 3**  
Laboratory results: OLS estimation.

Dependent variable	Gift amount				Average gift, by sess			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>Panel A: Round 2 behavior</b>								
Influence treatment (gift revealed to group between round 2 and 3)	0.724 (0.426)	0.126 (0.220)	0.377 (0.467)	0.024 (0.320)	0.876* (0.460)		–0.050 (0.211)	
Influence treatment (gift revealed to group between round 2 and 3) × has friends in room			0.672 (0.816)	0.199 (0.422)				
Image treatment (gift revealed to group after round 3)	Omitted	Omitted	Omitted	Omitted	Omitted	Omitted	Omitted	
Control variable: has friends in room			–0.260 (0.568)	0.0912 (0.285)				
Control variable: amount given in round 1		0.784*** (0.060)		0.782*** (0.061)				
Control variable: average amount given in round 1, by sess							1.028*** (0.088)	
Constant	1.578*** (0.269)	0.472*** (0.168)	1.645*** (0.287)	0.451** (0.210)	1.561*** (0.317)		0.125 (0.194)	
Observations	94	94	94	94	19		19	
Image treatment mean	1.58	1.58	1.58	1.58	1.56		1.56	
Image treatment standard deviation	1.69	1.69	1.69	1.69	0.85		0.85	
R-squared	0.041	0.669	0.064	0.672	0.175		0.816	
<b>Panel B: Round 3 behavior</b>								
Influence treatment (gift revealed to group between round 2 and 3)	0.801* (0.448)	0.215 (0.267)	0.430 (0.514)	0.089 (0.346)	0.977** (0.423)	0.149 (0.256)	0.789** (0.313)	0.365* (0.192)
Influence treatment (gift revealed to group between round 2 and 3)			0.611 (0.791)	0.155 (0.318)				
Image treatment (gift revealed to group after round 3)	Omitted	Omitted	Omitted	Omitted	Omitted	Omitted		
Control variable: has friends in room			–0.400 (0.459)	–0.071 (0.139)				
Control variable: amount given in round 1		0.768*** (0.083)		0.754*** (0.085)				
Control variable: average amount given in round 1, by sess					0.919*** (0.137)			
Control variable: standard deviation of round 1 gift amount, by sess							1.021*** (0.169)	
Constant	1.674*** (0.324)	–0.304 (0.263)	1.046*** (0.215)	–0.554 (0.318)	0.969*** (0.291)	–0.332 (0.254)	0.969*** (0.291)	–0.332 (0.254)
Observations	94	94	94	94	19		19	
Image treatment mean	0.99	0.99	0.99	0.99	1.83		1.83	
Image treatment standard deviation	1.34	1.34	1.34	1.34	0.72		0.72	
R-squared	0.054	0.708	0.103	0.716	0.239	0.799	0.272	0.778

Robust standard errors in parentheses.

\*  $p < 0.1$ .\*\*  $p < 0.05$ .\*\*\*  $p < 0.01$ .

the null hypothesis that the difference between influence 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 significant distinction between the two treatments.

Overall, we do not find that the influence treatment significantly increases gifts or that it causes future gifts to increase. Though our confidence intervals and a slight imbalance in first round behavior do not allow us to rule out the possibility of some positive effects of the influence treatment in the individual analysis, once we control for first round behavior and consider session level effects we see no meaningful differences in giving as a result of the influence treatment. We conclude that our experiment does not show support for the influence motivation as a driver of behavior.



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 [Potters et al. \(2005\)](#) suggests that sequential 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. Furthermore, even with perfect information, subjects might hope to influence others to give more by giving more if there is some tendency toward conformity as suggested by [Bernheim \(1994\)](#).

#### 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. Furthermore, we find that the tendency to give in public cannot be entirely explained by a desire to influence the gifts of others. 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 two theories.

Giving circles are related to but different than challenge or matching grants, and the empirical literature on the latter is much longer. 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 also may provide an opportunity to signal effectively to peers and influence their gifts in future charitable contribution campaigns. Individuals may also hope to influence or persuade others to give even if they do not have new information about quality ([DeMarzo et al., 2003](#)). Giving circles are also similar to the common practice of charitable organizations to offer different "recognition levels."

Our work is related to evidence from [Andreoni and Petrie \(2004\)](#) and [Samek and Sheremeta \(2014\)](#), which illustrates how removing anonymity influences willingness to give in a public goods game. However, our lab experiment differs 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, punishment and free-riding 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 in the field. 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.

Substantively, the evidence here suggests that the desire to influence others cannot fully explain why donations increase when they are publicly recognized, suggesting that social status is a central motivating factor. Individuals may give either because they want to be seen by others as altruistic, to avoid being seen as someone who is ungenerous ([Samek and Sheremeta, 2014](#)), or simply to be part of a club of people that do give. Either way, this implies private gains and not only altruism, as a driving force. We note, however, that this result can and should differ for different types of charities. The motivation to give to, e.g., a Yale service club, is potentially more of a private consumption contribution compared to an altruistic contribution than, e.g., giving to a global health nonprofit.

The influence explanation may be popularly given since it provides a rationalization for otherwise self-interested behavior. However, in the laboratory experiment we find no evidence that individuals increase their gifts when gifts have the opportunity to influence others' contributions and this is for a nonprofit that is more likely receiving "altruistic" contributions than the field experiment. Naturally, this could be a consequence of the laboratory setting, or the fact that donors did not get to choose their own charity, and in other settings individuals might be more responsive to the opportunity to influence others' gifts. Naturally, this could be a consequence of the laboratory setting or the charities chosen, and in other settings individuals might be more responsive to the opportunity to influence others' gifts. Furthermore, this conclusion is based on a null result, and thus one must consider the confidence interval. Doing so requires interpreting the upper bound of the confidence interval, and assessing whether the upper bound is significant economically. In a laboratory setting, this is difficult to do, but we do not perceive our confidence interval to be particularly small, and thus put forward this result as suggestive. 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. Although in this laboratory context we did not find that prior gifts by others increased the amount of future gifts, this could certainly be the case in other settings, with other donors (e.g., with donors with reputations for having more accurate information on charity quality). Furthermore, individuals may be able to maintain a sense of their identity as modest and altruistic if their motives blur between influence and prestige. The billionaire's pledge, a pledge for

**Table A1**

Field results: probit estimation, marginal effects.

Dependent variable	Binary: gave >\$0		Binary: gave >\$0 & <\$100		Binary: gave ≥\$100		Binary: gave ≥\$500	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Primary treatment effects								
Any treatment	0.029** (0.013)		0.009 (0.009)		0.019** (0.010)		0.006 (0.004)	
Treatment: announced \$100 giving circle		0.013 (0.013)		0.007 (0.007)		0.006 (0.006)		0.005 (0.005)
Treatment: announced \$500 giving circle		0.039*** (0.015)		0.013 (0.011)		0.026** (0.011)		0.005 (0.005)
Treatment: both \$100 and \$500		0.032** (0.015)		0.008 (0.011)		0.025** (0.012)		0.008* (0.004)
Number of observations	4168	4168	4168	4168	4168	4168	4168	4168
Panel B: Heterogeneity by prior average gift								
Any treatment	0.017 (0.014)		0.004 (0.011)		0.008* (0.004)		0.000 (0.000)	
Any treatment × log(average prior gift + 1)	0.000 (0.004)		0.001 (0.003)		−0.001 (0.001)		0.000 (0.000)	
Treatment: announced \$100 giving circle		0.009 (0.017)		0.001 (0.013)		0.004 (0.005)		0.000 (0.000)
Treatment: announced \$100 giving circle × log(average prior gift + 1)		0.000 (0.005)		0.002 (0.004)		−0.001 (0.001)		0.000 (0.000)
Treatment: announced \$500 giving circle		0.017 (0.017)		0.010 (0.013)		0.005 (0.005)		0.000 (0.000)
Treatment: announced \$500 giving circle × log(average prior gift + 1)		0.002 (0.005)		−0.001 (0.004)		0.000 (0.001)		0.000 (0.000)
Treatment: both \$100 and \$500		0.024 (0.016)		−0.001 (0.013)		0.012** (0.005)		0.000 (0.000)
Treatment: Both \$100 and \$500 Giving circles		−0.001 (0.005)		0.002 (0.004)		−0.002 (0.001)		0.000 (0.000)
Log(average prior gift + 1)	0.0535*** (0.004)	0.0533** (0.004)	0.0195*** (0.003)	0.0194*** (0.003)	0.0160*** (0.003)	0.0154** (0.003)	0.000 (0.000)	0.000 (0.000)
Missing prior gift	0.167*** (0.010)	0.167*** (0.010)	0.0680*** (0.008)	0.0677*** (0.008)	0.0537*** (0.008)	0.0519*** (0.008)	0.000 (0.000)	0.000 (0.000)
Number of observations	4168	4168	4168	4168	4168	4168	4168	4168

Robust standard errors in parentheses. Probit estimates in the table.

\*  $p < 0.1$ .\*\*  $p < 0.05$ .\*\*\*  $p < 0.01$ .

billionaires to donate half of their wealth to charity, is motivated as a way to “encourage others to give.”<sup>8</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 image-seeking and influence motives may therefore be crucial to the success of fundraising campaigns that publicly recognize donors. Lastly, there are important policy prescriptions from understanding the influence mechanism better and for distinguishing between persuasion and quality-signaling. For example, if the mechanism at work here is quality signaling, then this suggests a potential need for improved information on charity quality.

## Acknowledgements

We would like to thank the staff of Dwight Hall and Jacob Marcus for their help in implementing the study. We are grateful to Lint Barrage and the staff of the Decision Lab at Yale for assistance running lab experiments. Thanks to Brooke Berman, Ya-Ting Chuang and Angela Vargas for research assistance and Sera Linardi for input on experimental design. We thank Ragan Petrie, Sara Solnick, Li Hao, Danila Serra, Paula Cordero Salas, Jane Zhang and audiences at the ESA for helpful feedback.

## Appendix A.

See Table A1.

<sup>8</sup> Peter Singer, Giving Pledge Media Release, December 8, 2010: [http://givingpledge.org/Content/media/PressRelease\\_12.8.pdf](http://givingpledge.org/Content/media/PressRelease_12.8.pdf).

## Appendix B. Supplementary data

Supplementary data associated with this article can be found, in the online version, at <http://dx.doi.org/10.1016/j.jebo.2014.06.013>.

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