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PIVOTAL OR POPULAR:
THE EFFECTS OF SOCIAL INFORMATION
AND FEELING PIVOTAL ON CIVIC ACTIONS

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ABSTRACT

We examine the combined effects of popularity and feelings of being important to reaching a goal by testing how people react to situations in which their own behavior is pivotal or not, as well as the popularity of the action. We conduct a laboratory experiment to cleanly fix beliefs about the person's likelihood of being pivotal in reaching a donation threshold that triggers a matching gift, varying both the pivotality and the number of other donors (popularity). The results are striking, with those whose action is pivotal being more than twice as likely to make a donation. We then conduct two field experiments to test these findings in real-world settings. Our results suggest that pivotality is a more important determinant of prosocial behavior.

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1 Introduction

Many activities have social benefits but individual costs that may lead to their underprovision: voting, charitable donations, getting vaccinated, and conservation efforts, among others. The popularity of the cause and the person’s own importance in reaching a goal can be motivators to action. The importance of and interaction between these drivers of prosocial behavior is an open question.

Popularity might signal the quality of the cause in the same manner as the presence of a lead donor (Vesterlund, 2003; Karlan and List, 2020; Kumru and Vesterlund, 2010); popularity may produce a desire to conform (or rebel) (Bernheim, 1994), or potentially crowd-out one’s own actions (Andreoni, 1988). Popularity can therefore increase or decrease the likelihood of an action. Practitioners appear to believe that popularity helps their cause. Hotels use this approach by telling visitors that the majority of their guests reuse their towels (Goldstein, Cialdini, and Griskevicius, 2008), fundraisers use descriptive social norms to encourage giving by highlighting its popularity (Agerström, Carlsson, Nicklasson, and Guntell, 2016), and voter-turnout campaigns often emphasize the popularity of voting (Gerber and Rogers, 2009).

Making a person feel like their action is pivotal can lead to action by increasing the perceived or actual likelihood of success and producing additional warm glow from being the one to push over the threshold. Setting goals is a common technique by fundraisers to spur donations (Gee and Schreck, 2018); politicians emphasize the potential deciding value of each vote to bring people to the polls (Bursztyn, Cantoni, Funk, and Yuchtman, 2017). Theory work by Duncan (2004) and Prendergast (2023) suggests that donors’ desire to “make a difference” can lead to inefficient behavior by donors, charities, or both.

In this paper, we test how people react to messages conveying whether an action is popular and whether the person’s own behavior is pivotal. We begin with a laboratory experiment that cleanly fixes beliefs about the person’s likelihood of being pivotal in reaching a donation threshold that triggers a matching gift, varying both the pivotality and the number of other

donors (popularity).

We find that the popularity of donation, as measured by the number of other donors in a group, has no meaningful impact on the likelihood of giving. But when a person is pivotal to meeting the threshold – that is, the threshold is met if and only if that particular subject makes a gift – the likelihood of any donation more than doubles. Our lab experimental framework is such that only donations of a certain size qualify for meeting the threshold; the likelihood of donations of that size increases nearly ten-fold.

With these striking results in hand, We turn to a set of field experiments to test these findings in real-world settings. Two closely-related experiments echo the laboratory setting, putting prospective donors into small groups that vary in the number of previous givers and the distance to a matching threshold.

Response rates in the charity field experiments are very low, as is unfortunately typical (Alston, Eckel, Meer, and Zhan, 2021). It is difficult to make those in a field experiment completely pivotal to the group’s goal, and the creation of groups to measure popularity of the cause based on previous giving also introduces the potential for selection bias. As such, it is difficult to draw strong conclusions from our charitable giving field experiments.

We are by no means the first to examine how increased importance to reaching a goal induces people to take an action. Being pivotal to the provision of a threshold public good increases the likelihood of contribution both in theoretical models and laboratory experiments (Palfrey and Rosenthal, 1984; Diekmann, 1985; Bagnoli and Lipman, 1989; Erev and Rapoport, 1990; Chen, Au, and Komorita, 1996; Duffy and Tavits, 2008; McBride, 2010; Gee and Schreck, 2018; Anik and Norton, 2020; Falk, Neuber, and Szech, 2020). However, to the best of our knowledge, there is no evidence in how pivotality interacts with popularity. Further, there is little field experimental evidence to test how increased importance to reaching the goal affects behavior in the real world.

It is less clear how knowing that an action is relatively popular will affect the likelihood a person will take the action. On one hand, knowing many others are donating to charity may

crowd out an individual person’s feelings they need to take this action if one believes they no longer are needed to reach the goal (Warr, 1982; Goldstein et al., 2008; Duncan, 2004; Brandon, List, Metcalfe, Price, and Rundhammer, 2019). On the other hand, knowing others are taking an action may signal it is a good action to take (Andreoni, 1998; Vesterlund, 2003). Van Teunenbroek, Bekkers, and Beersma (2020) review the literature on social information in philanthropy, documenting mixed findings – particularly with target donation amounts – and concluding that situational context drives the effects. In terms of popularity of *making* a donation, both laboratory and field experiments tend to find that conveying the popularity of making a donation increases giving rates (Frey and Meier, 2004; Heldt, 2005; Croson, 2007; Martin and Randal, 2008; Fischbacher and Gächter, 2010; Agerström et al., 2016).

However, there is no stated goal towards which the group is working in these experiments. Popularity is manipulated without changing whether the individual is pivotal to reaching a goal. Our paper speaks to the combined effects of popularity and feelings of being important to reaching a goal. We find no measurable effect of popularity; pivotality appears to be a more important determinant of behavior. The laboratory experiment cleanly lays out the interaction of these factors. While we cannot draw strong conclusions from our field experiments, they set out a framework for examining these important external motivations to act pro-socially.

2 Laboratory Experiment

We begin with a lab experiment which cleanly fixes beliefs about a person’s likelihood of being pivotal to a matching bonus donation to a charity. Students at Tufts University participated in a game similar to a sequential threshold public goods game. They are told that they are in a 10 person group and that if T people donate then a third party will make an extra \$50 donation to a nonprofit.¹ They are truthfully informed they are playing with

¹The nonprofit was the Tufts Student Fund, which raises money for financial aid.

people who have already made their decision.² They are the last person in the group to make their decision about donation, and as such, we are able to set beliefs about the total number of donors in the group G . We vary the popularity of the action and whether the person is pivotal to getting matching funds (if $T - 1$ have given so far) or not (any other case). Section B.2 shows the instructions for the experiment.

Each participant is asked what portion of their \$16 lab payment they would like to donate to the non-profit, if any. Donations must be of at least \$8 to qualify towards the bonus threshold; we refer to these as “qualifying donations”.³

All 118 subjects make donation choices for at least six treatments; a subset of 41 subjects make choices for two additional treatments for reasons explained in footnote 4. Subjects were assigned treatments in a randomized order and paid for one randomly-selected choice. They were not informed that there were multiple decisions to be made until after they completed their first choice.

The treatments, summarized in Table 1, vary how pivotal a person feels by either being one donation away from the threshold, the threshold already being met, or being very far from the threshold. Within each level of popularity, as measured by giving by others, therefore, we vary the person’s own pivotality. There are three treatments where the subject is pivotal: a threshold of one donor and zero previous gifts (T1G0), threshold of three with two previous gifts (T3G2), and a threshold of seven with six previous gifts (T7G6). In three additional treatments, the subject is never pivotal because the goal has been met: a threshold of one donor with two previous gifts (T1G2), a threshold of three with three previous gifts (T3G3), and a threshold of five with six previous gifts (T5G6). Finally, we make the goal unachievable through the person’s own actions in two treatments: a threshold of five with two previous gifts (T5G2) and a threshold of three with no previous gifts (T3G0).⁴

²We use decisions from two previous related experiments to create the groups so that all these statements are truthful.

³In pilot experiments, we found that nearly everyone donated some portion of their endowment. We therefore set a qualifying level of half the endowment, \$8, to create variation in whether the threshold T was met.

⁴41 subjects had T5G6 and T7G6, the “most-popular” treatments, included in their version of the ex-

Table 1: Charitable Giving Lab Treatments

	One Away	Met or Far
Not Popular	T=2; G=1	T=3; G=0
More Popular	T=3; G=2	T=1; G=2
		T=3; G=3
		T=5; G=2
Most Popular	T=7; G=6	T=5; G=6

Notes: Lab study is within-subject, with all 118 subjects making choices in at least six treatments. A subset of 41 subjects participated in eight treatments. T denotes the threshold numbers of donors needed to obtain matching funds and G is the number of current donors in the group.

2.1 Results

Table 2 and Figure 1 show the results of the lab experiment. They show a clear pattern: people are far more likely to make any donation, especially a qualifying one, when their action is pivotal. When the threshold is one away from being met, the donation rate doubles. Most donations when the threshold has been met or is far away are smaller than the qualifying level, though, so the rate of qualifying donations increases nearly ten-fold. The average amount donated per subject in the One Away treatments is triple that of the others (\$4.60 as compared to \$1.40, as well as inducing \$27 in matching funds).⁵ Appendix Figure A2 shows the cumulative distribution functions of donations by treatment. Few non-qualifying gifts are given in the One Away treatments – most donations are exactly at the qualifying amount of \$8 – while few qualifying gifts are given in Met or Far treatments. The distributions are very similar among the three pivotal treatments and among the five non-pivotal treatments.

Popularity has no meaningful effect: donation rates do not change much with the number of previous gifts, conditional on pivotality. None of the differences are economically or statistically significant. Table 3 reports estimates from a linear probability model for making a

periment. These treatments were added in response to feedback from a seminar audience that it could be informative to increase the extent of popularity by having treatments where the majority of prior decision-makers in the group chose to donate.

⁵Appendix Figure A1 includes indicator variables controlling for the order in which subjects faced the treatments. The results are unchanged.

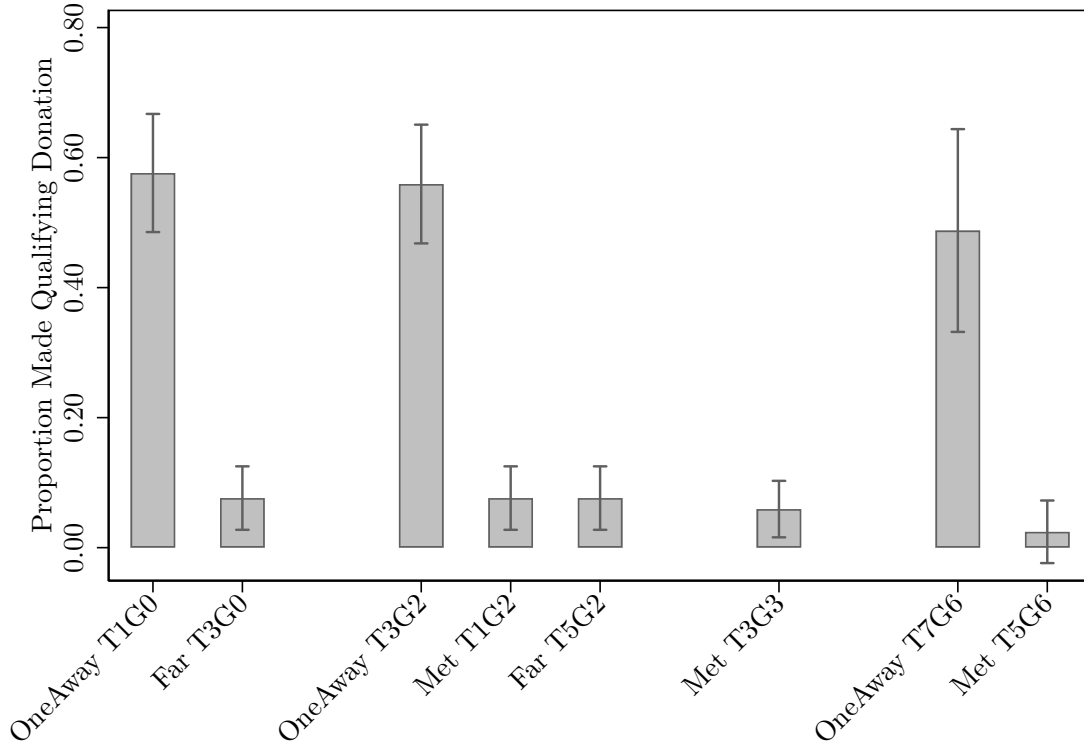


Figure 1: Proportion Made Qualifying Gifts By Treatment In Lab

Notes: This figure shows the estimated coefficients on indicator variables for each treatment without a constant from an OLS regression predicting if a subject made a qualifying donation (donation of \$8 or more). A version including indicator variables for the order in which the choice was made by the subject to control for order effects is in Figure A1. This information is also contained in Table 2. T denotes the threshold numbers of donors needed to obtain matching funds, and G is the number of current donors in the group.

qualifying donation, with T3G3 as the comparison treatment, and shows p-values for the set of pairwise comparisons of treatments. In Column (2), the table also shows estimates including individual subject fixed effects; Column (3) shows estimates with subject characteristics. In both cases, the results are nearly identical to the simple comparison of means.⁶

We conclude that the effect of feeling like one’s action matters is far more important than the popularity of the cause. Our lab experiment allows us to precisely vary beliefs about popularity and pivotality in a way that is difficult to do in the field. But testing the results from stylized environments in real-world settings is important (Levitt and List, 2007). We

⁶Table A1 collapses the treatments into pivotal and non-pivotal and includes a variable for the number of donations as a measure of popularity. This popularity metric is small and generally statistically insignificant.

Table 2: Charitable Giving Lab Summary Statistics By Treatment

	Any Donation	Donation $\geq$ Qualifying Amt.	N
OneAway T1G0	.62	.58	118
OneAway T3G2	.64	.56	118
OneAway T7G6	.61	.49	41
Met T1G2	.31	.08	118
Met T3G3	.26	.06	118
Met T5G6	.27	.02	41
Far T5G2	.30	.08	118
Far T3G0	.25	.08	118

Notes: The lab study is within-subject with all 118 subjects making choices participating in six treatments, and a subset of 41 participating in eight treatments. T denotes the threshold numbers of donors needed to obtain matching funds, and G is the number of current donors in the group.

therefore turn to a series of field experiments on charitable giving.

3 Field Experiments

3.1 Charitable Giving

3.1.1 Design

The design of the charitable giving field experiments followed that of the laboratory experiment closely. Subjects were alumni or parents of current students of education non-profits.⁷ On *date 1* subjects were sent a message asking them to donate to the non-profit. Those in the baseline treatment were given a simple ask, while those in the four remaining treatments were told they would be randomly assigned to a group of 10 persons and that if at least threshold T people donated in their group, then a third-party donor would give an additional B bonus dollars to the non-profit.⁸ In Field Experiment 1, the bonus, B , was \$50

⁷We ran some previous studies with the partner for Field Experiment 1 before 2019. See Gee, Schreck, and Singh (2020). In some of these previous experiments we were able to validate the procedures for gathering data quickly so that we could send true second messages. Some, but not all, subjects were in multiple waves of the study. We can control for previous messages sent in our regression models and the results are similar.

⁸The way our messages were sent varied between our two partners. In Field Experiment 1, we did not have active email addresses for about 30% of the subjects. We sent all subjects a physical letter on date 1.

Table 3: Likelihood of Making a Qualifying Donation (\$8 or more)

	(1) Lab No Controls	(2) Lab Indiv. FE	(3) Lab Controls
OneAway T1G0	0.517*** (0.048)	0.546*** (0.052)	0.546*** (0.048)
OneAway T3G2	0.500*** (0.048)	0.532*** (0.052)	0.530*** (0.048)
OneAway T7G6	0.428*** (0.079)	0.476*** (0.075)	0.441*** (0.074)
Met T1G2	0.017 (0.021)	0.033 (0.023)	0.032 (0.021)
Met T5G6	-0.035 (0.026)	0.008 (0.035)	-0.029 (0.030)
Far T3G0	0.017 (0.021)	0.031 (0.024)	0.031 (0.022)
Far T5G2	0.017 (0.021)	0.016 (0.023)	0.016 (0.021)
Female			0.146** (0.044)
US citizen			0.078 (0.054)
Economics Major			0.073+ (0.039)
Volunteered Last Year			0.079* (0.035)
Donated Last Year			-0.010 (0.041)
Instructions Clear			0.110* (0.046)
Believe Donations Sent			0.080+ (0.047)
Support Nonprofit Chosen			0.047 (0.046)
Study Somewhat Pleasant/Pleasant/Extremely Pleasant			0.079 (0.054)
Constant	0.059** (0.022)	-0.037 (0.040)	-0.496*** (0.117)
R2	0.300	0.613	0.371
Adj. R2	0.294	0.536	0.352
N	790	790	790
OneAwayT1G0 vs. OneAwayT3G2	0.531	0.616	0.556
OneAwayT1G0 vs. OneAwayT7G6	0.225	0.285	0.112
OneAwayT1G0 vs. MetT1G2	0.000	0.000	0.000
OneAwayT1G0 vs. MetT5G6	0.000	0.000	0.000
OneAwayT1G0 vs. FarT3G0	0.000	0.000	0.000
OneAwayT1G0 vs. FarT5G2	0.000	0.000	0.000
OneAwayT3G2 vs. OneAwayT7G6	0.308	0.376	0.159
OneAwayT3G2 vs. MetT1G2	0.000	0.000	0.000
OneAwayT3G2 vs. MetT5G6	0.000	0.000	0.000
OneAwayT3G2 vs. FarT3G0	0.000	0.000	0.000
OneAwayT3G2 vs. FarT5G2	0.000	0.000	0.000
OneAwayT7G6 vs. MetT1G2	0.000	0.000	0.000
OneAwayT7G6 vs. MetT5G6	0.000	0.000	0.000
OneAwayT7G6 vs. FarT3G0	0.000	0.000	0.000
OneAwayT7G6 vs. FarT5G2	0.000	0.000	0.000
MetT1G2 vs. MetT5G6	0.069	0.488	0.057
MetT1G2 vs. FarT3G0	1.000	0.944	0.951
MetT1G2 vs. FarT5G2	1.000	0.558	0.540
MetT5G6 vs. FarT3G0	0.072	0.556	0.075
MetT5G6 vs. FarT5G2	0.072	0.834	0.174
FarT3G0 vs. FarT5G2	1.000	0.568	0.542

Notes: The lab study is within-subject with all 118 subjects making choices participating in six treatments, and a subset of 41 participating in eight treatments. T denotes the threshold numbers of donors needed to obtain matching funds, and G is the number of current donors in the group. T3G3, a threshold of three with three previous gifts, is the omitted category. These estimates are produced by a linear probability model. Standard errors are clustered at the subject level in all models. In the bottom panel we display p values from pair-wise comparisons of the coefficients. In models (2) and (3) lab order fixed effects are included but not reported in the table. + $p < 0.10$ * $p < 0.05$ ** $p < 0.010$ *** $p < 0.001$

while in Field Experiment 2 (run with a different education non-profit), it was \$500.⁹

We then let a few weeks pass so that people would have a chance to donate, and on *date 2* we sent messages to those who had yet to donate. These messages varied the pivotality and popularity of the potential donation. We then measured donations in the three to five days after *date 2* but before the giving deadline. The tight deadline communicated to the prospective donors is meant to encourage donations; most donations tend to come in a very short time period following a solicitation (Eckel, Herberich, and Meer, 2017). Section B.3 gives details about the veracity of these messages and the full text of all treatments.

In addition to a baseline treatment in which subjects were simply solicited on both dates, there were four treatments. The thresholds of one, two, or three gifts were set in the first stage, but those who had not yet given were randomly assigned to groups to create variation in the number of previous gifts (details in Section B.3). Low response rates in the first stage meant that we were only able to indicate popularity through one or two gifts. Following the notation from the laboratory experiment, these four treatments were therefore T2G1 and T3G2 for OneAway treatments, and T1G1 and T2G2 for Met treatments.

Field Experiment 1 included 26,358 subjects, while Field Experiment 2, which had an identical structure but with a different non-profit and larger bonus amount, had 1,867 subjects. Appendix Tables A4 and A5 shows that our subjects are balanced on observable characteristics.¹⁰

3.1.2 Results

Unfortunately, low response rates preclude us from drawing much in the way of conclusions from these experiments, even where differences might be suggestive. As Table 4 shows,

For subjects with active email addresses, we sent emails on date 2. Those without active email addresses were sent postcards a few days before date 2 with the intention of the postcard arriving around the same date as the emails. In Field Experiment 2, all messages were sent via email.

⁹Related experiments varying the ratio of dollar-for-dollar matches find some mixed results of the effects of greater matching amounts on propensity to give (Duquette and Hargaden, 2021; Karlan and List, 2007).

¹⁰Budget limitations to the bonus amounts in Field Experiment 1 necessitated limiting the number of groups in which the threshold was already met (T1G1 and T2G2); those treatments therefore have a smaller sample than the others.

response rates were in the tenths of a percent in Field Experiment 1 and just around one percent in Field Experiment 2.

One cause of the low response rate is, of course, the need to have a *first* stage of solicitation to set conditions for our test of pivotality and popularity. While marginal solicitations and reminders can yield additional giving (Meer and Rosen, 2011; Damgaard and Gravert, 2018), those who were most inclined to give likely did so in response to the first request. Tables A6 and A7 show the response rates to the initial solicitation, which varied the group threshold. Rates were more similar between the two experiments in this first stage. And while there are differences in giving between the groups, no meaningful patterns emerged.

Table 4: Charitable Giving Field Experiment Summary Statistics By Treatment

	Field 1				Field 2			
	Any Donation	Mean Amount Condit.	Median Amount Condit.	N	Any Donation	Mean Amount Condit.	Median Amount Condit.	N
Baseline	.0010	304	100	4871	.0056	875	875	180
One Away T2G1	.0026	315	75	7845	.0118	628	163	422
One Away T3G2	.0013	917	100	7834	.0142	124	87.5	424
Met T1G1	.0017	235	100	2912	.0095	556	125	422
Met T2G2	.0003	1580	150	2896	.0143	476	200	419
Total				26,358				1,867

Notes: Both field experiments are between-subject with each subject being assigned to a single treatment. T denotes the threshold numbers of donors needed to obtain matching funds, and G is the number of current donors in the group. Giving is measured over a three to five day span after message 2 but before the giving deadline.

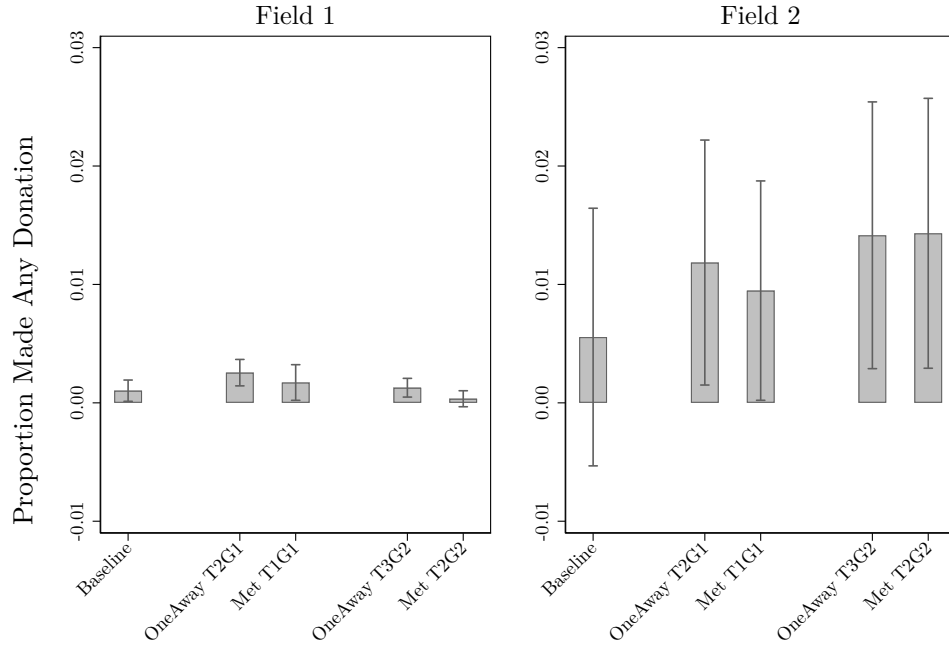


Figure 2: Proportion Made Gifts By Treatment In Field

Notes: This Figure shows the estimated coefficients on indicator variables for each treatment and the Baseline without a constant from an OLS regression predicting if a subject made any donation in the short three to five day period after message 2 but before the giving deadline. Means are available in Table 4. T denotes the threshold numbers of donors needed to obtain matching funds, and G is the number of current donors in the group.

However, the need for a first round of solicitation in which prospective donors are truthfully informed about the threshold for their group has the potential to produce selection bias. If donors are more likely to give in the first round when assigned to a group with a particular threshold, then the residual prospective donors may be less likely to give in the second round. This is an unfortunate necessity of creating groups in this manner. To the extent that this selection bias is present in the first round, this reduces our ability to precisely measure the causal effects of treatment. However, small levels of selection (which we observe in our first round) should not limit our ability to observe whether the powerful effects observed in the laboratory exist in the field. In this way, the field experiments can be seen as an imperfect yet still useful check of external validity.

Table 5: Charitable Giving Field Experiment Regressions

	(1) Field 1 No Controls	(2) Field 1 Controls	(3) Field 2 No Controls	(4) Field 2 Controls
OneAway T2G1	0.002* (0.001)	0.002* (0.001)	0.006 (0.008)	0.007 (0.008)
OneAway T3G2	0.000 (0.001)	0.000 (0.001)	0.009 (0.008)	0.010 (0.008)
Met T1G1	0.001 (0.001)	0.001 (0.001)	0.004 (0.007)	0.004 (0.007)
Met T2G2	-0.001 (0.001)	-0.001 (0.001)	0.009 (0.008)	0.008 (0.008)
GaveInLast5Years		0.002+ (0.001)		0.027*** (0.006)
Female		0.000 (0.000)		-0.009+ (0.005)
TwoPersonHome		0.003+ (0.002)		
AlumniXClass		-0.000 (0.000)		
Alumni		0.035 (0.032)		
Class				-0.000* (0.000)
Asian				-0.000 (0.007)
Black				-0.007** (0.002)
Hispanic				-0.004* (0.002)
Other				0.015 (0.012)
Constant	0.001* (0.000)	0.002 (0.002)	0.006 (0.006)	0.621* (0.306)
R2	0.000	0.002	0.001	0.025
Adj. R2	0.000	0.001	-0.001	0.019
N	26,358	26,354	1,867	1,867
MetT1G1 vs. MetT2G2	0.103	0.105	0.518	0.526
MetT1G1 vs. OneAwayT2G1	0.384	0.397	0.738	0.647
MetT1G1 vs. OneWayT3G2	0.611	0.607	0.530	0.397
MetT2G2 vs. OneAwayT2G1	0.001	0.001	0.753	0.849
MetT2G2 vs. OneAwayT3G2	0.080	0.082	0.984	0.846
OneAwayT2G1 vs. OneAwayT3G2	0.068	0.072	0.768	0.694

Notes: Both field experiments are between-subject with each subject being assigned to a single treatment. In the above models the Baseline is the omitted category. T denotes the threshold numbers of donors needed to obtain matching funds, and G is the number of current donors in the group. In the bottom panel we display p values from pair-wise comparisons of the coefficients. + $p < 0.10$ * $p < 0.05$ ** $p < 0.010$ *** $p < 0.001$

Figure 2 shows that in three of the four opportunities to compare a OneAway treatment with a Met treatment at the same level of popularity, the OneAway messages have higher donation rates than the Met messages. In direction this pattern is consistent with the results of our lab experiment, but the field experiment has vastly lower magnitudes in the amount of the increase. Furthermore, those differences are not usually statistically significant in the pairwise comparisons in Tables 5 and A2. Also, the giving rates are so low that these changes are not particularly meaningful and may be subject to selection effects arising from the manner in which the groups were initially set.

Another difference between the lab and field experiments is that in the lab a person is assured they are pivotal, whereas in the field they are truly only pivotal if they believe that no one else in their group will subsequently give. This divergence may partially explain why the large effects observed in the lab do not appear to manifest in the field.

4 Conclusion

We have explored two motivations that might increase the number of persons taking a prosocial action: (1) feeling important to meeting a goal, and (2) knowing that the civic action is popular. The results of our laboratory experiment were striking: being pivotal increased the likelihood of donating by an order of magnitude, while popularity had no effect. Unfortunately, response rates in our field experiments were too low to draw meaningful conclusions. Our results suggest that pivotality is a more important determinant of prosocial behavior, but that it can be a challenge to leverage this finding to meaningfully improve outcomes in the field.

Our findings do have implications for the structure of fundraising campaigns, suggesting that setting small-group goals may be an effective way to increase donations. They also suggest limitations of messages about the popularity of an action (e.g. “I voted” stickers, and “the majority of guests re-use their towels”). Although previous experiments in charitable

giving find that increased popularity leads to increased giving, in our setting where there is an explicit participation goal we find no measurable effect of increased popularity. Therefore, fundraising practitioners seeking to prime feelings of pivotality in their donors may face the unintended consequence of rendering messages about popularity ineffective. The positive effects of popularity may be restricted to settings without specific goals (e.g open ended fundraising).

The imprecise effects in our field experiments are a limitation of this paper. Nevertheless, the framework we lay out can be used for future research in other contexts. And the understanding of people’s decision-making processes and what matters in pushing them towards participation remains an important topic.

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Appendices

A Additional Tables and Figures

A.1 Additional Figures

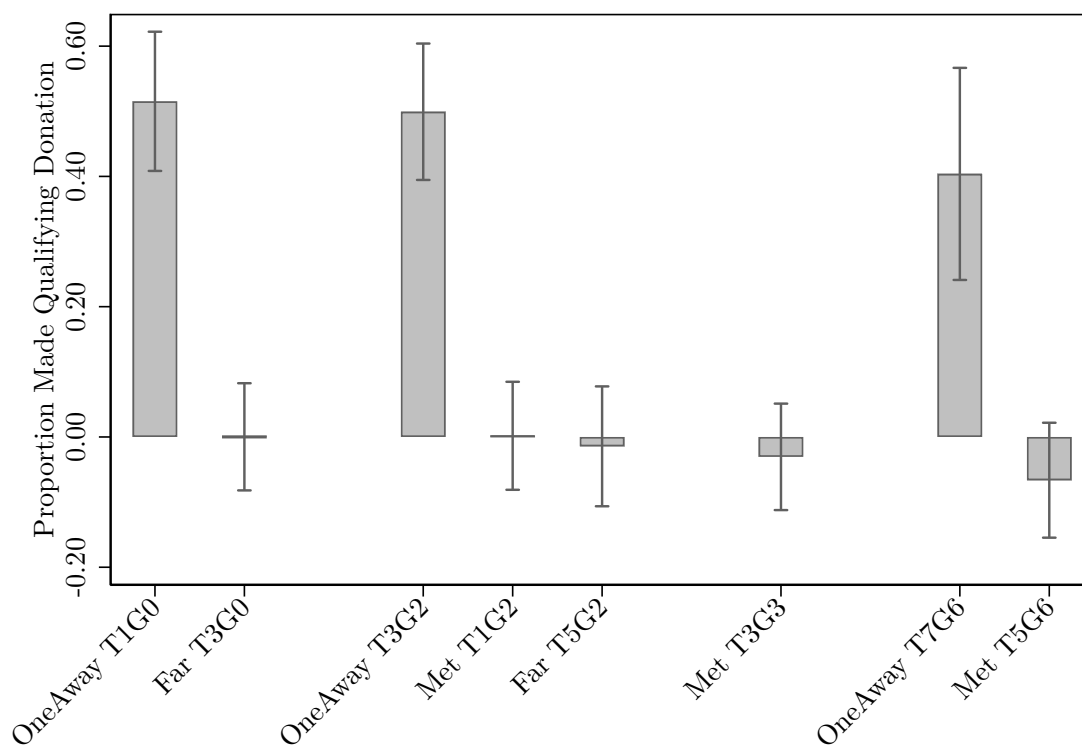


Figure A1: Proportion Made Qualifying Gifts By Treatment In Lab

Notes: This Figure shows the estimated coefficients on indicator variables for each treatment without a constant from an OLS regression predicting if a subject made a qualifying donation (donation of \$8 or more). The model also includes indicator variables for the order in which the choice was made by the subject to control for order effects. Means without controls are available in Table 2. T denotes the threshold numbers of donors needed to obtain matching funds, and G is the number of current donors in the group.

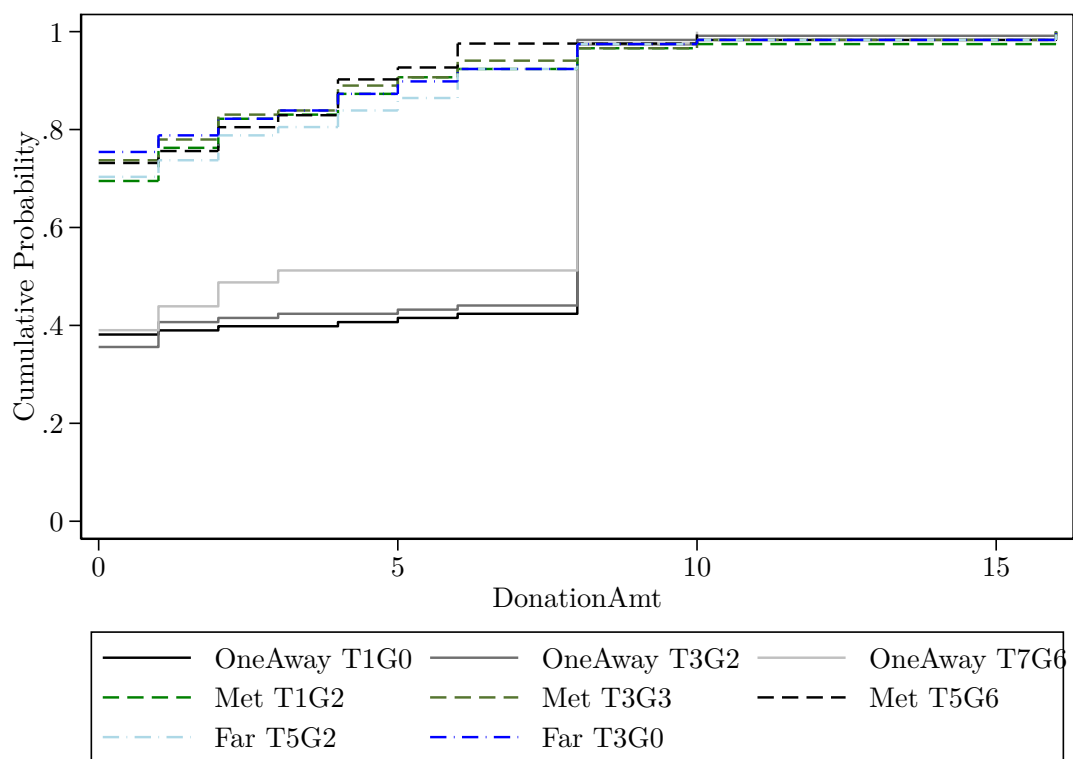


Figure A2: CDF of Amount Donated By Treatment In Lab

Notes: This Figure shows the cumulative distribution function of the amount donated for each treatment in our lab experiments. A qualifying donation was a donation of \$8 or more.

A.2 Additional Tables

Table A1: Lab Charitable Giving One Away Regressions

	(1) Lab No Controls	(2) Lab Indv. FE	(3) Lab Controls
OneAway	0.481*** (0.050)	0.515*** (0.049)	0.487*** (0.052)
Num.Donations	-0.013+ (0.007)	0.005 (0.013)	-0.009 (0.008)
OneAwayXNum.Donations	-0.001 (0.013)	-0.008 (0.016)	-0.003 (0.014)
Female			0.177*** (0.049)
US citizen			0.113+ (0.059)
Economics Major			0.119** (0.045)
Volunteered Last Year			0.099* (0.043)
Donated Last Year			-0.035 (0.050)
Instructions Clear			0.131* (0.063)
Believe Donations Sent			0.095 (0.062)
Support Nonprofit Chosen			0.033 (0.056)
Study Somewhat Pleasant/Pleasant/Extremely Pleasant			0.067 (0.079)
Constant	0.100** (0.033)	0.046 (0.044)	-0.436*** (0.127)
R2	0.289	0.652	0.373
Adj. R2	0.285	0.556	0.359
N	554	554	554

Notes: Lab experiment is within subject with a total of 118 subjects. For lab experiment standard errors are clustered at the subject level. T denotes the threshold numbers of donors needed to obtain matching funds, and G is the number of current donors in the group. + $p < 0.10$ * $p < 0.05$ ** $p < 0.010$ *** $p < 0.001$

Table A2: Field Charitable Giving One Away Regressions

	(1)	(2)	(3)	(4)
	Field 1	Field 1	Field 2	Field 2
	No Controls	Controls	No Controls	Controls
OneAway	0.001 (0.002)	0.001 (0.002)	0.005 (0.016)	0.005 (0.016)
Num_Donations	-0.001 (0.001)	-0.001 (0.001)	0.005 (0.007)	0.005 (0.007)
OneAwayXNum_Donations	0.000 (0.001)	0.000 (0.001)	-0.003 (0.011)	-0.002 (0.011)
GaveInLast5Years		0.002+ (0.001)		0.029*** (0.006)
Female		0.001 (0.001)		-0.009+ (0.005)
TwoPersonHome		0.004+ (0.002)		
AlumniXClass		-0.000 (0.000)		
Alumni		0.038 (0.037)		
Class				-0.000* (0.000)
Asian				0.001 (0.008)
Black				-0.006** (0.002)
Hispanic				-0.003 (0.002)
Other				0.020 (0.014)
Constant	0.003* (0.002)	0.003 (0.002)	0.005 (0.011)	0.813* (0.333)
R2	0.000	0.002	0.000	0.027
Adj. R2	0.000	0.001	-0.001	0.021
N	21487	21484	1687	1687

Notes: Both field experiments are between-subject with each subject being assigned to a single treatment. In the above models we omit those who received the Baseline message, there was no Baseline message in the lab experiment. T denotes the threshold numbers of donors needed to obtain matching funds, and G is the number of current donors in the group. + $p < 0.10$ * $p < 0.05$ ** $p < 0.010$ *** $p < 0.001$

Table A3: Lab Experiment Background Characteristics

	Mean	Min	Max
Female	0.54	0.00	1.00
US citizen	0.69	0.00	1.00
Economics Major	0.37	0.00	1.00
Volunteered Last Year	0.62	0.00	1.00
Donated Last Year	0.69	0.00	1.00
Instructions Clear	0.85	0.00	1.00
Believe Donations Sent	0.80	0.00	1.00
Support Nonprofit Chosen	0.75	0.00	1.00
Study Somewhat Pleasant/Pleasant/Extremely Pleasant	0.91	0.00	1.00

Notes: Lab study is within subject with all 118 subjects making choices participating in six treatments, and a subset of 41 participating in eight treatments. T denotes the threshold numbers of donors needed to obtain matching funds, and G is the number of current donors in the group.

Table A4: Charitable Giving Field Experiment 1 Balance Table

	(1)	(2)	(3)	(4)	(5)
	Baseline	OneAway T2G1	OneAway T3G2	Met T1G1	Met T2G2
Female	0.453	0.446	0.448	0.456	0.445
Male	0.414	0.418	0.420	0.413	0.422
TwoPersonHome	0.132	0.136	0.132	0.130	0.133
Alumni	0.856	0.866	0.868	0.866	0.864
Parent	0.144	0.134	0.132	0.134	0.136
Class	1985.025	1984.810	1984.726	1984.857	1985.432
GaveInLast5Years	0.099	0.096	0.093	0.093	0.090
Observations	4871	7845	7834	2912	2896

Notes: The field experiment was between-subject with each subject being assigned to a single treatment. T denotes the threshold numbers of donors needed to obtain matching funds, and G is the number of current donors in the group.

Table A5: Charitable Giving Field Experiment 2 Balance Table

	(1)	(2)	(3)	(4)	(5)
	Baseline	OneAway T2G1	OneAway T3G2	Met T1G1	Met T2G2
Female	0.444	0.400	0.425	0.408	0.413
Male	0.556	0.600	0.575	0.592	0.587
Class	1995.611	1994.450	1995.134	1994.604	1995.073
GaveInLast5Years	0.389	0.417	0.451	0.393	0.368
White	0.700	0.718	0.690	0.694	0.696
Asian	0.100	0.076	0.095	0.066	0.094
Black	0.033	0.073	0.098	0.088	0.075
Hispanic	0.044	0.062	0.057	0.076	0.059
Other	0.122	0.071	0.060	0.076	0.075
Observations	180	422	419	422	424

Notes: The field experiment was between-subject with each subject being assigned to a single treatment. T denotes the threshold numbers of donors needed to obtain matching funds, and G is the number of current donors in the group.

Table A6: Field Experiment 1 Donation Rate Before Second Letter By First Letter

First Letter	mean	N
Baseline	.0196	4996
Threshold 1	.0194	2987
Threshold 2	.0219	11041
Threshold 3	.0191	8018
Total	.0204	27042

Notes: Threshold 2 vs. Threshold 3 is statistically significant at the 10 percent level ($Pr(T > t) = 0.0874$) while all other pair-wise comparisons are insignificant at the 10 percent or below level.

Table A7: Field Experiment 2 Donation Rate Before Second Letter By First Letter

First Letter	mean	N
Baseline	.0374	187
Threshold 1	.0231	432
Threshold 2	.0266	864
Threshold 3	.0185	432
Total	.0251	1915

Notes: Baseline vs. Threshold 3 is statistically significant at the 10 percent level ($Pr(T > t) = 0.0802$) while all other pair-wise comparisons are insignificant at the 10 percent or below level.

Table A8: Charitable Giving Lab Experiment Regressions (Amount Given including \$0)

	(1) Lab No Controls	(2) Lab Indiv. FE	(3) Lab Controls
OneAway T1G0	3.610*** (0.350)	3.779*** (0.381)	3.776*** (0.354)
OneAway T3G2	3.441*** (0.358)	3.639*** (0.397)	3.623*** (0.370)
OneAway T7G6	2.866*** (0.605)	3.115*** (0.531)	2.783*** (0.563)
Met T1G2	0.178 (0.185)	0.277 (0.204)	0.271 (0.188)
Met T5G6	-0.159 (0.342)	0.110 (0.272)	-0.243 (0.345)
Far T3G0	0.025 (0.160)	0.090 (0.178)	0.088 (0.164)
Far T5G2	0.263 (0.163)	0.252 (0.181)	0.252 (0.166)
Female			1.523** (0.536)
US citizen			0.187 (0.737)
Economics Major			0.337 (0.487)
Volunteered Last Year			0.840+ (0.434)
Donated Last Year			-0.079 (0.510)
Instructions Clear			0.811 (0.611)
Believe Donations Sent			0.974* (0.490)
Support Nonprofit Chosen			0.761 (0.575)
Study Somewhat Pleasant/Pleasant/Extremely Pleasant			0.872 (0.628)
Constant	1.305*** (0.274)	0.688* (0.309)	-3.636** (1.311)
R2	0.181	0.712	0.265
Adj. R2	0.173	0.655	0.243
N	790	790	790
OneAwayT1G0 vs. OneAwayT3G2	0.433	0.546	0.484
OneAwayT1G0 vs. OneAwayT7G6	0.202	0.182	0.060
OneAwayT1G0 vs. MetT1G2	0.000	0.000	0.000
OneAwayT1G0 vs. MetT5G6	0.000	0.000	0.000
OneAwayT1G0 vs. FarT3G0	0.000	0.000	0.000
OneAwayT1G0 vs. FarT5G2	0.000	0.000	0.000
OneAwayT3G2 vs. OneAwayT7G6	0.299	0.287	0.094
OneAwayT3G2 vs. MetT1G2	0.000	0.000	0.000
OneAwayT3G2 vs. MetT5G6	0.000	0.000	0.000
OneAwayT3G2 vs. FarT3G0	0.000	0.000	0.000
OneAwayT3G2 vs. FarT5G2	0.000	0.000	0.000
OneAwayT7G6 vs. MetT1G2	0.000	0.000	0.000
OneAwayT7G6 vs. MetT5G6	0.000	0.000	0.000
OneAwayT7G6 vs. FarT3G0	0.000	0.000	0.000
OneAwayT7G6 vs. FarT5G2	0.000	0.000	0.000
MetT1G2 vs. MetT5G6	0.356	0.576	0.158
MetT1G2 vs. FarT3G0	0.500	0.465	0.440
MetT1G2 vs. FarT5G2	0.720	0.924	0.937
MetT5G6 vs. FarT3G0	0.604	0.946	0.357
MetT5G6 vs. FarT5G2	0.249	0.653	0.190
FarT3G0 vs. FarT5G2	0.115	0.371	0.324

Notes: The lab experiment was with-in subject with all 118 subjects participating at least 6 treatments, and a subset of 41 subjects participating in 8 treatments. In the above models the T3G3 Threshold 3 with 3 Gifts treatment is the omitted category. Standard errors are clustered at the subject level in all models. T denotes the threshold numbers of donors needed to obtain matching funds, and G is the number of current donors in the group. In the bottom panel we display p values from pair-wise comparisons of the coefficients. In models (2) and (3) lab order fixed effects are include but not reported in the table. + $p < 0.10$ * $p < 0.05$ ** $p < 0.010$ *** $p < 0.001$

Table A9: Charitable Giving Field Experiment Regressions (Amount Given including \$0)

	(1) Field 1 No Controls	(2) Field 1 Controls	(3) Field 2 No Controls	(4) Field 2 Controls
OneAway T2G1	0.757 (0.828)	0.808 (0.827)	5.150 (11.108)	4.155 (11.014)
OneAway T3G2	4.128 (3.919)	4.253 (4.005)	-7.377 (8.489)	-7.347 (8.436)
Met T1G1	-0.160 (0.787)	-0.001 (0.800)	3.444 (10.802)	1.769 (10.636)
Met T2G2	3.538 (3.605)	3.691 (3.617)	2.772 (10.349)	1.148 (10.265)
GaveInLast5Years		18.838 (12.601)		22.427*** (5.776)
Female		-2.672 (3.078)		-4.940 (3.231)
TwoPersonHome		2.112 (3.888)		
AlumniXClass		0.021 (0.087)		
Alumni		-44.024 (173.032)		
Class				-0.761** (0.285)
Asian				-2.763 (2.286)
Black				-4.372 (2.810)
Hispanic				2.825 (5.004)
Other				-0.037 (3.004)
Constant	1.372** (0.445)	2.006 (2.433)	9.722 (8.428)	1522.649** (570.943)
R2	0.000	0.001	0.002	0.025
Adj. R2	-0.000	0.001	-0.001	0.019
N	26358	26354	1867	1867
MetT1G1 vs. MetT2G2	0.309	0.309	0.941	0.944
MetT1G1 vs. OneAwayT2G1	0.336	0.394	0.863	0.808
MetT1G1 vs. OneWayT3G2	0.277	0.279	0.113	0.164
MetT2G2 vs. OneAwayT2G1	0.446	0.429	0.800	0.748
MetT2G2 vs. OneAwayT3G2	0.911	0.915	0.096	0.151
OneAwayT2G1 vs. OneAwayT3G2	0.394	0.388	0.087	0.108

Notes: Both field experiments are between-subject with each subject being assigned to a single treatment. In the above models the Baseline is the omitted category. T denotes the threshold numbers of donors needed to obtain matching funds, and G is the number of current donors in the group. In the bottom panel we display p values from pair-wise comparisons of the coefficients. + $p < 0.10$ * $p < 0.05$ ** $p < 0.010$ *** $p < 0.001$

B Experimental Materials

B.1 Lab Charitable Giving Experiments

In our lab experiment we chose for the first treatment displayed was called “Task A” and was always be selected from the set of: Threshold 3/0 gifts, Threshold 1/0 gifts, Threshold 1/2 gifts, or Threshold 3/2 gifts. This is so that we have the ability to look at only first choices between subjects and still have variation in a select number of scenarios which vary in a 2 x 2 framework if a person is pivotal or not, and if an action is relatively more or less popular. Subjects then go on to make choices in what we call “Task B” which consists of all the remaining treatments in random order. Subjects are told they will be paid for only one randomly selected choice.

Our lab experimental sessions took place in March and April of 2018. In our lab experiment the donated money goes to the Tufts Student Fund. The Tufts Student Fund is the student-driven giving initiative for undergraduates. The Tufts Student Fund raises money for financial aid to help ensure that all students, regardless of financial circumstances, can have access to a Tufts education.

B.2 Lab Instructions

We show the lab instructions for someone who was first randomly assigned to the Threshold 3, 2 gifts thus far (OneAway T3G2) treatment, and then went on to do the remaining treatments in random order with the second one being Threshold 3, 0 gifts (Far T3G0).

Task A

Endowment: You are paid \$6 for showing up to the experiment on time, and \$10 for successfully completing the experiment. So, you can think of this as possessing an endowment of \$16.

Your Task A Group: For Task A you have been organized into a group of 10 Tufts students. The other 9 people in your group participated in prior experimental sessions with similar instructions, have already made their decisions, and are not currently in the lab with you. In Task A, you will make a donation decision that, together with the donation decisions of your other group members, affect how much you earn and how much a non-profit earns.

Non-profit: The donated money goes to the Tufts Student Fund. The Tufts Student Fund is the student-driven giving initiative for undergraduates. The Tufts Student Fund raises money for financial aid to help ensure that all students, regardless of financial circumstances, can have access to a Tufts education.

Matching Donor Foundation and Donations to the Non-profit: We have received a generous donation from a community foundation to be used for matching funds. The experimental team is responsible for reporting your decisions to the community foundation so that the appropriate matching money is given to the non-profit. The experimental team is also responsible for totaling the donations made directly by you and your group members in this experiment and sending the appropriate size of donation to the non-profit.

Donation-Matching Money: The non-profit receives donation-matching money if the total number of "qualifying donations" made from your group of 10 people is greater than or equal to 3. If this happens the non-profit receives an additional \$50 from the matching donor foundation.

Donation Decision: You may choose any amount of money to donate to the non-profit between \$0 to \$16 in one dollar increments. However, you must donate at least \$8 for your donation to be a "qualifying donation" that will count toward securing the donation-matching money.

Your Group's Actions: The other 9 people in your Task A group participated in prior experimental sessions, have already made their decisions, and are not currently in the lab with you. Out of the other 9 people in your Task A group, 2 people decided to make a qualifying donation that will count toward securing donation-matching money.

Verifying Donations: You may verify the amount we donate from you, your group members and the matching donor foundation after the experiment by sending an email to tuftseconlab@gmail.com.

Task A Payoff: If Task A is the Task-that-counts then your payoff will be: \$16 *minus* (your donation to non-profit)

Task-that-counts: Remember that only one Task will be randomly selected as the Task-that-counts so there is a one-in-6 chance that Task A will be used. Note, since all Tasks are equally likely to be chosen, you should make your decision for each Task as if it will be the Task-that-counts. All your decisions will be totally anonymous, meaning no one in the room today or in your group will be able to link you to the choices you make today.

Task A Quiz

Recall, the non-profit receives donation-matching money if the total number of qualifying donations from your group of 10 people **is greater than or equal to 3**. If this happens the non-profit receives an additional \$50 from the matching donor foundation. Recall you start with an endowment of \$16.

1. As mentioned before, 2 other people from your group of 10 made a qualifying donation so far. If you make a donation of \$2...

1a. How much do you earn?

1b. How much does the non-profit earn in matching money?

2. As mentioned before, 2 other people from your group of 10 made a qualifying donation so far. If you make a donation of \$8...

2a. How much do you earn?

2b. How much does the non-profit earn in matching money?

3. As mentioned before, 2 other people from your group of 10 made a qualifying donation so far. If you do not make a donation...

3a. How much do you earn?

3b. How much does the non-profit earn in matching money?

Task A

In your group **2 of those 9** people decided to make a qualifying donation. The non-profit receives donation-matching money if the total number of qualifying donations made from your group of 10 people **is greater than or equal to 3**. Recall you start with an endowment of \$16.

Questions that check for understanding of the Task:

1. How many of the 9 other people in your group made a qualifying donation?

2. What is the total number of qualifying donations needed to get the matching funds?

Given the actions of your groupmates, if you donate at least \$8 the non-profit receives an extra \$50 of matching money. If you don't donate (or donate less than \$8), then the non-profit does not receive any additional funds from the matching donor foundation.

Task:

How much of your \$16 would you like to donate?



Subsequent Tasks

All the other Tasks will be very similar to Task A.

Endowment: You are paid \$6 for showing up to the experiment on time, and \$10 for successfully completing the experiment. So, you can think of this as possessing an endowment of \$16.

Subsequent Tasks Groups: For the remaining Tasks you will again be organized into groups of 10 Tufts students. A new group is formed for each of the remaining Tasks. In all the remaining Tasks, the other 9 people in your group participated in prior experimental sessions, have already made their decisions, and are not currently in the lab with you.

Donation Decision: You may still choose any amount of money to donate to the non-profit between \$0 to \$16 in one dollar increments. Again, you must donate at least \$8 for your donation to be a qualifying donation that counts toward the donation-matching money.

Donation-Matching Money: The non-profit receives donation-matching money if the total number of qualifying donations made from your group of 10 people is greater than or equal to some threshold number of people, but the threshold may vary from task to task. If the threshold is met, then the non-profit receives an additional \$50 from the matching donor foundation.

Non-profit: The donated money still goes to the Tufts Student Fund.

Your Group's Actions: The other 9 people in your groups for Tasks B, C etc. participated in prior experimental sessions, have already made their decisions, and are not currently in the lab with you. We will report the actions of the 9 other group members to you for each Task.

Task-that-counts: Remember that only one Task will be randomly selected as the Task-that-counts so there is a one-in-8 chance that Task A will be used. Note, since all Tasks are equally likely to be chosen, you should make your decision for each Task as if it will be the Task-that-counts.

If you have any questions now or later during the experiment please raise your hand and someone will come and speak with you privately about your question.



Next Task

In your new group **0 of 9** people decided to make a qualifying donation. The non-profit receives donation-matching money if the total number of qualifying donations from your group of 10 people **is greater than or equal to 3**. Recall you have an endowment of \$16.

Questions that check for understanding of the Task:

1. How many of the 9 other people in your group made a qualifying donation?

2. What is the total number of qualifying donations needed to get the matching funds?

Given the actions of your groupmates, the non-profit receives \$0 of matching money whether you donate or not. In other words, your decision has no effect on the amount of matching money the non-profit receives.

Task

How much of your \$16 would you like to donate?



Thank you for participating. Please click on the arrow button below to be directed to a survey.

We will determine which Task is the task that counts after you have filled out this survey. Please wait quietly if you finish before the others in the room.





Post Study Survey

To help us with our research, please answer a few questions about yourself. You may leave any question blank that you do not wish to answer, but complete responses are very helpful for our research agenda.

Enter the number on the bottom left corner of your computer monitor. This will be used for your payment, so please enter it carefully.

Enter today's date (the format should be mm/dd/yyyy, e.g. 03/12/2018)

Enter the time that today's session was scheduled to begin (the format should be HH:MM am/pm, e.g. 10:30 am)

	HH	MM	am/pm
Time			

Please enter in the value on the notecard that has been placed at your computer terminal

Gender

- ☐ Male
☐ Female
☐ Other

Nationality

- ☐ US
☐ Other

Major

Did you volunteer in the past 12 months?

☐ Yes

☐ No

Excluding today, did you donate to charity in the past 12 months?

☐ Yes

☐ No

Think back to the decisions you made in today's study. Please answer these questions as honestly as possible.

Were the instructions clear?

☐ Yes

☐ No

Do you have any recommendations for improvements?

How confident were you that the experimenters will send the money you donated to the charity?

Very Confident Sent
Money

☐

Confident Sent Money

☐

Somewhat Confident
Sent Money

☐

Unconfident Sent
Money

☐

How confident were you that the experimenters will send the money the matching donor foundation donated to the charity?

Very Confident Sent
Money

☐

Confident Sent Money

☐

Somewhat Confident
Sent Money

☐

Unconfident Sent
Money

☐

Please mark which of the following statements you agree with most about whether the experimenters will NOT send the money the matching donor foundation pledged to the charity if there were too few qualifying donations?

- ☐ Believe money was NOT sent when there were too few qualifying donors
- ☐ Believe money was sent even if too few qualifying donors
-

Do you consider financial aid at Tufts to be a cause worth supporting?

- | | | |
|--|---|--|
| Yes, I believe financial aid at Tufts is a worthwhile cause in need of support | Yes, I believe financial aid at Tufts is a worthwhile cause but I do not believe it needs support | No, I do not consider financial aid at Tufts a worthwhile cause in need of support |
| ☐ | ☐ | ☐ |
-

Would you say that you found being in this study a pleasant or unpleasant experience? Please circle your answer.

- | | | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Extremely Pleasant | Pleasant | Somewhat Pleasant | Neither | Somewhat Unpleasant | Unpleasant | Extremely Unpleasant |
| ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
-

Please try to describe what you were thinking when you were making decisions during the study. What factors entered your decisions? And why did you make the choices you did?



B.3 Field Charitable Giving Experiments

In all our charitable giving experiments the subjects were potential donors to a non-profit educational institutions.

After the Date 1 messages were sent, we recorded who made a donation after Date 1 but before Date 2. People who donate during this time will help us to construct groups of 10 which have exactly one (G1) or two (G2) gifts as we tell subjects in the Date 2 messages. We also allowed groups to include a person who made a gift in the preceding year if we needed extra donors to make our messages true.¹ Conditional on not having donated before Date 2 a subject is randomly assigned to a group of 10 donors which truly has the number of donations as described.

B.3.1 Charitable Giving Partner 1

Subjects were alumni or parents of current students of the educational institution and were sent physical letters around Date 1 which was February 19, 2019 and either a postcard or email around Date 2 on March 28, 2019 with a deadline for matching funds of March 30, 2019.

B.3.2 Charitable Giving Partner 2

Subjects were alumni of the educational institution and were sent the Date 1 message on May 21, 2019 and the Date 2 message on May 30, 2019 with a deadline for matching funds of June 3, 2019. All messages were sent via email.

¹For example, imagine we sent out 100 Date 1 messages stating that there was a threshold of 1 donor per group of 10 to obtain matching funds. Before Date 2, four donors make gifts, allowing us to construct 4 true groups of 9 non-donors and 1 donor (which are 40 of our original 100). However, that leaves us with 60 persons who we would like to send a message stating 1 person has donated so far. Here we use donors who were not part of this campaign but who gave in the previous year so that we can construct groups of 1 donor and 9 non-donors from the remaining 60. Note, technically there are 6 groups of 9 non-donors (54 subjects), for the remaining 6 we call this a “pseudo-group” and use 3 non-donors from the past year to create a true group of 9 non-donors and 1 donor.

Treatment	Date 1 Message (Letter)	Date 2 Message (Email or Postcard)
1. Baseline	You make the unique [REDACTED] experience possible for today's [REDACTED]. Your annual fund gift continues to make the university the best it can be for students and faculty—ensuring the brightest students can attend, enriching the academic experience, and giving [REDACTED] immediate resources to address greatest needs and fund innovation. Your gift today will be put to immediate use supporting the causes at [REDACTED] that help to create a brighter world.	Subject: Giving to [REDACTED] We wrote to you a few weeks ago about how you make the unique [REDACTED] experience possible for today's [REDACTED]. Your annual fund gift continues to make the university the best it can be for students and faculty—ensuring the brightest students can attend, enriching the academic experience, and giving [REDACTED] immediate resources to address our greatest needs and fund innovation.
2. Met (T1 G1)	You make the unique [REDACTED] experience possible for today's [REDACTED]. Your annual fund gift continues to make the university the best it can be for students and faculty—ensuring the brightest students can attend, enriching the academic experience, and giving [REDACTED] immediate resources to address greatest needs and fund innovation. You will be randomly assigned to a group of 10. If at least 1 person from your group of 10 gives by March 30th, [REDACTED] will give an extra \$50 to [REDACTED]. Your gift today will be put to immediate use supporting the causes at [REDACTED] that help to create a brighter world. Remember, this challenge will end March 30, 2019 so please make your gift today! You have the power to secure \$50,000 for [REDACTED] students.	Subject: With 1 donation, your group has unlocked an extra \$50 for [REDACTED] We wrote to you a few weeks about a special participation challenge for [REDACTED]. As a reminder, for this challenge you're randomly assigned to a group of 10 persons. If at least 1 person from your group of 10 give by March 30, a challenge donor will give an extra \$50 to [REDACTED]. So far, we have received 1 donation from your group, meaning that your group has unlocked an extra \$50 for [REDACTED]! There are just 2 days left in the challenge. [REDACTED] students still need your support. Please make your gift today!
3. OneAway (T2 G1)	You make the unique [REDACTED] experience possible for today's Jumbos. Your annual fund gift continues to make the university the best it can be for students and faculty—ensuring the brightest students can attend, enriching the academic experience, and giving [REDACTED] immediate resources to address greatest needs and fund innovation. You will be randomly assigned to a group of 10 people. If at least 2 people from your group of 10 give by March 30th, [REDACTED] will give an extra \$50 to [REDACTED]. Your gift today will be put to immediate use supporting the causes at [REDACTED] that help to create a brighter world. Remember, this challenge will end March 30, 2019 so please make your gift today! You have the power to secure \$50,000 for [REDACTED] students.	Subject: 1 more donation from your group to unlock an extra \$50 for [REDACTED] We wrote to you a few weeks about a special participation challenge for [REDACTED]. As a reminder, for this challenge you're randomly assigned to a group of 10 persons. If at least 2 person from your group of 10 gives by March 30, a challenge donor will give an extra \$50 to [REDACTED]. So far, we have received 1 donation from your group. With just one more donation, your group will unlock an extra \$50 for [REDACTED]! There are just 2 days left in the challenge. [REDACTED] students still need your support. Please make your gift today!
4. Met (T2 G2)	Same as above	Subject: With 2 donations, your group has unlocked an extra \$50 for [REDACTED] We wrote to you a few weeks about a special participation challenge for [REDACTED]. As a reminder, for this challenge you're randomly assigned to a group of 10 persons. If at least 2 persons from your group of 10 gives by March 30, a challenge donor will give an extra \$50 to [REDACTED]. So far, two persons from your group have donated, meaning that your group has unlocked an extra \$50 for [REDACTED]! There are just 2 days left in the challenge. [REDACTED] students still need your support. Please make your gift today!
5. OneAway (T3 G2)	You make the unique [REDACTED] experience possible for today's [REDACTED]. Your annual fund gift continues to make the university the best it can be for students and faculty—ensuring the brightest students can attend, enriching the academic experience, and giving [REDACTED] immediate resources to address greatest needs and fund innovation. You will be randomly assigned to a group of 10 people. If at least 3 people from your group of 10 give by March 30th, [REDACTED] will give an extra \$50 to [REDACTED]. Your gift today will be put to immediate use supporting the causes at [REDACTED] that help to create a brighter world. Remember, this challenge will end March 30, 2019 so please make your gift today! You have the power to secure \$50,000 for [REDACTED] students.	Subject: 1 more donation from your group to unlock an extra \$50 for [REDACTED] We wrote to you a few weeks about a special participation challenge for [REDACTED]. As a reminder, for this challenge you're randomly assigned to a group of 10 persons. If at least 3 persons from your group of 10 give by March 30, a challenge donor will give an extra \$50 to [REDACTED]. So far, we have received 2 donations from your group. With just 1 more donation, your group will unlock an extra \$50 for [REDACTED]! There are just 2 days left in the challenge. [REDACTED] students still need your support. Please make your gift today!

Table B10: Full text of messages by Treatment for Charitable Giving Partner 1

Treatment	Date 1 Message (Email)	Date 2 Message (Email)
1. Baseline	Subject: Giving to [REDACTED] Your [REDACTED] Reunion is coming up at the end of May. In celebration, we hope that you consider joining your classmates in making a gift to the College. Please make your gift today!	Subject: Giving to [REDACTED] We wrote to you a week ago about how you can make the unique [REDACTED] experience possible for today's students. Your donation can still support everything from providing experiences for students as summer research fellows, to gear for our teams, to lab equipment for our faculty and students in the new Science Center. Please make a gift today!
2. Met (T1 G1)	Subject: 1 donation to unlock an extra \$500 for [REDACTED] Your [REDACTED] Reunion is coming up at the end of May. In celebration, we hope that you consider joining your classmates in making a gift to the College. You've been specially selected to be part of a group of 10 alumni, and if at least one person gives from your group by June 3, an anonymous challenge donor will give an extra \$500 to [REDACTED]. Help us meet this challenge—please make a gift today!	Subject: With 1 donation, your group has unlocked an extra \$500 for [REDACTED] We wrote to you a week ago about how you can make the unique [REDACTED] experience possible for today's students. As a reminder, for this challenge you're part of a group of 10 alumni. If at least 1 person from your group of 10 gives by June 3, a challenge donor will give an extra \$500 to [REDACTED]. So far, we have received one donation from your group of 10, meaning that your group has unlocked an extra \$500 for [REDACTED]! Your donation can still support everything from providing experiences for students as summer research fellows, to gear for our teams, to lab equipment for our faculty and students in the new Science Center. Please make a gift today!
3. OneAway (T2 G1)	Subject: 2 donations to unlock an extra \$500 for [REDACTED] Your [REDACTED] Reunion is coming up at the end of May. In celebration, we hope that you consider joining your classmates in making a gift to the College. You've been specially selected to be part of a group of 10 alumni, and if at least two people give from your group by June 3, a challenge donor will give an extra \$500 to [REDACTED]. Help us meet this challenge—please make a gift today!	Subject: 1 more donation from your group to unlock an extra \$500 for [REDACTED] We wrote to you a week ago about how you can make the unique [REDACTED] experience possible for today's students. As a reminder, for this challenge you're part of a group of 10 alumni. If at least 2 people from your group of 10 give by June 3, a challenge donor will give an extra \$500 to [REDACTED]. So far, we have received one donation from your group of 10. With just one more donation, your group will unlock an extra \$500 for [REDACTED]! Your donation will support everything from providing experiences for students as summer research fellows, to gear for our teams, to new lab equipment for our faculty and students in the Science Center. Please make a gift today!
4. Met (T2 G2)	Same as above	Subject: With 2 donations, your group has unlocked an extra \$500 for [REDACTED] We wrote to you a week ago about how you make the unique [REDACTED] experience possible for today's students. As a reminder, for this challenge you're part of a group of 10 alumni. If at least 2 people from your group of 10 give by June 3, a challenge donor will give an extra \$500 to [REDACTED]. So far, we have received two donations from your group of 10, meaning that your group has unlocked an extra \$500 for [REDACTED]! Your donation will support everything from providing experiences for students as summer research fellows, to gear for our teams, to new lab equipment for our faculty and students in the Science Center. Please make a gift today!
5. OneAway (T3 G2)	Subject: 3 donations to unlock an extra \$500 for [REDACTED] Your [REDACTED] Reunion is coming up at the end of May. In celebration, we hope that you consider joining your classmates in making a gift to the College. You've been specially selected to be part of a group of 10 alumni, and if at least three people give from your group by June 3, a challenge donor will give an extra \$500 to [REDACTED]. Help us meet this challenge—please make a gift today!	Subject: 1 more donation from your group to unlock an extra \$500 for [REDACTED] We wrote to you a week ago about how you can make the unique [REDACTED] experience possible for today's students. As a reminder, for this challenge you're part of a group of 10 alumni. If at least 3 people from your group of 10 give by June 3, a challenge donor will give an extra \$500 to [REDACTED]. So far, we have received two donations from your group of 10. With just one more donation, your group will unlock an extra \$500 for [REDACTED]! Your donation will support everything from providing experiences for students as summer research fellows, to gear for our teams, to new lab equipment for our faculty and students in the Science Center. Please make a gift today!

Table B11: Full text of messages by Treatment for Charitable Giving Partner 2