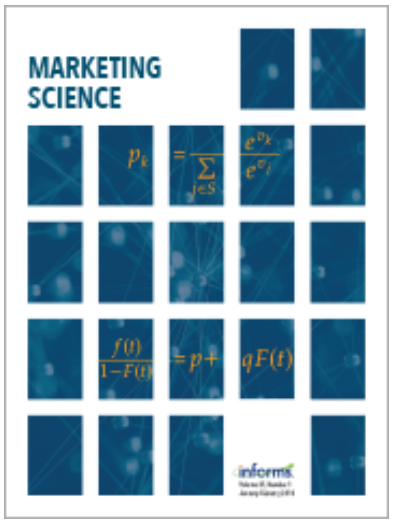

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Put Your Mouth Where Your Money Is: A Field Experiment Encouraging Donors to Share About Charity

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Abstract. Sharing about charity online or in personal conversations can help raise awareness and bolster fundraising efforts for good causes. However, when deciding whether to tell others about their charitable giving, donors may focus more on possible risks to their reputation (e.g., of seeming braggy, inauthentic) than on potential word-of-mouth benefits for the charity. In a large, preregistered field experiment, we tested a post-donation intervention designed to encourage word-of-mouth by reorienting donors to the idea that sharing about charity means doing more good; 77,485 donors received either a control or treatment message asking them to share a link to the cause via social media, text, or email. Compared with the organization's standard solicitation ("Please share your donation … "), our intervention emphasized consequences of sharing *for the cause* ("Your donation can start a chain reaction … "). This brief message increased click-through by 5.1% and likelihood of recruiting at least one later donation via word-of-mouth by 12.4%. Exploratory follow-up analyses suggest that these effects are most pronounced among larger-gift donors; the more donors gave, the more responsive they were to the intervention. Whereas many field experiments aim to increase giving directly, we test an intervention designed to boost word-of-mouth for worthy causes. We discuss approaches for encouraging sharing in the domain of charity and beyond.

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Keywords: field experiments • charitable giving • word-of-mouth • referral marketing • impression management

1. Introduction

Donors to charity could have more impact if they were more willing to talk about their giving with others. Indeed, posting about the charities one supports on social media or mentioning them in conversation can raise awareness for worthy causes and fundraising campaigns; it can serve as social proof that people are giving to them, and it can reinforce norms of generosity and altruism more broadly (Kraft-Todd et al. 2015, Agerström et al. 2016). Recognizing that consumer sharing drives revenue, many firms, both for-profit and nonprofit, ask customers to "refer their friends" or "spread the word" in order to capture word-of-mouth (WOM). In the domain of charity, word-of-mouth both helps the organization and advances the cause that givers care about in the first place.

Yet despite the good that can come from sharing about charity, people often treat their giving as a private matter. Many cultures prescribe modesty when giving to charity, and anonymous donations are often considered especially praiseworthy (De Freitas et al. 2019). By contrast, when donors broadcast their commitment to moral causes or talk publicly about donations of time and money, others may see them as doing good for the wrong reasons—to look good rather than to be good—and judge them negatively as a result (Berman et al. 2015). Thus, although sharing about charity can help to advance the cause, it also entails reputational risk. The present paper explores donors' hesitancy to share about charity and tests a messaging intervention designed to combat it in the field.

Our investigation focuses on the choice of whether to share information with others about a charity or charitable cause that one supports. In line with past word-of-mouth literature (see, e.g., Berger 2014), we define sharing broadly. When sharing about charity, donors may post a link on social media, highlight their personal feelings about a cause, pass along an advertisement or news story, or ask others to give directly. They may reveal how much they gave or merely remark on a charity in a way that implies that they donate without saying so explicitly. Across these cases, and inherent to sharing about charity more broadly, is a tension between reputational consequences (seeming braggy or inauthentic) and altruistic goals (supporting the organization).

We posit that when deciding whether to share about charity, donors typically pay more attention to possible consequences for their reputation (e.g., *Others may think poorly of me for bragging*) than to possible consequences for the cause (e.g., *I may prompt others to get involved*) and share less often as a result. Drawing on this account, we ask whether it is possible to encourage WOM about charitable giving with messaging that reorients donors' attention to the social impact case for sharing, that talking about one's giving means doing more good. As compared with simply asking them to share, we test a brief intervention cuing donors to consider that their generosity can "start a chain reaction," but only if they tell others about it.

Whereas many field experiments test interventions to increase donation rates and encourage prosocial purchases (see, e.g., Sudhir et al. 2016, Dubé et al. 2017, Munz et al. 2020, Yang and Hsee 2022), our experiments probe a different route to increasing charity revenue: encouraging donors to spread the word. More generally, although scholars tout the importance of harnessing WOM (Godes and Mayzlin 2004, Godes et al. 2005, Berger 2014), relatively few field experiments provide evidence for exogenous effects of marketing on consumer sharing decisions.[1]

We report two preregistered experiments: a laboratory study suggesting that people pay more attention to reputational risks than to benefits for the cause when deciding whether to post online about charities they support and a large-scale field experiment ($n = 77{,}485$) testing a proposed remedy. To preview, the intervention we test increases click-through rates on a solicitation to share about the cause by 5.1% and, because it boosts sharing, increases the chances that donors will end up recruiting others to give.

1.1. The Social Impact of Sharing About Charity

People take cues about how to behave from the words and actions of others. That is, they are susceptible to social influence (see, e.g., Elster 1989, Goldstein et al. 2008, Iyengar et al. 2011, Huang et al. 2020). In marketing contexts, word-of-mouth recommendations are believed to be especially powerful. Indeed, consumers see them as more trustworthy than other forms of traditional advertising (Nielsen 2012), and they are estimated to drive as much as $7 trillion to $10 trillion in consumer spending annually (Engagement Labs 2017). To harness social influence, many firms ask customers to "refer their friends" or to "spread the word," and they allocate valuable marketing dollars toward incentivizing referrals (Gershon et al. 2020) as well as identifying influencers (Iyengar et al. 2011) to broaden the reach of their products and services.

When it comes to charity in particular, WOM can have a number of desirable effects. First, sharing serves an informational purpose. It raises awareness about worthy causes and organizations supporting them (see also Godes and Mayzlin 2009). People cannot contribute money, donate goods, sign petitions, or volunteer time for charities they do not know exist. Second, talking about charity often conveys an implicit or explicit ask to donate, and those on the receiving end of such asks often feel uncomfortable saying no (Flynn and Lake 2008, DellaVigna et al. 2012, Andreoni et al. 2017). Third, sharing can reinforce norms of generosity and provide social proof that people abide by them (Kraft-Todd et al. 2015). Outside of specific religious groups that practice tithing, norms about giving to charity are often opaque. The fact that people often give privately prevents such norms from developing. If instead donors were more open, others might feel more compelled to give, too. We refer to these benefits collectively—increased awareness and funds raised for charitable causes—as the "social impact" of sharing about charity.

Many assert that impact should be the primary guiding force in decisions about doing good. For example, the effective altruism movement argues that donors should strive to contribute to charitable causes in whatever way maximizes the good they can do per dollar (MacAskill 2015). From this perspective, it can be argued that if people truly care about the causes they donate to, they should be willing to talk about them publicly (see Small et al. 2018, Zaki and Cikara 2020). However, social impact may not be the only thing that comes to mind when deciding whether to share. Donors also worry about how broadcasting their generosity will look to others.

1.2. The Reputational Consequences of Sharing About Charity

People often tailor their behavior to manage their public image. They curate their posts on social media (Schlosser 2020), contribute selectively to public conversations (Toubia and Stephen 2013, Silver and Shaw 2022), and consume conspicuously in order to signal their status, values, and preferences to others (Bagwell and Bernheim 1996). More generally, people often behave as if "under a spotlight," overestimating the extent to which others notice and evaluate their behavior (Gilovich et al. 2000).

It might seem that impression management should push people to share about their charitable giving, because donations are acts of selflessness and generosity. However, reactions to those who advertise their goodness are often cynical. Observers wonder whether those who broadcast their good deeds are doing so for some form of personal gain (Miller and Ratner 1998, Critcher and Dunning 2011). For example, a Facebook user who posts about a charity she supports might seem like she donated, not because of an altruistic impulse, but because she wants to look generous. Such attributions provoke distain, which can undermine the signal

of selflessness inherent to donating in the first place (Silver et al. 2021, Berman and Silver 2022). Accordingly, sharing about charity can have ironic effects, sometimes painting selfless donors as tactless braggarts or holier-than-thou hypocrites (Berman et al. 2015). Beyond appearing self-interested, donors who choose to share may also seem self-righteous, intrusive, or pushy.

With their moral reputation on the line, donors might be particularly apprehensive at the prospect of sharing about charitable giving relative to other sorts of purchases they make. To investigate, we ran a preregistered pilot study. We recruited 198 participants from Amazon's Mechanical Turk ($M_{age} = 32$, 49% female) and asked them to report how comfortable or uncomfortable they would feel talking about 21 different expenditures with peers, friends, and family. Expenditures spanned a variety of ordinary categories, from buying a dozen eggs to signing up for a gym membership to securing passes to an art exhibit to purchasing a new TV. Among the expenditures we tested, a donation to charity was rated as the most uncomfortable to talk about. People seem to see charitable giving, although intuitively praiseworthy, as an unpleasant topic of conversation. See Figure 1.

That people would be especially uncomfortable sharing about charity suggests a potential hurdle for nonprofits soliciting WOM. The following experiments sought to investigate this psychology further and to test a simple intervention to combat it.

2. Present Research

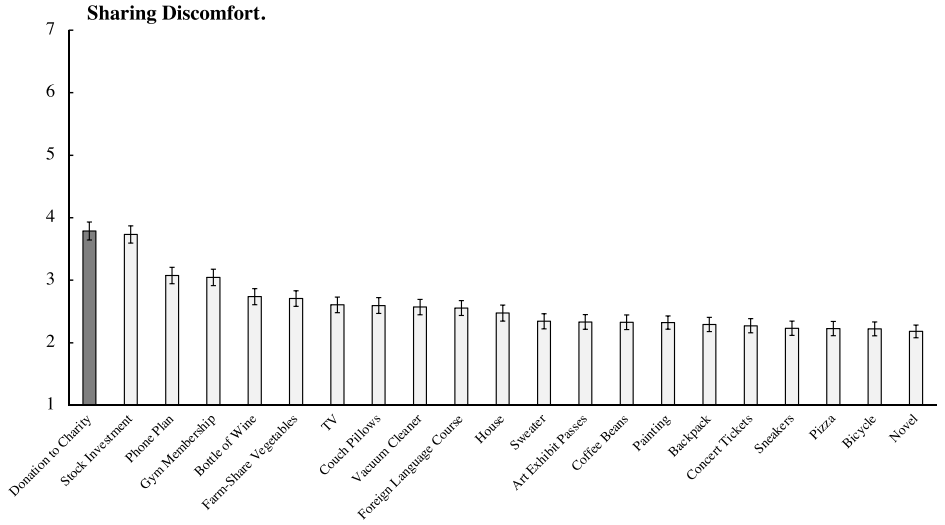
If donors are thinking about social impact, they should be willing to share about the causes they support. But if they are focused on their public image, they might be more hesitant. In line with evidence that people are preoccupied with social judgment in general (Gilovich et al. 2000) and that worries about sending the right social signals can undermine altruism specifically (Ariely et al. Meier 2009, Yang and Hsee 2022), we expected that reputational consequences loom large, often displacing attention from social impact. Specifically, we predicted that when deciding whether to share in this context, donors typically pay more attention to possible (negative) consequences for their reputation than to possible (positive) consequences for the cause. If donors do not readily think of sharing as an opportunity to do more good, then a timely message to consider social impact may help. Specifically, by reorienting donors to the idea that sharing can further help the cause, we sought to boost their willingness to share and, ultimately, to recruit others to donate.

We report two experiments. Experiment 1 was a laboratory study that shed light on what donors ordinarily think about when deciding whether to share about charity. Experiment 2 was a large-scale experiment with 77,485 donors testing our proposed intervention in the field. Preregistrations, data, materials, code, and appendix materials are available at https://researchbox.org/105&PEER_REVIEW_passcode=MKFQMJ.

3. Experiment 1. Thinking About Sharing in Terms of Reputation versus Social Impact

Experiment 1 explored donors' willingness to share about their charitable giving after being prompted to think about consequences of doing so for their reputation versus for the cause. It also included a baseline condition that measured what sorts of considerations come naturally to mind when asked to share, absent explicit

Figure 1. Pilot Study: Anticipated Discomfort Ratings (1: "Totally Comfortable" to 7: "Extremely Uncomfortable") Telling Others About 21 Ordinary Expenditures



Note. Error bars represent standard errors.

prompting one way or the other. Our account argues that people tend to pay more attention to reputational risks than benefits for the cause at baseline. If this is right—if people spontaneously attend to reputational consequences when asked to share—then further prompting to consider reputation should not shift their willingness to share much if at all relative to the baseline condition. However, prompting to consider the consequences for the cause—which might be less salient at baseline—may lead donors to think about sharing in a different, more positive way and thus increase their willingness to share.

3.1. Method

Three-hundred seventy-seven participants ($M_{age} = 21.7$, SD = 6.5, 68% female) were recruited from a business school's behavioral laboratory and paid $10 for a one-hour session, of which the experiment took 10 minutes. We targeted a sample of 400 participants, but recruitment was conducted by the laboratory and constrained by participant signups. No participants were excluded from analysis.

Participants first wrote down the name of a "charity or charitable cause" that they personally supported. They then imagined making a donation and receiving a follow-up message from the charity with a request to share about the cause on social media (e.g., on Facebook, Instagram). The key dependent variable was a willingness-to-share measure recorded on a seven-point scale from "not at all willing" to "completely willing." But before deciding whether to share, participants completed a short writing prompt that was manipulated between-subjects.

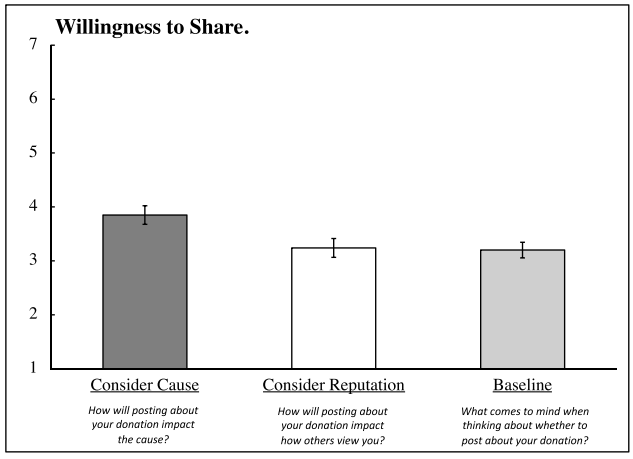
Participants were randomly assigned to one of three writing prompt conditions. In the *consider-reputation* condition, participants wrote a short entry about the consequences of sharing for their reputation (i.e., how others would view them if they shared). In the *consider-cause* condition, participants wrote a short entry about the consequences of sharing for the charity (i.e., how sharing would impact the cause). In a third baseline condition, participants were simply asked to record "whatever comes to mind" when thinking about whether to share. The baseline condition was of particular interest. Would sharing intentions in that cell more closely resemble what we observe when prompting participants to consider (a) reputation or (b) the cause? After the writing manipulation, participants indicated willingness to share. They then completed age and gender demographics as well an additional exploratory question about frequency of social media use.

3.2. Results

3.2.1. Planned Analyses. We first subjected the sharing measure to a one-way ANOVA with condition as a between-subjects factor. This procedure revealed a significant omnibus effect of condition ($F(2, 374) = 4.97$, $p = 0.007$, $\eta_G^2 = 0.026$). Planned comparison t-tests revealed a higher willingness to share when prompted to consider how sharing would impact the cause ($M = 3.85$, SD = 1.92) than in either the condition that prompted reputational considerations ($M = 3.24$, SD = 1.97; $t(249) = 2.52$, $p = 0.012$, $d = 0.32$) or the baseline condition ($M = 3.20$, SD = 1.63; $t(248) = 2.91$, $p = 0.004$, $d = 0.37$). There was no difference between those prompted to consider reputation and those in the baseline condition ($t(251) = 0.17$, $p = 0.87$, $d = 0.02$). This result is consistent with the idea that reputational concerns arise naturally in this context, because prompting them directly does not alter sharing behavior. The prompt to consider the impact for the cause, however, seems to change the way that participants think and respond. See Figure 2.

3.2.2. Exploratory Follow-Up Analyses. To explore further, we asked a hypothesis-blind RA to code participants' responses to the writing prompts. Specifically, entries were coded according to whether they mentioned "reputation-based reasons" (how sharing would influence judgments about the sharer) or "cause-based reasons" (how sharing would influence outcomes for the charity) as two separate dummy variables. Moreover, whenever a participant mentioned a reputation- or cause-based reason, it was further coded according to whether it highlighted a positive impact or a negative impact of sharing. Each was coded as a separate dummy variable. This coding allowed us to ascertain, for each written response, whether it mentioned possible consequences of sharing about charity for the donor's reputation and/or for the cause and whether the consequences participants brought up in each case were positive, negative, both, or neither.

Figure 2. Experiment 1: Willingness to Share About Charity (1: "Not at All Willing" to 7: "Totally Willing") Following Writing Prompt to Consider Different Possible Consequences of Sharing



Note. Error bars represent standard errors.

As would be expected with the manipulation, participants in the *consider-reputation* condition were quite likely to mention in their written responses how sharing about charity would impact their reputation; 91.3% of participants mentioned reputation, whereas only 14.2% mentioned social impact. In the *consider-cause* condition, we saw the opposite pattern. Only 13.7% mentioned reputation, whereas 92.7% mentioned impact for the cause. These results confirm that we successfully manipulated what participants were thinking about when rating willingness to share. Of particular interest was whether participants in the baseline condition, where there was no prompt one way or the other, were more likely to bring up their reputation or social impact. In line with our theorizing, participants in the baseline condition were more likely to mention the impact of sharing for their reputation than for the cause; 63.5% of participants in the baseline condition mentioned reputation, whereas only 39.7% mentioned the cause (McNemar's Chi-Square (1 df) = 12.37, $p < 0.001$).

Across conditions, mentions of possible consequences for the cause nearly always highlighted positive outcomes (e.g., "I want to showcase the charity so it receive[s] more money"). Among all written responses that mentioned possible outcomes for the cause, 92.9% mentioned only positive outcomes for the cause that might result from sharing, 0.5% mentioned only negative outcomes, 1.1% mentioned both positive and negative outcomes, and 5.5% were coded as neither positive nor negative. By contrast, mentions of possible consequences of sharing for the sharer's reputation were substantially more negative (e.g., "I don't want to make it seem like I donated just to get social credit"). Among written responses that mentioned reputation, 21.6% mentioned positive outcomes only, but 50.2% mentioned negative outcomes only, 19.2% mentioned both positive and negative outcomes, and 8.9% were coded as neither positive nor negative.

Finally, homing in on the baseline condition ($n = 126$) specifically, we estimated an OLS regression predicting willingness to share from dummy variables capturing whether participants mentioned consequences for the cause and/or for their reputation in their written responses. Results are reported in Table 1 below. In line with our theorizing, bringing up the cause was associated with greater willingness to share, and this effect was significantly stronger than the effect of bringing up reputation ($F(1, 123) = 7.45$, $p = 0.007$), which was actually negative, albeit nonsignificant. The fact that most participants in the baseline condition did not mention the cause at all, but that doing so was associated with greater willingness to share, suggests a potential avenue for intervention, one we explored directly in our field experiment.

Table 1. Baseline Condition Only of Experiment 1 ($N = 126$): OLS Regression Predicting Willingness-to-Share from Whether a Written Response Mentions Consequences for Reputation or for the Cause

	Willingness to Share (1 – 7)
Response mentions reputation	−0.14 (0.29)
Response mentions the cause	0.96*** (0.29)
Number of parameters	3
R^2	0.086

Note. Unstandardized betas and standard errors.
^$p < 0.10$; *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

3.3. Discussion

Participants in Experiment 1 expressed greater willingness to share about a charity they support when prompted to consider the consequences of doing so for the cause versus for their reputation. Meanwhile, in the baseline condition, participants expressed willingness to share in line with that observed in the condition that prompted them to consider reputation explicitly. This suggests that what comes to mind naturally, absent specific prompting, may be similar to that which comes to mind when prompted to consider reputational consequences. Further evidence in line with this idea comes from participants' written responses in the baseline condition. When asked to describe whatever comes to mind when thinking about whether to share, participants were more likely to mention reputational consequences than consequences for the cause. Moreover, whereas participants who did highlight consequences for the cause focused on positive outcomes of sharing, those who highlighted consequences for their reputations predominantly focused on negative outcomes.

In summary, the results of this experiment suggest that, when asked to tell others about their charitable giving, donors may be more likely to think about their reputation than about the cause, and that this kind of thinking can bring to mind reputational risks that might hinder sharing. It also provides reason to believe that a message reorienting donors to the social impact case for sharing—that sharing means doing more good—might increase WOM.

4. Experiment 2. Encouraging Donors to Consider Social Impact in the Field

Experiment 2 was a field experiment that randomly assigned donors to one of two sharing solicitation messages at checkout after completing an online donation: the organization's standard message that simply asked donors to share or a treatment message emphasizing that sharing can help the cause. We sought to test whether this brief message could reorient donors' attention to the social impact consequences of sharing and thus encourage word-of-mouth.

4.1. Experimental Setting and Method

Experiment 2 was conducted in partnership with the education nonprofit DonorsChoose.Org. DonorsChoose.org ("DonorsChoose") is an online platform where users

can donate to classroom-based fundraisers in underfunded schools across the United States (e.g., raising money for new desks, books, science equipment). After giving through DonorsChoose's online platform, donors encounter a brief pop-up message that thanks them for their donation and asks them to tell others about the cause. To better capitalize on word-of-mouth effects, a major objective for DonorsChoose's marketing team has been to increase donors' propensity, after giving, to click on this solicitation to share and then post about classroom fundraisers on social media or share them via email or text message.

During an approximately four-week period from August 13, 2020, to September 9, 2020, donors who gave money via the organization's online portal served as participants in a field experiment. Every time a donor completed an online donation, they saw a pop-up message asking them to tell others about the cause. Donors were randomly assigned to one of two versions of this pop-up, and any who gave more than once during the test period saw the same version at each donation occasion. The control condition employed DonorsChoose's standard language: "Share this classroom with family and friends." The treatment condition tested an alternative version that emphasized social impact: "Your donation can start a chain reaction, but only if you tell others about the cause. Share this classroom with family and friends." We designed this treatment to draw attention to donors' capacity to influence others to get involved ("Your donation can start a chain reaction … ") and to communicate that such impact was contingent on sharing ("but only if you tell others … "). In addition to the sharing solicitation, the pop-up window in both conditions displayed clickable icons (i.e., to Twitter, Facebook, and email for desktop users or to Twitter, Facebook Messenger, or SMS Messages for mobile users), which allowed us to observe click-through. See Appendix Section vi for examples.

4.2. Data Overview and Observed Variables

Our data include observations from 77,485 donors, who made a total of 117,090 donations during the test period.[2] Eighty-three and a half percent of donors gave only once and so saw the focal pop-up only once. The remaining 16.5% gave more than once during the period and so saw the pop-up at each donation occasion, always in the same condition (number of donation occasions among all participants: mean = 1.51, median = 1.00; among only those who donate more than once: mean = 4.11, median = 2.00).

Our primary preregistered outcome variable was *click-through* (whether a donor clicked on a pop-up soliciting them to share during the test period). The click-through measure was taken at the participant level, capturing whether a given donor clicked at least once on any of the sharing icons displayed to them on a pop-up message during the test period. Note that for the 16.5% of donors who gave more than once and saw a pop-up each time, we can observe whether they clicked through at least once during the test period but cannot identify at which donation occasion they clicked nor whether they clicked more than once. The remaining 83.5% donated only once during the test period, saw the pop-up one time, and thus had only one opportunity to click. Click-through was recorded during the first 30 minutes after a donor saw a given pop-up.

When a donor clicked on the sharing pop-up, that donor was redirected to his or her platform of choice and supplied with a unique referral link, allowing us to record downstream referrals from each participant. We specified *recruitment* (whether a donor subsequently recruited at least one downstream donation via their referral link) as a secondary outcome variable in the exploratory section of the preregistration. We planned to treat recruitment as a binary variable (assigning 1 if a participant recruited any donations, 0 otherwise) for a few reasons. First, although we also observe the number and amount of recruited donations, these are a product of both (a) sharing (our focus) and (b) persuasiveness (how influential a participant is in recruiting more or larger donations conditional on sharing)[3]. Our theory concerns sharing, and by dichotomizing the recruitment variable, we partial out much of the influence of persuasiveness. Second, the data capturing numbers and amounts of recruited donations is heavily zero-inflated and nonnormal because many donors choose not to click-through in the first place. Accordingly, dichotomizing and analyzing the recruitment data first via logistic regression seemed more intuitive to us at the outset. Nevertheless, we do also observe the number of downstream donations recruited and total amount raised by each donor via sharing and test for effects of treatment on these managerially relevant outcomes in Section 4.4.2.[4]

Note that because donors shared to their private social and personal media, we cannot observe what they shared directly (i.e., the specific messages donors wrote in personal emails or posted to social media profiles). This is a limitation of our data. However, if a subsequent donation came in through a given donor's referral link, that person would have necessarily clicked through, accessed the link, shared information about the charity, and successfully influenced someone else to give. In other words, any subsequent donation recruited means that a donor must have shared about the cause.

To summarize, the data set we obtained from our field partner included the following information for each participant: the independent variable (message condition: standard language control or treatment emphasizing social impact), a primary outcome variable (click-through; never = 0, at least once = 1), and a secondary outcome variable: (recruitment; no donations recruited = 0, at least one donation recruited = 1). In

addition, for each participant, we observe the number of donations they made, the total donation amount they gave during the period, the number of donations they recruited via referral, and the total donation amount they recruited via referral during the period. We also observe the date(s) and time(s) each participant donated and whether each donation came in through a mobile, desktop, or tablet device (and present exploratory analyses of these data in the Appendix). We do not have demographic information for individual participants, because our field partner has a policy of not disclosing it to third parties. However, among the organization's donors at large, 78% identify as female, with age distributed as follows: 40-and-under =27%, 40 − 59 = 37%, 60-and-up = 36%.

To examine any longer-term effects of treatment on the donation behavior of our participants after the test period, we later obtained a binary measure of whether each participant in our field test donated again themselves in a roughly three-month period after the experiment (between September 9, 2020, when the test ended, and December 15, 2020). Because our treatment was designed to persuade participants to do something they may have ordinarily felt uncomfortable doing—talking about their charitable giving—we wanted to ensure that it did not have any negative longer-term effects on participants' likelihood of returning to give again themselves during or after the test period. Fortunately, it did not (see the Appendix for more details).

4.3. Note on Deviations from Preregistration

We report the following necessary deviations from our preregistration. First, although we anticipated recruiting ~30,000 participants per condition, our field partner received more donations than expected during the test period, and so our data set contains closer to 40,000 per condition. Second, although we planned to use mixed-effect logistic regressions, adding random intercepts by participant to the model proved unnecessary, as click-through was ultimately collected at the participant level rather than the donation level. Third, we removed 1,726 participants prior to the reported analyses (1,468 were not properly randomized, and 258 were missing payment data; see footnote 2 for more details). We report planned analyses in Section 4.4.1 and additional unplanned exploratory analyses in Sections 4.4.2 and 4.4.3.

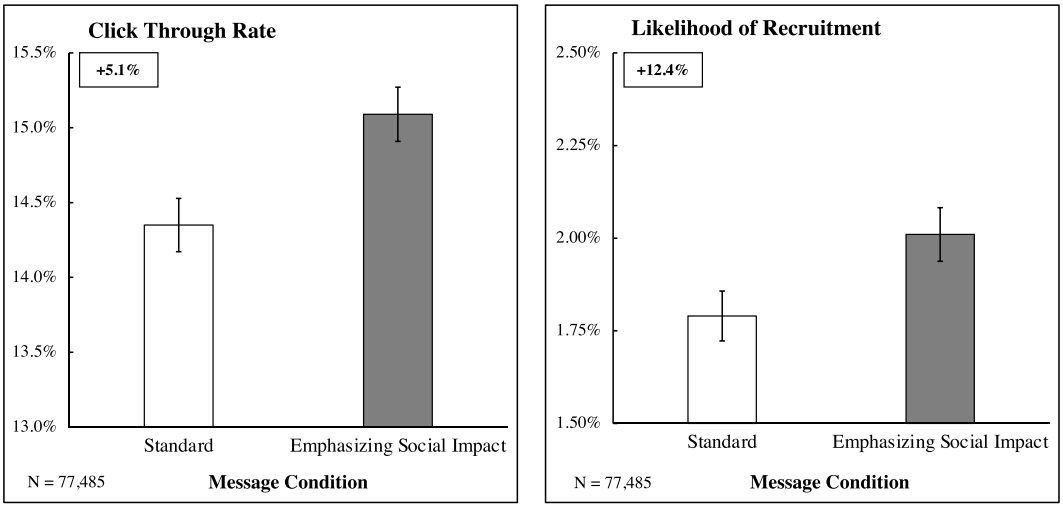
4.4. Results

4.4.1. Effects of Treatment on Click-Through and Binary Recruitment. We predicted that donors in the treatment condition would be more likely to click-through on the sharing solicitation message and subsequently recruit at least one downstream donation. To investigate, we began by estimating logistic regression models predicting the primary DV: click-through (*Did the donor click on a sharing pop-up during the test period?*; 1,0); and the secondary DV: binary recruitment (*Did the donor recruit at least one downstream donation during the test period?*; 1,0) from condition only. The results supported our predictions for both variables. Participants were more likely to click on the sharing-solicitation pop-up in the treatment condition (15.09% click-through) versus the control condition (14.35% click-through; $B = 0.059$, SE = 0.020, Wald $Z = 2.89$, $p = 0.004$). This difference corresponds to a 5.1% relative increase in participants' likelihood of clicking on the pop-up message soliciting them to tell others about the cause. Participants were also more likely to recruit at least one downstream donation in the treatment condition (2.01%) versus control (1.79%; $B = 0.12$, SE = 0.053, Wald $Z = 2.27$, $p = 0.023$). This difference corresponds to a 12.4% relative increase in participants' likelihood of recruiting at least one downstream donation via their unique referral link. Note that the larger relative effect of treatment on recruitment reflects a lower baseline. See Figure 3.

As noted above, 16.5% of participants in our field experiment gave more than once during the treatment period, and so they saw the focal pop-up message asking them to share on multiple occasions. The number of exposures to the pop-up, and thus the number of opportunities to click, was equal to the number of donations made during the test period. Importantly, it does not appear that effects on click-through or recruitment can be explained by participants seeing the pop-up more often in treatment versus control (i.e., as a function of whether they return to donate more often after seeing the treatment message, which they do not; see Section 4.4.3 below). When we include the number of donations made during the test period as a control variable in our primary models, we continue to find effects of treatment on both outcome variables at nearly identical effect sizes (click-through: $B = 0.058$, SE = 0.020, Wald $Z = 2.88$, $p = 0.004$; binary recruitment: $B = 0.12$, SE = 0.052, Wald $Z = 2.28$, $p = 0.023$). We also find effects of condition on click-through among the subset donors who gave only once ($B = 0.045$, SE = 0.022, Wald $Z = 2.04$, $p = 0.041$).[5] Note that in all analyses that include how often a donor in the experiment gave, we Winsorize the variable at the 95th percentile ($n = 3$ donations; see Blaine 2018) to account for a small number of extreme outliers, but the results are the same regardless of whether we do so. See Table 2 below.

Interestingly, these regressions seem to suggest that donors who give more than once during the period were less likely to click on average despite seeing the pop-up message and having the opportunity to click every time they donated. Logically, it cannot be the case that having more than one opportunity to click on a message decreases the likelihood that one will click at all. Rather, a more likely possibility is that donors who give more might also be more modest (i.e., less likely to tell others about their giving). We also observe that

Figure 3. Experiment 2: Click-Through Rate (Primary DV) and Likelihood of Recruiting at Least One Donation (Secondary DV)



Note. Error bars represent standard errors.

despite their lower rates of click-through, donors who give more often are more likely to recruit a downstream donation. Both of these results hold if we control for the amount donated during the period (also Winsorized at the 95th percentile = $275.42) instead of number of donation occasions ($r = 0.55$ between these two measures of donor generosity). We return to donor gift amount in Section 4.4.3. In the next section, we ask whether, beyond its effects on sharing at all, the treatment message leads donors to recruit more or larger donations (i.e., to be more persuasive recruiters conditional on their choice to share).

4.4.2. Effects of Treatment on Number of Donations Recruited and Dollars Recruited Via Sharing. A further important question concerns whether those in the treatment condition brought in more or larger donations above and beyond the boost in recruitment associated with their increased willingness to share in the first place. We did not have any predictions on this front. That is, we expected that any increase in recruitment revenue generated per donor would be driven primarily by an increase in willingness to share rather than by donors in the treatment condition becoming more persuasive recruiters as a result of seeing the treatment message. Although we cannot observe what people post on their social media accounts or say in private communications to measure persuasiveness, we can test whether the number of downstream donations or the dollar amount recruited per participant varies across conditions.

Note that these variables (number and amount of donations recruited via referral) are each the product of two processes: (1) a donor's initial decision to share and (2) their effectiveness at recruiting more or larger donations if they do share. Each might be separately impacted by condition, and donors who do not click-through at all (roughly 85% of our sample in aggregate) cannot recruit any donation, and so they appear as excess zeros in the data. To account for this data structure, we first estimated zero-inflated Poisson (ZIP) regression models predicting the number of donations recruited and number of dollars recruited by each participant, with condition entered as a predictor in both the logistic (predicting excess zeros) and count (predicting recruitment numbers) portions of the model. For both outcome variables, the treatment condition was a negative predictor in the zero portion of the model. Said differently, participants who saw the social impact message were less likely to appear as zeros in the recruitment data, likely because they are more willing to click-through and share at all (number of donations recruited model: $B = -0.20$, SE = 0.070, Wald $Z = -2.83$, $p = 0.005$; dollars recruited model: $B = -0.12$, SE = 0.053,

Table 2. Experiment 2: Logistic Regressions Predicting Click-Through and Recruitment

N = 77,485	Click-through (1/0)		Recruitment (1/0)	
Message condition (standard or emphasizing social impact)	**0.059** (0.020)**	**0.059** (0.020)**	**0.12* (0.052)**	**0.12* (0.053)**
Donations made: number of donation visits during test period		−0.16*** (0.019)		0.18*** (0.041)
Number of parameters	2	3	2	3
−2LL	64,745.65	64,674.99	14,602.79	14,585.34

Notes. Unstandardized betas and standard errors. Donation number is winsorized at the 95th percentile for this analysis.
^$p < 0.10$; *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

Wald $Z = -2.27$, $p = 0.023$). But the evidence is mixed as to whether donors were more effective recruiters if they did share. In the count portions of these models—which focus primarily on those who recruit at least one donation—treatment had a negative nonsignificant impact on the number of donations recruited ($B = -0.12$, SE = 0.069, Wald $Z = -1.69$, $p = 0.091$) but a positive and significant impact on the number of dollars recruited ($B = 0.036$, SE = 0.0060, Wald $Z = 6.09$, $p < 0.001$).

Taking a complementary approach, we also looked for effects of treatment on these recruitment variables among only those participants who clicked on the sharing solicitation in the first place (which we have shown in Section 4.4.1 above is impacted by condition). Among those who clicked-through at all, we observed no differences across conditions in their likelihood of recruiting at least one downstream donation (logistic regression: $B = 0.087$, SE = 0.056, Wald $Z = 1.55$, $p = 0.12$). Furthermore, among those who both clicked through and recruited at least one donation, we observed no differences in the number of downstream donations recruited (OLS regression: $B = -0.076$, SE = 0.055, $t(1{,}448) = -1.37$, $p = 0.17$) or in the number of dollars recruited (OLS regression: $B = 1.76$, SE = 5.11, $t(1{,}448) = 0.34$, $p = 0.73$). This analysis essentially breaks down referral revenue into separate processes of sharing and recruiting (akin to a hurdle model approach; see Cragg 1971) and is consistent with treatment having robust effects on sharing and much weaker or no effects on number of donations and total dollars recruited among those who do share. See Table 3 below.

Combining the positive effect of treatment on willingness to share at all (as measured by click-through) with the null effect on recruited dollars conditional on click-through, we observe that donors in the treatment condition recruited $0.22 more on average (a relative increase of 16.6% compared with control). To the extent that this increase in revenue per donor is meaningful in aggregate, the treatment appears to work by increasing donors' likelihood of sharing (and so becoming a recruiter for the cause at all), but not necessarily by making those who do choose to share more persuasive in bringing in more or larger donations.

4.4.3. Sharing and Susceptibility to Treatment by Donor Gift Amount.

Participants in our experiment gave a variety of amounts. Some donated only a few dollars during the test period, whereas others gave thousands. Importantly, neither how much nor how often participants gave was impacted by condition, which stands to reason given that the majority of our participants (83.5%) gave only once, and so they decided how much to donate before exposure to the post-donation message.[6] See Table 4 below.

Nevertheless, it could be the case that donors who give more might be differentially willing to share after donating or differentially impacted by our treatment messaging asking them to do so. The following analyses explore the relationship between gift amount and sharing.

First, we collapsed across conditions and analyzed the underlying relationship between how much a donor gave during the test period in dollars and their likelihood of click-through and recruitment. Conceptually replicating the pattern noted in Table 2 above, donors who gave more were less responsive to DonorsChoose's pop-up ask to share. However, controlling for their lower rates of click-through, the more a donor gave, the more likely they were to recruit at least one downstream donation. See Table 5.

Moreover, OLS regressions controlling for their lower rates of click-through revealed that donors who gave more dollars recruited a greater number of downstream donations and a greater total amount (number of donations recruited per dollar donated: $B = 0.000064$, SE = 0.000013, $t(77{,}482) = 6.42$, $p < 0.001$; dollars recruited via referral per dollar donated: $B = 0.005$, SE = 0.00089, $t(77{,}482) = 5.91$, $p < 0.001$). In summary, donors who gave more were less responsive to the organization's ask to share but also, conditional on clicking through,

Table 3. Recruited Donations—Number and Amount—Among Only Participants Who Clicked Through on the Treated Sharing Solicitation Message in Experiment 2 (N = 11,407)

			Message condition	
		Overall	Standard	Emphasizing social impact
Downstream donations recruited—Number	N	11,407	5,543	5,864
	Mean	0.19	0.19	0.19
	Median	0	0	0
	SD	0.62	0.64	0.61
Downstream Donations Recruited—Amount ($)	Mean	$9.65	$9.16	$10.11
	Median	$0	$0	$0
	SD	$42.83	$41.06	$44.44

Notes. Our planned analyses (Section 4.4.1) show that participants are more likely to recruit at least one downstream donation in treatment vs. control, seemingly because they are more likely to click-through and share at all. Among only those who click-through (i.e., accounting for the effects of treatment on our key proxy for sharing), no significant differences are observed in downstream recruitment numbers.

Table 4. Descriptive Statistics on Treated Participants' Own Gift Amount and Frequency in Experiment 2 (Full Sample, N = 77,485)

			Message condition	
		Overall	Standard	Emphasizing social impact
	N	77,485	38,621	38,864
Donations made—Number of donation occasions during test period	Mean	1.24	1.24	1.24
	Median	1	1	1
	SD	0.58	0.58	0.57
Donations made—Amount ($) donated during test period	Mean	$64.82	$65.16	$64.47
	Median	$50	$50	$50
	SD	$67.36	$67.74	$66.98

Notes. The intervention targets participants' willingness to share about the cause with others after donating, rather than how much they themselves give. We did not expect this message to influence the number of donations participants made or how much they donated, and it does not. Means and medians are calculated after Winsorization at the 95th percentile.

more likely to recruit at least one downstream donation. Although we did not predict this pattern ex ante, it may be due to homophily (cf., Van den Bulte et al. 2018)—affluent or generous donors having affluent or generous friends, to status (cf., Hardy and Van Vugt 2006)—donors with more to give occupying more influential positions in social networks, or to a more altruistic commitment to the cause (cf., Barasch et al. 2016)—those willing to give more being more effective at convincing others to join the cause. Whatever the reason, donors who make larger gifts, and who may be initially reluctant to share, represent an important target group for interventions designed to increase word-of-mouth.

Next, we explored whether our treatment effects might vary across those who gave more versus less during the test period. To investigate, we pursued a model-free analysis, bucketing donors in the experiment into quartiles according to the amount they gave during the test period and then quantifying treatment effects on our two dependent variables, click-through and binary recruitment, within each quartile. This approach reveals that our treatment effects were generally stronger for those who gave more during the test period.

Table 5. Logistic Regressions Predicting Preregistered DVs from Donor Gift Amount, Collapsing Across Conditions in Experiment 2 (Full Sample, N = 78,485)

	Click-through (1/0)	Recruitment (1/0)
Gift amount $ Donated during test period	−0.0018*** (0.00017)	0.0022*** (0.00043)
Click-through (1/0)	—	5.98*** (0.20)
Condition	0.058** (0.020)	0.076 (0.056)
Number of parameters	3	4
−2LL	64,617.93	9,107.79

Notes. Unstandardized betas and standard errors. Note that the nonsignificant effect of condition on recruitment in the right column results from controlling for the effect of condition on click-through. Dollars donated is Winsorized for this analysis.
$\hat{}p < 0.10$; $*p < 0.05$; $**p < 0.01$; $***p < 0.001$.

One might reasonably wonder whether these patterns can be explained by the number of donations made during the period (and thus exposures to the treated pop-up message). Perhaps our effects only appear stronger for larger-gift donors because those who gave more money were more likely to have donated more than once and thus to have seen the focal pop-up more than once during the period. However, a similar approach stratifying treatment effects among those 64,737 donors who gave only once reveals a similar pattern, suggesting that this explanation is unlikely to account for larger treatment effects observed as gift amount increases. See Figure 4 below.

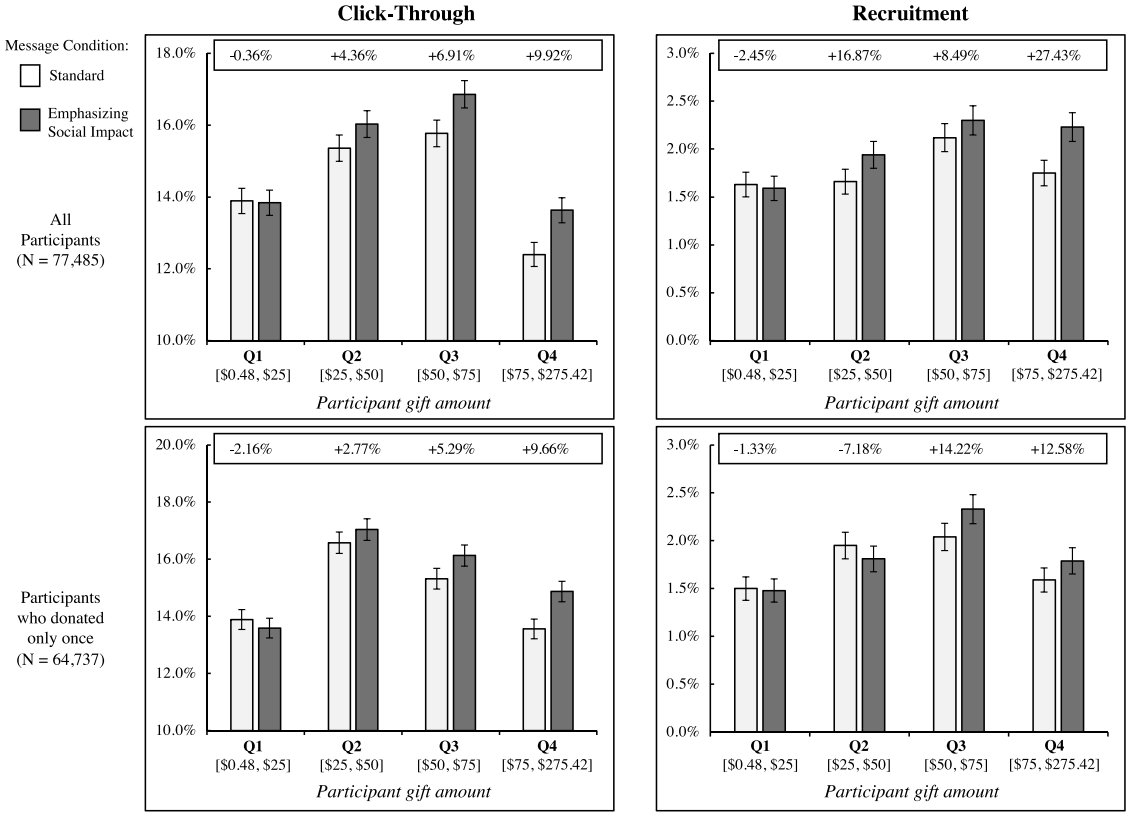
In the Appendix, we report regression results that interact treatment with donation amounts and with number of donations to provide a model-based analysis of these patterns observed in our model-free, by-quartile approach. Results suggest the same positive interaction between treatment and amount given at varying levels of statistical significance, although these analyses impose assumptions of linearity, and so they offer a lower-resolution picture of how our effects may vary across levels of giving.

In summary, with the caveat that they were not our planned focus, the exploratory analyses reported in this section suggest that donors who give more share less in general but may be more effective recruiters if they do. These larger-gift donors also seemed to respond more strongly to the social impact intervention.

5. General Discussion

Charities lose out on valuable word-of-mouth when donors hesitate to talk about their giving. Yet our results suggest that donors may lose sight of their ability to inspire others to get involved when deciding whether to talk about their giving, paying more attention to reputational risks in how others might evaluate their choice to share. In a large field experiment, we find that we can encourage more donors to share about charity with messaging that makes salient the social impact case for

Figure 4. Treatment Effects on Click-Through and Binary Recruitment by Donor Gift Amount in Experiment 2



Notes. These data are divided into quartiles according to how much participants gave during the test period. The upper bound for the fourth quartile is Winsorized at the 95th percentile of giving. Error bars represent standard errors.

doing so, that sharing means doing more good. Specifically, we contrasted a basic request to share with a brief message designed to reorient donors' attention to the "chain reaction" of social impact possible if they choose to tell others about the cause. The treatment message in our field test increased click-through by 5.1% and boosted donors' likelihood of recruiting others to give by 12.4% compared with a control condition simply asking donors to share. In terms of dollars recruited, the average participant who saw our impact-focused solicitation to share brought in 16.6% more in recruited donations from others relative to control. To the extent that this represents a meaningful increase, it appears to be driven by more donors opting to share at all rather than by more persuasive recruitment (i.e., bringing in more or larger donations) among those who do share.

The data from Experiment 1 suggest that potential sharers pay relatively less attention to social impact than to their reputation at baseline. Inspired by this result, we designed the treatment message to prompt donors to consider their capacity for positive social impact when deciding whether to share. However, it is possible that, separate from making social impact salient, our treatment effects may have operated through another mechanism—by decreasing worries about bragging. That is, in making the social impact case for sharing, the treatment might also have reduced the extent to which sharers saw posting about their generosity as a signal of self-interest, thereby reducing concerns that sharing might be interpreted negatively. To investigate this possible mechanism, we conducted a preregistered experiment (reported in full in Appendix Section v). In it, 300 participants were randomized to see either the control or treatment message from the field experiment and then to make forecasts of how sharing would impact the cause and how it would impact their reputation. In line with our account, participants expected sharing to have a more positive impact for the cause after reading the treatment message (vs. control). However, they did not expect sharing to be viewed any less negatively after reading the treatment message (vs. control). We take this pattern as evidence that the treatment message adds a positive consideration into the mix, but it does not necessarily weaken worries about bragging. Still, capitalizing on this additional mechanism is an interesting area for future work (see Section 5.1 below).

Interestingly, further exploration of our field data suggests that not all donors are equally willing to share and that treatment effects on willingness to share were more pronounced among donors who themselves gave

more money. Across conditions, donors who gave more and more often during the test period were less likely to click on our ask-to-share pop-up, but if they did, they were more likely to recruit others to give through their referral link. What might account for these divergent effects? One possible explanation is that larger-gift donors are wealthier/higher-status individuals who worry more about their reputations but who are also more influential within their social networks or have more generous friends. Another possibility is that donors who give more care more authentically about the causes they support, making them more hesitant about bragging but more impassioned and persuasive recruiters if they do decide to share (see Barasch et al. 2016). There may be other explanations.

No matter what drives their modesty, these reluctant influencers were more responsive to our social impact message. Comparing the highest and lowest quartiles of givers (in terms of dollars donated during the experiment) reveals heterogeneity in our treatment effects. Donors who gave the most were 9.9% more likely to click and 27.4% more likely to recruit a downstream donation in the treatment condition relative to control. By contrast, donors who gave the least were 0.4% less likely to click and 2.5% less likely to recruit in treatment relative to control. In summary, our impact-focused message boosted WOM more among larger-gift donors, who appear more modest about sharing but who also have greater potential for social influence if they do.

Finally, because our treatment message encouraged donors to do something that might make them feel uncomfortable, sharing about charity, we also tested whether it might have any negative effects on their likelihood of donating again. Encouragingly, donors who saw the treatment message were no less likely to give again themselves either during the test period or after it.

5.1. Implications and Future Directions

The effects of our treatment are modest in absolute terms, but they may nevertheless have important economic consequences. To approximate them, we can multiply the increase in WOM revenue per donor treated in our experiment ($0.22) by the number of annual donors to DonorsChoose.org (~600,000) to predict an annual revenue boost of roughly $132,000 for the organization. Note that this back-of-the-envelope estimate does not account for further network benefits of treatment, that donors recruited via WOM may themselves later become recruiters.

We can also benchmark the effects by comparing them to those from previous online advertising experiments. Estimates of "lift" (i.e., relative increase in click-through rates) from ad experiments vary (Bakshy et al. 2012, Lewis and Rao 2015, Ghosh et al. 2020), although recent meta-analyses suggest that the average lift observed in online A/B tests is around 2.3%, with modal effects typically closer to 0 (Berman and Van den Bulte 2022). Comparing our effect of treatment on click-through to such benchmarks suggests an above-average effect at 5.1%. Still, most prior experiments measure clicks on advertisements for products and services, whereas we measure clicks on a solicitation to share. We know of no field experiments testing click-through rates on solicitations to share per se, either in the domain of charity or elsewhere, making comparisons to past literature difficult. Therefore, we hope the effects we obtained can serve as a benchmark for related future work.

In the meantime, we note a few potential ways that our effects might be strengthened and complemented. First, we treated an online pop-up message, which many donors might close reflexively, block automatically, or simply fail to notice. Thus, one simple way to increase its efficacy would be to embed social impact messaging into a wider set of marketing communications and to make it even more direct and salient within them. For example, many nonprofits send emails urging their donors to spread the word about the cause or participate in campaigns to raise awareness. Such efforts might be aided by more direct and consistent messaging that sharing about charity means doing more good. Although the WOM benefits of sharing for the cause may seem obvious on reflection, worrying about what others will think can be a distraction in the moment.

Another important direction will be to explore what information people choose to communicate when talking about charity and whether marketing messages can enhance recruitment by suggesting what donors might say (e.g., by providing default messages to post after click-through). In our data set, we cannot see what people choose to post on social media or share in their personal communications, but we can observe that fewer than 20% of those who click-through ultimately recruit a donation. Helping donors become more persuasive recruiters, beyond just increasing their willingness to share about charity at all, may help to narrow this gap. However, marketers need to proceed carefully, because tactics aimed at making donors more persuasive recruiters may also make them more reluctant to share in the first place. For example, messages that "tag" specific friends and put them on the spot to donate might be more persuasive, but they may also feel pushier and more uncomfortable (and therefore be less likely to be shared at all). Similarly, tactics that make donors more willing to share may also make them less persuasive. For example, giving donors an avenue to amplify a cause anonymously may reduce worries about bragging, but it may also diminish their capacity to use social standing and relationships as a point of influence. In short, there may be important trade-offs between what donors are willing to say and what will most effectively bring in recruited donations.

A further approach would be to explore whether marketers can increase WOM about charity by reducing apprehension about bragging. That is, although our intervention was designed to amplify the salience and importance of social impact, it could be augmented with messaging that also eases donors' worries about the appearance of self-promotion (a mechanism that our treatment does not appear to tap; see Appendix Section v). Some organizations have found success with such tactics already. For example, well-known viral campaigns like *The Ice Bucket Challenge*—in which people post videos of themselves getting ice dumped on their heads for ALS research—or *Movember*—in which people grow unbecoming moustaches to raise awareness for prostate cancer—explicitly introduce embarrassment or self-effacement into the sharing campaign. For another example, Facebook encourages users to post about "donating their birthday," forgoing birthday gifts in exchange for donations to good causes. Although it may seem surprising that adding sacrifices or self-effacements might boost WOM, we suspect that such strategies can succeed by helping consumers weaken or displace the signal that their sharing is aimed at self-promotion. Future researchers can look to combine messages that highlight how sharing can benefit the cause with features that diminish inferences of bragging to further spur WOM.

To what extent might our effects generalize beyond this specific organization and donation context? Our framework should apply to other cases in which people have acted generously (i.e., contributed to a public good) and are considering sharing about it with others. This might include things like signing petitions, volunteering, purchasing fair-trade products, going green, etc. However, given variation in givers, platforms, and causes, future work is needed to confidently generalize our results to other settings. Beyond charity, our account might also apply to certain political activities like voting or protesting or giving money to political campaigns. Future research should explore people's sharing decisions in the context of more divisive contributions (e.g., giving money to the NRA or Planned Parenthood), because such cases involve more nuanced reputational calculations. Taking a political stand often means taking sides in broader intergroup conflict (Silver and Shaw 2022).

Messages about social impact would not logically be useful in cases where consumers are making purchases for the self. Central to our theorizing and explicated in the treatment message is the idea that talking about one's generosity is a way to have more impact toward a social cause one cares about in the first place. That is, the consequence of sharing we make salient (i.e., doing more good) aligns with the goal of donating. By contrast, after making a purchase for the self, say, buying new sneakers, telling others does not necessarily further the goal of the purchase. Moreover, as evident in our pilot, people feel more uncomfortable sharing about donations to charity than about many other ordinary expenditures. This likely stems from a pervasive view that generosity is supposed to be selfless and that publicizing it may suggest an ulterior, self-enhancing motive (see, e.g., Berman and Silver 2022). Sharing about other purchases is unlikely to involve the same kind of apprehension. Still, our work offers a template for encouraging word-of-mouth about other expenditures. Identify what considerations come to mind when deciding whether to share about a given purchase, and make sure those that favor sharing are strongly salient when soliciting WOM.

Although scholars argue that social impact should guide decisions about charity in principle (MacAskill 2015), there is ongoing debate as to how much donors think about and prioritize impact in practice. Evidence suggests, for example, that donors are relatively scope insensitive in their charitable contributions (Jung et al. 2017), that they care more about having some impact than how much (Zlatev et al. 2020), and that they often prioritize personal feelings over effectiveness when deciding where to donate (Berman et al. 2018). At the same time, recent research finds that making social impact salient at critical decision-making points may help prompt more effective giving. For example, donors are more likely to give to causes that offer matching incentives that clearly amplify their impact (Karlan and List 2007), and they are more likely to prioritize effective giving when they are able to compare social impact across different organizations easily (Caviola et al. 2014). Donors seem to care about social impact but may need encouragement to act accordingly. In line with this general picture, we find that when it comes to talking about giving, urging donors to consider their capacity for greater impact can shift their thinking and promote word-of-mouth.

6. Conclusion

Encouraging word-of-mouth is a central marketing objective. In the context of fundraising for charity, it is also a critical way for generosity to spread. Our experiments document a psychological bottleneck that stands in the way. Thinking about sharing often brings to mind reputational risks more so than benefits for the cause. Fortunately, a simple message can reorient donors to their ability to influence others, encourage WOM, and perhaps boost fundraising for worthy causes.

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Endnotes

[1] Where such experiments exist, they typically use incentives to spur WOM, e.g., via promotions (Berger and Schwartz 2011) or referral bonuses (Wolters et al. 2020).

[2] Note on exclusions: This excludes 1,468 donors who evaded assignment to condition in DonorsChoose's A/B software and therefore saw different messages at different donation occasions. Because our measure of click-through is at the donor level and cannot be tracked to a particular donation occasion for donors who give more than once, these 1,468 participants cannot be included in our analysis (or else they would be in both conditions simultaneously). We also excluded 258 donors whose individual payments were not tracked. These participants cannot be included in any analyses that consider number of donations or amount donated; however, including these 258 donors in models that predict click-through and recruitment from condition alone does not impact the results.

[3] Note that, in principle, persuasiveness could itself be impacted by a wide variety of factors, many of which are unobserved in our setting, including how often a donor shares, the specific sharing channel they select, and what they communicate.

[4] One possible concern with social influence experiments is network interference (Rosenbaum 2007)—that the treatment of one participant might impact outcomes for other participants. Our primary DV—click-through—should not be susceptible to interference. However, it is theoretically possible that later donations recruited could be. Such an explanation would require (a) that participants in treatment and control clicked/shared to the same potential donors, (b) that these donors did not simply respond to the first post they encountered, and (c) that the effect of seeing later posts differs from the effect of seeing the first post. These conditions seem unlikely for more than a tiny fraction of participants, but we cannot rule them out entirely.

[5] A note of caveat: Because donors decided whether to donate a second time after having seen the sharing-solicitation message that our experiment treated, analyses focusing on the subset of single-donation donors could be subject to possible selection effects. In actuality, we do not find evidence that treatment influences the number of times a donor gives (see Appendix Section iv). Nevertheless, where they are reported, analyses using one-time donors should be treated cautiously and only as convergent evidence for effects demonstrated first with the full sample.

[6] Participants decided whether to make a second donation after exposure to the sharing pop-up (having seen it after making their first donation). Thus, in principle, how much donors gave across conditions could be impacted by treatment, but only if participants were more likely to return to donate again in one condition versus the other. This is not the case (See Appendix). Among those donors who gave only once, how much to give was decided before random assignment, and as would be expected, we see no differences in gift amount among this subset ($B = -0.15$, SE = 0.38, $t(64{,}735) = -0.41$, $p > 0.5$).

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