This article was downloaded by: [68.175.130.32] On: 19 January 2023, At: 17:57 Publisher: Institute for Operations Research and the Management Sciences (INFORMS) INFORMS is located in Maryland, USA



Management Science

Publication details, including instructions for authors and subscription information: http://pubsonline.informs.org

Self-Interested Giving: The Relationship Between Conditional Gifts, Charitable Donations, and Donor Self-Interestedness

Matthew Chao, Geoffrey Fisher

To cite this article:

Matthew Chao, Geoffrey Fisher (2022) Self-Interested Giving: The Relationship Between Conditional Gifts, Charitable Donations, and Donor Self-Interestedness. Management Science 68(6):4537-4567. <u>https://doi.org/10.1287/mnsc.2021.4039</u>

Full terms and conditions of use: <u>https://pubsonline.informs.org/Publications/Librarians-Portal/PubsOnLine-Terms-and-Conditions</u>

This article may be used only for the purposes of research, teaching, and/or private study. Commercial use or systematic downloading (by robots or other automatic processes) is prohibited without explicit Publisher approval, unless otherwise noted. For more information, contact permissions@informs.org.

The Publisher does not warrant or guarantee the article's accuracy, completeness, merchantability, fitness for a particular purpose, or non-infringement. Descriptions of, or references to, products or publications, or inclusion of an advertisement in this article, neither constitutes nor implies a guarantee, endorsement, or support of claims made of that product, publication, or service.

Copyright © 2021, INFORMS

Please scroll down for article-it is on subsequent pages



With 12,500 members from nearly 90 countries, INFORMS is the largest international association of operations research (O.R.) and analytics professionals and students. INFORMS provides unique networking and learning opportunities for individual professionals, and organizations of all types and sizes, to better understand and use O.R. and analytics tools and methods to transform strategic visions and achieve better outcomes.

For more information on INFORMS, its publications, membership, or meetings visit http://www.informs.org

Self-Interested Giving: The Relationship Between Conditional Gifts, Charitable Donations, and Donor Self-Interestedness

Matthew Chao,^a Geoffrey Fisher^b

^a Williams College, Williamstown, Massachusetts 01267; ^bCornell University, Ithaca, New York 14853 Contact: mc20@williams.edu,
https://orcid.org/0000-0002-4757-2001 (MC); gwf25@cornell.edu,
https://orcid.org/0000-0001-6355-5079 (GF)

Received: December 11, 2019 Revised: August 12, 2020; January 19, 2021 Accepted: February 3, 2021 Published Online in Articles in Advance: September 20, 2021

https://doi.org/10.1287/mnsc.2021.4039

Copyright: © 2021 INFORMS

Abstract. Nonprofits regularly use conditional "thank you" gifts to entice prospective donors to give, yet experimental evidence suggests that their effects are mixed in practice. This paper uses multiple laboratory experiments to test when and why thank you gifts vary in effectiveness. First, we demonstrate that although gifts often increase donations to charities that donors did not rate highly, many of the same gifts had no effects or negative effects for charities that prospective donors already liked. We replicate these findings in a second experiment that uses a different range of charity and gift options as well as different measures of participant perceptions of a charity. We also find that making gifts optional, as is common in fundraising campaigns, does not eliminate these negative gift effects. In additional experiments, we directly test for donor motives using self-report and priming experiments. We find that thank you gifts increase (decrease) the weight that donors place on self-interested (prosocial) motives, leading to changes in donation patterns. Altogether, our results suggest that practitioners may find gifts more useful when appealing to donors not already familiar with or favorably inclined to their charity, such as during donor acquisition campaigns. They may be less useful when appealing to recent donors or others who already favor the charity, in part because the gift may activate mindsets or norms that emphasize self-interested motives instead of more prosocial, other-regarding motives.

History: Accepted by Yan Chen, decision analysis.

Funding: Funding for experimental costs were provided by the Foundation for Food & Agriculture Research.

Supplemental Material: The data files and online appendix are available at https://doi.org/10.1287/mnsc. 2021.4039.

Keywords: charitable giving • motivation crowding out • mindsets • altruism • social norms

1. Introduction

Nonprofits often offer conditional "thank you" gifts in exchange for a donation. Some organizations offer them at all times to prospective online donors, whereas others do so for special campaigns (see Appendix Figure A.1 for examples from NPR, PBS, and the Red Cross, among others). Similarly, crowdfunding platforms that are used for charitable causes will often advise offering rewards to donors (e.g., GoFundMe; see Kutilek 2016). Despite widespread adoption of these strategies, academic studies suggest that their effects are decidedly mixed. Previous experiments in the field and laboratory have found that thank you gifts can have a negative (Newman and Shen 2012, Chao 2017), null (Landry et al. 2010, Eckel et al. 2016), or positive effect (Holmes et al. 2002, Savary et al. 2017, Zlatev and Miller 2016) on donations. Although differences in gift framing can explain some of this variation, there remain untested theoretical mechanisms for why gift effects vary, and these may carry important implications for practitioners.

We first investigate whether and how gift effects vary across different charities. Prior studies that identified negative gift effects focused primarily on organizations or causes that most participants already viewed favorably (e.g., see Newman and Shen 2012, Chao 2017). We test whether gifts may be more useful when charities are targeting donors that are not already favorably inclined toward the organization and their cause, as indicated by participant ratings of charities or by whether they have supported the charity in the past. In particular, the same gift offered to the same prospective donor could have different effects across different organizations, ceteris paribus. Because many charities often use gifts to target very broad swaths of prospective donors (e.g., see examples in Figure A.1), our hypotheses, if true, would suggest that practitioners should be more selective in whom to target with gifts.

Second, we investigate whether heterogeneous gift effects arise in part because thank you gifts cause donors to be more self-interested in their decision

4537

making. For instance, a gift offer may activate a more self-interested mindset, or a situational norm of selfishness, that then causes prospective donors to place less weight on intrinsic, prosocial motives and more weight on self-interested incentives when choosing whether to donate (Frey and Oberholzer-Gee 1997, Gneezy et al. 2011). To test this, we measure whether including a gift in a donation choice causes participants to rate self-interested motives as more important when choosing whether to donate. Next, we use a mindset priming task to test whether increased selfinterestedness influences donation choices that include thank you gifts. These tests do not rule out whether other mechanisms (such as altruism, signaling, or gift framing) are also relevant, but they do establish whether activation of a self-interested mindset is part of the reason for heterogeneity in gift effects.¹

To first test whether gifts have different effects across charities, we designed a laboratory experiment (Study 1) where participants rated a wide variety of charities and thank you gifts on a discrete scale from -1 to +2. The -1 and 0 ratings gave participants an opportunity to express dislike or indifference. We then asked participants how much they were willing to donate to each charity, in some instances with thank you gifts attached (conditional on donating).² At the end of the experiment, one donation decision was chosen and implemented, and participants received any earned gifts at that time. For robustness, we then ran a conceptual replication (Study 2) that altered the range of charities and gifts shown to participants, the order of the experimental tasks, and the measures of participant perceptions of the charity.

The results in Studies 1 and 2 demonstrate that gift effects depended heavily on a prospective donor's perceptions of the charity and the gift. When the participant did not care for the charity (i.e., for charities rated -1 and 0), modest gifts rated +1, and sometimes those rated 0, had positive effects on donation amounts and rates. This may help explain why gifts are a popular strategy for many nonprofits despite the contrary evidence in the academic literature. However, many of these same gifts had large negative effects on donations when offered alongside highly liked charities (those rated +2), thus corroborating a portion of the previous literature. For these very popular charities, only the most desirable gifts (those rated +2) did not have a negative or null effect on donations.³ Study 2 corroborates that these effects look similar when using a different range of charities and gifts as well as any of several different measures of charity liking; the latter included ratings of the organization itself, ratings of their cause, and past support of a charity.

Study 3 in our paper adds a practical result by demonstrating that making the gifts optional did not alter donations. In most gift campaigns run by practitioners, thank you gifts are opt-in or opt-out (e.g., see Figure A.1 in the appendix for examples). Practitioners may think that the opt-out reduces risk that an undesirable gift decreases donations. Our results instead find that gifts commonly rated as undesirable will reduce donations to high-rated charities (relative to when no gift is offered, and to other counterfactuals) regardless of whether the gift is optional or not.

Studies 4A and 4B tested whether the presence of a thank you gift caused donors to be more self-interested, leading to changes in donations. This theory proposes that preferences to donate can be represented as a combination of self-interested and prosocial motives. Introducing a gift may cause individuals to place less weight on prosocial motives, and greater weight on selfinterested motives, when choosing whether to donate. This could be because the presence of the gift acts as a situational cue that activates more self-interested mindsets (Oyserman 2015) or norms (Liberman et al. 2004). This would predict heterogeneous gift effects; increasing the weight placed on self-interested motives could increase donations to a charity that is not well liked while decreasing donations to a well-liked charity. This could also explain why making gifts optional does not reverse these effects, since optional gifts may still increase the emphasis on self-interestedness.

Study 4A asked participants to report the relative importance they placed on prosocial versus self-interested motives when making a variety of donation choices. Participants reported less importance for prosocial motives and more importance for self-interested motives whenever the donation involved a thank you gift, even when the participant expressed indifference for the gift. This differs from standard economics models (e.g., see von Neumann and Morgenstern 1953, Luce 1959) by demonstrating that the presence of an irrelevant incentive can nevertheless alter the decision-making process, leading to greater emphasis on self-interested motives. Study 4B primed a different set of participants for self-interestedness or prosociality before making a donation choice; in the selfinterested prime condition, gift ratings had stronger effects on donation decisions, while charity ratings had weaker effects. Together, Study 4A demonstrates that offering any gift can increase the weight placed on selfinterested motives, while Study 4B demonstrates that this increase in self-interestedness reduces the influence that perceptions of the charity have on donations. These results are consistent with mindset studies suggesting that self-interested primes can change judgments and decisions across many contexts (e.g., see Oyserman et al. 2009, Kwon et al. 2015, Saluja et al. 2017).

These findings carry important implications for practitioners. Although many practitioners use gifts to target all or most prospective donors (e.g., see Figure A.1), our results suggest that they may best utilize gifts for primarily targeting new donors who do not already view the charity favorably. In such cases, even modest gifts (those likely to be rated 0 or +1) such as pens or tote bags may have positive effects on donations. However, these same gifts may have null or negative effects on those who already view the charity favorably; thus, gifts may not be beneficial when targeting "warm lists" or recent donors, since gifts may activate mindsets that place less weight on prosocial motives. Unlike some of the gift campaigns in Figure A.1, only highly desirable gifts should be offered to these donors. Finally, practitioners should be aware that simply making the gift optional does not necessarily eliminate these effects, perhaps because they can still activate self-interested mindsets or norms.

2. Theory and Literature 2.1. Heterogeneous Gift Effects

Studies have shown mixed effects of thank you gifts on donations, with many showing negative or neutral effects (e.g., see Newman and Shen 2012, Eckel et al. 2016, Chao 2017).⁴ This variance may partially be because existing studies were often restricted to only a few charities and gifts and, in some cases, just one or two of each. The gifts in many studies were small and not likely to be highly desirable (e.g., pens, luggage tags, etc.), whereas the charities were often popular organizations and causes. We propose that this combination of gifts and charities will lead to negative or null gift effects and that modest gifts may be more effective for charities that prospective donors do not already feel a strong inclination to support.

Motivation crowding-out theories suggest that when a reward appears to reduce net motivation, it is likely because intrinsic motivation is being displaced (Lepper et al. 1973, Lepper and Greene 1980, Deci et al. 1999, Gneezy and Rustichini 2000, Frey and Jegen 2001, Heyman and Ariely 2004, Benabou and Tirole 2006, Bowles 2008, Gneezy et al. 2011). In the context of donations, this implies that a prospective donor's preference consists of a combination of self-interested and prosocial motives; when a self-interested incentive such as a gift is introduced, it may reduce the emphasis that the prospective donor places on those intrinsic, prosocial motives. This implies that a gift is less likely to reduce net motivation to donate when the charity is not already well liked by the donor, since there is less intrinsic motivation to be displaced.

To operationalize the idea of when charities and products are liked or not, our first experiments will ask participants to use a -1 to +2 Likert scale to rate charities and gifts (as described in the Introduction). Using this framework, we hypothesize that

H1: Modest gifts rated 0 or +1 can have positive effects on donations for charities that are not already liked (charities

rated -1 or 0), but this effect may diminish as charity ratings increase.

By similar logic, we hypothesize that negative gift effects occur primarily when a charity is already liked. In this case, a modest gift will shift emphasis away from the donor's prosocial motives to donate, potentially decreasing net motivation if the gift is not desirable enough. This leads to our second hypothesis:

H2: Disliked and neutral gifts (rated -1 or 0) can have negative effects on donations to charities that are liked (rated +1 or +2), but not to lower-rated charities.

Finally, gifts that are highly desirable and rated +2 may be beneficial even for charities that are well liked, since they may offer enough incentive to replace the prosocial motives they are displacing. In this case, a prospective donor may be willing to donate more in order to obtain the gift for self-interested motives (e.g., see Miller 1999, Brown et al. 2019). This leads to our third hypothesis:

H3: *Highly desirable gifts (those rated* +2) *will have positive effects on donations for charities of all ratings.*

2.2. Optional Gifts

Many practitioners make thank you gifts optional when offering them in fundraising campaigns (e.g., see Figure A.1). One possible reason may be that practitioners hope this allows those who do not like the gift to disregard it when choosing whether to donate. Consistent with this, some models of self-signaling would predict that making gifts optional can prevent gifts from having negative effects. For instance, Benabou and Tirole (2006) posit that if a thank you gift has negative effects, it may be because it is reducing a prospective donor's ability to signal altruism to oneself; thus, choosing not to accept a gift would potentially avoid these effects.⁵ This leads to our fourth hypothesis:

H4: Making a gift optional can eliminate negative gift effects.

Importantly, our studies do not find evidence that supports H4; this suggests that some mechanisms, such as those discussed in the subsequent section, may displace prosocial motives even when the gift is optional.

2.3. Mindset Mechanism

Among other effects, gifts may displace prosocial motives by activating a more self-interested mindset in prospective donors. Previous work has found that a mindset acts as a frame or lens that encodes relevant information and leads an individual to take appropriate actions or responses, given the setting (Dweck 2008, Crum et al. 2013, Dweck and Yeager 2019). Consistent with this, mindsets have been found to influence individual judgments (Taylor and Gollwitzer 1995, Oyserman et al. 2009, Saluja et al. 2017), choices (Kim et al. 2019), and evaluations (Gollwitzer 1999, Kwon et al. 2015). They can also be situationally evoked (see, e.g., Oyserman and Lee 2008, Kwon et al. 2015, Oyserman 2015), and self-interested and individualistic mindsets have commonly been primed in this literature (Oyserman et al. 2009, Kwon et al. 2015, Saluja et al. 2017; and see Oyserman and Lee 2008 for a meta-analysis).

In the case of thank-you gifts, we propose that the presence of a gift is sufficient to situationally activate a mindset. When an individual decides whether and how much to donate, they must assign some importance to their prosocial and self-interested motives before then summing the two weighted components to construct a donation amount. We hypothesize that the presence of a gift activates a mindset that places more emphasis (i.e., weight) on self-interested motives and less emphasis on prosocial motives compared with the mindset that is activated in the absence of a gift. This computational framework is similar to economics models of motivation crowding-out (Frey and Oberholzer-Gee 1997, Gneezy and Rustichini 2000, Gneezy et al. 2011). This shift in weights would then alter donation choices in a manner consistent with hypotheses H1-H3, since it would lead to changes in net motivation that depend on charity and gift ratings. Indeed, previous work has shown that small changes in the features of a choice can activate more self-interested or other-regarding mindsets (see, e.g., Wang et al. 2014, Kwon et al. 2015, Saluja et al. 2017, Saccardo et al. 2020). This leads to our final two hypotheses:

H5: Offering a thank you gift will cause prospective donors to report placing greater weight on self-interested motives and less weight on prosocial motives.

H6: A self-interested mindset, induced by priming, will cause gift (charity) ratings to play a larger (smaller) role in donation decisions relative to a prosocial mindset.

A portion of previous mindset-related work has proposed that a mindset, once activated, can carry over to unrelated tasks (Xu and Wyer 2008). Our results are not inconsistent with this, although we conceptualize mindset as being activated by characteristics of the choice being made (i.e., whether a gift is offered or not). This is consistent with literature on how preferences are constructed at the time of choice based on features of the present choice (Warren et al. 2011) as well as with mindsets being activated by situational cues (Oyserman 2015).

2.4. Activation of Norms

Importantly, H5 and H6 are also consistent with a norms activation story. This literature theorizes that norms are situational mental constructs or prescribed

behaviors that can be activated by subtle cues such as changes in language or phrasing (see, e.g., Liberman et al. 2004 and Biel and Thogerson 2007 for a summary of the literature). This is similar to the definition and operationalization of mindset. As such, H5 and H6 could also be explained if the presence of a gift activates a situational norm emphasizing self-interested motives instead of or in addition to a self-interested mindset. Importantly, both concepts provide a computational framework in that the main effect is driven by a shift in the importance of prosocial and self-interested motives. It may also be that mindsets represent a broader mental construct that can be associated with multiple norms (World Bank 2015). Our results, like many others in the norms activation and mindset literatures, do not distinguish between whether the activated motives are a (more narrow) norm or a (broader) mindset.

2.5. Other Mechanisms

Mindsets and norms are not the only mechanisms that may be relevant to these heterogeneous gift effects. H5 and H6 do not test or rule out whether thank you gifts also involve other motives. For instance, preferences for altruism likely represent some of the initial intrinsic motives that participants have for donating to highly rated charities, whereas economically rational motives likely play a role in how prospective donors respond to the desirability of the gift (as predicted in H3). Other mechanisms such as self-signaling (Benabou and Tirole 2006, Savary et al. 2015), social image (Ariely et al. 2009), reference or framing effects (Newman and Cain 2014, Zlatev and Miller 2016, Savary et al. 2020), and a norm of self-interest (Miller 1999, Ratner et al. 2011, Simpson et al. 2006) may also contribute to gift effects across a variety of contexts. For instance, some specifications of self-signaling may also predict differences in donation patterns when gifts are present for some of the charity-product values we test. Finally, in cases where a donor can choose from multiple gifts (as seen in some of the examples in Figure A.1), a sense of agency (Kessler et al. 2019) may also influence donors.⁶

Our tests of H5 and H6 do not contradict these other mechanisms; they test only whether an increase in self-interestedness, evoked through priming a mindset, is also relevant to the heterogeneous effects of thank you gifts. In particular, this mechanism may be especially well suited for explaining the wide-ranging heterogeneity of gift effects across the different combinations of negative, neutral, and positive-rated charities and gifts, as predicted in H1–H3; several of the aforementioned mechanisms may predict some but not all of these effects.

2.6. Differences from Unconditional Gifts

This paper focuses on conditional gifts and not unconditional gifts. Studies (Beltramini 2000, Falk 2007, Chao 2018) have shown that first gifting an item unconditionally before a solicitation can lead to positive reciprocal responses, and nonprofits at times implement this using low-cost items (e.g., return address labels, postcards, etc.). However, unconditional gifts could include mechanisms that are not invoked by conditional gifts, such as obligation or guilt (see, e.g., Malmendier and Schmidt 2017, Chao and Chapman 2020). Our study focuses only on thank you gifts, which are always conditional in nature. Thus, our study is agnostic on whether the results and mechanisms implicated in our experiments would extend to unconditional gifts or whether other mechanisms identified in unconditional gift studies (such as obligation) would apply to our context.

3. Study 1: Heterogeneous Gift Effects 3.1. Design and Procedure

Study 1 was designed to measure how gift effects vary across charities and gifts of differing quality or desirability (hypotheses H1, H2, and H3). As depicted in Figure 1, participants completed four tasks before receiving payment. Each task is detailed below.

Charity Rating Task. Participants were first asked to rate 20 different charities based on their personal opinion of each charity. They were shown images of charity logos (see Appendix Figure A.2) and instructed to consider what they knew about the charity's mission, activities, and reputation but not to evaluate the logo image itself. Participants were shown one logo at a time, in random order, and asked to rate them on a scale of -1 to +2. They were instructed that a rating of -1 represented a charity they viewed negatively, whereas a rating of 0 meant they were either indifferent about or unfamiliar with the charity, and +2 ratings corresponded to charities they considered among their favorites.

We chose charities that varied in size, cause, and reputation to ensure enough variation in ratings to test H1–H3. These included large, well-known national charities with large budgets (e.g., Red Cross, Salvation Army) as well as small, niche nonprofits with specific or narrow causes (e.g., Lupus Alliance, Restore Oregon). We also included some nonprofits known to have wide-ranging, possibly polarizing reputations (e.g., National Rifle Association, ACLU, Wounded Warrior Project). We included charities that would be disliked by some in order to test whether some gifts cause donors to be willing to donate to disliked charities.⁷

Product Rating Task. Participants were similarly asked to rate the desirability of 20 different consumer products. Participants were shown images of these products (Appendix Figure A.2) and instructed to rate based on how they perceived the desirability of the product; they were told not to account for perceived price. Participants were shown one product at a time, in random order, and asked to rate them on a scale of -1 to +2. They were instructed that a rating of -1 represented a product they preferred not to own, whereas a rating of 0 meant they were indifferent to owning it. Positive ratings represented a desirable product.

To ensure variation in ratings, we included products that likely varied in desirability. These included popular but less commonly used thank you gifts (e.g., an e-reader, a hoodie), more modest and common giveaways (e.g., a pen, a lanyard), and gifts that some but not all would dislike (e.g., Spam, seaweed snacks). We also included some polarizing options (e.g., a "Make America Great Again" hat, an "Occupy Wall Street" hat); these represent highly desirable products to some and undesirable products to others.

Charity-Product Donations. In each round of this task, participants were simultaneously shown one of the charity logos from the charity ratings task and one of the product images from the product ratings task. They were asked to choose whether and how much to donate to the depicted charity, and the pictured product was offered as a thank you gift for donating. Participants earned \$15 for participating in the experiment, plus a \$10 show-up fee, and thus they were allowed to donate up to \$15 to the charity. If they did not want to donate, they could simply select a donation amount of \$0.

Participants were shown 32 rounds, with one donation decision per round. If possible, the program selected two charities of each rating (-1, 0, +1, +2) and





two products of each rating to populate the rounds (2 \times 4 \times 4). If, in the ratings tasks, a participant rated fewer than two charities or products for a particular rating, the program selected randomly from the remaining options. Participants were told that they would also make another eight donation decisions in a subsequent task, yielding 40 total donation decisions, but only one of these 40 decisions would be implemented. They were instructed that the one round to be implemented would be selected randomly amongst the 40 by the computer program. Participants were explicitly instructed that they therefore did not need to worry about spreading their donations across multiple charities or multiple rounds. They were also instructed that if they earned a thank you gift in the selected round, they would be given the item at the end of the experiment.⁸

The donation elicitation was done via a Becker-DeGroot-Marschak mechanism (Becker et al. 1964). Participants chose the maximum amount they were willing to donate, and the computer randomly selected a number (the "BDM number") between 0 and 15. If the participant's maximum donation was greater than or equal to the BDM number, the subject would donate the BDM number to the charity (not the maximum amount they chose). To ensure that participants understood this, the instructions included examples as well as opportunities to ask for clarification.⁹ The BDM mechanism ensured that there was no strategic advantage to donating a small amount, such as \$1, because small donations did not guarantee receiving the product if the round got implemented.

Charity-Only Donations. In this task, participants were again asked to make donations to a charity, but this time there was no image of a product and no thankyou gift for donating. As such, participants only saw one image, the charity logo, in each round. In total, participants made eight donation decisions. As before, these eight consisted of two charities of each rating (-1, 0, +1, +2); if they had fewer than two charities for a given rating, the program instead chose randomly amongst the remaining charities.

Other aspects of the task were the same as in the charity-product task. Participants were allowed to donate up to \$15 to the charity, and the elicitation was done via BDM. Participants were reminded that only one of their 40 total donation choices would be chosen to be implemented.

The order of the charity-only and charity-product tasks was randomized between participants. This balanced out any possible order effects between the two tasks (in the online appendix, we also show regression results that control for this order; results are not impacted). Naturally, the instructions were modified to ensure that regardless of which task came first, all aspects of the experiment (such as the BDM mechanism) were explained in detail the first time the participant was exposed to them.

Payment. Upon completion, participants filled out a brief demographics questionnaire and received payment. The computer selected one of the 40 rounds for payment. If a donation was made (via BDM) in the selected round, we made the donation on behalf of the participant. If the donation was from a round that included a gift, we presented the product to the participant at the end of the experiment.

Procedure. Participants were recruited for in-laboratory sessions via an experimental subject pool at a large East Coast university in the United States. A total of 54 participants were run. No participants, sessions, or data points were excluded. No data were analyzed until all 54 data points were collected. The experiment was programmed in Psychtoolbox (Brainard 1997).

3.2 Results

Summary Statistics. As expected, we obtained a wide distribution of ratings between and within participants. Average charity ratings varied from -0.5 to +1.4, and average product ratings varied from -0.7 to +1.3. Average donations increased as charity and product ratings increased. Negative (positive) rated charities and products had lower (higher) donations relative to neutral rated ones. Figure A.3 and Tables A.1 through A.4 in the appendix provide additional summary statistics and analyses of these main effects of ratings.

Regression Analysis. To examine whether gift effects differed across charity ratings, as predicted in hypotheses H1–H3, we run OLS regressions that restrict the sample to charities of a specific rating while allowing products to range over all possible values. The regression equation is

$$Donation_{ij} = \beta_0 + \beta_1 * \mathbf{Product_{ij}} + X_i + \varepsilon_{ij}$$
(1)

where $Donation_{ij}$ represents either average donations or an indicator for positive donations, **Product**_{ij} is a vector of indicators for product rating (omitted category: no-product rounds), and X_i represents participant random effects. The subscripts *i* and *j* designate participant and round, respectively. To compare effects as charity ratings increase, this regression is run separately for each charity rating category.

Models (1)–(4) in Table 1 demonstrate that products have very different effects, depending on charity ratings. Consistent with H1, 0-rated products have small but significant positive effects on donations for charities rated –1 or 0 but null or negative effects for higher rated charities. Thus, modest gifts can increase donations to lower-rated charities, including even charities they dislike,

	(1)	(2)	(3)	(4)
Charity ratings	-1	0	+1	+2
N (participants)	445 (48)	655 (54)	605 (54)	455 (49)
Adjusted-R ²	0.077	0.109	0.059	0.067
Product rating				
Negative: –1	0.058*	-0.061	-0.555***	-1.447***
C C	(0.031)	(0.110)	(0.190)	(0.296)
Neutral: 0	0.166***	0.344***	0.106	-0.633**
	(0.062)	(0.110)	(0.177)	(0.294)
Positive: +1	0.339***	0.903***	0.965***	0.049
	(0.112)	(0.178)	(0.233)	(0.287)
Extremely positive: +2	1.131***	1.814***	2.467***	1.781***
0 1	(0.367)	(0.419)	(0.493)	(0.576)
Constant	0.009	0.411***	1.701***	3.234***
	(0.011)	(0.118)	(0.361)	(0.462)
Subject random effects	Yes	Yes	Yes	Yes

 Table 1. Study 1, OLS, Effects of Product Ratings on Average Donations

Notes. Standard errors are robust and clustered by subject. Omitted category is always product = none (the charity-only rounds).

but they can decrease donations in other cases. The +1 products yield positive effects on donations for +1 charities, but because this drops to a null result for +2 charities, this still suggests the +1 products follow a pattern that is generally consistent with H1. In short, as charity ratings increase, gift effects become less positive, eventually switching to negative or no effects for all but the most highly rated products.¹¹ Therefore, consistent with H2 and H3, negative and null effects of gifts occur primarily for liked charities and when offering lower-rated (0 or -1) gifts. However, when gifts are desirable enough, such as +2 gifts (and +1 gifts in the case of +1 charities), they can still yield net increases in donations to liked charities.

The Appendix and online appendix contain additional robustness checks. Appendix Table A5 demonstrates that results are similar when regressing on a binary indicator for nonzero donations. The online appendix includes regressions that exclude politically charged charities and emotionally aversive items.¹² It also contains an additional study that replaced the BDM with a different elicitation mechanism.¹³ Results are similar in all cases.

Implications. These findings may help explain why gift effects in the literature have varied. In many studies that found negative or null gift effects, charities were usually restricted to organizations or causes that many

participants may have already liked. Meanwhile, gifts in these studies were often commonly used but only moderately desirable gifts such as pens or luggage tags (see, e.g., Newman and Shen 2012, Eckel et al. 2016, Chao 2017), which often were rated 0 or +1 in our study. These gifts had null or positive effects for lower-rated charities but null or negative effects for higher-rated charities.

These results suggest that practitioners may want to cater gifts only to specific audiences. For donor acquisition campaigns where many prospective donors may not already view the charity favorably, even a modest 0 or +1 rated gift may help (H1). However, when soliciting warm lists or recent donors who may already like the charity, it may be better not to offer any thank you gift (H2), unless most would consider the gift to be highly desirable (H3).

4. Study 2: Replication and Extension

Study 2 is a conceptual replication that tests whether Study 1 results replicate under slightly different design elements. We also include two alternative measures of participant perceptions of the charity. Figure 2 outlines the design and procedure of the experiment.

4.1. Design and Procedure

Figure 2 illustrates the first key change to the design. Unlike Study 1, participants did not begin by making

Figure 2. (Color online) Experimental Procedure in Study 2



charity or product ratings; we instead elicited ratings at the end of the experiment. This was to ensure that donation choices and gift effects in Study 1 were not influenced by having participants first complete the ratings tasks.

Charity and Product Selection. Because the ratings task was no longer first, the software could not use a participant's ratings to select which charities and products to use in the donation task (as it did in Study 1). We instead preselected six charities and six products based on how they were rated in Study 1, which used the same participant pool. The selected charities were the Red Cross, the Boys and Girls Clubs, St. Jude Children's Research Hospital, Lupus Alliance, Feeding America, and Restore Oregon. The selected products were the headphones, Amazon gift code, duffel bag, umbrella, luggage tag, and the pen. These represented two of each charity and product that were frequently rated +2, +1, or 0 in Study 1 (see Appendix Table A.1).

We chose not to include charities or products that were commonly rated -1. This was to ensure that results from Study 1 were not driven by participants having viewed negative rated charities elsewhere in the experiment, leading to possible contrast effects in later rounds. Therefore, this study is designed to test for effects involving only 0, +1, and +2 rated charities and products.

Charity-Only Donation Task. In this task, participants were shown, in random order, logos of the six charities (one per screen) and tasked with choosing how much of a \$15 payment to donate to the pictured charity. Payment decisions were made using the same method as Study 1. We implemented a BDM mechanism (Becker et al. 1964) to ensure incentive-compatible choices, and we used the same instructions as in Study 1 to explain the BDM. At the end of the experiment, one donation choice from the entire experiment was chosen and implemented. As in Study 1, we informed participants that they therefore did not need to worry about spreading their donations over different charities or rounds.

Charity-Product Donations. In this task, participants were asked to make similar donation decisions, except in this part they earned a thank you gift for donating. In each round, participants were shown one of the six charity logos and one of the six preselected products. Participants completed a total of 36 donation choices (6×6). Other aspects of the task were the same as in the charity-only task. Participants were allowed to donate up to \$15 to the charity, and the elicitation was done via BDM. Participants were reminded that only one of their 42 total donation choices would be chosen to be implemented.

As in Study 1, the order of the charity-only and charity-product tasks was randomized between participants. This balanced out any possible order effects between the two tasks (results controlling for order are in the online appendix; results do not change). As in Study 1, the instructions were modified to ensure that regardless of which task came first, all aspects of the experiment were explained in detail the first time the subject was exposed to them.

Ratings. After the donation tasks, we elicited charity and product ratings in random order. Because our hypotheses center on heterogeneous effects conditional on ratings, we still needed to elicit these at the participant level. For both charities and products, we continued to allow participants to rate them -1; since almost all charities and products were rated -1 by at least one participant in Study 1, we did not expect to have successfully excluded -1 charities and products for all participants.

The product ratings task was identical to Study 1, but the charity ratings task had one notable addition. In addition to ratings of -1, 0, +1, and +2, participants could also choose to select that they were not familiar enough with a charity to submit a rating; this superseded the need to submit a rating for that charity. This differed from Study 1, where they were instructed that a rating of 0 captured charities that they were either unfamiliar with or indifferent to. Therefore, in Study 2, we can separately measure gift effects on charities they were indifferent to (those that they rated 0) versus charities they were unfamiliar with (those that they selected "unfamiliar" for).

Additional Charity Ratings. Subjects then completed one additional set of ratings on the six charities. Instead of rating how much they liked the charity, we asked participants to rate the extent to which they felt personal or emotional ties to the charity's cause. This potentially captures a different dimension of perceptions of a charity. We instructed participants that these ratings did not have to be similar to their prior liking ratings. Participants again had the option to select "unfamiliar" instead of a -1, 0, +1, or +2 rating.

Afterward, participants were also asked to indicate whether they had supported any of the six charities in the past. This enabled us to measure whether gifts have different effects when offered to prospective new donors (e.g., acquisition campaigns) or to past donors (e.g., renewal or lapsed donor campaigns).

Procedure. Participants were recruited via the same experimental participant pool as Study 1 (but excluding those who participated in Study 1). Participants earned a \$10 show-up fee and up to \$15 for completing

the study, depending on their donation choices. A total of 61 participants were run. The experiment was implemented online, and participants were instructed that any earned gifts would be mailed to them by the laboratory manager at no charge to them. No participants, sessions, or data points were excluded. No data were analyzed until all 61 data points were collected. The experiment was designed in Qualtrics.

4.2. Regression Results

To examine whether gift effects differed for charities of different ratings, we run regressions that parallel Table 1 from Study 1. These regressions test for gift effects when restricting the sample to charities of a specific rating while allowing products to range over all possible values. Models (5)–(8) demonstrate that gift effects generally follow the same patterns observed in Study 1. Positive and 0-rated gifts still increased donations to 0-rated charities that participants are indifferent to, but effects become null or negative as charity ratings increase. Unlike in Study 1, the +2 charity, +2 product pair is no longer significant. This could suggest that even highly desirable products do not have consistently positive effects for highly rated charities, providing even stronger evidence of H2 (but not H3). However, it may also be related to smaller sample sizes (this cell had data from 28 participants compared with 42 for Study 1).

Notably, some participants still rated at least one of the presented stimuli to be negative, which is why Table 2 presents results for such cells in gray text. To test whether the inclusion of any subjectively rated negative charities or gifts influenced results, Appendix Table A.6 presents results that exclude any participant who provided any negative rating for either charities or products. The same patterns as in Table 2 are evident on just this subset of 32 participants who never rated anything negatively.

Altogether, the analysis suggests that results in Study 2 very closely resemble those in Study 1 and still support the hypotheses. Thus, changing the order of the ratings and donations tasks did not alter the central findings. Moreover, restricting the range of charities and products used in the study (to reduce any effects from being presented with negative rated stimuli) did not change these patterns.

Study 2 also separates unfamiliar charities from those the participant is indifferent to. When combining these two groups, we find that gift effects still follow similar patterns for these charities in Study 1. When separated, we find that gifts are more effective for charities the participant is familiar with but indifferent to, as opposed to those they are unfamiliar with; only +2 gifts were effective at increasing donations to unfamiliar charities. Practically, this may suggest that gifts are more effective in acquisition campaigns when the donor list is likely to have heard of the charity before.

Robustness Checks. The results look similar when using alternate charity preference measures. These include using ratings of personal or emotional ties to the charity's cause (which correlate with liking ratings, $\rho = 0.52$) or when splitting based on whether participants have supported the charity in the past (see Appendix Tables A.7 and A.8). This increases the applicability of our results to the use of gifts in donor acquisition versus retention campaigns.

Table 2. Study 2, OLS, Effects of Product Ratings on Average Donations

		(5)	(6)	(7)	(8)
Charity ratings	-1 only	0 only (indifferent)	0 only (unfamiliar)	+1 only	+2 only
Includes subjects with –1 Ratings	Yes	Yes	Yes	Yes	Yes
N (participants)	70 (10)	686 (52)	413 (30)	819 (51)	574 (42)
R ²	0.113	0.063	0.000	0.011	0.009
Product rating					
Negative: -1	0.065	0.342	0.355	-0.982***	-1.134*
	(0.282)	(0.261)	(0.261)	(0.335)	(0.586)
Neutral: 0	0.236	0.235*	0.009	-0.391	-1.549^{***}
	(0.373)	(0.122)	(0.201)	(0.245)	(0.474)
Positive: +1	0.575 (0.474)	1.201*** (0.281)	0.125 (0.305)	0.432 (0.403)	-0.739 (0.564)
Extremely positive: +2	1.633**	2.467***	0.998***	1.133****	0.213
	(0.660)	(0.537)	(0.292)	(0.373)	(0.417)
Constant	0.300	1.271***	2.087***	3.786***	5.691***
	(0.309)	(0.255)	(0.401)	(0.441)	(0.603)
Subject random effects	Yes	Yes	Yes	Yes	Yes

Notes. SEs are robust and clustered by subject. Omitted category is always product = none. Gray text corresponds to -1 charities and gifts, which have very few observations by design.

p < 0.10; p < 0.05; p < 0.01.

4546

Study 3 tests whether gift effects differ when gifts are optional. Practitioners typically allow donors to opt in or opt out of a gift (as seen in Figure A.1). If a donor does not like a product, they may simply choose to opt out of the gift and ignore it, potentially mitigating any negative gift effects (as predicted in H4). Some self-signaling models (see, e.g., Benabou and Tirole 2006) also predict that if negative gift effects are due to deterioration of the self-signal value of a donation, then making gifts optional should mitigate negative gift effects. Alternatively, if gifts influence decisions by mechanisms that are present even when gifts are optional, then the opt-out may not change the general pattern of gift effects.

5.1 Design and Procedure

Figure 3 outlines the session. We used a betweensubjects design to ensure that there would be no spillover gift effects between the opt-out and no opt-out treatments. Because we were measuring only the effects of varying the opt-out and not the presence versus absence of a gift, we eliminated the no-product rounds.

Rating Tasks. Participants rated 20 different charities and products in the same fashion as in Study 1. We used the same charities and products as Study 1 and the same ratings scales. We place the ratings tasks first again so that we can use the ratings to obtain more even distributions of ratings in the donations task. Studies 1 and 2 demonstrated that placing the ratings task first did not alter gift effect patterns.

Donation Tasks. As in the previous experiments, participants were shown an image of both a charity and product and asked to consider donating. As before, the product represented the thank you gift that the subject would receive if a donation was made. All procedural aspects of the task were identical to the charity-product donation tasks in Study 1, except that participants completed 33 rounds instead of 32.¹⁴

In one treatment, participants were allowed to also opt out of the gift. This opt-out was available on the

Figure 3. (Color online) Experimental Procedure in Study 3

same screen as the donation decision, so participants knew as they were making their donation choice that opting out of the gift was possible (see Figure 4). This treatment was implemented between subjects. After the donations task, participants filled out a demographics questionnaire and received payment.

Procedure. Participants were recruited via the same subject pool as in Study 1 and Study 2, and previous participants were excluded. In total, 59 subjects participated, with 30 in the opt-out treatment and 29 in the no opt-out treatment. No participants, sessions, or data points were excluded. No data were analyzed until all 59 participants had completed the study. Participants were paid \$15 plus a \$5 show-up fee, and they were allowed to donate up to \$15. The show-up fee is less than Studies 1 and 2 because the study is shorter.

5.2. Results

Opt-Out Decisions. Of the 30 participants in the optout treatment, 14 opted out at least once for a total of 98 opt-outs out of 990 opt-out rounds (9.9%). As seen in Table 3, worse products (-1 or 0) were correlated with opting out, whereas charity ratings were not very predictive of opting out. Since the programming balanced charity-product pairings so that all ratings pairs were displayed at a similar frequency, this suggests that the opt-outs were distributed across charities evenly in part because that is how the poorly rated products were assigned.

Gift and Opt-Out Main Effects. We first run regressions that test for the main effects of both the opt-out and the ratings. Specifically, we run

$$Donation_{ij} = \beta_0 + \beta_1 * Optout_i + \beta_2 * Charity_{ij} + \beta_3 * Product_{ij} + X_i + \varepsilon_{ij}$$
(2)

where $Donation_{ij}$ represents either donation amount or an indicator for positive donations, $Optout_i$ is an indicator for whether opt-out was available, and **Charity**_{ij} and **Product**_{ij} are vectors of indicators for charity and



I choose to opt OUT of receiving the thank-you gift:



product rating, with 0-rated options being the omitted categories. The subscripts *i* and *j* designate participant and round, respectively. Because this is a between-subjects design with participants nested within treatment, we use a linear mixed-effects model with random intercepts at the subject level; this corrects for the hierarchical nature of the data. Thus, X_i represents random intercepts for treatment and subject.

The regressions in Table 4 demonstrate that availability of the opt-out had no main effect on donations. This is true when using either donation amount or an indicator for positive donations. Appendix Tables A.9 and A.10 test for main effects of opt-out availability and product ratings on each charity rating separately, and they demonstrate that, as in the prior studies, products rated -1 had negative effects on donations for positive-rated charities; furthermore, the opt-out had no main effect in any specification.

Table 3. Study 3, Opt-Outs by Ratings

Rating	Opt-out rate	Opt-outs	Opt-outs possible
Charity rating			
-1	0.10	21	207
0	0.08	23	280
+1	0.09	25	276
+2	0.13	29	227
Product rating			
-1	0.25	59	237
0	0.12	34	283
+1	0.01	4	283
+2	0.01	1	187

Opt-Out Effects for Negative Products. We next tested specifically whether opt-out availability altered donations for -1 products, holding the charity rating fixed. These products represent the situation where opt-outs were most likely to increase donations relative to no opt-out availability. For each charity rating, we run the following specification on just the observations with -1 products, and where all variable definitions are the same as before:

$$Donation_{ij} = \beta_0 + \beta_1 * Optout_i + X_i + \varepsilon_{ij}$$
(3)

Table 5 demonstrates that for a -1 product, neither donation amount nor donation probability were significantly influenced by availability of the opt-out. This was true for 0-rated charities, +1-rated charities, and +2-rated charities. (Because only one donation was made for a -1 charity and -1 product pairing, opt-out effects are not identified when restricting to just this pair).

t-Tests can corroborate that opt-out availability did not significantly influence donations. For +2 charity and -1 product pairs, opt-out availability had insignificant effects on donation amount (t(52) = 0.68, p = 0.498) and probability of donating (t(52) = 1.13, p = 0.263). Results are similarly insignificant when expanding to include +1-rated charities and/or 0-rated products.¹⁵

We can also compare donations under optional -1 products to donations in the no-product counterfactual from Study 1, since these latter participants came from the same subject pool and made donations following the same procedure. For positive charities, both donation

	(9)	(10)
Dependent variable	Donation amount	{0,1}: 1 = Donated
N (participants)	1,947 (59)	1,947 (59)
Opt-out available	-0.001	0.021
-1	(0.428)	(0.063)
Charity rating		· · · ·
Negative: -1	-0.651***	-0.190***
0	(0.154)	(0.025)
Positive: +1	0.790***	0.192***
	(0.136)	(0.022)
Extremely positive: +2	1.721***	0.316***
	(0.145)	(0.023)
Product rating	. ,	· · ·
Negative: -1	-0.294***	-0.087***
C C	(0.141)	(0.023)
Positive: +1	0.509***	0.121***
	(0.136)	(0.022)
Extremely positive: +2	2.165***	0.334***
	(0.155)	(0.025)
Constant	0.508	0.199***
	(0.327)	(0.049)
Subject random intercepts	Yes	Yes
Treatment random	Yes	Yes
intercepts		

Table 4. Study 3, OLS, Main Effect of Opt-Out, Controlling for Ratings

Notes. Omitted category is always charity = 0 and product = 0. The model assumes participant is nested within treatment. ***p < 0.01.

amounts and donation rates are lower for optional negative-rated products relative to a no-product counterfactual despite the availability of the opt-out (donation amounts: 2.37 for no-product versus 1.30 for optional negative gifts, t(82) = 1.82, p = 0.073; donation probability: 0.58 versus 0.37, t(82) = 2.26, p = 0.027).¹⁶

Altogether, Table 5 and the *t*-tests suggest that the opt-out did not prevent undesirable gifts from reducing donations to liked charities relative to both 0-rated and no-product counterfactuals. Some of the point estimates for the opt-out were positive, albeit never close to significance; even if these were interpreted as evidence that the opt-out could have an effect, it

seems clear that it does not mitigate all of the observed negative gift effects.

Implications and Possible Mechanisms. Although many fundraising campaigns will offer gifts with an opt-in or opt-out (see, e.g., Figure A.1), this may not mitigate all possible negative gift effects. This is true when evaluating using both donation amount and probability of donation measures. Thus, practitioners cannot entirely disregard the negative gift effects from Studies 1 and 2 by simply making gifts optional.

In addition, the results suggest that to explain the findings from the previous studies, there must be a mechanism that still operates even when gifts are optional. One highly cited model in economics suggests that our results cannot be explained by one version of a self-signaling mechanism (Benabou and Tirole 2006). This model posits that a thank you gift adds noise to the self-signal value of a donation, thus reducing the ability for a donation to signal prosociality to oneself (ibid). Importantly, any extrinsic (i.e., external) motive (such as money or a conditional gift) can increase signal noise, even if the extrinsic motive is not particularly desirable. This is because if one is inferring one's own motives from actions, there must be uncertainty over which motives mattered, even if a motive appears undesirable. As such, this model would predict that if self-signaling is implicated, an opt-out that eliminates the extrinsic motive should mitigate negative gift effects. However, it may be possible for alternative models of self-signaling that do not assume the same details as above to predict some of these results (see, e.g. Savary et al. 2020). Given this, our results do not definitively determine whether other conceptualizations of self-signaling could be involved in the observed results.

6. Study 4A

We next test whether an increased emphasis on selfinterestedness, such as through activation of a selfinterested mindset or norm, can explain the observed

Table 5. Study 3, OLS, Opt-Out Effects for -1 Products Only

	(11)	(12)	(13)	(14)	(15)	(16)
Charity rating	0 only	+1 only	+2 only	0 only	+1 only	+2 only
Product rating	-	-1 only	-		-1 only	-
Dependent variable		Donation amount	:		{0,1}: 1 = Donated	
N (participants)	133 (59)	135 (58)	113 (54)	133 (59)	135 (58)	113 (54)
Opt-out available	0.048	0.214	0.546	0.055	0.071	0.146
	(0.169)	(0.543)	(0.814)	(0.076)	(0.104)	(0.120)
Constant	0.226*	0.659*	1.396***	0.101*	0.221***	0.337***
	(0.119)	(0.389)	(0.584)	(0.051)	(0.070)	(0.083)
Treatment random intercepts	Yes	Yes	Yes	Yes	Yes	Yes
Subject random intercepts	Yes	Yes	Yes	Yes	Yes	Yes

Note. Charity = -1 not included since only one donation was made to a -1 charity and -1 product pairing. *p < 0.10; ***p < 0.01.

results in Studies 1-3. Study 4A tests whether thank you gifts cause individuals to be more self-interested; that is, it tests whether the mere presence of a gift causes prospective donors to place more weight on how the donation benefits themselves and less weight on how the donation benefits others (H5). If individuals simply ignore gifts they do not want, as predicted by standard expected utility models with stable preferences (see, e.g., von Neumann and Morganstern 1953, Luce 1959), then gifts should not increase the importance of benefits-to-self motives (or decrease the importance of benefits-to-others motives). Even if a positively rated gift is offered, this could influence donations without increasing the weight placed on benefits to oneself or decreasing the weight placed on benefits to others. For instance, if a donor places equal weight on both benefits to self and benefits to others, a gift could increase donations without changing this equal split. However, if including a gift activates a mindset that causes individuals to focus less on prosocial motives and more on selfinterested motives, then even neutral or negativerated gifts would lead to changes in the weights placed on these motives.

To test this, we asked participants to consider whether they would make a series of hypothetical donation decisions, some with a thank you gift and some without. Participants were asked to rate how much they considered benefits to themselves versus benefits to others when considering whether to donate (H5).

6.1. Design and Procedure

Rating Tasks. Participants first rated three different charities and four different products. We selected options that in Study 1 displayed a mix of negative, neutral, and positive-rated options. We also chose to expand the ratings scale to [-10,10] to more finely capture variance in sentiment. Because we are only making withinstudy comparisons, this difference in scale should not impact the analysis.

Subjective Benefits to Self and Others. Participants were instructed to consider a series of fifteen \$5 donation solicitations. Each solicitation included one of the three charities from the ratings portion (St Jude's, RNC, and Restore Oregon). Three of the 15 donation choices did not offer a thank you gift in exchange for a \$5 donation. The remaining 12 donation choices included one of the four products that participants previously rated (3 charities × 4 products). These products were the thermos, hoodie, luggage tag, and lanyard. The survey randomized (at the participant level) the order of the 15 donation questions.

For each donation decision, participants were asked to consider whether they would make that donation and to rate the motives that led to their choice (see Figure 5). Specifically, participants were asked to rate, on a scale of 0 to 100, how much they considered benefits to oneself when considering the decision and likewise how much benefits to others mattered. The instructions clarified that benefits to oneself included how the donation makes them feel (i.e., "warm glow"; see Andreoni 1990). The survey instructions required that the two measures sum up to 100 (the survey would not proceed until this was true). We chose this latter condition in order to emphasize to participants that there is a cost to placing more weight on self-interested incentives. If we did not require that they sum to 100, subjects could simply always rate prosocial motives high regardless of the gift, making it less "costly" to subjects to increase benefits to self in response to a gift.

Asking participants to consider their "willingness to donate \$5" is different from eliciting donation amounts via a BDM mechanism, as we did in Studies 1–3. We made this change because the donation choice is no longer the variable of interest; Study 4A is solely concerned with measuring the subjective ratings of the above two motives. Asking for a donation amount would necessitate use of BDM or a similar complex payment mechanism, as in Studies 1–3, in order to prevent strategic choices.¹⁷ Using BDM seemed unnecessarily complicated given that the donation amount is not the variable of interest. Finally, using a \$5 threshold allowed participants to focus more on the benefit-to-self rating rather than on choosing a donation amount.

Decisions were also now hypothetical. Because the primary variable of interest in this study was the subjective measurement of self-interested or prosocial motives, there was no clear and simple technique to incentivize these ratings. Offering incentives and complicating the instructions (by explaining how a decision is chosen to be implemented, etc.) appeared to be unnecessary. Moreover, there is evidence that hypothetical choices often yield similar outcomes to those given in real choices, and they oftentimes have only relatively small differences in brain activation at the time of choice (Camerer and Mobbs 2017). In addition, at least one study on donations found similar gift effects using both real and hypothetical measures (Newman and Shen 2012). Finally, to the extent that there are differences in outcomes, it is often that hypotheticals overstate socially desirable behaviors (Camerer and Hogarth 1999, Engel 2011, Green and Lawyer 2014); in this context, this likely means overemphasizing altruism. This would bias against our ability to detect whether gifts increased the weight placed on selfinterested motives, since it would make participants more likely to report high benefits-to-others ratings even when a gift is involved. Altogether, it seems unlikely that the use of hypotheticals would inflate the difference between benefit-to-self ratings in gift versus no-gift rounds.

Figure 5. (Color online) Donation Motives Question in Study 4A



Please consider whether you would make this \$5 donation (and receive the above thankyou gift). Then, on the scale below, rate how much each of the below motives factored into your decision.



Procedure. The experiment was programmed in Qualtrics, and 201 participants were recruited on Amazon Mechanical Turk.¹⁸ At the end of the study, participants filled out a brief demographics questionnaire and were paid \$0.50. One participant managed to complete the survey twice, and thus both sets of their responses were dropped (including them does not alter the results). No other participants, sessions, or data points were excluded. No data were analyzed until all participants completed the study.

6.2. Results

On average, participants placed more importance on how the donation benefited themselves whenever a thank you gift was included. Participants averaged a weight of 35.7 on benefit to self when any gift was offered and 19.0 when no gift was offered. This difference is statistically significant when collapsing the data down to two data points per participant, one representing average ratings with a gift and one without, and running a difference-in-means *t*test (*t*(198) = 14.25, p < 0.001). We then run regressions to test for these differences while controlling for ratings:

$$Benefit-to-self_{ij} = \beta_0 + \beta_1 * Noproduct_{ij} + \beta_2 * Charity_{ij} + \beta_3 * Product_{ij} + X_i + \varepsilon_{ij}$$
(4)

*Benefit-to-self*_{*ij*} is the subject's rating, from 0 to 100, of the importance of how beneficial the donation is to oneself. *Noproduct*_{*ij*} is an indicator equal to one if the donation did not include a gift offer. *Charity*_{*ij*} and *Product*_{*ij*} represent continuous variables corresponding to the ratings (from -10 to 10) of the charity and product for that trial. Subscript *i* corresponds to the subject, and *j* corresponds to the specific donation question. We assume subject random effects (*X*_{*i*}) and cluster errors at the subject level. Results are shown in Table 6.

Table 6. Study 4A, OLS, Benefit to Self

	(17)
Dependent variable N (participants) R ²	Benefit to self 2,985 (199) 0.149
No-product	-11.173***
	(1.185)
Charity rating	-0.735***
	(0.180)
Product rating	1.991***
	(0.166)
Constant	31.746***
	(1.581)
Subject random effects	Yes

Note. SEs are robust and clustered by subject. ***p < 0.01.

The results demonstrate that after controlling for ratings, not having a thank you gift reduces the importance of benefit-to-self by 11.2 percentage points. In other words, adding a gift to a donation decision increases the importance of benefit to self by 11.2 percentage points. In addition, benefit to self is increasing as the product rating increases and decreasing as the charity rating increases.¹⁹

Difference-in-means *t*-tests on subsets of the data tell a similar story. We collapse each participant's choices into two data points, one for average benefit to self with gifts and one for without. We find that benefit-to-self motives increased when a product rated exactly 0 is added to a charity rated zero (17.9 versus 9.2, t(66) = 4.65, p < 0.001), to any charity rated positively (14.2 verus 9.2, t(83) = 2.47, p = 0.016), or to any charity rated negatively (30.9 versus 17.7, t(58) = 3.85, p < 0.001). *t*-Tests restricting to negative-rated products or to positive-rated products yield similar conclusions.²⁰

Implications. These results suggest that gifts shift donors away from considering the cause of the charity and how the donation benefits others and instead toward considering how the donation benefits themselves. This occurs even when they dislike the product or are indifferent to it and regardless of whether they like the charity. Thus, a prospective donor's perceptions of the charity and its cause appear to matter less to the donation decision once a gift is offered, regardless of how the participant feels about the gift or the charity. This is consistent with an interpretation where the presence of the gift activated a more self-interested mindset or norm.

7. Study 4B

The previous study demonstrates that offering a gift can increase focus on benefits to self regardless of whether they like the gift or charity. We next test whether this increased focus on self-interested motives can causally influence donations (H6), in line with the empirical patterns observed in Studies 1, 2, and 3. Following the mindset literature, we induced different mindsets using an essay priming question and then asked participants to make a series of

Figure 6. (Color online) Experimental Procedure in Study 4B

donation decisions, all with thank you gifts attached. By using the prime, we can separate the effect of the increased emphasis on benefits to self from any other effects that may also arise from the introduction of a gift. In short, the analysis will test whether the subjective importance of the ratings for charities and gifts is modulated by this increased self-interestedness. Figure 6 outlines how sessions proceeded.

7.1 Design and Procedure

Rating Tasks. Participants first rated five different charities and five different products. We increased the number relative to Study 4A to try and capture a broader spectrum of ratings. Because subjects in Study 4A mainly only used multiples of five when rating on the -10 to +10 scale, we reduced the scale range to go from -5 to +5.

Essay Primes. Participants were randomized into self-interested and prosocial prime conditions. The self-interested prime required that participants spend a minimum of five minutes writing about a personal experience (such as a purchase decision) where it was important to think about the personal costs and benefits they receive from a choice (potentially from transactions involving products).²¹ The prosocial prime required that participants instead write about a time they helped another person or organization at the expense of their own time or money.²² This prime required participants to instead think about the benefits that they confer on others at a cost to themselves.

These two primes parallel the two motives, benefits to self and benefits to others, identified in Study 4A. The self-interested prime captures donation decisions when participants are relatively more focused on benefits to self, similar to when participants from Study 4A were considering donations that contained gifts. The prosocial prime instead captures donation decisions when participants are relatively more focused on benefits to others, similar to donation decisions in Study 4A that did not contain gifts. If the effect of a gift is unrelated to this change in emphasis on benefits to self and benefits to others, then there should be no difference in gift effects between these two prime conditions.²³



Charity-Product Donations. Immediately after the prime, participants were told to imagine that a charity is offering a thank you gift in exchange for donations of \$5 or more. They were then asked to rate how likely they would donate \$5 or more, on a scale of 0 to 100, based on different charity and product pairs. Participants were shown 15 out of the 25 possible charityproduct pairs, randomly selected and in random order. We chose 15 to parallel the number of decisions made by participants in Study 4A. We use the "willingness to donate" measure for similar reasons as in Study 4A. In addition, by replacing single-digit donations with a 0to-100 "willingness to donate" measure, we could increase the fineness of the variable of interest, thus capturing finer effects of the prime.

We kept donations hypothetical. Incentivizing the choices would lengthen the instructions (e.g., explaining which decision is selected, how gifts are mailed, how BDM worked, etc.), which might cause the prime to wear off. In addition, the 0-100 willingness to donate scale is hard to incentivize. As noted previously, evidence suggests that hypothetical choices often approximate incentivized choices (Camerer and Hogarth 1999, Engel 2011, Green and Lawyer 2014), including in at least one study on thank you gifts and donations (Newman and Shen 2012). Finally, as will be shown, the main effects of ratings on donations are consistent with those observed in Studies 1–3, suggesting that participant responses to charity and product ratings are still similar despite the hypothetical nature of the choice.

Procedure. The experiment was programmed in Qualtrics, and participants were recruited on Amazon Mechanical Turk (same qualifications criteria as Study 4A), totaling 641 participants. Participants were paid \$1.25. The higher pay reflects that participants were required to spend a minimum of five minutes on the essay priming question. We excluded 60 participants for not following instructions on the prime (they mostly copied and pasted text from elsewhere - usually instructions from the study — instead of answering the prime question). In total, 297 participants remained in the prosocial prime treatment, and 284 participants remained in the self-interested prime treatment. No other participants, sessions, or data points were excluded from the main analysis, and no data were analyzed until data collection was complete (and the noncompliant essays had been discarded).

In alternate specifications below, we also show results that additionally exclude 86 participants for submitting average donation values of approximately 0 or approximately 100 across all 15 choices. Such little variation in responses to a variety of charities and products could indicate that these participants did not seriously consider the donation questions; alternatively, they may have exhibited ceiling or floor effects, although this appears unlikely given the variation in their charity and product ratings.

7.2. Results

We run linear mixed-model regressions to test whether the prime changed the degree to which product ratings and charity ratings influenced the likelihood of donations. The regression equation is

$$Donation_{ij} = \beta_{0} + \beta_{1} * SelfInterested_{i} + \beta_{2} * Charity_{ij} + \beta_{3} * Product_{ij} + \beta_{4} * Charity_{ij} * SelfInterested_{i} + \beta_{5} * Product_{ij} * SelfInterested_{i} + X_{i+}\varepsilon_{ij}$$
(5)

where *Donation*_{*ij*} represents likelihood of donation (0 to 100), *SelfInterested*_{*i*} is an indicator for whether the essay prime was self-interested, *Charity*_{*ij*} and *Product*_{*ij*} are measures of ratings (-5 to +5), and β_4 and β_5 capture interaction effects between ratings and the prime. X_i represents random intercepts for treatment and subject; these correct for the hierarchical nature of the data. The subscripts *i* and *j* designate subject and round.

Model (18) in Table 7 demonstrates that, as expected, ratings corresponded to likelihood of donating. Each one-point increase in charity rating increased likelihood of donating by approximately 5.5 percentage points; because this is a continuous variable, this also implies that each rating point below 0 decreased likelihood by the same amount. Similarly, a one-point change in product rating changed donation likelihood by approximately 3.5 points. The main effects of charity and product ratings are consistent with those in Studies 1, 2, and 3, which could be interpreted as a sanity check that the use of hypotheticals, the \$5 threshold, and the lack of a BDM mechanism did not significantly change general donations behavior. The self-interested prime did not have a significant main effect.

Our hypotheses are concerned primarily with β_4 and β_5 , the two interaction terms. These demonstrate that the self-interested prime increased the importance of gift ratings and decreased the importance of charity ratings relative to the prosocial prime. Thus, in the self-interested prime condition, charity ratings had less impact on likelihood of donations than in the prosocial prime condition. Conversely, product ratings had a larger effect. Models (19) and (20) in Table 7 demonstrate that these results are similar, or larger, as we exclude unfamiliar charities or participants who almost always reported 0 or 100 willingness to give.

Appendix Table A.11 runs the same specification, but on subsets of the data, based on charity or product rating. We find that the results are generally

Table 7. Study 4B, Essay Prime Effects

	(18)	(19)	(20)
Excluding additional participants ^a	No	Yes	No
Excluding unfamiliar charities	No	No	Yes
N (participants)	8,715 (581)	7,425 (495)	7,400 (576) ^b
Charity rating	5.467***	5.490***	5.49***
	(0.117)	(0.128)	(0.119)
Product rating	3.485***	3.403***	3.462***
0	(0.113)	(0.123)	(0.122)
Self-interested prime	1.184	0.420	1.314
	(1.595)	(1.740)	(1.619)
Interactions	· · · · ·		
Charity rating * self-interested prime	-0.628***	-0.806***	-0.714***
	(0.168)	(0.185)	(0.172)
Product rating * self-interested prime	0.295*	0.383**	0.413**
	(0.163)	(0.178)	(0.175)
Constant	24.855***	25.088***	24.939***
	(1.115)	(1.214)	(1.132)
Subject random intercepts	Yes	Yes	Yes
Treatment random intercepts	Yes	Yes	Yes

Note. The model assumes participant is nested within treatment.

^aThese participants averaged either above 97 or below 3 on willingness to donate across all 15 donations. ^bFive subjects are dropped in this specification because they claimed that they were unfamiliar with all five

charities in the study.

consistent with the main results for each subset, but subsets with positive charities and products are more likely to achieve statistical significance on both interaction terms. This could imply that activation of more self-interested mindsets or norms could play a more significant role for positively rated charities and products than negatively rated ones. For instance, perhaps other mechanisms are more responsible for how donors respond to negatively rated products and charities. Alternatively, it may be due to limitations in the data; only 21% and 32% of the observations yielded negative-rated charities or products, respectively, so sample sizes for negative ratings were lower.

Implications and Interpretation. Study 4B demonstrates that increased focus on self-interested motives, as induced by the essay prime, can influence donations by changing the relative importance of an individual's perceptions of the charity and gift. This will cause perceptions of the charity to matter less and perceptions of the gift to matter more when choosing whether to donate. Because Study 4A demonstrates that offering a gift leads to an increased emphasis on benefits to self, including a gift should lead to similar effects on donations as the essay prime for selfinterestedness. Because the essay primes are consistent with studies that primed for self-interested mindsets (see, e.g., Kwon et al. 2015, Saluja et al. 2017), these results can also be interpreted to implicate a mindset mechanism.

The effects in Study 4B can also help explain the results in Studies 1–3. Studies 1–3 showed that most gifts are less effective, or even harmful, for liked charities. This may be because an increased emphasis on self-interested motives (and a decreased emphasis on prosocial motives) is unlikely to increase net motivation in these contexts. However, this same shift can help some gifts increase donations to lower-rated charities, as also observed in Studies 1–3; the decreasing impact of charity ratings and the increasing impact of product ratings may increase net motivation to donate in these cases.

8. Conclusion Summary

This paper provides evidence on when and why thank you gifts have such varying effects. When a prospective donor did not already view a charity favorably, gifts rated +1 or even 0 could increase donation rates and amounts, as seen in Studies 1 and 2. However, these same gifts had null or negative effects when offered alongside a highly rated charity that was rated +2; only highly desirable gifts were generally able to increase donations for most or all charities.

We also demonstrate that these heterogeneous gift effects are consistent with an increased weight placed on self-interested motives. Adding a gift to a donation choice caused prospective donors to report placing greater weight on self-interested motives and less weight on prosocial motives when choosing whether to donate. The priming study further demonstrated that an increased emphasis on self-interested motives can directly influence donation decisions involving gifts. Because the essay prime is consistent with manipulations in the mindset literature (see, e.g., Kwon et al. 2015, Saluja et al. 2017), our results can be interpreted to imply that gifts influence donations in part by activating a more self-interested mindset. As discussed in the theory section, it may also be possible to interpret the result as activating a situational norm (see, e.g., Liberman et al. 2004, Biel and Thogerson 2007).

Discussion and Implications

These results build upon the literature in several ways. First, we demonstrate that gift effects can be heterogeneous when holding the participant and gift fixed and varying the charity. This may help explain some of the variance in gift effects observed in the existing literature. Second, we show that making gifts optional does not always eliminate negative gift effects, implying that there are mechanisms at work that do not hinge on whether the gift can be avoided. Third, we demonstrate that gifts cause prospective donors to place greater emphasis on self-interested motives and less emphasis on prosocial motives, even when the gift is not of interest to them. Fourth, we show that these shifts in emphasis on selfinterestedness can causally influence donor response to gifts. This last result explains why even positively rated gifts may have null or negative effects on donations to well-liked charities; the gift may not increase net motivation (and may even decrease it) by de-emphasizing prosocial motives. All of these results are novel to the literature.

These results carry important implications for practitioners. First, modest thank you gifts may be effective when targeting new donors or lapsed donors who may not be predisposed to give. However, these same gifts may be ineffective, or even have negative effects, when targeting those who already like the charity, such as current members or recent donors. Thus, unlike some of the campaigns documented in Figure A.1, practitioners may want to be more selective in choosing who to target with gifts (or at least what gifts to offer them). In addition, making the gift optional does not always reduce these potential negative effects.

Practitioners will likely also care about the costeffectiveness of these strategies. However, most practitioners pay reduced bulk rates for their gifts either from promotional gift firms or through partnerships with retailers.²⁴ In addition, the long-term value of acquiring a donor is often in repeated donations over time; field evidence suggests that newly acquired donors who accepted gifts may be more likely to donate again the following year (Landry et al. 2010). Thus, it may not be straightforward to evaluate whether gifts are cost-effective.

Nevertheless, in a one-shot setting, some of the gifts in our study may still pay for themselves when offered by lower-rated charities. For instance, if a charity offered a pen to donors who viewed them as a 0-rated charity, the distribution of ratings for the pen in Study 1 (in Table A.1) would suggest an increase in donations of \$26.66 (based on point estimates in regression Model 2 in Table 1). Even if all 54 participants earned a pen, this would break even as long as each pen cost \$0.49 at bulk rate. For charities targeting audiences that view them more favorably, or who cannot acquire gifts at lower costs, this strategy appears to be less cost-effective unless they believe there are long-term benefits. For this reason, our results suggest that gifts can be effective, but only when used under the right circumstances.

Future Research. Our results suggest several followup questions for future research. Our results imply that there may be slightly different effects of gifts on unfamiliar versus indifferent charities; follow-up studies could investigate how different degrees of familiarity could modulate effects. In addition, followup studies could attempt to better isolate whether and to what extent self-signaling, sense of agency, or other mechanisms also matter in these contexts. Furthermore, gifts that carry prosocial motives (such as adopting a star on behalf of someone else or obtaining gifts that are meant to be given away to children) may have different effects on donor mindset than those observed in this paper. Our study also does not examine long-term effects of offering gifts to donors; as implied in Landry et al. (2010), perhaps there are longer-term benefits to acquiring donors via gifts that our experiments did not capture. Finally, in situations where gifts are expected or where prospective donors may already adopt a self-interested mindset (perhaps on some crowdfunding sites, such as Kickstarter), results may also differ.

Appendix

Figure A.1. (Color online) Examples of Campaigns with Thank You Gifts

			(a)			
		Thank y	you for yo	ur sup	port	
vmr	U wmht©t	v winht@fm	n <u>exit</u> © 97.7	rise 🗘	wmh	t 🔘 community
'hank you for you	ur support. Every contribut staff member	or who donates \$60 ann please call 1-518-880-3	ually, or more, gets ac 400, M-F, 8:30am to 5	cess to WMHT I pm, and thank y	Passport. 1 ou!	o speak with a WMHT
atured Gifts						
Julia Child: The	Che New York Eimes One-Year Digital	÷B	THE NEW YORMER One-Vear	Sesame S	reet 50th	Suze Orman:
DVD Set + Cookbook) + Bon	New York Times	Babbel Language Learning App	Yorker Magazine	Tote) + R Sch	eady for	Combo (DVD + HBK) + Ultimat
Ap \$15/month	\$10/month	\$10/month	\$10/month	\$20/m	onth	\$21/month
ADD TO CART	ADD TO CART	ADD TO CART	ADD TO CART	ADO TO	CART	ADD TO CART
ase Select Your C	Gift If You Would Like One	E				
ts List			Search by Keyword	-		Q
arch By Program						
vt By			Show only gifts man	to your pledge amou	nt	
2 Beetho S15/mon	wen/WMHT Mugs th	ADD TO CART	2 Meet 8 Tommy 8 DVD \$240	i Greet Tickets tr Emmanuel Plus (D &	ADD TO CART
2 Inside 7 Rick Spri \$15/mon/	Tickets to Chicago with ingfield at SPAC, J th	ADD TO CART	A m 2 Mozan \$15/mor	WMHT Mugs		ADD TO CART
2 Lawn T Rick Spri \$10/mon	Tickets to Chicago with ingfield at SPAC, Jul th	ADD TO CART	2 Ticket Sat 5/2/2 \$10/mor	s) Tommy Emma 20 8PM @ The E th	inuel 99	ADD TO CART
When you don making your gr arrive to the ac	ay Giving hate \$125 or more, you fr. The email will provid ddress provided 2-3 we	T 2 3 4	(b) Chank Y trom redcross@thea to submit your ship your information.	ou Gi	ft w oss.org w Expect ye	thin 1 week of our free gift to
Contraction and the former of		Water I This Red Cr steel lid is B a donation	Bottle with a oss 25oz single wall IPA free. Use with co of \$125 or more.	donation Eastman Trita bid liquids. Har	n of \$* n copolye id wash r	125 or more Ister water bottle with ecommended. Do no
	A	LED Lai This Red Cr opens to 7.	ntern with a	gift of \$2 tern turns on t 1, and features of \$250 or mo	250 or y silding metal ca	r more open and turns off b rry and hanging hanc

Notes. (a) NPR (WHMT, Western Massachusetts), standard gift options (always available online). This page is shown before any donation is made. Accessed on April 1, 2020. (b) Red Cross (2019 Holiday Campaign). Accessed on April 1, 2020.

E.

Figure A.1. (Continued)



(d)

NH 🕐 PB	S T	hank you fo	or your supp	ort
Featured Gifts				
TRAVEL III POLIIICAL ALT	Malanka	1	ŢŢĊĶĘŢ	
Rick Steves The Story of Fascism in Europe (DVD) + Travel as	Les Miserables 25th Anniversary (DVD) + Les Miserables Live	Tom Lehrer - Live in Copenhagen (DVD + CD/DVD)	Celtic Thunder 1Ticket (Best in House) Sat 12/12/20 7:30PM:	Suze Orman: Ultimate Retirement Combo (DVD + HBK) + Ultimat
\$5/month	\$15/month	\$10/month	\$75	\$21/month
ADD TO CART	ADD TO CART	ADD TO CART	ADD TO CART	ADD TO CART

Notes. (Continued) (c) Wounded Warrior, Standard Gift (Always Available). This page is shown before any donation ismade. Accessed on April 1, 2020. (d) PBS television, New Hampshire, Standard Gifts (Always Available). This page is shown before any donation is made. Accessed on April 1, 2020. (a)–(d) In some of these examples, donors had a choice over which gift they wanted (although this was not true in the Wounded Warrior case). When donors have a choice over gifts, this may also invoke mechanisms related to a sense of agency. However, not all gift campaigns offer multiple choices for gifts (see, e.g., Eckel et al. 2016, Chao 2017). The "other mechanisms" portion of the theory section in the paper also discusses these theoretical points.





Figure A.2. (Continued)







Notes. (a) Average donations for each charity rating; (b) average donations for each product rating; (c) rate of non-zero donations for each charity rating; (d) rate of non-zero donations for each product rating.

Table A.1. Study 1, Charity and Item Ratings

Panel A: Charity ratings								
Charity	Average	SD	-1	0	1	2		
National Rifle Association (NRA)	-0.5	0.8	35	13	4	2		
Republican National Committee	-0.4	0.8	32	15	5	2		
Balloon Federation	-0.1	0.4	6	47	1	0		
Libertarian Party	-0.1	0.8	17	27	8	2		
Mexican Cultural Center	0.1	0.5	3	42	9	0		
Restore Oregon	0.1	0.6	5	37	12	0		
Lupus Alliance	0.3	0.6	2	35	15	2		
Louvre Museum	0.4	0.8	4	32	12	6		
Salvation Army	0.5	1.0	9	16	20	9		
Action Against Hunger	0.6	0.7	1	24	23	6		
American Civil Liberties Union (ACLU)	0.6	1.0	6	21	13	14		
Wounded Warrior Project	0.6	0.9	7	13	27	7		
Boys & Girls Clubs of America	0.7	0.7	0	23	22	9		
National Public Radio	0.8	0.9	3	18	19	14		
Feeding America	1.0	0.7	0	13	27	14		
Smithsonian	1.0	0.9	2	15	18	19		
American Cancer Society	1.2	0.7	1	7	26	20		
American Red Cross	1.3	0.7	2	2	28	22		
Doctors Without Borders	1.4	0.6	1	1	28	24		
St. Jude Children's Hospitals	1.4	0.6	0	3	25	26		
Total	0.6	0.9	136	404	342	198		
P	anel B: Item ra	tings						
Item	Average	SD	-1	0	1	2		
Occupy Wall Street hat	-0.7	0.5	38	15	1	0		
Make America Great Again hat	-0.7	0.7	43	7	2	2		
Spam	-0.6	0.8	43	3	6	2		
Lanyard	-0.5	0.6	31	20	3	0		
Keychain	-0.4	0.6	25	25	4	0		
Desk Fan	-0.1	0.8	19	22	13	0		
Gummy Bears	0.1	1.0	22	9	19	4		
Tote bag	0.1	0.8	12	26	14	2		
Luggage tag	0.1	0.8	12	27	12	3		
Candy bars assortment	0.2	0.9	14	16	21	3		
Pen	0.2	0.7	8	29	15	2		
Seaweed snack	0.3	1.1	18	11	17	8		
Duffel bag	0.5	0.9	6	21	20	7		
Binder	0.6	0.8	5	20	22	7		
Umbrella	0.7	0.7	1	21	26	6		
Laptop backpack	0.8	0.9	6	11	23	14		
Hoodie	0.9	0.8	3	13	25	13		
E-reader (Kindle)	1.0	1.0	5	11	17	21		
Headphones	1.2	0.9	3	10	16	25		
Amazon \$3 gift code	1.3	0.7	1	4	29	20		
Total	0.2	1.0	315	321	305	139		

		Charity	ratings			Product	ratings	
Subject ID	-1	0	1	2	-1	0	1	2
101	2	11	5	2	4	8	7	1
102	1	9	10	0	2	4	9	5
103	1	13	2	4	4	3	8	5
104	2	6	7	5	3	4	9	4
105	3	4	7	6	8	5	5	2
106	13	2	4	1	7	8	5	0
107	3	2	14	1	12	1	7	Õ
108	7	3	7	3	9	5	4	2
109	2	6	10	2	2	4	10	4
110	2	13	3	2	8	9	2	1
111	2	8	3	7	1	11	4	4
112	3	9	6	2	3	5	8	4
201	3	5	6	6	5	7	7	1
202	5	6	6	3	5	7	7	1
202	0	13	1	6	3	8	2	7
203	3	3	5	9	10	1	5	4
205	3	6	8	3	6	7	5	2
206	2	5	6	7	7	9	2	2
200	0	7	8	5	4	6	8	2
208	2	7	10	1	1	8	4	7
301	2	5	8	5	7	5	4	4
302	3	11	3	3	8	6	3	3
303	2	7	6	5	4	5	6	5
304	3	7	5	5	5	7	5	3
305	1	4	9	6	3	8	3	6
306	3	8	9	0	7	3	7	3
307	6	4	6	4	10	1	2	7
308	2	7	8	3	8	6	5	, 1
309	4	5	5	6	7	5	7	1
310	3	6	5	6	12	4	4	0
311	2	7	8	3	10	6	3	1
401	1	11	4	4	3	5	5	7
402	2	7	9	2	7	3	8	2
403	2	5	6	7	5	8	7	0
404	5	7	6	2	5	6	8	1
405	3	9	7	1	5	14	1	0
406	4	7	8	1	5	4	10	1
407	3	11	6	0	9	5	5	1
408	0	4	5	11	4	4	10	2
409	3	8	6	3	2	8	10	0
410	6	6	8	0	10	5	3	2
411	2	5	7	6	4	7	4	5
501	2	9	6	3	8	9	2	1
502	2	8	9	1	4	9	6	1
503	1	16	3	0	13	4	3	0
504	2	8	5	5	4	5	9	2
505	1	6	9	4	2	6	11	1
506	0	13	6	1	7	7	3	3
507	2	7	3	8	7	1	4	8
508	0	13	2	5	5	4	5	6
509	3	5	6	6	6	6	6	2
510	1	12	6	1	5	9	5	-
511	1	8	7	4	2	12	5	1
512	0	10	8	2	8	4	8	0

Table A.2. Study 1 Ratings by Subject

	Product = -1	Product = 0	Product = 1	Product = +2	Product = None*
Charity = -1	104	93	95	64	89
Charity $= 0$	150	144	138	92	131
Charity = $+1$	140	128	129	87	121
Charity = $+2$	102	95	98	69	91

 Table A.3.
 Study 1, Number of Observations, by Charity-Product Grouping

*Corresponds to the charity-only rounds.

Table A.4. Study 1, OLS Regressions, Main Effects of Ratings

	A1	A2
Dependent variable	Donation amount	{0,1}: 1 = Donated
N (participants)	2,160 (54)	2,160 (54)
Adj-R ²	0.171	0.245
Charity rating		
Negative: –1	-0.661*** (0.180)	-0.186*** (0.037)
Positive: +1	1.313*** (0.332)	0.246*** (0.040)
Extremely positive: +2	2.094*** (0.353)	0.348*** (0.041)
Product rating		
Negative: -1	-0.452*** (0.122)	-0.123^{***} (0.023)
Neutral: 0	0.018 (0.118)	0.036 (0.033)
Positive: +1	0.619*** (0.168)	0.162*** (0.037)
Extremely positive: +2	1.874*** (0.406)	0.303***(0.039)
Constant	0.614*** (0.148)	0.229*** (0.042)
Subject random effects	Yes	Yes

Notes. Standard errors are robust and clustered by subject. Omitted categories are always charity = 0 and product = none (i.e., the charity-only rounds). ***p < 0.01.

Table A.5. Study 1, OLS, Effects of Product Ratings on Rate of Non-Zero Donations

	A3	A4	A5	A6
Charity ratings N (participants)	-1 only 445 (48)	0 only 655 (54)	+1 only 605 (54)	+2 only 455 (49)
Adj-R ²	0.084	0.130	0.105	0.097
Product rating				
Negative: –1	0.021 (0.016)	-0.053* (0.030)	-0.131*** (0.040)	-0.358*** (0.053)
Neutral: 0	0.105*** (0.039)	0.108** (0.042)	0.037 (0.050)	-0.129** (0.057)
Positive: +1	0.121*** (0.037)	0.278*** (0.052)	0.205*** (0.060)	-0.017 (0.051)
Extremely positive: +2	0.273*** (0.056)	0.381*** (0.060)	0.382*** (0.066)	0.106** (0.042)
Constant	0.011 (0.011)	0.167*** (0.046)	0.453*** (0.064)	0.740*** (0.055)
Subject random effects	Yes	Yes	Yes	Yes

Notes. SEs are robust and clustered by subject; we use OLS for ease of interpretability. Omitted category is always product = none.

Table A.6. Stue	dy 2, OLS, Effe	ts on Donation A	mounts, Excluding	g Sub	jects with An	y –1 Rating
-----------------	-----------------	------------------	-------------------	-------	---------------	-------------

	A7	A8	A9	A10
Charity ratings	0 only (indifferent)	0 only (unfamiliar)	+1 only	+2 only
Includes subjects with -1 ratings	No	No	No	No
N (participants)	350 (28)	196 (16)	469 (26)	329 (22)
R^2	0.071	0.001	0.007	0.024
Product rating				
Neutral: 0	0.306* (0.158)	0.066 (0.390)	-0.613* (0.373)	-1.890^{***} (0.705)
Positive: +1	1.289*** (0.359)	0.357 (0.470)	0.257 (0.481)	-0.816 (0.880)
Extremely positive: +2	2.687*** (0.890)	1.048*** (0.391)	1.083* (0.573)	0.437 (0.526)
Constant	1.252*** (0.355)	1.859*** (0.511)	3.926*** (0.639)	6.259*** (0.906)
Subject random effects	Yes	Yes	Yes	Yes

Note. SEs are robust and clustered by subject; omitted category is always product = none.

 $^{*}p < 0.10; ^{***}p < 0.01.$

	A11	A12	A13	A14
Charity ratings	Indifferent (0)	Unfamiliar	+1 only	+2 only
N (participants)	980 (57)	294 (23)	728 (49)	518 (36)
Adj-R ²	0.028	0.000	0.021	0.009
Product rating				
Negative: -1	-0.015 (0.268)	00.443** (0.210)	-1.159*** (0.322)	-0.865 (0.676)
Neutral: 0	0.016 (0.213)	0.008 (0.238)	-0.785*** (0.301)	-1.012** (0.410)
Positive: +1	0.957** (0.375)	0.329 (0.246)	-0.321 (0.356)	0.014 (0.554)
Extremely positive: +2	1.818*** (0.375)	1.118*** (0.350)	1.086** (0.450)	0.505 (0.513)
Constant	1.887*** (0.356)	2.030*** (0.461)	4.072*** (0.465)	5.555*** (0.571)
Subject random effects	Yes	Yes	Yes	Yes

Notes. SEs are robust and clustered by subject; omitted category is always product = none. Only five subjects rated any charity -1 under these ratings, so we exclude that column from the analysis. The -1 product row is italic, as these cells deliberately have low observations (see the design section).

p < 0.05; *p < 0.01.

Table A.8. Study 2, OLS, Whether a Participant Has Supported the Charity Before

	Panel A: Sup	ported before	Panel B: Never supported before			
	A15	A16	A17	A18	A19	A20
Charity ratings	+1 only	+2 only	-1	0 (indifferent)	+1 only	+2 only
N (participants)	140 (17)	238 (26)	56 (8)	658 (51)	679 (47)	336 (25)
Adj-R ²	0.036	0.025	0.103	0.065	0.009	0.004
Product rating						
Negative: -1	-0.436 (0.758)	-1.701** (0.821)	0.065 (0.352)	0.409 (0.268)	-1.082*** (0.368)	-0.715 (0.702)
Neutral: 0	-0.070 (0.416)	-2.081^{***} (0.779)	0.283 (0.476)	0.269** (0.126)	-0.456 (0.284)	-1.129** (0.554)
Positive: +1	1.225 (1.030)	-1.324* (0.691)	0.868 (0.622)	1.239*** (0.283)	0.259 (0.383)	-0.357 (0.792)
Extremely positive: +2	2.308*** (0.680)	-0.359(0.889)	1.371** (0.699)	2.492*** (0.549)	0.913** (0.395)	0.560* (0.331)
Constant	3.173*** (0.701)	5.976*** (0.815)	0.375 (0.389)	1.187***(0.253)	3.896***(0.480)	5.279***(0.807)
Subject random effects	Yes	Yes	Yes	Yes	Yes	Yes

Notes. SEs are robust and clustered by subject; omitted category is always product = none. Panel A: Only two participants stated they had donated before to a charity rated -1, only four reported having donated to a charity rated indifferent, and none reported having donated to a charity rated unfamiliar. Thus we do not run specifications on these charity rating categories. Panel B: Because only four and two participants reported having donated to unfamiliar charities rated -1 or indifferent, results resemble the main results in Table 2 of the main paper. Because no participants donated to unfamiliar charities in the past, we do not rerun that specification (it would be identical to what is in Table 2). The -1 product row is italic, as these cells deliberately have low observations (see the design section).

*p < 0.10; **p < 0.05; ***p < 0.01.

Table A.9. Study 3, Donation Amount

	A21	A22	A23	A24
Charity ratings	-1 only	0 only	+1 only	+2 only
Dependent variable	-	Donation	n amount	
N (participants)	368 (51)	552 (59)	564 (58)	463 (54)
Opt-out available	-0.126 (0.209)	0.069 (0.308)	-0.040 (0.599)	0.162 (0.840)
Product rating				
Negative: $-\tilde{1}$	-0.098 (0.216)	-0.204 (0.252)	-0.391* (0.218)	-0.462^{*} (0.265)
Positive: +1	0.069 (0.215)	0.583** (0.242)	0.690*** (0.207)	0.549** (0.259)
Extremely positive: +2	1.131*** (0.236)	2.070*** (0.274)	2.360*** (0.244)	2.874*** (0.282)
Constant	0.186 (0.201)	0.431 (0.262)	1.237*** (0.448)	2.109*** (0.624)
Subject random intercepts	Yes	Yes	Yes	Yes
Treatment random intercepts	Yes	Yes	Yes	Yes

Notes. Omitted category is product = 0; the model assumes subject groups are nested within treatment. Tables A.9 and A.10 have a different omitted category than Tables 1 and 2 from the previous studies. In Model (A24), the positive effects of +1 and +2 gifts for +2 charities are relative to a 0-product counterfactual. This is generally consistent with prior results given that in Studies 1 and 2, zero-rated products had null or negative effects relative to a no-product counterfactual for liked charities. The key takeaway from Tables A.9 and A.10 is simply that negative gifts still have negative effects for positive charities despite the opt-out, and even relative to a counterfactual that is more conservative for these positive charities.

*p < 0.10; **p < 0.05; ***p < 0.01.

	A25	A26	A27	A28
Charity ratings	-1 only	0 only	+1 only	+2 only
Dependent variable	5	$\{0,1\}: 1 =$	Donated	
N (participants)	368 (51)	552 (59)	564 (58)	463 (54)
Opt-out available	-0.057 (0.049)	0.051 (0.077)	0.035 (0.094)	0.045 (0.095)
Product rating				
Negative: -1	-0.029 (0.033)	-0.057 (0.039)	-0.153^{***} (0.039)	-0.098** (0.043)
Positive: +1	0.041 (0.033)	0.121*** (0.038)	0.133*** (0.037)	0.163*** (0.042)
Extremely positive: +2	0.204*** (0.037)	0.374*** (0.043)	0.344*** (0.044)	0.381*** (0.046)
Constant	0.085** (0.041)	0.163*** (0.053)	0.396*** (0.067)	0.480*** (0.073)
Subject random intercepts	Yes	Yes	Yes	Yes
Treatment random intercepts	Yes	Yes	Yes	Yes

Table A.10. Study 3, Rate of Donations

Notes. Omitted category is product = 0. The model assumes subject groups are nested within treatment. **p < 0.05; ***p < 0.01.

Table A.11. Study 4B, Splitting Samples by Ratings

	A29	A30	A31	A32
Dependent variable		Likelihood	of donating	
Sample	Charity ≥ 0	Charity ≤ 0	Item ≥ 0	Item ≤ 0
Excluding additional participants ^a	Yes	Yes	Yes	Yes
N (participants)	5,868 (494)	3,371 (442)	5,046 (491)	3,309 (431)
Charity rating	6.603*** (0.246)	4.253*** (0.254)	7.133*** (0.157)	3.728*** (0.163)
Product rating	4.349*** (0.145)	1.734*** (0.135)	3.462*** (0.328)	3.419*** (0.283)
Selfish prime	0.198 (2.099)	0.687 (1.847)	-2.825 (2.225)	-2.712 (2.052)
Interactions	× ,	× /		· · · · ·
Charity rating * selfish prime	-0.923^{***} (0.348)	$-0.542^{\#}$ (0.363)	-0.823^{***} (0.229)	-0.907^{***} (0.234)
Product rating * selfish prime	0.498** (0.208)	0.150 (0.198)	1.399*** (0.460)	-0.359 (0.407)
Constant	21.748*** (1.467)	21.742*** (1.271)	23.226*** (1.556)	24.283*** (1.431)
Subject random intercepts	Yes	Yes	Yes	Yes
Treatment random intercepts	Yes	Yes	Yes	Yes

Note. The model assumes that subject groups are nested within treatment.

^aThese participants averaged either above 97 or below 3 on willingness-to-donate across all 15 donations.

p < 0.05; *p < 0.01; #p = 0.135.

Endnotes

¹ These procedures are also closely linked with activation of a situational norm (see, e.g., Biel and Thogerson 2007); the theory section defines these mechanisms more precisely.

² These elicitations were done using an incentive-compatible "BDM" mechanism (Becker et al. 1964), which is explained in more detail in the experimental design section.

³ This corroborates findings in Study 6 of Newman and Shen (2012), which find that highly desirable gifts increased donation rates.

⁴ There are also mixed results on the effects of offering different types of extrinsic rewards in exchange for donating blood (Mellström and Johannesson 2008, Lacetera and Macis 2010, Lacetera et al. 2012, Niza et al. 2013).

⁵ Other models of self-signaling (see, e.g., Savary et al. 2015) may be agnostic on negative gift effects and thus may not predict H4.

⁶ In some of the examples in Figure A.1, donors had a choice between multiple possible gifts; this could potentially increase the role of a sense of agency in donation choices, although in this paper we restrict to cases with only one gift option (similar to the Wounded Warrior example in Figure A.1 and to some field experiments such as Eckel et al. (2016) or Chao (2017)). Future research would be required to test the role of agency in campaigns with multiple gifts to choose from; regardless, this does not prevent us from testing whether mindset matters with thank you gifts. ⁷ To the extent that these charities evoke disgust or other emotional responses in some individuals, this will be captured in their negative charity ratings; H1 and H3 aim to measure whether gifts can increase donations even to these organizations.

⁸ The instructions made clear that the gift was from the experimenter, not the charity, and thus the gift should not signal any information about the charity (such as whether the charity has funds to spare on gifts). This allows us to abstract away from possible informational confounds. Although these informational mechanisms could be present when charities offer gifts, our experiment is focused on whether noninformational mechanisms matter, potentially in addition to any such informational effects.

⁹ As seen in the instructions, we walked participants through an example donation decision. We also based our instructions on papers that make use of this mechanism (see, e.g., Bushong et al. 2010, Fisher and Rangel 2014). After reading the instructions and prior to beginning the task, participants also had the opportunity to ask the instructor for further explanation. The instructions also directly stated that, as a result of the mechanism, the participant's best response is always to enter the true maximum value they would like to donate.

¹⁰ In the remaining studies in this paper, we obtain similar ratings for all charities and products as well as similar main effects of ratings. As a result, and also because data sets will be public, we do not include detailed summary statistics for subsequent studies.

4565

¹¹ This pattern is not present when charity rating switches from -1 to 0. This is possibly because -1 charities are those the donor actively dislikes, and this change may be different in nature from when ratings change from 0 to +1 or from +1 to +2 (a range of values that does not contain aversive organizations).

¹² The online appendix includes regression tables that exclude the most politically charged organizations and the most "aversive" products from the analysis. These demonstrate that the patterns of gift effects in Table 2 are robust to excluding all of these.

¹³ To ensure that the BDM mechanism itself did not influence the relationship between charities, gifts, and donations, the online appendix includes the results of an experiment that varied whether donations were elicited with a BDM or a simple "maximum willing-ness-to-donate" mechanism. The results suggest the BDM mechanism did not alter gift effects.

¹⁴ The extra round always consisted of the Red Cross and a duffel bag, regardless of how the donors rated them. We then programmed the software to always select this round for payment; as a result, we no longer informed participants that the software would select one round "at random" for implementation. We instead stated that the software would select "a round" for implementation. This was to simplify, logistically, the gift that we handed out and the charity that we donated to. As before, participants did not know which trial would be implemented until the end of the task.

¹⁵ For donation amounts: charity ≥ 1 and product = -1, t(57) = 0.61, p = 0.545; for charity = 2 and product ≤ 0 , t(52) = 0.24, p = 0.813; and for charity ≥ 1 and product ≤ 0 , t(57) = 0.18, p = 0.858. For probability of donating: t(57) = 1.01, p = 0.317; t(52) = 0.37, p = 0.714; and t(57) = 0.48, p = 0.635. All *t*-tests are run by taking average donations (or average donation probability) for each participant's trials with the relevant ratings and treating that participant's average as a single data point. Alternative *t*-test specifications that instead keep all data points and cluster errors at the participant level using the clttest command in Stata (see Donner and Klar 2000 for the clustering procedure) yield similarly insignificant results for all ratings pairs.

¹⁶ These remain marginally significant even when adding trials with lower-rated charities (0 or -1) where negative products do not generally have negative effects and thus should not benefit much from an opt-out, even if the opt-out were effective (for donation amounts, *t*(82) = 1.64, *p* = 0.104; for donation probability, *t*(82)=1.66, *p* = 0.100).

¹⁷ Without BDM, if any positive donation would yield the gift, then participants may choose to donate exactly \$1 for any gift they wanted (instead of higher amounts for more desirable gifts), and this strategic behavior could then influence benefit-to-self ratings.

¹⁸ Participants were required to have a U.S. mTurk account and IP address, a hit approval rate of 98+%, and 100+ HITs completed.

¹⁹ Note that one interpretation could be that participants are conflating "how much weight did you place on benefit to self" with "how beneficial to self is the donation?" However, if this were the case, this could not explain why adding a gift has an effect on the importance of beneficial to self even in rounds when both charity and product are rated zero or other pairs of ratings where products are zero or negative; these are demonstrated in *t*-tests in the next paragraph, and they are also implied by Model (17).

²⁰ When restricting to negative gifts: 19.0 versus 9.2, t(38) = 4.33, p < 0.001 for charities rated zero; 29.5 versus 17.7, t(49) = 3.63, p < 0.001 for negative-rated charities; 19.1 versus 11.4, t(67) = 4.02, p < 0.001 for positive-rated charities.

When restricting to positive gifts: 39.1 vs 8.2, t(101) = 12.24, p < 0.001 for charities rated zero; 49.2 versus 19.6, t(112) = 9.70, p < 0.001 for negative-rated charities; 37.4 versus 17.0, t(184) = 12.60, p < 0.001 for positive-rated charities.

²¹ Specifically, we asked: "Please think of a previous, specific experience where you made a decision solely based on the costs and benefits to yourself and where it was important not to be influenced by how your choice would affect others or what others wanted you to do. For instance, perhaps you made a careful decision on whether to make a purchase while focusing solely on how that choice would affect you. Below, please write about this experience, focusing on the costs and benefits to yourself that you considered and why it was important not to let other considerations interfere with your decision."

²² We asked, "Please think of a previous, specific experience in your life where you acted altruistically or kind to another person or organization, perhaps at the expense of your own time or money. For instance, you may have gone out of your way to help someone in need or donated important time and money to a cause that benefited others but not yourself. Below, please write about this experience, the sacrifice that you made, and how others benefited."

²³ In Study 4A, we deliberately restrict the behavioral model to trade off directly between benefits to self and benefits to others. The results in Study 4B can likewise be interpreted as a test of whether a combination of shifting toward benefits to self and away from benefits to others has an effect on donations. Therefore, we do not run a neutral prime condition, as it is unnecessary to the above hypothesis and would only reduce power.

²⁴ Anecdotally, one charity regaled to us that they once had a partnership with a clothing retailer and offered brand-name hoodies (which were overstock) as a giveaway for \$25 donations at essentially no cost to the charity. This proved highly popular and was likely cost-effective (despite the expensive sticker price of a hoodie).

References

- Andreoni J (1990) Impure altruism and donations to public goods: A theory of warm-glow giving. Econom. J. (London) 100:464–477.
- Ariely D, Bracha A, Meier S (2009) Doing good or doing well? Image motivation and monetary incentives in behaving prosocially. *Amer. Econom. Rev.* 99:544–555.
- Becker G, Degroot M, Marschak J (1964) Measuring utility by a single-response sequential method. *Behav. Sci.* 9(3):226–232.
- Beltramini R (2000) Exploring the effectiveness of business gifts: Replication and extension. J. Advertising 29(2):75–78.
- Benabou R, Tirole J (2006) Incentives and prosocial behavior. Amer. Econom. Rev. 96(5):1652–1678.
- Biel A, Thøgerson J (2007) Activation of social norms in social dilemmas: A review of the evidence and reflections on the implications for environmental behavior. J. Econom. Psych. 28(1):93–112.
- Bowles S (2008) Policies designed for self-interested citizens may undermine the moral sentiments: Evidence from economic experiments. *Sci.* 320:1605–1609.
- Brainard D (1997) The Psychophysics toolbox. Spatial Vision 10(4): 433–436.
- Brown A, Meer J, Williams JF (2019) Why do people volunteer? An experimental analysis of preferences for time donations. *Management Sci.* 65(4):1455–1476.
- Bushong B, King LM, Camerer C, Rangel A (2010) Pavlovian processes in consumer choice: The physical presence of a good increases willingness-to-pay. *Amer. Econom. Rev.* 100(4):1556–1571.
- Camerer C, Hogarth RM (1999) The effects of financial incentives in experiments: A review and capital-labor-production framework. J. Risk Uncertainty 19:7–42.
- Camerer C, Mobbs D (2017) Differences in behavior and brain activity in hypothetical and real choices. *Trends Cognitive Sci.* 21(1): 46–56.
- Chao M (2017) Demotivating incentives and motivation crowding out in charitable giving. *Proc. Natl. Acad. Sci. USA.* 114(28): 7301–7306.

- Chao M (2018) Intentions-based reciprocity to monetary and nonmonetary gifts. *Games* 9(4):74.
- Chao M, Chapman J (2020) Saving face through preference signaling and obligation avoidance. J. Econom. Behav. Organ. 176:569–581.
- Crum A, Salovey P, Achor S (2013) Rethinking stress: The role of mindsets in determining the stress response. J. Personality Soc. Psych. 104(4):716–733.
- Deci E, Koestner R, Ryan R (1999) A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psych. Bull.* 125(6):627–668.
- Donner A, Klar N (2000) *Design and Analysis of Cluster Randomization Trials in Health Research* (Hodder Educational Publishers, New York).
- Dweck C (2008) Mindset: The New Psychology of Success (Ballantine Books, New York).
- Dweck C, Yeager D (2019) Mindsets: A view from two eras. Perspect. Psych. Sci. 14(3):481–496.
- Eckel CC, Herberich D, Meer J (2016). It's not the thought that counts: A field experiment on gift exchange and giving at a public university. NBER Working Paper No. w22867, https:// ssrn.com/abstract=2876432
- Engel C (2011) Dictator games: A meta study. *Experiment. Econom.* 14:583–610.
- Falk A (2007) Gift exchange in the field. Econometrica 75(5):1501-1511.
- Fisher G, Rangel A (2014) Symmetry in cold-to-hot and hot-to-cold valuation gaps. *Psych. Sci.* 25(1):120–127.
- Frey B, Jegen R (2001) Motivation crowding theory. J. Econom. Surveys 15(5):589–611.
- Frey B, Oberholzer-Gee F (1997) The cost of price incentives: An empirical analysis of motivation crowding-out. Amer. Econom. Rev. 87(4):746–755.
- Gneezy U, Meier S, Rey-Biel P (2011) When and why incentives (don't) work to modify behavior. J. Econom. Perspect. 25(4):191–210.
- Gneezy U, Rustichini A (2000) Pay enough or don't pay at all. Quart. J. Econom. 115:791–810.
- Gollwitzer PM (1999) Implementation intentions. Amer. Psych. 54: 493–503.
- Green R, Lawyer S (2014) Steeper delay and probability discounting of potentially real vs. hypothetical cigarettes (but not money) among smokers. *Behav. Processes* 108:50–56.
- Heyman J, Ariely D (2004) Effort for payment: A tale of two markets. Psych. Sci. 15(11):787–793.
- Holmes J, Miller D, Lerner M (2002) Committing altruism under the cloak of self-interest: The exchange fiction. J. Experiment. Soc. Psych. 38(2):144–151.
- Kessler JB, Milkman KL, Zhang YC (2019) Getting the rich and powerful to give. *Management Sci.* 65(9):3949–4450.
- Kim JC, Wadhwa M, Chattopadhyay A (2019) When busy is less indulging: Impact of busy mindset on self-control behaviors. J. Consumer Res. 45(5):933–952.
- Kwon M, Saluja G, Adaval R (2015) Who said what: The effects of cultural mindsets on perceptions of endorser-message relatedness. J. Consumer Psych. 25(3):389–403.
- Kutilek P (2016) 20 affordable ways to say thank you. GoFundMe. Accessed November 2, 2019, https://www.gofundme.com/c/ blog/thank-you-to-donors.
- Lacetera N, Macis M (2010) Social image concerns and prosocial behavior: Field evidence from a nonlinear incentive scheme. J. Econom. Behav. Organ. 76(2):225–237.
- Lacetera N, Macis M, Slonim R (2012) Will there be blood? Incentives and displacement effects in pro-social behavior. Amer. Econom. J. Econom. Policy 4(1):186–223.
- Landry C, Lange A, List J, Price M, Rupp N (2010) Is a donor in hand better than two in the bush? Evidence from a natural field experiment. *Amer. Econom. Rev.* 100:958–983.
- Lepper M, Greene D (1980) *The Hidden Costs of Reward* (Lawrence Erlbaum Associates, New York).

- Lepper M, Greene D, Nisbett R (1973) Undermining children's intrinsic interest with extrinsic reward: A test of the "overjustification" hypothesis. J. Personality Soc. Psych. 28(1): 129–137.
- Liberman V, Samuels SM, Ross L (2004) The name of the game: Predictive power of reputations vs. situational labels in determining prisoner's dilemma game moves. *Personality Soc. Psych. Bull.* 30(9):1175–1185.
- Luce RD (1959) Individual Choice Behavior: A Theoretical Analysis (Wiley, New York).
- Malmendier U, Schmidt K (2017) You owe me. Amer. Econom. Rev. 107(2):493–526.
- Mellström C, Johannesson M (2008) Crowding out in blood donation: Was Titmuss right? J. Eur. Econom. Assoc. 6(4):845–863.
- Miller DT (1999) The norm of self-interest. Amer. Psych. 54(12): 1053–1060.
- Niza C, Tung B, Marteau T (2013) Incentivizing blood donation: Systematic review and meta-analysis to test Titmuss' hypotheses. *Health Psych.* 32(9):941–949.
- Newman G, Shen Y (2012) The counterintuitive effects of thank-you gifts on charitable giving. *J. Econom. Psych.* 33(5):973–983.
- Newman G, Cain D (2014) Tainted altruism: When doing some good is evaluated as worse than doing no good at all. *Psych. Sci.* 25(3):648–655.
- Oyserman D, Sorensen N, Reber R, Chen SX (2009) Connecting and separating mindsets: Culture as situated cognition. J. Personality Soc. Psych. 97(2):217–235.
- Oyserman D, Lee S (2008) Does culture influence what and how we think? Effects of priming individualism and collectivism. *Psych. Bull.* 134(2):311–342.
- Oyserman D, Scott R, Kosslyn S, eds. (2015) Culture as situated cognition. *Emerging Trends in the Social and Behavioral Sciences*, vol. 318 (John Wiley & Sons, Inc), 1–20.
- Saccardo S, Li CX, Samek A, Gneezy A (2020) Nudging generosity in consumer elective pricing. Organ. Behav. Human Decision Processes 163:91–104.
- Ratner R, Zhao M, Clarke J (2011) The norm of self-interest: implications for charitable giving. Oppenheimer D, Olivola C, eds. The Science of Giving: Experimental Approaches to the Study of Charity (Psychology Press, Taylor & Francis Group, New York).
- Saluja G, Adaval R, Wyer R Jr (2017) Hesitant to label, yet quick to judge: How cultural mindsets affect the accessibility of stereotypic knowledge when concepts of the elderly are primed. Organ. Behav. Human Decision Processes. 143:23–38.
- Savary J, Goldsmith K, Dhar R (2015) Giving against the odds: When tempting alternatives increase willingness to donate. J. Marketing Res. 52(1):27–38.
- Savary J, Li C, Newman G (2017) Exalted purchases or tainted donations? The effects of product incentives on charitable giving. Gneezy A, Griskevicius V, Williams P, eds. Advances in Consumer Research, vol. 45 (Association for Consumer Research, Duluth, MN), 238–242.
- Savary J, Li C, Newman G (2020) Exalted purchases or tainted donations? Self-signaling and the evaluation of charitable incentives. J. Consumer Psych. 30(4):671–679.
- Simpson B, Irwin K, Lawrence P (2006) Does a 'norm of selfinterest' discourage prosocial behavior? Rationality and quid pro quo in charitable giving. *Soc. Psych. Quart.* 69(3):296–306.
- Taylor S, Gollwitzer P (1995) Effects of mindset on positive illusions. J. Personality Soc. Psych. 69(2):213–226.
- Von Neumann J, Morgenstern O (1953) Theory of Games and Economic Behavior (Princeton University Press, Princeton, NJ).
- Xu A, Wyer R Jr (2008) The comparative mind-set: From animal comparisons to increased purchase intentions. *Psych. Sci.* 19(9): 859–864.

- Warren C, Mcgraw AP, Van Boven L (2011) Values and preferences: defining preference construction. Wiley Interdisciplinary Rev. Cognitive Sci. 2(2):193–205.
- Wang L, Zhong C, Murnighan JK (2014) The social and ethical consequences of a calculative mindset. Organ. Behav. Human Decision Processes 125:39–49.
- World Bank (2015) World Development Report 2015: Mind, Society, and Behavior (World Bank, Washington, DC).
- Zlatev J, Miller D (2016) Self-interestedly benevolent or benevolently self-interested: When self-interest undermines vs. promotes prosocial behavior. Organ. Behav. Human Decision Processes 137: 112–122.