



Contents lists available at ScienceDirect

Organizational Behavior and Human Decision Processes

journal homepage: www.elsevier.com/locate/obhdp

Saving the masses: The impact of perceived efficacy on charitable giving to single vs. multiple beneficiaries [☆]

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ARTICLE INFO

Article history:

Received 8 May 2013

Revised 11 May 2016

Accepted 7 June 2016

Keywords:

Altruism

Charitable giving

Efficacy

Impact

Fundraising

Scope sensitivity

ABSTRACT

People are more generous toward single than toward multiple beneficiaries, and encouraging greater giving to multiple targets is challenging. We identify one factor, perceived efficacy, which enhances generosity toward multiple beneficiaries. We investigate relationships between perceived *self-efficacy* (believing one can take steps to make an impact), *response efficacy* (believing those steps will be effective), and charitable giving. Four studies show that increasing perceived self-efficacy increases perceived response efficacy (Studies 1 and 2) and increases donations for multiple beneficiaries (Studies 1–4). Further, results show that boosting perceived self-efficacy enhances giving to a greater extent for multiple than for single beneficiaries (Studies 3 and 4). These effects emerge using various charitable giving contexts, efficacy manipulations, and measures of generosity.

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1. Introduction

Charitable organizations often encourage donations by focusing donors on helping one beneficiary. For example, some humanitarian organizations offer opportunities to sponsor single individuals—one child, student, or teacher. Similarly, some wildlife funds encourage the symbolic adoption of single animals—one polar bear, panda, or penguin (e.g., [World Wildlife Fund, 2012](#)). Focusing on one beneficiary can be a successful fundraising strategy because single beneficiaries tend to evoke greater sympathy, guilt, and caring than do multiple beneficiaries (e.g., [Jenni & Loewenstein, 1997](#); [Kogut & Ritov, 2005a, 2005b](#)). However, this strategy also has limitations.

First, it is not always feasible for charities to focus on single beneficiaries given their missions (e.g., research, preventative aid, awareness). Second, it can be misleading to suggest that donations benefit single beneficiaries when they actually contribute to a general pool of funds; doing so can damage charities' reputation and future financial support (e.g., [Kiva, 2011](#); [Roodman, 2009](#)). Third,

individual-level fundraising may not be economical, and charities lose flexibility in resource deployment when they receive donations that are restricted to single beneficiaries. Such restrictions may weaken an organization's operating efficiency, particularly in the event of more pressing or unforeseen needs. In light of these limitations, we sought to examine one theoretical construct that might increase giving to multiple beneficiaries.

To begin, we briefly review literature that has shown that donors tend to give more to single than to multiple beneficiaries, and that this tendency is often driven by emotional concerns such as sympathy and guilt. We also describe previously-conducted studies that illustrate the difficulties in increasing generosity toward multiple targets. We then shift our focus to a different driver of giving—perceived efficacy—that we suggest contributes to donors' generally-lower willingness to give to multiple targets. To gain a deeper understanding of the effect of perceived efficacy on giving, we utilize a common and more nuanced conceptualization of perceived efficacy that is well established in the literature (e.g., [Bandura, 1977](#); [Block & Keller, 1997](#); [Keller, 2006](#)). Specifically, we differentiate between perceived *self-efficacy* (the belief that one can take the steps required to achieve an outcome) and *response efficacy* (outcome expectations: the belief that the steps taken will result in the desired outcome). Thus, in our charitable giving context, self-efficacy is conceptualized as people's belief that they are capable of taking steps to achieve their objectives (e.g., accomplishing their goals, taking steps to help a cause). Response efficacy is conceptualized as the belief that actions taken

[☆] This manuscript is based on part of the first author's doctoral dissertation. We thank Adam Alter, Amitav Chakravarti, Punam Keller, Gary Lilien, Geeta Menon, Tom Meyvis, Jamie Myers Maloney, Priya Raghurir, Stephanie Tully, and Yaacov Trope for helpful comments and suggestions.

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to achieve their objective, such as helping a charitable cause, will be effective. Next, we present four studies that were designed to (1) test whether generosity toward multiple beneficiaries can be increased by manipulating perceived self-efficacy in a variety of ways (Studies 1–4), (2) examine the relationships between self-efficacy, response efficacy, and charitable giving towards multiple beneficiaries (Studies 1 and 2), and (3) examine whether the effect of increased self-efficacy on giving may be different for multiple than it is for single beneficiaries (Studies 3 and 4). To gain convergent evidence, these studies utilized a variety of perceived efficacy manipulations, charitable giving contexts, and measures of hypothetical and real giving.

The results show that encouraging people to consider their ability to achieve an unrelated goal or an outcome (i.e., boosting self-efficacy) heightens the degree to which people believe their charitable actions can make an impact (i.e. boosts response efficacy), and increases generosity toward multiple beneficiaries. In addition, increasing perceived self-efficacy reduces the disparity in people's willingness to donate to single and multiple beneficiaries—importantly, by raising giving levels for multiple beneficiaries, rather than by lowering giving levels for single beneficiaries. These results show that giving to multiple beneficiaries depends at least in part on whether perceived efficacy is higher versus lower. We also explore possible reasons why these effects occur. We conclude with a discussion of the theoretical and practical implications of this work.

2. Charitable giving to single versus multiple beneficiaries

Many studies have shown that people are more generous toward single rather than multiple beneficiaries because single beneficiaries evoke stronger emotional concern (e.g., [Kogut & Ritov, 2005a](#)). Many factors contribute to this effect. As compared to multiple beneficiaries, single beneficiaries seem more vivid, identifiable, and tangible; in addition, people experience diminished sensitivity and guilt as the magnitude of target beneficiaries increases ([Baron, 1997](#); [Cameron & Payne, 2011](#); [Fetherstonhaugh, Slovic, Johnson, & Friedrich, 1997](#); [Jenni & Loewenstein, 1997](#); [Kogut & Ritov, 2005a, 2010](#); [Small, Loewenstein, & Slovic, 2007](#)). Therefore, people tend to be more generous to single than to multiple beneficiaries, regardless of whether two, eight, or millions of beneficiaries are involved (e.g., [Kogut & Ritov, 2005b](#); [Slovic, 2007](#)).

Dozens of studies have increased our understanding of people's perceptions about and generosity toward single beneficiaries. However, less research has focused on donor perceptions of and giving to multiple beneficiaries. For example, [Kogut and Ritov \(2005a, 2005b\)](#) examined the influence of identifying information (none vs. age only vs. age and name vs. age, name, and picture) and number of beneficiaries (one child vs. eight children) on giving. Adding layers of identifying information boosted giving for the single child but had no effect for the eight children. Although the authors were not focused on examining ways to increase giving to multiple beneficiaries, their work contributes to our understanding of multiple beneficiaries by suggesting that the same factors that boost giving to single beneficiaries may not be successful for multiple beneficiaries.

In other work, researchers have investigated giving patterns after priming participants to think analytically, informing them about the tendency to give to single over multiple beneficiaries, and providing them with statistical information (e.g., [Small et al., 2007](#)). However, none of those approaches enhanced giving to multiple beneficiaries. In one study, for example, [Small et al. \(2007\)](#) designed an intervention to educate donors about their tendency to help a single, identified beneficiary versus multiple, statistical beneficiaries. While this intervention attenuated participants' tendency to give more to the single (vs. statistical)

target, it did so by decreasing giving to the single target, rather than by increasing giving to the statistical target ([Small et al., 2007](#)).

However, some evidence suggests that giving to multiple beneficiaries can be increased. [Smith, Faro, and Burson \(2013\)](#) boosted giving to multiple beneficiaries by enhancing the perceived entitativity (“inherent coherence,” [Campbell, 1958](#)) of those targets (e.g., framing 200 gazelles as a herd of 200 gazelles). These findings are encouraging because they suggest that greater giving can be stimulated for multiple beneficiaries, at least in contexts in which the multiple beneficiaries can be reframed or viewed as a single, coherent unit. In the present work, we sought to identify another, more general manner in which giving can be increased for multiple beneficiaries. Specifically, we attempted to increase giving to multiple beneficiaries by heightening people's belief that they can make a difference. In contrast to prior work, the current work aims to boost giving to multiple targets by changing people's beliefs about their own ability to be effective (self-efficacy), rather than directly influencing beliefs about whether a target beneficiary or charitable cause can be helped.

In summary, while much research has demonstrated people's heightened tendency to help single beneficiaries, less research has investigated and identified ways to increase giving to multiple beneficiaries. The current work examines how one factor—perceived efficacy—might positively influence people's generosity toward multiple beneficiaries.

3. The current research: the role of perceived efficacy

Many factors influence giving decisions in addition to feelings of sympathy and caring. People also feel the need to control their environment and ensure that their actions make a difference (e.g., [Cryder, Loewenstein, & Scheines, 2013](#); [Fiske, 2004](#)). The term *perceived efficacy* is often used to refer to perceptions regarding one's impact, and the current work relies on this concept to help explain patterns of giving. To gain a more nuanced understanding, we build on classic efficacy research ([Bandura, 1977](#)) to distinguish between two efficacy forms—perceived self-efficacy and response efficacy—and investigate their influence on giving to single and multiple targets.

The literature on perceived efficacy has identified self-efficacy and response efficacy as two main categories of efficacy perceptions ([Bandura, 1977](#); [Block & Keller, 1997](#); [Keller, 2006](#)). Self-efficacy refers to the perception that one is capable of taking steps to perform a desired action; response efficacy refers to the perception that the steps taken will result in the desired outcome. Generally, self-efficacy and response efficacy are correlated, and according to [Bandura's \(1977\)](#) model, self-efficacy precedes response-efficacy. Nonetheless, the two efficacy forms have been found to have unique antecedents and consequences and thus have been described as discrete constructs (e.g., [Bandura, 1977](#); [Maddux & Rogers, 1983](#)).

We are not the first to implicate perceived efficacy as a factor influencing charitable giving decisions ([Bendapudi, Singh, & Bendapudi, 1996](#); [Cryder et al., 2013](#)). For example, in their review of helping behavior, [Bendapudi et al. \(1996\)](#) suggest that charities may want to focus on raising money for single beneficiaries, because those targets may induce higher self-efficacy perceptions:

“When the need appears enormous, donors may believe that they are powerless to reduce it; this lack of self-efficacy may lead to their choosing not to help at all. To counter this trend, the charity may focus on a manageable segment of the need (e.g., helping one needy child as opposed to the starving millions), assuring donors it possesses the ability to provide serious help.”

In addition, [Cryder et al. \(2013\)](#) show that providing tangible details can boost charitable giving to the extent it increases the perceived impact of one's donations. Although these authors do not distinguish between efficacy forms, their results highlight the potential effects of self-efficacy and response efficacy on giving.

We build on this previous work by examining the role of perceived efficacy in giving decisions toward single and multiple beneficiaries. Across four studies, we test whether heightening perceived efficacy increases giving to multiple beneficiaries, examine the role of self-efficacy and response efficacy, and offer new insight into factors that influence generosity toward multiple targets. We examine whether and how perceived efficacy can be manipulated to increase charitable behavior toward multiple targets in both internally- and externally-valid contexts, varying efficacy perceptions both within and independent of a charitable message. Building on [Bandura's \(1977\)](#) seminal work suggesting that self-efficacy perceptions shape outcome expectations (i.e., response efficacy perceptions) in other areas, we argue that heightening self-efficacy perceptions, even if independent of the charitable cause, can increase charitable giving to multiple beneficiaries. We expect this effect to occur due to the expected positive effect of heightened self-efficacy perceptions (e.g., "I can take steps to achieve my goals.") on charity-related response efficacy perceptions (e.g., "My donations can make an impact.").

Building on prior research (e.g., [Bendapudi et al., 1996](#)), we expect perceived response efficacy to on average be naturally higher for single beneficiaries than for multiple beneficiaries, as people tend to believe it is difficult to help many targets in need (but that single beneficiaries can more easily be helped). Due to naturally-higher response efficacy perceptions for single targets, we expect manipulations of perceived self-efficacy to be stronger for multiple (vs. single) beneficiaries for whom efficacy perceptions are naturally lower. It is therefore possible that giving to single beneficiaries may not increase when perceived efficacy is heightened relative to a lower, or baseline, level. In contrast, for multiple beneficiaries, we argue it is possible to increase perceived self-efficacy and response efficacy, and thereby increase giving for the multiple beneficiaries in need.

We tested our predictions in four studies that investigated the relationship between perceived efficacy and willingness to give to charity. We examined these effects using different efficacy manipulations and utilizing a variety of methods to vary those efficacy perceptions: by influencing general self-efficacy perceptions outside of the charitable giving context (Studies 1, 3, and 4), and increasing the salience of efficacy information in charitable appeals (Study 2). In doing so, we offer deeper theoretical insight into donation decisions for multiple targets, as well as practical insights into how organizations may realistically implement this understanding when raising funds for multiple beneficiaries.

4. Study 1: self-efficacy and giving to multiple beneficiaries

Study 1 was designed to gain preliminary evidence for the proposed impact of perceived self-efficacy on charitable giving to multiple beneficiaries. To begin our investigation, we tested whether it is possible to increase giving to multiple beneficiaries by increasing efficacy perceptions. To avoid manipulating the actual needs and abilities of the charitable organization,¹ we used an experimental manipulation of perceived efficacy that was independent of the charitable context, and that encouraged participants to consider their general ability to take steps to meet their goals. Based on previous research showing that self-efficacy can affect response efficacy ([Bandura, 1977](#)), we expected enhanced self-efficacy perceptions

("I can effectively take the actions required to be effective") to enhance response efficacy perceptions ("The actions I take will be effective") in the charitable context, and in turn to increase willingness to donate.

4.1. Method

Ninety-three participants ($M_{\text{age}} = 30.67$, $SD = 7.74$, 34 females) on Amazon's Mechanical Turk completed this study in exchange for \$0.50. To manipulate self-efficacy perceptions independently from perceptions about the charity, we used a scenario-writing task unrelated to charitable giving. Participants were randomly assigned to one of two conditions (higher self-efficacy vs. control). In the higher self-efficacy condition, participants were instructed to write about a time when they faced an important task that they felt able to take steps to complete, and they were asked to focus on the steps they took to achieve that task. In the control condition, participants wrote about a typical day in the previous week.

After participants completed their writing task, they viewed a charitable appeal from Make-A-Wish, a charity that "grants wishes" to children diagnosed with life-threatening conditions. Participants read about Make-A-Wish's mission, followed by pictures of six children and their wishes. To be consistent with earlier work on giving to multiple beneficiaries (e.g., [Kogut & Ritov, 2007](#)), we included the children's name and age along with a photograph of the individual children. In addition, we explicitly stated the estimated dollar amount needed, to ensure that the same monetary need was perceived across conditions. We stated: "Thanks to generous donors, Make-A-Wish is close to making the wishes of these children come true, with about \$500 in funds left to be raised." Participants then responded to the following question using a 7-point scale: "If given the chance to contribute to this amount today, how willing would you be to donate?" (1 = extremely unwilling, 7 = extremely willing).

We also measured participants' emotional concern since past work has shown that it is a powerful driver of charitable giving decisions. Several studies on charitable giving to single and multiple beneficiaries have used [Small et al.'s. \(2007\)](#) *feelings* scale to capture affective and moral responses such as sympathy and concern for others (e.g., [Small et al., 2007](#); [Smith et al., 2013](#)). We therefore used the same five items and adapted the measures to our context.

Next, to test whether the self-efficacy manipulation influenced response efficacy perceptions as intended ([Bandura, 1977](#)), we asked participants to complete a measure designed to assess response efficacy perceptions regarding the charitable context: "To what extent do you think your donation would make an impact?" (7-point scale; 1 = not at all, 7 = very much so).

4.2. Results

4.2.1. Willingness to donate

There was a significant effect of self-efficacy on willingness to donate to multiple beneficiaries such that participants were more willing to donate in the higher self-efficacy ($M = 5.98$, $SD = 1.52$) condition than in the control ($M = 5.20$, $SD = 1.88$) condition, $F(1, 91) = 4.69$, $p = 0.03$.

4.2.2. Emotional concern

We considered the possibility that emotional concern would follow a pattern similar to that for willingness to donate given the evidence in prior research for the role of feelings in charitable giving decisions. However there was no effect of the self-efficacy manipulation on the five-item *feelings* scale ($\alpha = 0.87$), $F < 1$, NS. We continued to measure emotional concern in the remaining studies but did not find consistent support for its role in

¹ We thank the review team for highlighting this possibility.

participants' giving decisions.² We therefore refrain from discussing this index further. A list of the measures collected across studies can be found in the [supplementary online material](#).

4.2.3. Response efficacy

We next examined whether the self-efficacy manipulation had its predicted effect on participants' response efficacy perceptions. Response efficacy perceptions were marginally higher in the higher self-efficacy ($M = 5.23$, $SD = 1.57$) condition as compared to the control ($M = 4.51$, $SD = 1.98$) condition, $F(1,91) = 3.70$, $p = 0.058$.

4.2.4. Mediation

We tested for the effect of self-efficacy on giving via response efficacy perceptions. Using Hayes' (2013) bootstrapping macro using 20,000 bootstrap samples, we found support for mediation, as the 95% confidence interval did not include zero (0.009, 0.962). These results demonstrate that even general self-efficacy manipulations independent of the charitable context may increase giving to multiple beneficiaries by increasing perceptions that donations to those beneficiaries will make an impact.

4.3. Discussion

Study 1 provided the first demonstration of our proposition that giving to multiple beneficiaries can be increased by boosting efficacy perceptions. To manipulate perceived efficacy, we focused on varying general self-efficacy rather than response efficacy perceptions related to the charity. Had we focused instead on directly manipulating response efficacy, it is possible that we would have inadvertently changed the actual or objective need perceived by donors. By implementing a general self-efficacy manipulation, we were able to examine the extent to which self-efficacy independent of the donation context affected generosity, without the potential confounds associated with a more explicit response efficacy manipulation. Further, prior research suggests that self-efficacy should relate to response efficacy. Indeed, based on participants' response efficacy ratings, the self-efficacy manipulation had its intended effect on increasing the perceptions that multiple beneficiaries can be helped. Participants who were led to feel more efficacious as a person were more likely to think their donation would make an impact, and were in turn more generous to multiple targets relative to those in the control condition. Given the expected correlation between self-efficacy and response efficacy, however, we urge caution in interpreting the results of the demonstrated mediation.

Much of the previous research on perceived efficacy and charitable giving has focused on participants' inferences regarding the target beneficiary. Thus, Study 1 offers novel insights by providing one of the first demonstrations of the effect of donor-based efficacy perceptions on giving to multiple beneficiaries. These findings provide encouraging evidence that increasing perceived self-efficacy can be an effective way to increase giving to multiple beneficiaries.

Despite these contributions, Study 1 is limited in terms of its practical contributions to organizations. It was not designed to provide strategies that organizations can realistically implement to boost perceived efficacy and giving to multiple beneficiaries. In practice, there may be limited opportunities for organizations to encourage their donors to consider times they could accomplish their goals prior to requesting charitable gifts. Hence, in Study 2,

our goal was to replicate and extend the findings from Study 1 by focusing again on giving to multiple beneficiaries, but this time, testing a more practical, externally valid manipulation of perceived self-efficacy. Specifically, we attempted to boost willingness to donate to multiple targets by increasing self-efficacy salience within a charitable appeal.

5. Study 2: heightening self-efficacy within the charitable appeal

5.1. Method

One hundred and fifty-four individuals ($M_{\text{age}} = 32.06$, $SD = 11.46$, 45 females) on MTurk completed this study in exchange for \$0.50. The study included two between-subject conditions that varied the salience of self-efficacy in a charitable appeal designed to help multiple beneficiaries in need.

Participants in both conditions (higher vs. lower self-efficacy salience) read about an existing charity called Pets Are Wonderful Support (PAWS), whose mission is to "preserve, support, and nurture the human-animal bond." Participants were informed that millions of elderly individuals are homebound, have pets, and may require assistance. Specifically, they read that there are close to 40 million elderly (65+) individuals in the U.S., and that PAWS provides opportunities for people to donate money for pet care, donate pet supplies, and volunteer to help the elderly with daily pet-related tasks. Participants thus responded to three dependent measures: (1) willingness to contribute part of their study payment to the millions of elderly who need assistance, (2) willingness to donate pet food or supplies for the millions of elderly, and (3) willingness to volunteer time to help the millions of elderly with their pets (7-point scale, 1 = not at all willing, 7 = extremely willing).

The appeals that participants viewed were almost identical in the higher- and lower-self-efficacy salience conditions (see [Appendix A](#) for sample stimuli). Both messages included wording designed to influence self-efficacy perceptions: "You can take steps to make a meaningful difference. Volunteers are the backbone of our organization, and we rely on our extensive and committed network of volunteers to carry out our important work." The key difference was that, in the higher self-efficacy salience condition, this wording immediately followed the headline of the appeal; whereas, in the lower self-efficacy salience condition, it appeared at the appeal's end. The expectation was for self-efficacy salience to be higher among the participants who were led to focus on the self-efficacy information earlier in the charitable appeal. Participants also completed a measure designed to capture response efficacy perceptions: "To what extent do you think your donation would make an impact—that is, make a difference to the elderly?" (1 = not at all, 7 = very much so).

We verified that the self-efficacy manipulation had its intended effect in a separate pilot test among a similar demographic sample on MTurk ($N = 201$, $M_{\text{age}} = 32.55$, $SD = 10.81$; 158 females). In this pilot, participants viewed one of the two charitable appeals used in the main study and completed five items from the Generalized Self-Efficacy Scale (5-point scale; [Schwarzer & Jerusalem, 1995](#)): (1) "If someone opposes me, I can find means and ways to get what I want."; (2) "It is easy for me to stick to my aims and accomplish my goals."; (3) "I am confident that I could deal efficiently with unexpected events."; (4) "If I am in a bind, I can usually think of something to do."; and (5) "No matter what comes my way, I'm usually able to handle it." These items were combined to form a single self-efficacy measure ($\alpha = 0.84$). As expected, self-efficacy perceptions were greater in the higher self-efficacy salience condition than in the lower self-efficacy salience condition

² We did not find strong and consistent evidence for the role of emotional concern in our studies. The one exception where emotional concern did seem to play a significant role was in Study 3, where emotional concern was found to partially explain the relationship between the self-efficacy manipulation and donations. In the remaining studies, additional emotion-related measures were included at the request of the review team and are discussed as exploratory measures (e.g., guilt in Study 4).

($M_{\text{higher}} = 3.95$, $SD = 0.54$ vs. $M_{\text{lower}} = 3.72$, $SD = 0.57$, $F(1, 199) = 8.02$, $p = 0.005$).

5.2. Results

5.2.1. Willingness to donate

The three donation measures were related and combined to form a single generosity measure ($\alpha = 0.81$). As expected, generosity was greater in the higher efficacy salience ($M = 4.08$, $SD = 2.08$) condition as compared to the lower efficacy salience ($M = 3.47$, $SD = 1.63$) condition, $F(1, 152) = 5.52$, $p = 0.02$. Patterns were consistent when each individual measure was examined separately.

5.2.2. Response efficacy

As intended, the higher self-efficacy salience ($M = 3.99$, $SD = 1.67$) message induced greater response efficacy than did the lower self-efficacy salience ($M = 3.42$, $SD = 1.74$) message, $F(1, 152) = 4.31$, $p = 0.04$.

5.2.3. Mediation

As in Study 1, we examined the effect of the self-efficacy manipulation on generosity via perceived response efficacy. We found support for the suggested mediation using Hayes' (2013) PROCESS macro with 20,000 bootstrap samples, as the 95% confidence interval for the indirect effect of self-efficacy on generosity did not include zero (0.022, 0.586). However, as with Study 1, we urge caution in interpreting this mediation given the natural correlation between self-efficacy and response-efficacy. In the next set of studies (Study 3 and 4) we offer more exploratory investigations into the related processes contributing to self-efficacy's effect on increased giving to multiple beneficiaries.

5.3. Discussion

Study 2 provided an additional demonstration that it is possible to increase giving to multiple beneficiaries—this time by increasing the salience of self-efficacy information. These results extend the findings of Study 1 with the use of a more practical, externally valid self-efficacy manipulation that organizations can easily incorporate into charitable appeals. Since both Studies 1 and 2 established that boosting self-efficacy increases response efficacy and hence giving to multiple beneficiaries, we designed the remaining two studies to (1) examine how manipulating self-efficacy may impact charitable giving to multiple beneficiaries as compared to single beneficiaries, (2) examine the impact of self-efficacy on actual giving, and (3) explore other psychological factors associated with giving to single and multiple beneficiaries under conditions of higher rather than lower self-efficacy.

6. Study 3: real donations to single and multiple targets

Study 3 was designed to examine the impact of higher versus lower perceived efficacy on charitable giving to multiple as compared to single beneficiaries. As in Study 1, we were concerned that response efficacy manipulations may systematically change perceptions about the actual effectiveness of the charity. To avoid altering perceptions regarding the charity's ability to be effective (i.e., its objective efficacy), we again decided to vary efficacy perceptions independent of the charitable context to mitigate effects of potential confounds.

6.1. Method

One hundred and ninety-seven individuals ($M_{\text{age}} = 34.14$, $SD = 13.14$, 134 females) from Amazon's Mechanical Turk participated in this study in exchange for \$1. The study followed a

2×2 between-subjects design that crossed a target-beneficiary manipulation (single child: one child vs. multiple children: eight children) with a perceived self-efficacy manipulation (higher vs. lower). This target-beneficiary manipulation was chosen because it has been used in several studies on giving to single versus multiple targets in prior research (Kogut & Ritov, 2005a, 2005b, 2007).

To manipulate self-efficacy perceptions independently from perceptions about the charity, we first randomly assigned participants to one of two conditions (higher vs. lower self-efficacy). Participants were instructed to write about a past experience when they faced an important task that they either did (higher self-efficacy condition) or did not (lower self-efficacy condition) feel able to take action to complete. Since this study compared participants with higher self-efficacy to those with lower self-efficacy (rather than to those in a neutral control group), we considered the possibility that the manipulation may have unintended effects on mood. We therefore administered the PANAS at the experiment's end (Watson, Clark, & Tellegen, 1988).³

Next, participants completed an ostensibly unrelated study that required them to review materials about a U.S. charity called Alex's Lemonade Stand. All participants received the following message:

We would like to tell you about a U.S. charity called Alex's Lemonade Stand Foundation, which raises money and awareness for childhood cancer. We would like you to consider having the opportunity to get involved with this organization. Any donations of time or money will go directly to this cause.

Beneath this message, we randomly inserted one of two messages, which included the target beneficiary (single vs. multiple) manipulation. Participants in the 'multiple children' condition read:

In particular, there are eight children whose lives are in danger. These eight children, named Jesse, Bob, Mary, James, Lisa, Neil, Jenny, and Dan, are 3 years old and are being treated in a medical center in New York City. If you give today, your money will help Jesse, Bob, Mary, James, Lisa, Neil, Jenny, and Dan, who need immediate care. Think about the difference you can make to these eight children.

Participants in the 'single child' condition received the same message, except all references to eight children were replaced with a reference to one child. To maintain consistency with the earlier work (e.g., Kogut & Ritov, 2007) we included a picture of the target beneficiary in each condition. In the multiple-children conditions, participants saw headshots of eight different children, organized in a 4×2 array. In the single-child conditions, we randomly presented one of the pictures from the multiple-children conditions, and each child appeared with equal frequency across conditions.

After participants finished reading about the target beneficiary, they continued to a new page that informed them of an opportunity to donate a portion of their \$1 study payment to help that beneficiary: "This decision is entirely up to you, and you can indicate a preference to donate any amount, from \$0.00 to \$1.00." Participants were told that the amount they chose to donate would be deducted from their study payment and donated directly to Alex's Lemonade Stand. The amount participants agreed to donate from their \$1 payment was our dependent measure.

Next, participants responded to two items designed to assess whether the self-efficacy manipulation had the intended effect of influencing their perceived ability to take steps to achieve their goals. Using a seven-point scale (1 = not at all; 7 = very much so),

³ We found a significant main effect of efficacy on positive affect, $F(1, 193) = 8.61$, $p = 0.004$. No other effects were significant for positive or negative affect. We also replicated the analyses reported in the results section controlling for positive and negative affect and found consistent results.

participants answered the following: “To what extent do you feel as though you can accomplish your goals?” and “To what extent do you feel that you cannot achieve what you set your mind to?” (reverse-scored).

At the time when participants made their donation decision, they had been informed that we would deduct the amount they indicated from their \$1 payment. However, within 10 days after the study ended, we sent each participant an individual debriefing message. We first reminded them about the study and described its purpose. We then stated that we had decided to pay them the full \$1 payment that we had initially promised, and would donate their previously designated amount on their behalf. No participant indicated suspicion either in the main study or after the debriefing.

6.2. Results

6.2.1. Manipulation check

Participants’ responses to the two self-efficacy manipulation check items were highly correlated and combined to form a single measure, $r(195) = 0.79$, $p < 0.001$. The perceived self-efficacy manipulation worked as intended, as participants in the higher self-efficacy conditions ($M = 5.57$, $SD = 1.46$) indicated greater self-efficacy than did participants in the lower self-efficacy conditions ($M = 4.89$, $SD = 1.42$; $F(1, 193) = 11.21$, $p = 0.001$). No other effects were significant.

6.2.2. Donations

An initial examination of the data revealed a non-normal distribution with a large number of zeros in the dependent variable and spikes in giving at several specific amounts (e.g., \$0.25, \$0.50). Accordingly, in order to gain a better understanding of the patterns in the data, and to ensure that the findings were robust, we performed several statistical analyses. These multiple approaches allowed us to assess the independent variables’ effects on whether or not participants gave (binary logistic regression) and how much participants gave (ordinal logistic regression⁴); they also permitted us to examine the results using a more traditional approach (ANOVA; Mann-Whitney U test). Analyses revealed consistent results regardless of approach. For the sake of brevity and ease of exposition, we report the binary logistic regression results.

Binary logistic regression was conducted to examine the proportion of participants who chose to donate (0 = \$0; 1 = all other donation values). Predictor variables were perceived self-efficacy (higher vs. lower), target beneficiary (one vs. eight), and their interaction. As expected, the interaction, which is depicted in Fig. 1, was significant (Wald $\chi^2(197) = 10.40$, $p = 0.001$).

Follow-up analyses based on the two 2×2 contingency tables revealed the predicted results. In the lower self-efficacy conditions, a greater proportion of participants donated to one child (57%) than to eight children (33%; $\chi^2(197) = 5.58$, $p = 0.02$). However, consistent with our predictions, almost twice as many participants donated to eight children when self-efficacy was higher (64%) than when it was lower (33%; $\chi^2(197) = 9.48$, $p = 0.002$). In contrast, the proportion of donors giving to one child did not differ significantly in the lower (57%) and the higher (42%) efficacy conditions ($\chi^2(197) = 2.22$, $p > 0.13$). In addition, in the higher self-efficacy condi-

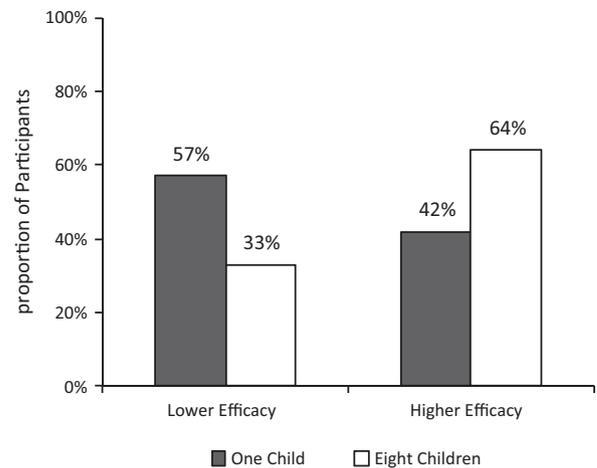


Fig. 1. Proportion of participants who agreed to donate to one child versus eight children depending on perceived efficacy in Study 3.

tions, a greater proportion of participants donated to eight children (64%) than to one child (42%; $\chi^2(197) = 5.03$, $p = 0.025$).

These results support our prediction that giving to multiple beneficiaries may be increased when self-efficacy perceptions are higher rather than lower. They also show that boosting self-efficacy has a greater effect on donations in contexts where multiple rather than single beneficiaries need help. In addition, the results show that the likelihood of donating to multiple beneficiaries in the higher self-efficacy condition (64%) was statistically equivalent to (although nominally higher than) the likelihood of giving in the lower self-efficacy–single beneficiaries condition (57%; $p > 0.05$). That is, in situations when self-efficacy is increased, people may be more likely to donate to multiple beneficiaries than to a single beneficiary.

6.3. Discussion

Study 3 provided evidence for the role of perceived self-efficacy on actual donation behavior using a self-efficacy manipulation that was independent of the charitable context. The results suggest that perceived self-efficacy is one factor driving giving to single and multiple beneficiaries, and that boosting perceived self-efficacy increases donations to multiple targets. Further, enhancing self-efficacy perceptions increases actual (vs. hypothetical) donations to multiple targets, to the level of the donations for single targets.

Our findings in the lower efficacy conditions are consistent with the suggestions made in earlier research—that when efficacy perceptions are lower, and people are not convinced they can help, they may choose to help a smaller, easier-to-help segment (single targets; see Bendapudi et al., 1996). However, we found that when self-efficacy was higher, giving to multiple targets was higher not only relative to when self-efficacy was lower for those targets, but also to when a single beneficiary was in need. In addition, we noted that the proportion of donors giving to the single child did not differ significantly in the lower and in the higher efficacy conditions. This result raises the question of why the self-efficacy manipulation appears to be more effective for multiple beneficiaries than for single beneficiaries. Study 4 was conducted to replicate the findings in Study 3, as well as to begin to investigate why the perceived efficacy manipulation may have boosted giving to multiple beneficiaries more so than for single beneficiaries.

In particular, we drew from previous charitable giving research suggesting that single, identified beneficiaries may invoke guilt, which starts to fade when the number of beneficiaries increases (e.g., Schelling, 1968). With this work in mind, we examined how

⁴ We conducted an ordinal logistic regression (donations divided into three groups: 0 = \$0; 1 = \$0.01–\$0.49; 2 = \$0.50+) designed to capture points where there were mass clusters in the data and to ensure adequate sample sizes for each cluster. The predictor variables were efficacy, beneficiary, and their interaction. The interaction term was significant (Wald $\chi^2(197) = 9.02$, $p = 0.003$), and the results paralleled those found in the binary logistic regression. Results were also consistent when using a non-parametric Mann-Whitney U test. Consistent patterns were found also when using ANOVA; however, we note that the former analyses are more appropriate statistical analyses given the distribution of our data.

perceived efficacy may differentially influence guilt regarding single and multiple beneficiaries, and in turn, giving to those targets.

7. Study 4: feelings associated with giving to single and multiple beneficiaries

In Study 3, heightened self-efficacy increased real donations to multiple beneficiaries but not to single beneficiaries. We conducted Study 4 to explore reasons for this differential effect of perceived efficacy on giving. Considering that affective reactions are strongly linked to giving, but that we did not find consistent support for the role of other-oriented feelings such as sympathy across Studies 1–3, we explored whether different emotional reactions may help explain these findings. Rather than focusing primarily on the link between other-focused emotions (e.g., sympathy) on charitable giving, we explored the role of self-focused feelings (i.e., guilt), given that our experimental context focused on boosting self-efficacy perceptions (a self-focused construct, rather than other-focused construct like emotional concern).⁵

We focus on guilt in particular, because previous research has indicated that increased guilt enhances compliance with acts such as charitable giving, particularly when those acts are likely to be successful (e.g., Cryder, Springer, & Morewedge, 2012; Lindsey, 2005; Lindsey, Yun, & Hill, 2007). Lindsey et al. (2007) also hint at the possibility that efficacy may alter how guilt drives charitable giving when they wrote, “If people perceive that they have control over the situation, believe that they can expiate guilt through an action, and believe that engaging in these behaviors will attenuate the feelings of guilt, they are likely to engage in guilt-reducing behaviors.”

This literature suggests the possibility that people experience less guilt in response to multiple beneficiaries when self-efficacy is lower because they do not feel they have the ability to help those individuals. However, when efficacy is boosted, those feelings of guilt increase because they then feel they can actually make a difference. In contrast, people asked to give to single beneficiaries may not experience as great a shift in guilt because they are more likely to feel they can help single beneficiaries whether or not efficacy is boosted through a manipulation—because efficacy perceptions tend to be naturally high for single beneficiaries. Therefore, one goal of Study 4 is to explore whether increased self-efficacy increases anticipated guilt for multiple beneficiaries but not for single beneficiaries, since anticipated guilt is likely to be naturally high for single beneficiaries. We also examine whether this potential relationship may help explain why giving increases more for multiple than for single beneficiaries when efficacy is higher rather than lower.

7.1. Method

We recruited 296 individuals ($M_{\text{age}} = 32.90$, $SD = 15.90$, 135 females) from Amazon’s Mechanical Turk to participate in this study in exchange for \$1. The study followed a 2×2 between-subjects design that crossed a target-beneficiary (single child: one child vs. multiple children: eight children) manipulation with a perceived self-efficacy (higher vs. lower) manipulation, and followed a procedure similar to that described in Study 3.

Participants first completed the perceived self-efficacy manipulation, writing about characteristics about themselves that either help them (higher self-efficacy) or hold them back from (lower self-efficacy) taking the action steps required to accomplish their goals. Next, participants read about Alex’s Lemonade Stand and the opportunity to donate. We held constant the monetary need across conditions, informing participants that we estimated needing to raise \$300,000 in total across donors. We then asked

participants to indicate their willingness to donate, reiterating that the overall need was about \$300,000.

To explore why enhancing self-efficacy perceptions may affect giving differently for multiple beneficiaries than for single beneficiaries, we next assessed the extent to which participants anticipated experiencing guilt for not donating: “I would feel guilty if I did not help this beneficiary.” To avoid drawing participants’ attention to one measure in particular, we administered this question along with other feelings measures (e.g., *feelings* scale, shame). We found no significant effects on the latter measures, which can be found in the [supplementary online material](#).

7.2. Results

7.2.1. Willingness to donate

There were no main effects of self-efficacy or target-beneficiary on willingness to donate. However, we found the anticipated interaction, $F(1, 292) = 8.54$, $p = 0.004$, replicating the findings of Study 3 (depicted in Fig. 2). In the lower self-efficacy conditions, participants were more willing to donate to the single child ($M = 5.01$, $SD = 1.63$) than to the multiple children ($M = 4.47$, $SD = 1.72$; $F(1, 292) = 4.04$, $p = 0.045$). As predicted, however, willingness to donate to multiple children was greater when perceived self-efficacy was higher ($M = 5.13$, $SD = 1.32$) as compared to when it was lower ($M = 4.47$, $SD = 1.72$); $F(1, 292) = 6.12$, $p = 0.014$. Further, in the higher efficacy conditions, participants were even more willing to donate to the multiple children ($M = 5.13$, $SD = 1.32$) than to the single child ($M = 4.60$, $SD = 1.63$; $F(1, 292) = 4.55$, $p = 0.034$, with donations to the multiple children in the higher efficacy condition exceeding donations to the single child in the lower efficacy condition, $F(1, 292) = 4.55$, $p = 0.03$. Willingness to donate to single beneficiaries was not significantly different in the lower ($M = 5.01$, $SD = 1.63$) and the higher ($M = 4.60$, $SD = 1.63$) efficacy conditions, $F(1, 292) = 2.68$, $p = 0.10$.

7.2.2. Anticipated guilt

We next examined the extent to which people reported they would feel guilty if they did not donate to help the beneficiary. There were no main effects but a significant interaction effect, $F(1, 292) = 4.15$, $p = 0.04$, which followed a pattern similar to that for willingness to donate. Participants in the lower self-efficacy conditions reported feeling marginally more guilty about not donating to the single target ($M = 4.40$, $SD = 1.70$) versus the multiple target ($M = 3.84$, $SD = 1.83$), $F(1, 292) = 3.30$, $p = 0.07$. However, participants reported greater anticipated guilt for the

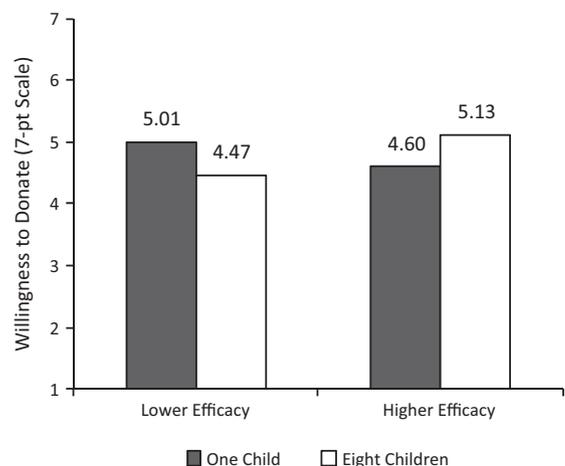


Fig. 2. Willingness to donate to one child versus eight children depending on perceived efficacy in Study 4.

⁵ We thank the review team for suggesting this exploratory investigation into additional measures of affect.

multiple beneficiaries when self-efficacy was higher ($M = 4.49$, $SD = 1.89$) rather than lower ($M = 3.84$, $SD = 1.83$), $F(1,292) = 4.55$, $p = 0.03$. In addition, when self-efficacy was higher, patterns of reported guilt was higher for multiple ($M = 4.49$, $SD = 1.89$) than for single ($M = 4.20$, $SD = 1.78$) targets, although this difference was not statistically significant $F(1,292) = 1.07$, $p > 0.5$. Consistent with the results for willingness to donate, there was also no significant difference between anticipated guilt for single beneficiaries in the lower ($M = 4.40$, $SD = 1.70$) and the higher ($M = 4.20$, $SD = 1.78$) efficacy conditions, $F < 1$, NS. These results are consistent with previous research arguing that people are likely to engage in guilt-reducing behaviors such as giving when they believe they are in control of a situation and that their actions will actually be successful (Lindsey et al., 2007).

7.2.3. Mediation

We next examined the process driving the effect of self-efficacy on giving to multiple and single beneficiaries. We used Hayes' (2013) PROCESS macro, with 20,000 bootstrap resamples to test for the mediating role of anticipated guilt. We found evidence for the indirect effect of self-efficacy on giving to multiple beneficiaries via the proposed guilt mediator, as the 95% interval for the indirect effect did not include zero (0.028, 0.833). However, we did not find evidence that self-efficacy influences giving for single targets via enhanced guilt (-0.377 , 0.159). These findings are in line with our proposition that guilt shifts to a greater extent and thus has a greater effect on giving for multiple than for single beneficiaries.

8. General discussion

The current work focused on examining generosity toward multiple beneficiaries and investigated a new factor that may increase willingness to give. Specifically, we examined the role of perceived efficacy on giving to multiple beneficiaries (Studies 1–4), whether boosting perceived efficacy might (a) increase generosity toward multiple beneficiaries (Studies 1–4) and (b) attenuate people's tendency to give more to single than to multiple beneficiaries (Studies 3 and 4). To gain a more nuanced understanding of the effects of perceived efficacy, we examined two forms of efficacy that are commonly discussed in the efficacy literature: self-efficacy and response efficacy.

Since response efficacy perceptions have been examined more commonly in the literature, we began our investigation in Study 1 and 2 by examining the connection between self-efficacy perceptions and response efficacy perceptions associated with multiple beneficiaries. Having found that perceived self-efficacy was indeed associated with response efficacy and willingness to donate, we conducted Studies 3 and 4 to examine the impact of increasing efficacy perceptions on donors' generosity toward multiple beneficiaries as compared to single beneficiaries.

In Studies 1, 3, and 4, we utilized self-efficacy manipulations that were independent from the charitable context. Based on previous research suggesting that self-efficacy may influence response efficacy, we expected that manipulating self-efficacy, even independently from the charitable context, would increase giving to multiple beneficiaries. As expected, increasing self-efficacy attenuated willingness to help single rather than multiple beneficiaries, and it did so by increasing giving to multiple beneficiaries. Indeed, giving to multiple beneficiaries was actually greater than giving to single beneficiaries when perceived self-efficacy was increased. Further, heightened giving to multiple targets was associated with greater perceived response efficacy and anticipated guilt for not helping.

Study 2 tested the effect of an efficacy manipulation that charities can actually incorporate into their fundraising appeals. Demonstrating further support for the predicted effects, this study replicated the effect of perceived self-efficacy on giving to multiple

beneficiaries using a more practical self-efficacy salience manipulation. The results from these studies are among the first to demonstrate ways to increase giving to multiple beneficiaries. Further, taken together, the findings suggest that the technique of boosting perceived efficacy for multiple beneficiaries can be at least as beneficial as focusing on single beneficiaries when efficacy is lower, and perhaps even more beneficial than focusing on single beneficiaries when efficacy is higher.

The current work provides a range of theoretical contributions. Findings from previous research suggest that giving to multiple beneficiaries cannot be easily increased since giving is driven by emotional concern, which tends to be lower for multiple beneficiaries. Our research adds to the existing literature by identifying a way to increase giving to multiple beneficiaries—namely, by enhancing efficacy perceptions. Our work may also shed light on seemingly conflicting findings in earlier work. For example Small et al. (2007) demonstrated the “one > n” effect for targets in foreign countries such as Mali; whereas Kogut and Ritov (2007) have suggested the “one > n” effect applies only for in-groups rather than out-groups. Our work suggests that this discrepancy might be explained by differences in several factors, including but not limited to perceived efficacy. We urge future research to replicate and extend work in this area to provide further insight into these effects' robustness.

Future research can also examine what self-efficacy means to people and how it may be represented in different contexts. As the perception that one is able to take steps to make a difference, self-efficacy may be conceptualized in a charitable context as the extent to which people think they have the money or the time available to them to pursue a donation to a charity. However, in our studies we manipulated self-efficacy separately from the charitable giving context and still found increased giving to multiple beneficiaries. These results therefore suggest that self-efficacy may also be activated more generally, and ultimately activate perceptions that one can achieve one's goals of being a helpful, charitable person who can make an impact. However, future research may want to examine whether different ways of representing self-efficacy have different effects on behavior.

Several other opportunities exist to extend this work. Future research might examine other ways to increase giving to multiple beneficiaries by identifying additional factors that heighten perceived self-efficacy, response efficacy, and/or guilt toward multiple beneficiaries. Although we did not seek specifically to identify and distinguish all possible forms of perceived efficacy, we suspect that it is likely that other forms of efficacy exist and can be manipulated. Future research could explore the effects of different forms of efficacy (e.g., target-efficacy: “I think this beneficiary is capable of being helped.”) to uncover how these forms might affect each other and giving. Based on our results, we would expect factors that boost other forms of efficacy to similarly increase giving to multiple beneficiaries. On the other hand, we would expect boundary conditions when perceived efficacy is particularly low. For example, if a given organization, initiative, or fundraiser seems particularly ineffective, people will likely be less willing to give, regardless of whether single or multiple beneficiaries are targeted.

Future research might also build upon the current work by exploring the nuances of when and why thinking positively about giving can help or hurt donations. Previous research has shown that giving may decrease if potential donors are encouraged to mentally imagine that a crisis has been resolved (Kappes, Sharma, & Oettingen, 2013). The current work suggests that positive imagery is not always harmful; when people imagine themselves as self-efficacious, it may boost giving, potentially because people are not imagining the resolution of a crisis but rather an occasion when they had the ability to effectively take action steps. Future work might examine the nuanced effects of positive imagery, efficacy perceptions, and giving.

Finally, future research might examine how preferences for giving to single and multiple beneficiaries may (1) be related to exceptionality perceptions and (2) change over time. Existing research (Sussman, Sharma, & Alter, 2015) has found that people give more when charities and causes seem more exceptional (uncommon, infrequent) rather than ordinary (common, frequent). Simple framing (e.g., only once a year vs. every single year) can influence exceptionality perceptions and giving. With respect to the current work, it might be possible that donors view the chance to help a single beneficiary as more exceptional, and the chance to help multiple beneficiaries as more ordinary. If exceptionality perceptions contribute to people's preference to help single versus multiple beneficiaries, it is possible that exceptionality manipulations might also boost giving to multiple beneficiaries.

Our research also offers practical implications for charities, foundations, and policymakers who wish to encourage helping behavior in situations when efficacy perceptions might be chronically low or inconsistent across donors. Our work suggests that one must be aware not only of the number of individuals mentioned in a fundraising message but also the efficacy perceptions induced by the message. These perceptions can either be inherently associated with the number of target beneficiaries, or formed by donor perceptions. In addition, our results provide insight into when guilt appeals should be effective. Because efficacy perceptions are expected to be lower for multiple targets, guilt appeals generally should be less effective for multiple beneficiaries. In these contexts, people are likely to believe they cannot help or reduce their guilt by donating. However, when perceived efficacy is increased, people feel their actions will be successful, and they should be more motivated to reduce feelings of guilt by helping the multiple beneficiaries. These implications are meaningful for practitioners who struggle to fundraise for multiple beneficiaries at a time—particularly when focusing on single beneficiaries or reframing multiple beneficiaries as a solitary entity is less feasible, less efficient, or less transparent.

9. Conclusion

Both research and industry evidence suggest, ironically, that some of the most effective fundraising appeals may be less feasible or inefficient for raising and deploying resources. Due to these shortcomings, many organizations seek ways to not only encourage giving, but also giving well (GiveWell, 2011). However, previous research suggests that these efforts might be unsuccessful given the tendency for effectiveness information to dampen giving. Yet our research suggests that enhancing perceived self-efficacy might be one tool organizations can use to encourage giving to multiple beneficiaries (and perhaps other, more efficacious giving behaviors), while also boosting giving. With a more nuanced understanding of how perceived efficacy influences generosity, researchers and industry professionals can gain further insight into how charitable giving can be encouraged—multiple beneficiaries at a time.

Appendix A. Charitable appeal used in the higher self-efficacy salience condition in Study 2

The mission of PAWS NY is to preserve, support, and nurture the human-animal bond for New York City's most vulnerable residents. Our programs help keep pets in their homes while protecting and promoting the human-animal bond that is so physically and psychologically valuable to our clients. Thus, our motto: *helping people by helping pets.*

Making an impact: volunteer

You can take steps to make a meaningful difference. Volunteers are the backbone of our organization, and we rely on our extensive and committed network of volunteers to carry out our important work.

If you love working with people and pets, then PAWS might be the right organization for you! We have a wide range of available opportunities available, including:

- **Housecall Program:** provide care for a client's pet in their home, such as dog walking or helping with the litter box.
- **Pet Pantry/On-Call Program:** collect/distribute pet food/supplies, become a Pet Pantry Sponsor, transport pets to the vet, and other one-off client needs.
- **Foster Care:** foster an animal in your home when a client is hospitalized.
- **Events and Outreach:** assist at events and help to raise awareness for our mission.

Appendix B. Supplementary material

Supplementary data associated with this article can be found, in the online version, at <http://dx.doi.org/10.1016/j.obhdp.2016.06.001>.

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