WHEN SHOULD THE ASK BE A NUDGE?

THE EFFECT OF DEFAULT AMOUNTS ON CHARITABLE DONATIONS

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ABSTRACT

How does setting a donation option as the default in a charitable appeal affect people's decisions? In eight studies, comprising 11,508 participants making 2,423 donation decisions in both experimental settings and a large-scale natural field experiment, we investigate the effect of "choice-option" defaults on the donation rate, average donation amount, and the resulting revenue. We find (1) a "lower-bar" effect, where defaulting a low amount increases donation rate, (2) a "scale-back" effect where low defaults reduce average donation amounts and (3) a "default-distraction" effect, where introducing any defaults reduces the effect of other cues, such as positive charity information. Contrary to the view that setting defaults will backfire, defaults increased revenue in our field study. However, our findings suggest that defaults can sometimes be a "self-cancelling" intervention, with countervailing effects of default option magnitude on decisions and resulting in no net effect on revenue. We discuss the implications of our findings for research on fundraising specifically, for choice architecture and behavioral interventions more generally, as well as for the use of "nudges" in policy decisions.

Keywords: choice, decision-making, default, donation, heuristic, policy, prosocial, suggested amount

Consider Ann, the harried (fictional) Director of Development at a non-profit organization, tasked with raising the funds needed to keep the organization afloat. Based on recent survey data, she is likely to be in a difficult position. Her boss is probably dissatisfied with her performance and she faces a one in four chance of being fired (Bell and Cornelius, 2013). Moreover, she herself is unlikely to believe that her organization has the capacity needed for fundraising and that the fundraising activities being conducted are fully effective. Nevertheless, she needs to design her fundraising activities, with the hope of raising money more effectively.

When marketers, managers, and policy makers like Ann need to choose between courses of action, they face the daunting task of anticipating how people will respond. Traditional approaches have emphasized providing the necessary incentives and educating the target population so that when people perform their cost-benefit analysis, they will make the desired choice. In recent years, influential advances in psychology, behavioral economics, and marketing have challenged this perspective. When people fail to carefully optimize all the relevant considerations in making their decisions, traditional approaches may fail. Other approaches, potentially cheaper and simpler, may be more effective. As a result, researchers have urged policy makers to leverage behavioral findings for new strategies to influence decisions (Allcott and Mullainathan, 2010; Camilleri and Larrick, 2014; Johnson and Goldstein, 2003; Thaler and Sunstein, 2008).

In particular, the idea of "choice architecture" building on extensive research into biases in decision processes and the use of heuristics has been increasingly influential. When factors in the decision environment influence the choices people make, changes in those factors ("nudges") can be used strategically to influence people's choices without restricting their ability to express their preferences (Thaler and Sunstein 2008). Nudges, if used effectively, could be an alternative

to more heavy-handed interventions in increasing the greater good. However, the research underlying nudges tends to point to the existence of psychological phenomena, rather than quantifying the effects of such nudges. Consequently, existing theories are insufficiently detailed to identify which specific implementation of a nudge will be effective, let alone optimal.

Let's return to Ann, the Development Director, who has now read about "nudges" and has learned that setting an opt-out *default* option has been used to increase organ donations and 401-k retirement contributions. She is interested in reworking her fundraising appeal based on behavioral theories, to raise more money. She may notice that most charities in the United States do not use defaults in their online solicitations (76%), and the majority of those that do (92%), set a relatively low amount as the default option (Table 1). Should she follow current practices, or rely on behavioral research? What guidance would existing theories provide her about whether to set a default donation amount, and if so, which amount to set as the default? How reliable would the prescriptions from behavioral research be in her context?

Table 1: Online Fundraising Policies of Top Charities

	Number of Charities	Percent
No online donation	1	2%
Does not use default	37	76%
Uses defaults	12	24%
Lowest menu option defaulted	5	10%
Second lowest option defaulted	6	12%
Highest option defaulted	0	0%
Other option defaulted	1	2%

Source: Web search of Forbes Magazine 2013 50 Largest US Charities by Private Support

In this paper, we investigate how "choice-option" defaults (i.e., defaulting the donor by pre-selecting one option in their menu; Goldstein and Dinner 2013; Johnson, Bellman and Lohse 2002), affect donations when used in fundraising appeals, and the implications for optimal

choices of default amounts. We discuss the results of an in-person study, a combined joint analysis of six online incentive-compatible studies using a common paradigm, and a large-scale natural field experiment. We find robust evidence for three primary influences of defaults on donations: a "*scale-back*" effect (lower donation amounts when a small donation amount is defaulted), a "*lower-bar*" effect (more people donating when the small amount is defaulted), and a "*default-distraction*" effect (reduced influence of external cues when defaults are present).

Our findings illustrate both the practical and theoretical benefits of a comprehensive approach to testing and analyzing contextual factors and behavioral interventions. In particular, the conflict between increased participation and lower donation amounts when setting a low-amount default highlights the difficulty of blanket policy prescriptions and the limitations of existing theories. We discuss the implications of our donation default findings as a case study of the broader challenge for choice architects involved in bridging behavioral theories and policy objectives.

THEORETICAL DEVELOPMENT

Defaults, arguably the most widely discussed and utilized behavioral intervention (or "nudge") are defined as an externally determined option which people receive by not explicitly choosing otherwise. Online service companies, such as search engines, invest millions of dollars to be the default option on web browsers (Lohr, 2011). Setting one choice option as the default has been shown to have a major impact in many domains, including organ donation (Johnson and Goldstein, 2003), retirement planning (Madrian and Shea, 2000), preference for green electricity (Pichert and Katsikopoulos, 2008), corporate law (Listokin, 2009), auto insurance (Johnson et al.

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1993), privacy settings (Johnson et al. 2002) and consumer product configurations (Levav et al. 2010; Park, Jun, and MacInnis, 2000).

The potential for default options to shift choices, even in consequential field behaviors, is undisputed. However, much of the research on defaults has been conducted using very simple paradigms to demonstrate the existence of default effects, with little research assessing the magnitude and moderators of the effects. In particular, most default research has focused on dichotomous choice sets, with the 'default effect' defined as the "change in likelihood that a particular alternative is chosen when designated as the default versus a control condition when no default is designated" (Brown and Krishna, 2004). As reviewed in Urminsky and Goswami (2016), many studies use an even more minimal research design, comparing choices of one option (out of two) when it is the default to choices of the same option when the other option is instead the default, without a control condition.

Much of the literature on defaults has investigated situations where not making a choice would result in the default option automatically becoming the outcome (but see Brown and Krishna, 2004; Johnson et al. 2002). However, in fundraising, people typically cannot be compelled to donate automatically (unless they have signed up for a recurring donation). As a result, defaults in donation solicitations should be thought of as "choice-option" defaults (Goldstein and Dinner 2013), requiring an active endorsement of the default for it to occur.

This kind of default is also related to an intervention which has been studied in fundraising, highlighting one of the donation options as a suggested amount or a "specific ask". Prior studies (summarized in Web Appendix E) have found very mixed results. While some studies have found that highlighting a small-value donation as the suggested amount increases funds raised (Charness and Cheung, 2013; Edwards and List, 2014), others have found that

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highlighting a high suggested amount increases total donations (Fraser, Hite and Sauer 1988), and other studies find no difference based on suggested amount (Adena, Huck and Rasul 2013; Schwarzwald et al 1983).

Effectively anticipating the impact of setting one particular option, from a menu of multiple options, as the default (or suggested amount) requires a robust understanding of how such interventions affect choices, including the factors that may facilitate, reduce, or even reverse default effects. This is further complicated when people are not obligated to choose an option, as is the case in fundraising, and can simply opt not to participate after considering the options. Thus, no existing research directly predicts how setting a low donation amount or a high donation amount as a default will affect donations. Next, we discuss six process accounts of how defaults affect choices, and the implications of each account for how different default-option magnitudes could affect donation behaviors.

Process Explanations of Default Effects.

Inertia. In many applied situations, the default is literally what will happen for people who do not make any decision at all. Thus, adopting the default option in settings like retirement plans and organ donation may be completely non-psychological for some people, reflecting the outcome of not making, or perhaps not even considering, a decision. The use of these "passive" defaults may therefore have large effects, but may also result in negative downstream consequences if the default outcome conflicts with personal expectations or causes unanticipated problems (Beshears et al. 2010). However, in many situations, such as the fundraising appeal context, the passive default is inaction and thus outside the control of the policy-maker. Therefore, prior findings about passive defaults may not be relevant in fundraising.

Effort-reduction. In situations where people are fully aware of the default, they may simply find it easier to choose that option. This could occur when selecting a non-default option involves extra effort (i.e., filling out more paperwork or an extra click in a web interface; Johnson and Goldstein, 2003). When making the decision itself proves effortful, people may avoid decision difficulty by sticking with a status quo (Luce, 1998) or default option.

Reference points. If the default option, analogous to a status quo or endowed option, is viewed as a reference point, selecting a different option would be seen, at least in part, as a loss (Kahneman, Knetsch, and Thaler, 1990; Samuelson and Zeckhauser, 1988). Dinner et al. (2011) demonstrate that the reference point effect of defaults can be accounted for by a "Query Theory" process (Johnson, Häubl, and Keinan, 2007). In this account, people think of positive aspects of the default option and negative aspects of competing options both more often and earlier than negative aspects of the default and positive aspects of the other options.

Anchors. Anchoring has been shown to impact decisions in many contexts (Ariely, Loewenstein, and Prelec, 2003; Epley and Gilovich, 2006; Tversky and Kahneman, 1974), by serving as a starting point for deliberation. People may initially consider the default option and then recruit reasons to favor the default. Even those who choose not to select the default, by adjusting from that anchor, may ultimately choose an option more similar to the default than they would have otherwise (Dhingra et al 2012).

Informative norms. When faced with defaults, people may consider why a default is present or, in contexts where defaults are prevalent, why the specific option was chosen as the default. McKenzie, Liersch and Finkelstein (2006) argue that defaults convey recommendations, reflecting an endorsement by the policy-maker. People may infer norms from the default, either

the policy maker's preference or, more generally, an indication of what others prefer or expect, particularly for action (vs. inaction) defaults (Tannenbaum and Ditto, 2014).

Persuasion attempts. Recommendations can be seen as benignly informative, or as attempts to persuade or even manipulate. Fitzsimons and Lehmann (2004) have shown that expert recommendations which contradict consumers' a priori preferences arouse reactance and can even increase choices of the option which had been recommended against. Brown and Krishna (2004) argued that defaults in consumer purchase settings can signal what it is that the retailer prefers to sell. If alert consumers (high in market metacognition) conclude that the retailer's incentives are counter to their own, they may be less likely to choose the alternative when it is designated as a default than when it is not. Tannenbaum and Ditto (2014) demonstrate that when trust in the policy maker is low, people are less likely to use the default and may even reject default options.

Implications for Defaults in Charitable Solicitations.

In a typical charitable solicitation one or more potential donation amounts are presented as part of the "ask." The recipient may donate nothing (either by declining or simply not responding), may choose to donate one of the presented amounts, or, in some settings, may donate a different amount. In the fundraising context, the decision crucially involves amount, rather than a mere binary choice between action and inaction (e.g., organ donation). Donation may also involve multiple motives, including the altruistic desire to benefit the charity and thereby increase social welfare, a "warm-glow" of feeling good about oneself for having donated, and compliance with social norms and expectations (Andreoni, 1990; Shang, Reed, and Croson, 2008). Since donating necessarily requires action, there are no passive defaults. Building

on the process accounts of default effects, we outline several testable possibilities for how setting one of the options as a default could influence potential donors' behavior in this setting.

"Direct-default" effect. The simplest prediction is that setting one donation amount as the default will increase choices of that default option, particularly among those who are uncertain about their preferences or who find the choice difficult. This would increase the donation rate, as some uncertain people would otherwise choose not to donate. Furthermore, setting a higher amount as the default would generally raise more revenue, as it would increase the size of the average donation.

"Scale-back" effect of low defaults. A potential concern with setting a low donation amount as the default is that if everyone is equally likely to switch to the default option, some people who would have otherwise donated a larger amount will instead donate the defaulted amount. Such concerns have been raised with retirement savings using default 401(k) enrollment levels (Tergesen, 2011). Furthermore, if defaults operate as anchors, even donors who do not choose the default option may still *scale-back* their donation when they see a low default.

Ultimately, this could even extend to participation. Setting a low amount as the default could convey an endorsement of small donations and give rise to an inference that the charity does not need funds as badly. Similarly, Query Theory (Johnson et al. 2007) suggests that setting a higher amount as the default may instead prompt inferences about why donating a larger amount is a good idea, leading to more donations even when people do not donate that amount.

"Backfire" effect of high defaults. If defaults are seen as persuasive attempts, however, high defaults may be ineffective, interpreted as the charity prioritizing their own interests over those of the donor or even as an attempt to take advantage of the donor. Given the prevalence of low quality for-profit fundraising (Hundley and Taggart, 2013), such concerns are not

necessarily misplaced. This would suggest that defaults may reduce donation rates. Participation would be particularly reduced when appeals include higher default amounts, less trusted organizations or less trust-building information, as well as for donors who are higher in psychological reactance (Brehm, 1966).

"Lower-bar" effect of low defaults. If the default is seen as a genuine recommendation, rather than as an attempt at manipulation, it can be seen as providing potentially useful information about what a normative donation would be. The "warm glow" people get from contributing has been assumed to vary with the size of the donation (Andreoni, 1990). Thus, people may opt not to donate rather than donate the small amount they can afford, if doing so will not be appreciated, will send a negative self-signal, or will violate a perceived social norm. However, when only a small amount is recommended (i.e., a low amount is the default), people may feel that the bar has been lowered for donations that allow them to feel good about donating, effectively getting the "warm glow" at a discount. Thus, low defaults may increase participation.

Default-distraction effect. While defaults may make difficult choices easier (Johnson and Goldstein, 2004), setting an option as the default does introduce another factor into the decision context. When the default is interpreted as a recommendation, people are likely to engage in additional deliberation about the default itself. While credible expert recommendations can aid and simplify decision making, recommendations can also lead to consideration of more options and increase decision difficulty (Goodman et al. 2013). Unsolicited recommendations that contradict the decision maker's initial preference can even have negative effects on choices (Fitzsimons and Lehmann, 2004). Furthermore, even when the default is not interpreted as a recommendation, labeling an option as the default may make that option more visually salient, thereby attracting attention and prompting deliberation about the option (Shen and Urminsky,

2013). When making an option the default leads to deliberation, either about that option or just about what it means that there is a default, attention may be diverted from other factors in the decision context. This suggests a potential *distraction effect*, where introducing a default makes the decision maker less sensitive to other available cues.

Our empirical research aims to make progress in resolving these discrepant predictions. We test the five types of potential default effects outlined above, across multiple studies, varying relevant factors and measuring indicators of plausible psychological processes. Our research aims to narrow the thicket of existing predictions to those with the strongest empirical support. In doing so, we hope to move towards a more precise theoretical framework, both for understanding how defaults shape decisions, and for potentially facilitating policy recommendations.

Given these goals, we believe it is especially important to include in our analyses all of the data that we have collected - eight studies comprising 11,508 participants who made 2,423 donation decisions. In the interests of clarity and readability, we will focus our reporting on the most relevant and informative analyses. To guard against omissions, we include the additional analyses and study-specific information in a detailed Web Appendix and post the full datasets to a public repository.

First, we conduct a straightforward test of the potential default effects for in-person appeals as an initial illustration in Study 1. Next, we take the somewhat uncommon approach of presenting a joint large-scale analysis of six studies, all of which use the same online experimental paradigm, presented as Study 2. We then present the results of a large-scale natural field experiment. Lastly we summarize the findings, outline the implications for existing theories of defaults and the parallels to prior work on suggested amounts in fundraising, and discuss our research as a case study in leveraging behavioral research for optimizing nudge interventions.

STUDY 1: DEFAULT DONATION AMOUNTS AND IN-PERSON APPEALS

Method.

We offered 105 undergraduate participants in a behavioral research lab who had earned between $3 and $4 from an unrelated ball-rolling study (Yang and Urminsky 2015), the opportunity to donate to the Red Cross. We presented them with a menu of options ranging from $0 to $3, ascending in 50 cent increments, and asked them to select the amount they wanted to donate by checking a box. We incorporated a choice-option default (Goldstein and Dinner 2013; Johnson, Bellman and Lohse 2002) into the menu of options. Participants were randomly assigned to either the high default condition (in which $3 was pre-checked in light gray, see Figure 1), the low default condition (in which 50 cents was pre-checked in light gray), or the control condition (in which none of the options were checked). After they made their choices, we measured reactance using an 11-item scale (Hong and Faedda, 1996).

Figure 1: Sample Defaulted Requests from Study 1 (left) and Study 2 (right)

Results.

Does the donation behavior of participants reflect a default effect? In the low default condition, marginally more people chose the defaulted amount (50 cents) than in the control condition (38% vs. 19%, χ^2=3.03, *p*=.08). When the higher amount ($3) was used as the default, there was no increase in choices of the defaulted amount (6% vs. 3%, χ^2=0.38, *p*=.54). If we restrict analyses to donors, there was no significant effect on choices of either default option.

The policy rationale for introducing defaults is to increase the funds raised. By this criterion, the defaults were not successful. An ANOVA analysis reveals no differences in the revenue per person (i.e. the average money raised per person including non-donations) between the conditions ($.54 control vs. $.50 low default vs. $.51 high default, $F(2,102)$ =0.04, p =.96).

Although this initial analysis would suggest that defaults had little effect on charity donations in this study, that would be a premature conclusion. The distribution of choices in the low and high default conditions were in fact very different ($\chi^2(5)$ = 16.3, *p*=.006). In particular, participants in the low default condition were more likely to donate than were participants in the high default condition (65% vs. 40%, χ^2=4.2, *p*=.04), with intermediate donation rates (56%) in the control condition, yielding a lower-bar effect on donation rates. This advantage of the low default condition was countered, however, by a higher average donation (among those who did donate) in the high default condition ($1.29 vs. $.77, $t(34)$ = 2.67, p = .01), with an intermediate amount in the control condition ($0.98, see Figure 2). Thus, we observe a scale-back effect in donation amount, but not in donation rates. These findings were robust across age, gender, mood, or whether the participant had won the extra dollar in the game.

Figure 2: The effect of defaults on revenue, donation rate and average amount in Study 1
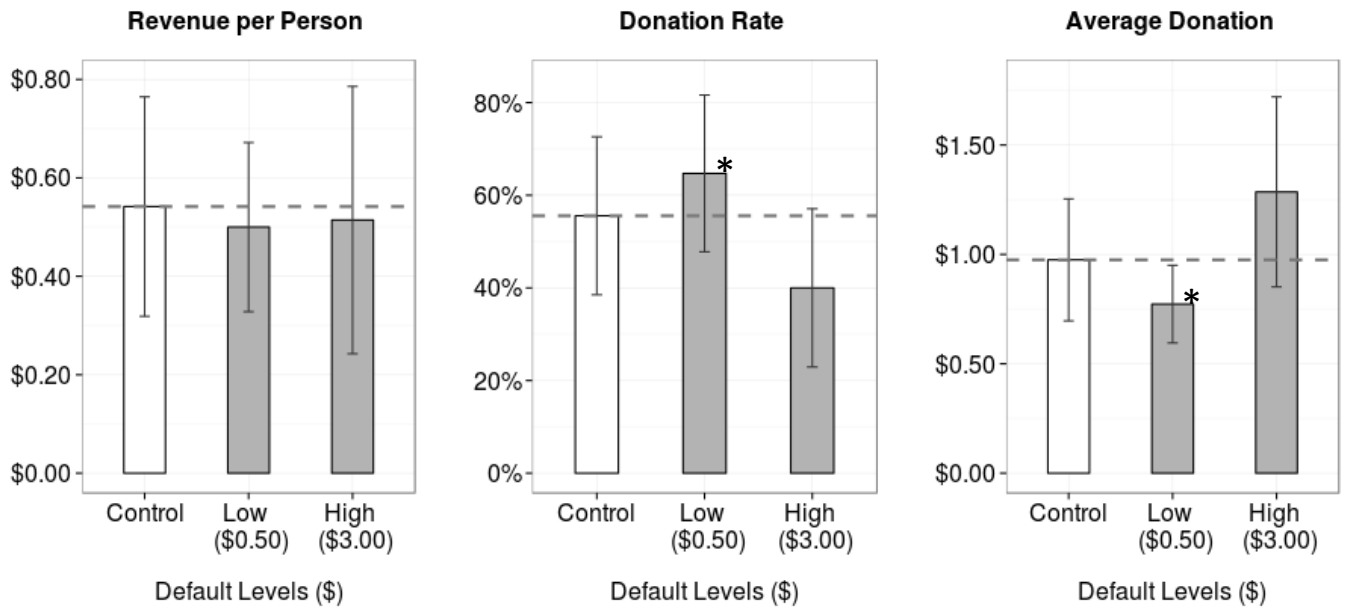
*Note: Error bars are 95% confidence intervals. * indicates significant vs. high default (p < .05)*

We find no evidence of a backlash effect. Setting one of the options as the default, even the high amount, does not reduce the average revenue raised per person. Furthermore, high reactance participants did not respond more negatively to defaults (or to specifically high defaults), as measured trait reactance did not significantly moderate any of the findings.

Discussion.

Study 1 investigated the effect of defaults on in-person charity donation requests using a multi-option menu. Introducing a default resulted in only a weak increase in choices of the default and did not significantly affect revenue per person. However, the defaults did substantially change people's decisions, through two novel effects. First, the low default resulted in a scale-back effect, in which those who chose to donate reduced their donations, relative to donors in the high default condition. Second, defaults also resulted in a lower-bar effect, in

which more people donated when shown lower defaults than for higher defaults. We do not observe a backlash effect, although this could have been due to high trust in the Red Cross.

The results do not yield a clear policy prescription for the amount managers should set as a default in a charity appeal. While the sample size employed in Study 1 is comparable to prior research in this area, the analysis makes it clear that the study was under-powered, both for investigating default effects and for comparing default treatments to a no-default control. It is also possible that these results may vary depending on various factors in the decision context, including elements of the donation request, differences between charities, and differences between individuals. Next, we test both the replicability and generalizability of our findings as well as the potential for a distraction effect, in a six-experiment combined analysis.

STUDY 2: DEFAULT EFFECTS ACROSS MULTIPLE DONATION CONTEXTS

Method.

We conducted six online studies, with a total of 3,486 valid completes, all using the same conditional donation paradigm, adapted from Study 1, setting one donation amount as the choice-option default. In each study, we told participants that five respondents would be chosen at random to receive a $20 award. We informed them about a charity and extended the offer to donate part of their award to the charity, in the event that they were a winner. If they won, the amount they chose would be automatically donated to the charity, and they would receive the remainder (see Web Appendix C for details of sample stimuli). Other factors, such as the menu of donation options, the magnitude of the default option, available information about the charity, the identity of the charity, and various other elements of the decision context were varied both

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within and between studies (see Web Appendix C for the full list of manipulations tested in Studies 2a to 2f).

Given our goal of investigating the robustness, moderators, and effect sizes of defaults in donations, all usable data we collected was combined for the analyses. Although these studies used similar methods and populations, analyzing the pooled data raises the possibility of cross-study differences contributing to omitted-variable bias and potential confounds. Indeed, ANOVA analyses using only data from the control (no-default) conditions does indicate significant variation in the revenue per participant ($F(5,813) = 5.09$, $p <.001$), donation rates ($F(5,813) = 20.87$, $p <.001$) and the average donation amount ($F(5,500) = 6.47$, $p <.001$) across studies. Accordingly, we use fixed-effect regression models controlling for study-level differences rather than treating the pooled data as a single study.

Direct Effect of Defaulting an Option.

Choice of the default option. In total, the different default-amount conditions across the six studies provide 34 tests, which collectively reveal a small but highly significant default effect. Choices of the tested option were higher when defaulted, compared to the control condition, in 22 of 34 cases (65%). On average, making an option the default increased its choice share by 1.8 percentage points (weighted), relative to no default (bootstrapped 95% confidence interval [+0.9%, +2.4%], $p < .001$). Among donors, setting an option as the default increased choices of that option in 22 of 32 cases (69%), with a weighted average increase of 3.1 percentage points (bootstrapped 95% CI [+2.9%, +4.1%], $p < .001$).

Revenue. Do defaults have a positive effect on revenue in general? Averaging across default amounts, setting an option as the default had no main effect. The average revenue per

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person was $4.43 when no default was present and $4.20 when a default was used (difference =

22 cents, $t = 1.13$, $p = .26$), contrary to the direct-default effect prediction.

Discussion. Overall, making one donation option the default increased choices of that

option, but did not have a reliable effect on revenue, donation rate, or average amount. These

results are inconsistent with a simple policy prescription to use defaults. In fact, these findings

leave open the possibility that defaults could sometimes have negative effects, either by reducing

participation or by reducing the size of the contribution that donors do make. This illustrates the

need for a broader understanding of how defaults affect donation decisions, beyond the direct

effect on the default option. A policy maker needs to know which option to set as the default and

under what circumstances that default will be most effective. Next, we test a range of potential

moderators for default effects on donations, starting with the size of the default option.

Magnitude of the Default option.

Study 1 provided initial evidence that both the donation rate and average contribution

among donors depend on the magnitude of the default. In the subsequent analyses, we measure

the effects of default size on choice of the default option, revenue, donation rate, and donation

amount in the Study 2 data. We report linear effects of default size, as tests of quadratic effects

and a linear spline did not demonstrate significant improvement in prediction for any of the

analyses.

Choice of the default option. On average, the default effect (increase in choice share for

the default option, relative to control) was less positive for higher default amounts, $r = -0.24$

(bootstrap 95% CI [-.34, -.17], $p < .001$). However, we do not find any evidence that making an

option the default substantially reduces choices of that option (i.e., a backlash effect), even for

large donation amounts. The average default effect for the highest menu amount was effectively zero (+0.5%).

Revenue per person. Overall, default size had a small but significant linear effect on revenue, with more funds committed per participant when the default amount was higher ($\beta = 0.031$, $t = 2.00$, $p=.046$). As shown in Figure 3, low defaults lead to lower average contributions than no default, while high defaults had only small positive effects. This result should not be interpreted as providing guidance as to the optimal default level, as the differences are small and other model formulations (quadratic, or the joint effect of donation rate and average donation) indicate different optimal default levels (moderate and low defaults, respectively). Next, we test the effects of default amount on the two components of revenue, donation rate and average donation.

Figure 3: The effect of defaults on revenue, donation rate and average amount in Study 2
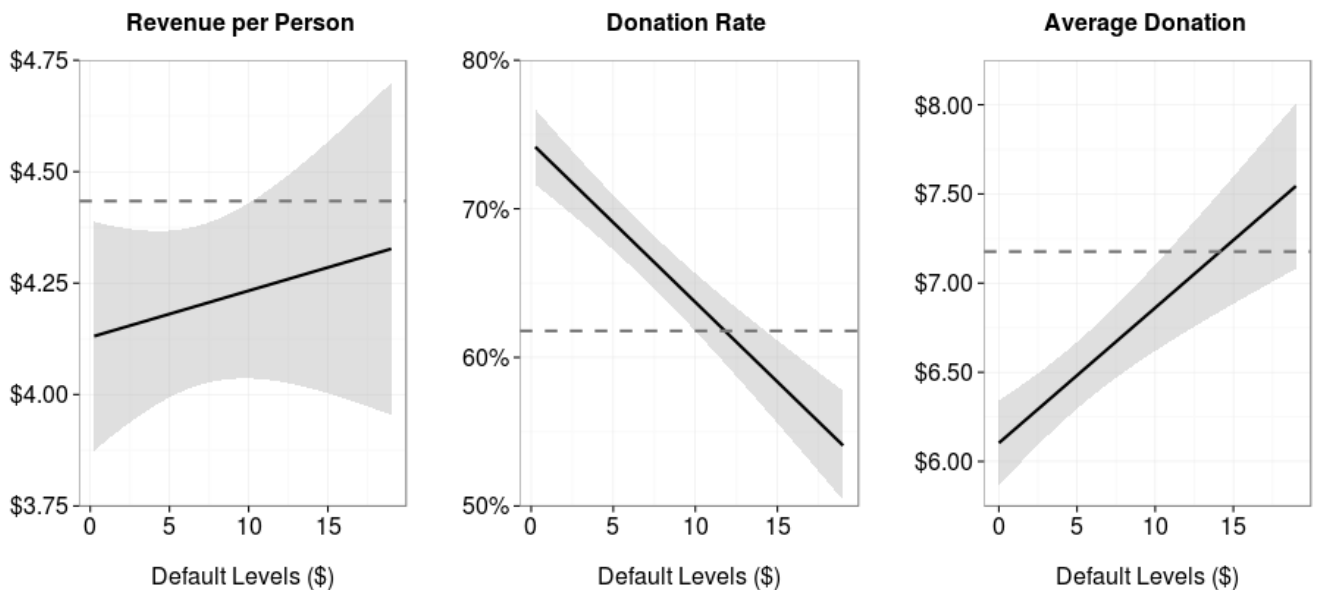
Note: Shaded region represents the 95% confidence interval.

Donation rate. Lower defaults significantly increased participation ($\beta = -0.005$, $t = 3.12$, $p=.002$), consistent with the lower-bar effect. As shown in Figure 3, predicted donation rate is approximately twelve percentage points higher for a 25 cent default compared to control, about equal to control for a default of $11.50, and lower than control for higher defaults.

Average donation. In contrast with the positive effect of low defaults on donation rate, low defaults decreased the amount chosen by donors ($\beta = 0.097$, $t = 5.54$, $p < .001$), consistent with the "scale-back" effect. Setting an amount below $14 as the default reduced donation size.

Discussion. These analyses replicate the lower-bar effect on donation rate and the scale-back effect for average donation amount found in Study 1, across a wide range of choice contexts and charity types. Study 2 provides evidence for both effects that is not only highly significant overall, but also consistent across the six studies (2a to 2f, see Web Appendix B for supplementary analyses). Overall, these results illustrate the complex net effects that defaults have on donation decisions, beyond the simple effect on choices of the default option.

These novel findings are important for two different reasons, which motivate the remaining analyses. First, the findings are not anticipated by prior theories of defaults. Therefore, understanding these findings, including the moderators, can contribute to a better theoretical understanding of default decision processes. We will further investigate factors predicted to affect default choices by prior theories, including trust, reactance, and charity quality.

Second, the results thus far illustrate the limitations of prior research for informing policy. A general prescription to use defaults in fundraising is not supported by our data, nor do our analyses yield a consistent prescription for using high or low defaults to increase revenue. Rather, the results are characterized by variation in the effects of defaults, particularly relative to the no-default control condition. Thus, knowing when and how to use defaults in fundraising

requires a more detailed understanding of the factors that influence the consequences of defaults for people's donation decisions. Identifying the circumstances under which defaults increase contributions may facilitate providing more nuanced but more accurate prescriptive guidance.

We did not find any consistent effect of individual differences or demographics on default effects. People who scored higher in reactance and people who had lower income were less likely to donate, gave lower amounts when they did donate, and generated less revenue. However, high-reactance and low-income individuals did not react differently to defaults and were not more sensitive to default size than other participants. In particular, we did not find the evidence of backlash effects that some prior theories would predict.

Next, we test whether contextual factors (including commonly varied aspects of the charity appeal, such as information, menu options, and framing) and charity characteristics moderate the effects of defaults.

The Role of Context in Default Effects.

In our studies, we varied several important factors in the donation request, including the amounts suggested by the menu options (Studies 2a, 2b, 2e and 2f), the number of different menu options (Studies 2a, 2b and 2e), and the framing of the default (Studies 2a to 2e). These factors are commonly varied in practice and provide tests between competing theories of defaults.

Menu amounts. Thus far, we have analyzed the size of the default in dollars. However, the effects of default size could instead represent a context effect, where defaulting options earlier vs. later in the menu has different effects on people's decisions, potentially independently of the dollar amount of the default. While default amount and option order are correlated in the

data, the options on the menu were varied, both across and within studies, and consequently amount and order are separable.

Default amount (in dollars) and default menu position (on a scale of 0 to 1, with 0 being the lowest option and 1 the highest) were coded separately and analyzed. Controlling for the default amount (in dollars), there is no effect of menu position of the default on either revenue per person, donation rate, or average donation. This confirms that the default magnitude findings are driven by the actual default amount, rather than a context effect. Menu position did independently moderate the sensitivity of average donation to default size (β_{INT} = -0.429, t = -2.66, p = .008). Higher defaults increased average donations more when the default was early in the menu (i.e. when there were few low options), controlling for default amount.

Number of menu options. The number of options on the menu (ranging from 2 to 9, including the no donation option) had strong effects on the findings. Overall, when the menu had fewer options, including a low default had a more negative effect on revenue, relative to a higher default (β_{INT} = -0.019, t = 2.67, p=.008). This was driven by average donations, as the amount donors gave was reduced more by a low default when there were fewer options (β_{INT} = -0.041, t = 4.63, p < .001). Donation rate was not moderated by the number of options.

Default framing. In four studies (2a, 2b, 2d and 2e), we manipulated the framing, either noting that the default represented a suggested amount or explaining that the default amount was randomly generated. This provides a test of the inference-based accounts, such as informational norms and perceived persuasion attempts. If default effects on donations are attributable to these inferences, framing the default as randomly generated should reduce the effect.

The scale-back effect for donation amount is consistent with an inference-based account, as a much stronger effect was observed for suggested-amount defaults than for randomly-

generated defaults. Introducing a suggested-amount default reduced average donation amounts compared to control ($\beta = -1.01$, $t = 3.50$, $p < .001$), while a randomly-generated default did not ($\beta = -0.41$, $t = 1.37$, $p = .17$), a significant difference ($\beta_{INT} = -0.332$, $t = 2.82$, $p = .005$). Furthermore, the average donations were more sensitive to the size of the suggested-amount default ($\beta = 0.150$, $t = 5.43$, $p < .001$) than to the size of a randomly-generated default ($\beta = 0.074$, $t = 2.50$, $p = .012$), a marginally significant interaction ($\beta_{INT} = 0.038$, $t = 1.95$, $p = .052$).

In contrast, the lower-bar effect for donation rates does not seem to be attributable to inferences about norms or persuasion attempts. Framing the default as suggested or random had no effect on donation rates ($\beta_{INT} = 0.011$, $t = 1.08$, $p = .28$) and did not moderate the effect of default size on donation rate ($\beta_{INT} = -0.000034$, $t = .11$, $p = .91$).

Overall, the effect on revenue of setting a suggested or random default did not significantly differ. However, the consequences of default size for revenue did differ. Less revenue was raised per person with low (vs. high) defaults framed as suggested ($\beta = 0.070$, $t = 2.83$, $p = .005$), but not when framed as randomly-generated ($\beta = 0.016$, $t = .62$, $p = .54$), a marginally significant difference ($\beta_{INT} = 0.030$, $t = 1.73$, $p = .083$). Low suggested-amount defaults reduced net contributions, while high suggested-amount defaults directionally increased revenue per person. Random-framed defaults had no effect on revenue.

Differences in Default Effects Across Charities.

Across the studies, we used a variety of charities. About half of our data (Studies 2a and 2c – 2f) used Direct Relief International (53%), a high-quality charity (per Charity Navigator) that is not well-known – only approximately 4% of our participants were familiar with it before participating in the study. In Study 2b, we used a largely unknown charity with a negative

Charity Navigator assessment (Children's Charity Fund), in order to test the effect of negative information. In Studies 2e and 2f, we also used the Forbes top 15 charities as well as two high-quality charities (4 out of 4 Charity Navigator score) for causes likely to be seen as controversial by US participants (American Refugee Committee and Palestine Children's Relief).

To facilitate testing whether the effects of defaults varied by charity characteristics, we conducted a pre-test with the same population (N=218, see Web Appendix D), in which participants evaluated all the charities. Four measures that were the least inter-correlated: awareness of the charity, positive views (an index comprised of "favorability", "trust" and "fit with personal goals"), personal involvement (as a donor, volunteer or beneficiary) and relative donor appeal (each charity's share of a hypothetical fixed amount of money allocated across the charities). We use the average score of these measures for each charity as a potential moderator in our donor analysis.

Overall, we find that the net effect of introducing a default on revenue varied with the type of charity. In particular, for charities with more positive views (β = -1.14, t = 1.84, p=.07) and higher donor appeal (β = -0.01, t=2.06, p =.04), introducing a default reduced revenue. This was primarily driven by donation rate, with fewer people donating to charities which were viewed more positively (β = -0.106, t = 1.78, p=.076) and which had higher donor appeal (β = -0.001, t = 2.48, p=.013) when the default was present. Similar negative effects on participation were found for charities with higher awareness and among people who had more personal involvement with the charity (both ps < .05).

To illustrate these findings, we compare the more vs. less popular charities (based on having above vs. below the median donor appeal). Across the studies, we have primarily focused on low popularity charities, particularly DRI. Among low popularity charities, introducing a

default, on average, has no effect on net contribution ($4.36 vs. $4.35, t = .01, p=.99). However, this is due to the countervailing impact of the lower-bar effect on donation rates and the scale-back effect on average donations. Adding a default increased the likelihood of donating (59% vs. 67%, χ^2 = 14.7, p<.001), but reduced the amount donated ($7.42 vs. $6.52, t = 3.41, p=.001).

For more popular charities, we find a simple negative effect of defaults. Setting one of the options as the default reduced revenue ($4.83 vs. 3.72, t = 2.69, p=.007). This occurred primarily because of a reduction in participation (77% vs. 67%, χ^2 = 5.36, p =.02), as well as a directional reduction in average donation amount ($6.24 vs. $5.53, t = 1.55, p=.12), when defaults were present. We find no effects of charity type on how default size impacts donation.

Manipulating perceived quality. These findings are based on analyzing perceived differences between charities. In four of the studies (2a, 2b, 2d, 2f), we experimentally varied the information that was presented to participants about a single charity: either minimal information (e.g., the charity name), the Charity Navigator score, or detailed information (which was either positive or negative depending on the charity). The information we presented was always factual and representative of publically available information about the charity from the organization's website or from the CharityNavigator.org website.

The effect of incorporating a default was not affected by the inclusion of Charity Navigator rating. However, across the studies, the effect of descriptive information (positive vs. neutral/negative) on revenue per person significantly interacted with default inclusion (β_{INT} = -1.24, t=3.07, p=.002). In particular, Study 2a directly manipulated the valence (positive vs. neutral) for information about a single charity (DRI). Inclusion of the default significantly moderated the effect of the information on revenue (β_{INT} = -3.24, t=3.01, p=.003) and participation (β_{INT} = -0.283, t=3.04, p=.003). When no default was used, the positive information

substantially increased revenue per person (Ms = \$6.11 vs. \$2.47, $t = 4.49$, $p < .001$), due to both more donations (63% vs. 35%, $\chi^2 = 14.4$, $p < .001$) and higher average amounts (Ms = \$9.67 vs. \$7.00, $t = 2.28$, $p = .03$). However, when the default was used, revenue was not significantly improved by positive information (Ms = \$5.24 vs. \$4.83, $t = 0.58$, $p = .56$), and neither donation rates nor average donation amounts were significantly affected. Furthermore, when the positive information was present, the relative revenue advantage of higher defaults was reduced ($\beta_{INT} = -0.188$, $t = 2.58$, $p = .01$, see Figure 4), primarily due to participation ($\beta_{INT} = -0.015$, $t = 2.45$, $p = .02$). Thus, defaults (particularly high defaults) directionally increased contributions for neutral information, but resulted in lower revenue (compared to no defaults) when positive information was presented.

Figure 4: The distraction effect of defaults on positive information (Study 2a)
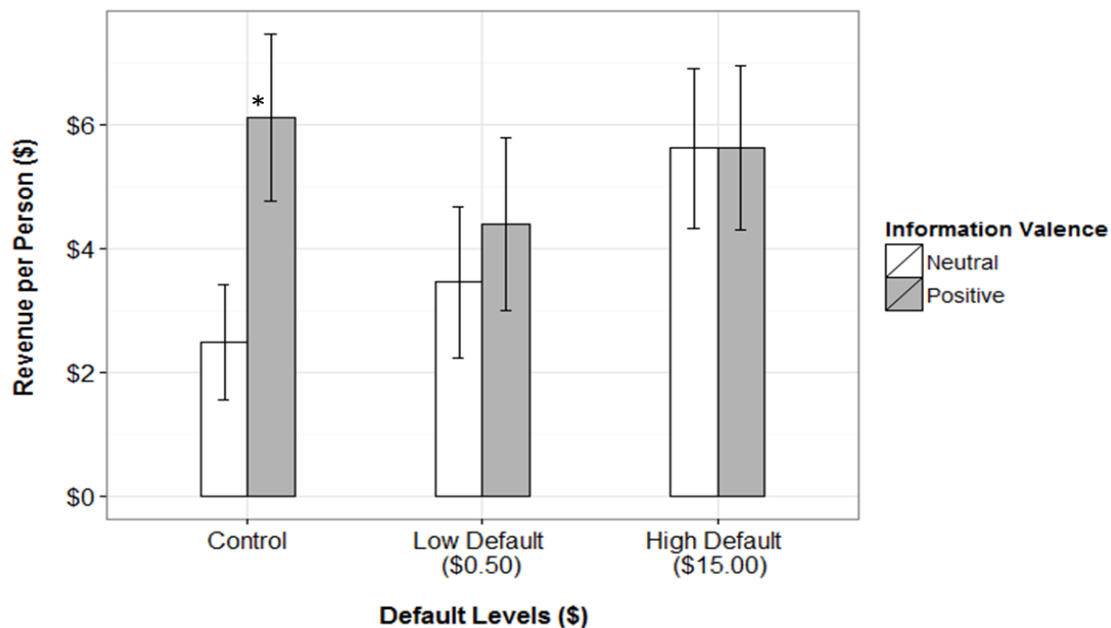
*Note: Error bars are 95% confidence intervals. * indicates significant vs. neutral valence ($p < .05$)*

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These findings illustrate the importance of benchmarking interventions, such as including a default, relative to other typical actions, such as changing menu options or adding more positive information. Studying defaults for only one kind of charitable appeal may fail to yield generalizable conclusions about behavioral change, as the effects of interventions may not be additive, and can in fact even be inhibitory, as in this case.

Attitudinal Consequences of Defaults.

Participants in the studies were asked to rate the default they saw, the charity they considered, and their general attitudes towards donation, after making their donation decision.

Attitudes towards the default. Consistent with the view that low defaults "lower the bar" and make it easier and more attractive to donate, we find that low defaults are viewed more positively than high defaults. Lower (vs. higher) defaults yielded less agreement with an index of negative statements about the default ("trying to determine your choice for you", "felt like a heavy-handed direction"; $\beta = 0.053$, $t = 17.16$, $p < .001$), controlling for charity and study. Likewise, lower defaults yielded more agreement with an index of positive statements about the default ("coming from a trustworthy source", "felt like a helpful guidance", "useful to you in making your donation decision", $\beta = -0.019$, $t = 7.63$, $p < .001$).

Attitudes towards the default help to explain the lower-bar effect on participation. The highly significant effect of default size on donation rates controlling for charity favorability ($\beta = -0.006$, $t = 3.71$, $p < .001$) is eliminated ($\beta = 0.001$, $t = .56$, $p = .58$) when controlling for default attitudes, which do predict donation rates (negative attitudes $\beta = -0.073$, $t = 7.90$, $p < .001$; positive attitudes $\beta = 0.140$, $t = 12.18$, $p < .001$). Thus, attitudes towards the default fully mediate the effect of default size on donation rates.

In contrast, attitudes towards the default do not explain the scale-back effect on donation amount. The highly significant effect of default size on average donations ($\beta = 0.095$, $t = 5.34$, $p < .001$) is not reduced ($\beta = 0.129$, $t = 6.99$, $p < .001$) when controlling for default attitudes. None of the other measures collected mediate the scale-back effect, suggesting that the psychological process underlying the effect of defaults on contribution amount among donors is distinct from the process by which defaults affect participation. In particular, these results suggest that the effect of defaults on participation is attitudinal in nature, while the effect of defaults on contribution amount is not, instead relying on external cues.

Attitudes towards charities and donation. Whether or not a default was present did not affect positive views of the charity (i.e., the index of trustworthiness, favorability, and fit with personal goals; $\beta = 0.023$, $t=.80$, $p = .43$) controlling for charity and study. Perceptions also did not significantly vary with the size of the default option ($\beta = -0.004$, $t=1.62$, $p = .11$).

At the end of the survey, participants filled out a 10 item scale measuring attitudes towards donation adapted from the Helping Attitudes Scale (Nickel, 1988). Overall, presence of the default did not affect attitudes towards charitable giving ($\beta = -0.28$, $t=1.34$, $p = .18$), regardless of the size of the default ($\beta = -0.0003$, $t=.02$, $p = .99$).

The lack of an effect of defaults on attitudes towards the charity or towards donation holds when controlling for individual donation behavior. There is no evidence either that defaults have separate attitudinal benefits for donors, or that defaults pose a risk of creating negative attitudes towards either the charity or donation in general.

Discussion.

The differences in charitable appeals as well as the measures collected in Studies 2a to 2f have enabled us to test several key aspects of how defaults might shape donation decisions. We

do not find evidence of a direct-default effect, where introducing defaults generally increases revenue. In particular, the impact of a default on choices of a given option depends on the size of the defaulted amount. Setting a low amount as the default increases choices of that amount, while setting a high amount as the default has little effect on choices of that amount.

Lower-bar and scale-back effects. Study 2 confirms both the positive effect of low defaults on donation rates and the negative effect on donation amount. Can these effects simply be explained as the direct consequence of people complying with low defaults but ignoring higher defaults? Overall, low defaults increase donation rates more than can be explained by switching from no donation to the default amount. Moreover, our analyses of moderators suggest that these are two distinct effects, with different psychological determinants. The scale-back effect is a consequence of an inferential process, stronger when the default represents a suggestion and there are fewer menu options. In contrast, the lower-bar effect seems to be driven more by people's internal reactions, with lower defaults being perceived more positively and motivating participation. These findings suggest that a default intervention may sometimes be "self-cancelling," inducing two very different but countervailing effects on donor behavior, which can net out to no difference in revenue raised.

Backlash effect. We find a surprising lack of evidence for backlash effects of defaults on charity donations. Making an option the default, even a high amount, does not reduce choices of that option or increase negative attitudes to either the charity or donation in general. In particular, people higher in reactance or with reduced ability to donate do not respond to defaults more negatively, as might be predicted. Lastly, the effects of defaults are more positive for less known and less favorably-viewed charities, the opposite of what the "persuasion attempt" backlash account would predict.

Default distraction effect. The observed interactions between charity quality (measured or manipulated) and defaults, as well as the potential for negative effects, are better explained by the distraction account. In the absence of a default, donation decisions are sensitive to quality perceptions and positive information interventions. People behave as expected, donating more to better-liked charities. However, when an option is set as the default, people may be distracted by thinking about the default, and therefore give less weight to other factors, such as charity favorability.

We note that, on average, people took longer to decide when a default was present ($r = .15$, p $< .001$), inconsistent with an effort-reduction process account of defaults, but consistent with the distraction account. One additional finding might also be explained by a default distraction effect. When no default was present, people were more likely to donate when there were more menu options ($r = .39$, p $< .001$), however, this sensitivity to menu size was reduced when one of the options was set as the default ($r = .18$, p $< .001$; $\beta_{INT} = -0.043$, $t=5.30$, $p<.001$).

STUDY 3: FIELD STUDY OF DEFAULT AMOUNTS AMONG REPEAT DONORS

The findings thus far point to multiple robust psychological effects of defaults. In these studies, participants made choices about real charities with potential monetary consequences. However, the charity appeals tested are artefactual (Harrison and List, 2004), in that the study context differs from actual appeals, and participants know that they are participating in a research study. Next, we test the effects of default size in a large-scale natural field experiment. *Method.*

We conducted an experiment in the Spring 2014 phase of the annual alumni fundraising campaign of the University of Chicago Booth School of Business. Two waves of mailers, each including appeal letters and a pledge card, were sent to potential donors who had not yet donated in response to earlier mailings in the fall quarter of that academic year. Mailers were sent both to prior donors and to people who had never donated. Since all donations received were from prior donors and the way the donation options were formulated differed for prior donors and non-donors, we only discuss the prior donor data.

The pledge card displayed a menu of three donation options, as well as an open text box labelled 'Other,' where the recipient could fill in a dollar amount (see Figure 5). The three menu options were dollar amounts, customized for the recipient. For most recipients, the amounts listed were half of the prior donation (the low option), the prior donation (medium option) and twice the prior donation (high option). For donors who had contributed less than $10, the menu options were fixed at $5, $10, and $20. Pledge cards also showed the number of years of giving by that donor.

Figure 5: Sample Pledge Card Used in Study 3 (High Default condition)

Our experiment manipulated several factors on the pledge cards of small-scale donors (those who had not given a gift of $5000 or more in the past). First, pledge cards were randomly assigned to one of four different default donation levels – low default, medium default, high default, or a no-default condition that served as the control. The default donation amount was communicated by the highlighting of the background for a pre-specified menu option, by labeling the highlighted option as 'suggested' (see Figure 5), and by framing it as a "specific ask" ("I ask that you consider a gift of $___") in the accompanying letter. In addition, we randomized whether or not the card reminded recipients about the amount of their prior donation. Lastly, we randomized whether recipients were presented with all five options to designate what their donation would be used for (Annual Fund, Global Visibility, Faculty Research and Curricular Initiatives, Scholarship, Other), or only two (Annual Fund, Other). These additional manipulations were done to test the roles of information and decision complexity in default effects.

The experiment used a full-factorial 4 (default level: Low, Medium, High, None) x 2 (reminder: No, Yes) x 2 (number of options: 2, 5) design, yielding 16 conditions with an over-sample in the control (no default, past amount reminder shown, 5 allocation options) condition. In total, up to two mailings were sent to the 7844 prior donors who had not yet donated that year. An analysis of demographic variables confirmed that random assignment of donors into experimental conditions had successfully created well-balanced cells (see Web Appendix C). In total, the mailings yielded 76 donations, a 0.97% donation rate. This relatively low donation rate is due to targeting prior donors who had not responded to appeals in the previous waves.

Results.

The raw results are presented in Table 2. To account for heterogeneity among recipients as well as differences in their menu options (due to prior donation behavior), we also tested the effects of defaults on donation rate, average donation, and net revenue using regression analyses (Table 3), using lasso regression to select among potential covariates. An analysis using the double-lasso variable selection procedure finds the same results (Urminsky, Hansen and Chernozhukov 2016).

Table 2: Summary Statistics for Study 3

	Number of Mailings	Donors	Donation Rate	Average Donation ($)	Revenue per Person ($)
Control	3584	24	0.67%	283	1.89
Low Default (0.5 x prior)	1478	24	1.62%	162	2.62
Medium Default (prior)	1441	14	0.97%	181	1.76
High Default (2.0 x prior)	1341	14	1.04%	204	2.13

Choice of default option. Designating an option as the default increased choices of that option among those recipients who donated. Overall, there was a highly significant default effect, an average 20 percentage point increase in choices of the default option, with a bootstrapped 95% confidence interval of [+7.9%, +32.1%] ($p < .001$). There was a marginal increase in choices of the low option when it was the default, compared to the choices of the low option in the no-default conditions (12.5% vs. 33%, $\chi^2 = 2.95$, $p = .09$). Setting the medium option (i.e., the amount that had been previously donated) as the default resulted in an even larger increase in choices of that option, compared to control (54% vs. 93%, $\chi^2 = 6.13$, $p = .01$). However, there was no effect of setting the high option as the default (21% vs. 21%, $\chi^2 = .002$, $p = .97$).

Effect of defaults on revenue per person. As can be seen in Figure 6, setting the low option as the default increased revenue compared to the no-default control (M $_{Low\ Default}$ = $ 2.62 vs M $_{Control}$ = $1.89), but that was not the case for the other default amounts. The medium and

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high defaults yielded similar revenue ($1.76 and $2.62, respectively) as the control. It is important to note that, setting the high menu option as the default did not result in a revenue-reducing backlash, consistent with the findings in Studies 1 and 2.

Figure 6: The effect of defaults on revenue, donation rate and average amount in Study 3
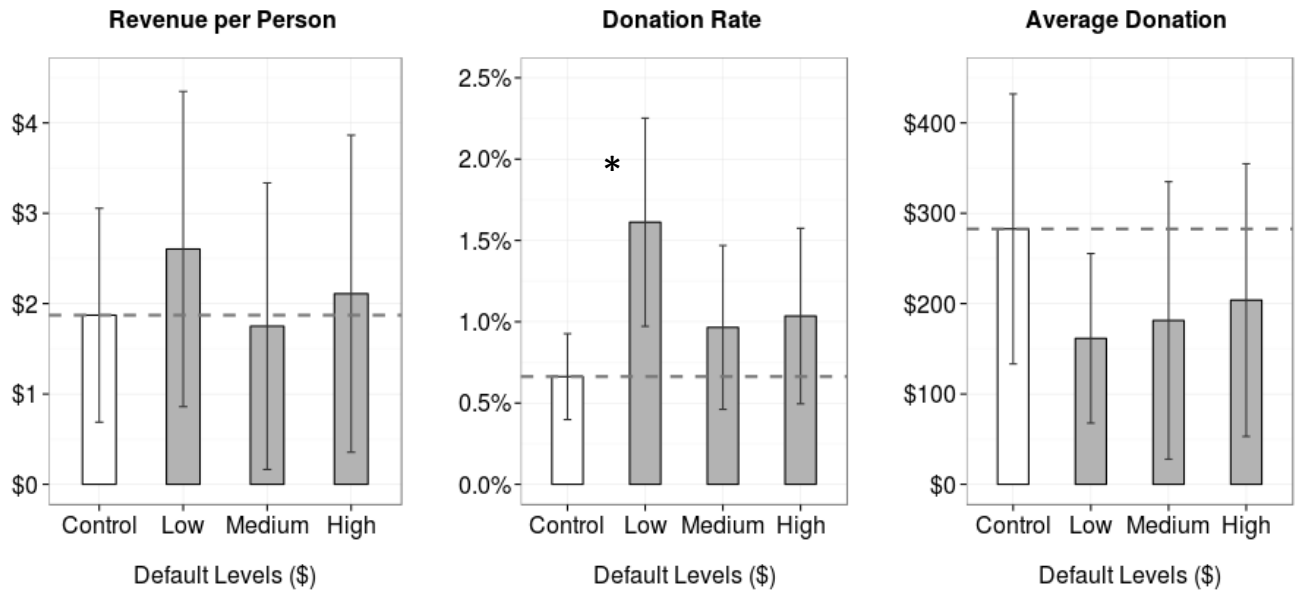
*Note: Error bars are 95% confidence intervals. * indicates significant vs. high default (p = .001)*

These findings were confirmed in a series of regression analyses predicting the log of per person revenue (to account for the high skew in amounts), controlling for lasso-selected covariates. Overall, the presence of a default (averaging over the different default levels) significantly increased revenue, compared to no default ($\beta = 0.025$, $t = 2.34$, $p = .02$). The effect on revenue depended on the default levels. Setting the low option as the default significantly increased revenue, relative to control ($\beta = 0.04$, $t = 2.95$, $p = .003$, see Table 3), while there was a weaker and non-significant effect of the medium default ($\beta = 0.01$, $t = .83$, $p = .40$) or the high default ($\beta = 0.02$, $t = 1.45$, $p = .15$) compared to control. The revenue per person when the low

amount was set as the default was marginally higher than when the other amounts (medium or

high) were the default ($\beta = 0.025$, $t = 1.82$, $p = .07$).

Table 3: Regressions of Default Levels (with Lasso Selected Covariates) on Revenue per Person, Participation, and Average Donation

Models with lasso selected variables			
	Regression Estimates		
	Log of Revenue per person	Donation rate	Log of Average donation
(Intercept)	0.03***	-6.99****	1.11**
Low Default Level	0.04***	1.10***	-0.38***
Medium Default Level	0.01	0.28	-0.17
High Default Level	0.02	0.61	0.001
Designated Options = 5	-0.009	-0.13	-0.19*
Reminder = Yes	0.005	0.11	0.007
Age	-	0.83****	-
Consec. Yrs. of Giving to AF	0.19****	0.12***	-
Donors who donated Last Year	-	4.11****	-
Log Lifetime Amt. to AF	-	-	0.21*
Log Value of Middle Menu Option	-	-	0.80****

**** p≤.001, ***p≤.01, **p≤.05, *p≤.10

These findings were not moderated by the other two experimental manipulations

(reminder of prior donation, number of allocation options). However, recipient characteristics did

moderate the effectiveness of the default. Low defaults had a more positive effect on revenue,

compared to the control, among recipients who were older ($\beta_{INT} = 0.04$, $t = 2.95$, $p = .003$).

Furthermore, donors who had contributed to the alumni fund for more consecutive years, and

those who had donated in the prior campaign responded to the presence of defaults, in general,

more positively compared to when there was no default ($\beta_{INT} = 0.11$, $t = 11.41$, $p < .001$ and β_{INT}

$= 0.38$, $t = 9.85$, $p < .001$ respectively).

The prior studies, conducted with first-time donors in a novel setting, found no consistent

effect of defaults on revenue. In contrast, this field study conducted with prior donors, found that

defaults in general, and low defaults in particular, increased revenue. The lack of net effect of

defaults in the prior studies was due to two countervailing influences, a lower-bar effect (higher

donation rate for low defaults) and a scale-back effect (lower average donations for low

defaults). Next, we examine these two effects, the impact of default size on donation rate and

average donation amount respectively, in the field study.

Effect of default levels on donation rate. The low default significantly increased donation

rates, relative to no default (1.6% vs. 0.7%, $\chi^2 = 10.14$, $p = .001$; Figure 6). Low defaults resulted

in marginally higher donations rates when compared to medium and high defaults combined

(1.6% vs. 1%, $\chi^2 = 3.05$, $p = .08$). The donation rate for both medium and high defaults was

directionally higher than in the no-default control. Overall, combining all the three default levels

resulted in a significant increase in participation over using no defaults at all in the campaign

(1.2% vs. 0.7%, $\chi^2 = 6.16$, $p = .01$), suggesting that defaults can increase participation.

These findings were confirmed in a series of logistic regression analyses predicting

whether or not the person donated, controlling for lasso-selected covariates. Overall, the

presence of a default (averaging over the different default levels) significantly increased donation

rates, compared to no default ($\beta = 0.71$, $z = 2.25$, $p = .02$). In particular, setting the low option as

the default significantly increased donation rates relative to the control ($\beta = 1.01$, $z = 3.03$, $p =$

.002, Table 3), while there was no significant effect of either the medium default ($\beta = 0.28$, $z =$

0.67, $p = .50$) or the high default ($\beta = 0.62$, $z = 1.49$, $p = .13$). Low defaults resulted in marginally

higher participation, compared to medium and high defaults combined ($\beta = 0.65$, $z = 1.98$, $p =$

.047), consistent with the lower-bar effect. These findings were not moderated by the other two

experimental manipulations (prior donation reminder, allocation options) or by the covariates.

Effect of default levels on average donation. Despite the large number of mailings in the

field study, the statistical power for this analysis is constrained by the fact that only 76 recipients

donated in the spring campaign. Overall, the average amount donated was lower when an option was defaulted (M=$178), compared to the no-default control (M = $283, see Figure 6). Among the default conditions, the average donation was highest for the high default (M = $204), $25 lower for the medium default (M = $181), and approximately $20 lower for the low default (M = $162), consistent with the scale-back effect.

These differences were tested in a linear regression model predicting contribution amount among those who did donate, controlling for lasso-selected covariates. Low defaults reduced average donation significantly compared to no defaults (β = -0.37, t = -3.10, p = .003, Table 3). High defaults yielded similar average donations as the control but significantly higher donations than for low defaults (β = 0.37, t = 2.77, p = .007). Overall, including a default decreased average donations compared to the no-default control (β = -0.23, t = -2.08, p = .04).

Differences in default effects based on experimental factors. While the number of allocation options did not affect donation rates, donors who were presented with more options (5 rather than 2) among which to allocate their donation, gave marginally less if they donated (β = -0.19, t = -1.92, p = .059). However, the number of options did not moderate any of the default effects, suggesting that complexity of the decision environment may not substantially change the impact of defaults on donation decisions.

There were no main effects of reminding people how much they had given in their prior donations, and reminders did not change the effect of defaults on donation rates. However, adding a reminder eliminated the scale-back effect of a low default on average donations (β_{INT} = -0.69, t = -2.51, p = .01). When people were reminded of their prior donation amount, current donation amounts among donors were no longer sensitive to default size.

These effects of defaults on donation behavior were generally robust across individual differences. However, among participants who had donated more in the past (and who therefore were asked for more on the pledge card), the low default had less of a negative effect on donation amount ($\beta_{INT} = 0.26$, $t = 2.53$, $p = .01$). The scale-back effect of low defaults was eliminated among previously more generous donors (e.g., those had given $450 or more).

Discussion.

The results of this field experiment provide strong evidence for the robustness of the lower-bar and scale-back effects. In this applied setting, we find no evidence that defaults in general, or high defaults specifically, reduce the revenue raised, even for subgroups of participants. In this context, using customized menu options among repeat donors, we do find that low defaults were most effective, significantly increasing revenue, because of the strong lower-bar effect on increasing participation.

GENERAL DISCUSSION

In eight studies, we investigated the effects on donation behavior of setting one donation amount as the choice-option default in a charitable appeal. We tested several potential effects of defaults, and of defaulted option magnitude, that have been suggested by prior literature. Our findings did not support the most optimistic prediction, a "direct-default" effect, in which simply setting one option as a default would consistently increase funds raised. However, we also found no support for the most pessimistic prediction, a backlash effect, in which setting a default (or setting a high amount default) would lead to rejection of the defaulted amount and lower revenue.

Instead, we documented strong evidence for three novel effects of defaults. The "scale-back" effect led to reductions in average donation amount, among those who did donate, for low defaults. The evidence suggests that this effect arises from inferential reasoning about the norms or needs conveyed by the pre-selected default level, with low defaults licensing low donations.

However, this was counteracted by the "lower-bar" effect, an increase in donation rates for low defaults. The lower-bar effect reflects people's positive reactions to low defaults and a resulting increase in the motivation to donate. The lower default may allow the donor to experience the same positive feelings as donating a larger amount, without harming their pro-social self-image by paying less (Gneezy et al. 2010), in effect obtaining "warm glow" (Andreoni 1990) at a discount.

Finally, the "default-distraction" effect made people less sensitive to other cues (e.g., positive views of the charity) when the default was present. This finding suggests that defaults, instead of making choices less effortful, may involve additional deliberation about the default, with important consequences for how information is processed. Thus, default effects may sometimes reduce the effectiveness of additional information, rather than information reducing the impact of defaults, as previously suggested (Johnson and Goldstein, 2003; McKenzie et al. 2006). As a result, appeals which rely on proving new information to motivate donations may actually reduce the effectiveness of the appeal by including a default.

Taken together, the scale-back and lower-bar effects illustrate an underappreciated "self-cancelling" potential of behavioral interventions. An intervention may have a psychological influence on decision making that is nevertheless not observed in the outcome (e.g., revenue) due to another psychological effect that counteracts it. However, our field study results illustrate that defaults can be used to increase revenue in an actual charitable appeal. Which default level yields

the most benefit will depend on the combined net effect of the scale-back and lower-bar effects. In total, these findings present a different view of defaults than in the prior literature, providing a framework that helps guide more precise policy prescriptions.

Towards an Intergrative Account of Donation Decisions.

How do our findings relate to what is known more broadly about donation behavior? The prior literature has investigated several other factors as possible influences on donation, which provide some potential parallels to our findings.

Legitimizing paltry favors. The idea that setting a smaller option as the default motivates people to donate has parallels in the psychology literature on "legitimizing paltry favors" (Cialdini and Schroeder, 1976). Overall, nonspecific legitimizing messages (e.g, "every penny helps") consistently increase donation rates when incorporated into person-to-person requests (see Andrews et al. 2008 for a meta-analysis review). However, such messages have not increased donations in a more impersonal direct mail setting (DeJong and Oopik, 1992). This literature argues that legitimizing messages do not affect donation amounts, although the amounts are generally directionally smaller (see Fraser, Hite, and Sauer, 1988 for a review). In Study 2f, we conducted a preliminary test of including such messages before the defaulted ask, and did not find any evidence that such messages change the effects of defaults.

Menu effects. The menu of options provided has been discussed as potentially suggesting which amounts are appropriate. However, the results of studies varying the menu amounts have been mixed. Studies have found higher donation rates for a lower range (Schibrowsky and Peltier, 1995; Weyant and Smith, 1987) or no effect (Doob and McLaughlin, 1989). Higher menu options have been found to yield higher average donations (Doob and McLaughlin 1989;

Schibrowsky and Peltier 1995), or no effect (Weyant and Smith 1987). De Bruyn and Prokopec (2013) report increased donation rates when the first menu item is lower than the prior donation and increased amounts when the subsequent options increase more. Desmet and Feinberg (2003) find that the menu options shift the distribution of amounts but have negligible net effects. In a related context, shifting menu options for taxi tips to higher amounts increases the amount given, but reduces the tipping rate, an overall positive net effect (Haggag and Paci, 2013).

Social proof. A large body of literature has investigated "social-proof" interventions (Cialdini and Trost, 1998), in which information about other people's behavior is provided to the decision-maker. Some studies have specified a donation amount representing the behavior of others (e.g., "one of the most common donation amounts has been 5 US dollars" (Alpizar et al. 2008). Hearing about lower amounts that others gave yielded lower donations (Alpizar et al., 2008; Croson and Shang, 2008). In addition, Alpizar et al (2008) find a higher donation rate when people are told about a low donation amount given by others.

While these findings parallel ours, our results are not attributable to the conformity or social norm mechanisms discussed in this literature, as the default amounts we used did not explicitly provide information about others' donations. In particular, we found evidence for the lower-bar effect even when the defaults were explicitly identified as randomly determined in Study 2--inconsistent with conformity to an inference about others' donations. Future research contrasting suggestions based on others' donations with nonsocial suggestions and with randomly generated suggestions could determine how much of the "social-proof" findings are due specifically to social pressure versus cognitive influences of suggested amounts.

Suggested donation amounts. As noted earlier, researchers in marketing and economics have also investigated the effects of directly suggesting a specific donation amount. Some have

found that providing a suggested amount (Brockner et al. 1984; Edwards and List, 2014) or specifically a low suggested amount (Smith and Berger 1996) increases donation rates, although other papers do not find an effect of suggestions on donation rates (Adena, Huck and Rasul 2013; Fraser, Hite and Sauer 1988; Schwarzwald et al 1983). Studies have found that a suggested amount (Edwards and List 2014) or specifically a lower suggested amount (Adena, Huck and Rasul 2013) results in lower average donation amounts, or that a higher suggested amount increases average donation amount (Fraser, Hite and Sauer 1988). Other studies have found no effect (Brockner et al 1984; Schwarzwald et al 1983; Smith and Berger 1996). Studies find that a low suggested amount increases revenue (Charness and Cheung, 2013; Edwards and List, 2014), a high suggested amount increases revenue (Fraser, Hite and Sauer 1988), or find no difference (Adena, Huck and Rasul 2013; Schwarzwald et al 1983). Overall, the results are mixed in terms of the implications for revenue.

Our findings, however, suggest that these mixed results may be due in part to the differences in the settings (particularly in the degree to which donation rates were low or high) and in the limited range of cue amounts tested in most studies. We conducted a reanalysis of ten studies (a total of 23 conditions) which tested specific suggestion cues relative to a control condition (see Web Appendix E). An overall analysis, comparing across and within studies at the condition level, reveal findings not previously made in this literature that are parallel to our results. Higher suggested amounts, relative to control solicitations, result in lower donation rates (r=-.43, p = .07) but higher average donation amounts (r = .45, p=.03). More research varying suggestion size and type within a single study is needed to determine if a common mechanism underlies the effects of defaults, suggestions, and "social-proof" information.

The Potential for Defaults to Backfire.

Recent criticisms of using nudges in setting policy have introduced the idea that nudges may be seen as manipulative and may induce a backlash, with people doing less of the nudged behavior when nudges are present. It is psychologically plausible that some people may see nudges as manipulative, even though choice is preserved, and some empirical evidence supports this view (Brown and Krishna 2004, Tannenbaum and Ditto 2014). Such negative perceptions of defaults can also be important in policy debates and political rhetoric (Ferguson, 2010). Further research is needed to test whether negative attitudes will reliably translate to differences in people's individual choices, particularly in fundraising, where negative attitudes do not necessarily translate into less revenue (Van Diepen, Donkers, and Franses, 2009). In particular, if the people who have more negative overall views of the cause are the ones who react negatively to the nudge (Tannenbaum, Fox and Rogers 2014), there is likely to be limited potential harm from the nudge. In the fundraising context, if it is the people who would not have donated regardless of the format who see the default as unnerving, the default will have little negative effect on the overall success of the campaign.

However, our findings suggest that while concerns about negative attitudes may be overstated, the potential for defaults to be processed as goals and to potentially distract from other relevant cues may be under-recognized. Prior research as suggested that goals may be treated as reference points (Heath, Larrick and Wu 1999). Our findings may be due to a corresponding tendency to treat defaults or suggested amounts as goals, such that people are motivated to do more to reach the goal when they can (Kivetz, Urminsky and Zheng 2006), but may also choose not to commit to donating when they don't feel they reach the goal (Zhang, Fishbach and Dhar 2007).

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Our studies provide preliminary evidence additional deliberation about one's actions in relation to the default-induced goal may distract the decision-maker from other considerations. As a result, other generally effective interventions, such as introducing tangible details about the organization (Cryder, Loewenstein, and Scheines, 2013), may have less impact when a default amount is specified. More generally, our results suggest that a "kitchen sink" approach to policy interventions may be problematic. Instead of complementing each other, multiple interventions may sometimes detract from one another, leading to weak overall effects. However, more research is needed into which interventions will complement versus detract from one another.

Implications for Policy Prescriptions.

Prior research on defaults had yielded multiple competing hypotheses about how setting a specific donation amount as the default would impact donor behavior. In the context of charity defaults, the widely studied direct-inertia effect of defaults would yield an incorrect and overly simplistic prescription to consistently use defaults, preferably high defaults. Incorporating the notion of anchoring would lead to a recognition of the scale-back effect, prescribing high defaults and warning against low defaults. Conversely, focusing on consumer acceptance of the default raises concerns about backlash arising from perceived manipulation. This account would prescribe either no default or low defaults, particularly for less positively perceived charities.

The lack of a definitive theory of defaults is also evident in the views of experts. First, 52 attendees at the 2012 Society for Judgment and Decision Making conference were asked to rank the revenue generated by a fundraising appeal either using no default, or setting the 20th percentile, median, or 80th percentile prior donation amount as the default. Averaging across the six binary comparisons, these decision-making experts expected a higher default to generate

more revenue than a lower default or no defaults (68%). However, for any given comparison, a third to a quarter of the experts disagreed, expecting a lower default or no default to be more effective. In contrast, the current practices of non-academic experts, the largest United States charities (Forbes, 2013), suggest the opposite belief (Table 1), with most using no default, and a few setting a relatively low amount as the defaulted option in online solicitations.

This illustrates a common challenge when policy makers attempt to extrapolate from research on behavioral decision making to implementations of nudges. Extant research often gives rise to multiple and sometimes conflicting predictions about the effects of specific implementations, which have generally not been empirically tested against each other. As a result, despite the voluminous research literature on defaults, the state of the field is best understood as providing a collection of theories supported by psychologically important effects, rather than a single theory capable of quantifying the effects of defaults for a given set of relevant factors in the decision context. For policy decisions, it is more useful if behavioral research develops a framework for interventions, as opposed to stand-alone effects, enabling policy makers to weight relative costs and benefits within that framework (Camilleri and Larrick 2015). However, scientific literature often fails to systematically study the moderators and relative effect sizes needed to make such assessments.

Our studies, designed to integratively test the multiple factors that determine how defaults affect choices, bring us a step closer to being able to provide policy guidance. Ultimately, however, even our results do not generate a single prescriptive recipe for what policy makers should do to maximize the revenue generated from a set of potential donors, because of the countervailing effects of multiple psychological factors demonstrated here. This point is illustrated by the differences and similarities between Study 2 and Study 3. There are multiple

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potentially relevant differences between the studies. Study 3 used repeat donors to a known charity, customized the menu options based on prior donations and donating involved both exerting proactive effort and potentially painful spending. In contrast, Study 2 involved primarily first-time donors making a minimally effortful choice among non-customized options to spend an uncertain windfall gain, with much higher donation rates.

Despite these differences, both studies provide evidence for the same psychological consequences of defaults, the lower-bar and scale-back effects. On the one hand, the robustness of the findings to these differences should bolster confidence in the framework. On the other hand, making concrete policy prescriptions from Study 2, such as not to use a default or to use a high default, would have led to suboptimal policies in Study 3. The same psychological processes collectively yield a different consequence in Study 3, with low defaults generating the most revenue because of the importance of increasing donation rates. Future research may culminate in a robust quantitative model of decision making that accounts for the relative impact of the potential moderators. Absent that, the responsible conclusion to draw is that the current behavioral science on defaults can suggest high-potential interventions to be tested in relevant field contexts, but can rarely identify a specific optimal policy a-priori. Returning to Ann, the primary benefit the research provides lies not in telling her what to do, but in what to test.

We suspect that this conclusion is the right one to draw more often than not, when behavioral science interfaces with policy making. In fact, recent research has highlighted the limited generalizability from one field-intervention study to another (Allcott and Mullainathan 2012). It is perhaps no coincidence that the successes of the influential "nudge unit" in the UK have come about from conducting field tests of psychologically-informed interventions (Harford 2014), rather than by generating blanket policy prescriptions. Human behavior is rarely governed

by a single psychological process. Therefore, research that isolates individual psychological processes can provide important hypotheses, but is unlikely to generate clear-cut policy prescriptions. Further research, even on seemingly "settled" topics like defaults, is needed to build better and more predictive theories.

Default effects on policy have been widely documented. Nevertheless, our evidence suggests that defaults, particularly choice-option defaults, operate in multiple, separate ways: directly on the option chosen, on the decision of whether or not to participate, on the decision of how much to commit (i.e. donation amount) and on the attention paid to other factors. Simplicity, in both academic theories and in policy prescriptions, is very appealing. Ultimately, however, the success of any theory that aims for policy relevance lies in its ability to predict when and why policies succeed or fail. The potential "self-cancelling" property of nudges, illustrated in this paper, points to the need for richer, more detailed behavioral theories of decision-making that can better anticipate the net effects of interventions.

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WEB APPENDIX A: SUPPLEMENTAL STATISTICAL RESULTS

Variables used in the Regressions:

Variable Names	Meaning
Default Present = Yes	1 =Any default present, 0 otherwise
Default Level = None	No default present
Reactance	Average of 11 items on Hong and Faeda (1996) Reactance scale
Income	Income categories; 1= under $30K, 2=$30-50K, 3 = $50-80K, 4=$80-110K, 5=$110-140K, 6 = above $140K
Default Size	Amount of defaulted option (in dollars)
Default Order	Order of the defaulted option within the menu
Num Options	Number of options on the donation menu
Default Framing	Suggested donation (1) vs. randomly generated default (-1) with control set to 0
Org Favorability	Average rating, on a 1 ("Very Unfavorable") to 5 ("Highly Favorable" scale, of the organization in the pre-test (Appendix D).
Org Appeal	Average amount, out of $1000, allocated to charity in the pre-test
Positive Info	1 = positive information presented, 0 = neutral/negative/no information presented
Negative Default Attitudes	Average of two items ("trying to determine your choice for you", "felt like a heavy-handed direction"), rated on a 1 ("strongly disagree") to 5 ("strongly agree") scale
Positive Default Attitudes	Average of "coming from a trustworthy source", "felt like a helpful guidance", "useful to you in making your donation decision" on 1-5 scale
Charity Attitudes	Average of three items: trustworthiness and favorability (rated on a 1 to 5 scale) and fit with personal goals (rated on 1 to 3 scale)
Org Pos Charity	Average rating on Charity Attitudes (above) of the organization in the pre-test
Donation Attitudes	Average rating of 10 items, rated on a 1 ("strongly disagree") to 5 ("strongly agree") scale
Low Default Level	Low Default =1, 0 Otherwise
Medium Default Level	Medium Default =1, 0 Otherwise
High Default Level	High Default =1, 0 Otherwise
Default Level = Medium or High	Medium or High Defaults = 1, 0 Otherwise
Designated Options = 5	1=Five allocation options, 0=Two allocation options
Reminder = Yes	1=Reminder about last donation amount, 0 otherwise
Consec. Yrs. of Giving to AF	Number of consecutive years of giving to the Annual Fund
Age	Age of the Donor in Years
Male	Male=1, Female=0
Donated Last Year	Last year, but not yet in the current year
Log Lifetime Amt. to AF	Total Amount donated to the Annual Fund over Donor's lifetime
Log Lifetime Amt. to School	Total Amount donated to the School over the Donor's lifetime
Log Value of Middle Menu Option	Value of the middle option in the menu = last donation amount

Table A1: Regression Predicting Effect of Default Present on Revenue per Person, Depending on Reactance (Study 1)

Source	β	Std. Error	t	p
Constant	0.545	0.613	0.889	.376
Default Present = Yes	0.535	0.749	0.715	.476
Default Present X Reactance	-0.005	0.203	-0.025	.980
Reactance	-0.182	0.250	-0.727	.469

Table A2: Regression Predicting Effect of Default Present on Donation Rate, Depending on Reactance (Study 1)

Source	β	Std. Error	t	p
Constant	0.464	0.457	1.015	.313
Default Present = Yes	0.654	0.558	1.172	.244
Default Present X Reactance	0.038	0.151	0.249	.804
Reactance	-0.241	0.187	-1.290	.201

Table A3: Regression Predicting Effect of Default Present on Average Donation, Depending on Reactance (Study 1)

Source	β	Std. Error	t	P
Constant	1.121	0.747	1.500	.140
Default Present = Yes	-0.224	0.940	-0.238	.813
Default Present X Reactance	-0.067	0.246	-0.273	.786
Reactance	0.111	0.320	0.346	.731

Table A4: Regression Predicting Effect of Default Size on Revenue per Person, Depending on Reactance (Study 1)

Source	β	Std. Error	t	P
Constant	0.900	0.491	1.833	.070
Default Present = Yes	-0.008	0.193	-0.040	.968
Default Size	0.006	0.268	0.022	.982
Default Size x Reactance	0.000	0.090	-0.002	.999
Reactance	-0.125	0.161	-0.775	.440

Table A5: Regression Predicting Effect of Default Size on Donation Rate, Depending on Reactance (Study 1)

Source	β	Std. Error	t	P
Constant	0.962	0.361	2.666	.009
Default Present = Yes	0.119	0.142	0.837	.405
Default Size	-0.113	0.197	-0.574	.568
Default Size x Reactance	0.005	0.066	0.080	.936
Reactance	-0.130	0.118	-1.103	.273

Table A6: Regression Predicting Effect of Default Size on Average Donation, Depending on Reactance (Study 1)

Source	β	Std. Error	t	P
Constant	1.064	0.616	1.726	.091
Default Present = Yes	-0.222	0.223	-0.996	.325
Default Size	0.148	0.313	0.473	.639
Default Size x Reactance	0.022	0.109	0.199	.843
Reactance	-0.048	0.201	-0.238	.813

Table A7: Regression Predicting Effect of Default Present on Revenue per Person (Study 2)

Source	β	Std. Error	t	P
Constant	4.814	0.254	18.972	<.001
Default Present = Yes	-0.223	0.198	-1.131	0.258
Study 2b fixed effect	-0.636	0.338	-1.882	0.060
Study 2c fixed effect	-0.43	0.433	-0.995	0.320
Study 2e fixed effect	0.709	0.316	2.245	0.025
Study 2e fixed effect	-0.446	0.264	-1.686	0.092
Study 2f fixed effect	-1.262	0.301	-4.200	<.001

Table A8: Regression Predicting Effect of Default Present on Donation Rate (Study 2)

Source	β	Std. Error	t	P
Constant	.557	.024	22.855	<.001
Default Present = Yes	-.002	.019	-.081	.935
Study 2b fixed effect	-.070	.032	-2.157	.031
Study 2c fixed effect	-.006	.042	-.142	.887
Study 2e fixed effect	.251	.030	8.266	<.001
Study 2e fixed effect	.187	.025	7.354	<.001
Study 2f fixed effect	-.011	.029	-.387	.699

Table A9: Regression Predicting Effect of Default Present on Average Donation (Study 2)

Source	β	Std. Error	t	P
Constant	8.703	.318	27.338	<.001
Default Present = Yes	-.445	.230	-1.936	.053
Study 2b fixed effect	-.105	.439	-.240	.810
Study 2c fixed effect	-.736	.543	-1.355	.176
Study 2e fixed effect	-1.726	.363	-4.754	<.001
Study 2e fixed effect	-2.705	.317	-8.525	<.001
Study 2f fixed effect	-2.152	.376	-5.719	<.001

Table A10: Regression Predicting Effect of Default Size on Revenue per Person (Study 2)

Source	β	Std. Error	t	p
Constant	4.308	.278	15.488	<.001
Default Level = None	.469	.233	2.015	.044
Default Size	.031	.015	1.996	.046
Study 2b fixed effect	-.636	.338	-1.884	.060
Study 2c fixed effect	-.533	.435	-1.223	.221
Study 2e fixed effect	.835	.322	2.593	.010
Study 2e fixed effect	-.328	.271	-1.210	.226
Study 2f fixed effect	-1.256	.300	-4.182	<.001

Table A11: Regression Predicting Effect of Default Size on Donation Rate (Study 2)

Source	β	Std. Error	t	p
Constant	.598	.027	22.394	<.001
Default Level = None	-.035	.022	-1.577	.115
Default Size	-.005	.001	-3.118	.002
Study 2b fixed effect	-.070	.032	-2.157	.031
Study 2c fixed effect	.009	.042	.226	.822
Study 2e fixed effect	.232	.031	7.507	<.001
Study 2e fixed effect	.169	.026	6.504	<.001
Study 2f fixed effect	-.012	.029	-.419	.675

Table A12: Regression Predicting Effect of Default Size on Average Donation (Study 2)

Source	β	Std. Error	t	p
Constant	7.420	.329	22.575	<.001
Default Level = None	1.133	.260	4.357	<.001
Default Size	.097	.018	5.537	<.001
Study 2b fixed effect	-.039	.436	-.089	.929
Study 2c fixed effect	-1.052	.543	-1.939	.053
Study 2e fixed effect	-1.350	.367	-3.680	<.001
Study 2e fixed effect	-2.370	.321	-7.380	<.001
Study 2f fixed effect	-2.179	.374	-5.827	<.001

Table A13: Regression Predicting Effect of Reactance on Revenue per Person (Study 2)

Source	β	Std. Error	t	p
Constant	7.095	.427	16.626	<.001
Reactance	-.817	.123	-6.644	<.001
Study 2b fixed effect	-.640	.336	-1.904	.057
Study 2c fixed effect	-.367	.430	-.853	.394
Study 2e fixed effect	.663	.311	2.131	.033
Study 2e fixed effect	-.473	.258	-1.835	.067
Study 2f fixed effect	-1.253	.297	-4.222	<.001

Table A14: Regression Predicting Effect of Reactance on Donation Rate (Study 2)

Source	β	Std. Error	t	p
Constant	.726	.041	17.671	<.001
Reactance	-.058	.012	-4.863	<.001
Study 2b fixed effect	-.071	.032	-2.199	.028
Study 2c fixed effect	.000	.041	-.011	.991
Study 2e fixed effect	.251	.030	8.365	<.001
Study 2e fixed effect	.189	.025	7.608	<.001
Study 2f fixed effect	-.008	.029	-.277	.782

Table A15: Regression Predicting Effect of Reactance on Average Donation (Study 2)

Source	β	Std. Error	t	p
Constant	10.502	.510	20.610	<.001
Reactance	-.716	.146	-4.905	<.001
Study 2b fixed effect	-.084	.438	-.193	.847
Study 2c fixed effect	-.627	.541	-1.159	.247
Study 2e fixed effect	-1.800	.360	-5.003	<.001
Study 2e fixed effect	-2.764	.313	-8.837	<.001
Study 2f fixed effect	-2.159	.373	-5.781	<.001

Table A16: Regression Predicting Effect of Income on Revenue per Person (Study 2)

Source	β	Std. Error	t	p
Constant	4.092	.267	15.310	<.001
Income	.320	.078	4.095	<.001
Study 2b fixed effect	-.647	.337	-1.918	.055
Study 2c fixed effect	-.239	.435	-.551	.582
Study 2e fixed effect	.520	.332	1.566	.117
Study 2e fixed effect	-.512	.259	-1.978	.048
Study 2f fixed effect	-1.316	.298	-4.418	<.001

Table A17: Regression Predicting Effect of Income on Donation Rate (Study 2)

Source	β	Std. Error	t	p
Constant	.528	.026	20.459	<.001
Income	.015	.008	2.036	.042
Study 2b fixed effect	-.072	.033	-2.198	.028
Study 2c fixed effect	.004	.042	.093	.926
Study 2e fixed effect	.251	.032	7.816	<.001
Study 2e fixed effect	.186	.025	7.454	<.001
Study 2f fixed effect	-.012	.029	-.420	.675

Table A18: Regression Predicting Effect of Income on Average Donation (Study 2)

Source	β	Std. Error	t	p
Constant	7.784	.328	23.728	<.001
Income	.339	.090	3.770	<.001
Study 2b fixed effect	-.092	.440	-.210	.834
Study 2c fixed effect	-.486	.547	-.890	.374
Study 2e fixed effect	-1.971	.379	-5.195	<.001
Study 2e fixed effect	-2.801	.314	-8.919	<.001
Study 2f fixed effect	-2.246	.375	-5.989	<.001

Table A19: Regression Predicting Effect of Default Present on Revenue per Person, Depending on Reactance (Study 2)

Source	β	Std. Error	t	p
Constant	7.644	.829	9.216	<.001
Default Present = Yes	-.749	.911	-.822	.411
Default Present X Reactance	.168	.298	.565	.572
Reactance	-.951	.263	-3.616	<.001
Study 2b fixed effect	-.631	.336	-1.876	.061
Study 2c fixed effect	-.351	.430	-.817	.414
Study 2e fixed effect	.712	.314	2.264	.024
Study 2e fixed effect	-.410	.263	-1.561	.119
Study 2f fixed effect	-1.213	.299	-4.056	<.001

Table A20: Regression Predicting Effect of Default Present on Donation Rate, Depending on Reactance (Study 2)

Source	β	Std. Error	t	p
Constant	.722	.080	9.037	<.001
Default Present = Yes	.005	.088	.053	.958
Default Present X Reactance	-.003	.029	-.094	.925
Reactance	-.056	.025	-2.191	.029
Study 2b fixed effect	-.071	.032	-2.197	.028
Study 2c fixed effect	.000	.041	-.005	.996
Study 2e fixed effect	.252	.030	8.310	<.001
Study 2e fixed effect	.190	.025	7.487	<.001
Study 2f fixed effect	-.007	.029	-.250	.802

Table A21: Regression Predicting Effect of Default Present on Average Donation, Depending on Reactance (Study 2)

Source	β	Std. Error	t	p
Constant	11.379	1.000	11.377	<.001
Default Present = Yes	-1.175	1.082	-1.085	.278
Default Present X Reactance	.245	.359	.683	.495
Reactance	-.912	.319	-2.860	.004
Study 2b fixed effect	-.087	.438	-.199	.842
Study 2c fixed effect	-.649	.541	-1.200	.230
Study 2e fixed effect	-1.740	.362	-4.812	<.001
Study 2e fixed effect	-2.682	.316	-8.484	<.001
Study 2f fixed effect	-2.103	.375	-5.611	<.001

Table A22: Regression Predicting Effect of Default Present on Revenue per Person, Depending on Income (Study 2)

Source	β	Std. Error	t	p
Constant	4.176	.385	10.850	<.001
Default Present = Yes	-.139	.388	-.359	.720
Default Present X Income	-.004	.178	-.022	.982
Income	.321	.155	2.077	.038
Study 2b fixed effect	-.644	.338	-1.908	.056
Study 2c fixed effect	-.231	.435	-.530	.596
Study 2e fixed effect	.552	.335	1.647	.100
Study 2e fixed effect	-.472	.264	-1.787	.074
Study 2f fixed effect	-1.290	.300	-4.296	<.001

Table A23: Regression Predicting Effect of Default Present on Donation Rate, Depending on Income (Study 2)

Source	β	Std. Error	t	p
Constant	.539	.037	14.495	<.001
Default Present = Yes	-.014	.037	-.379	.704
Default Present X Income	.008	.017	.484	.629
Income	.009	.015	.613	.540
Study 2b fixed effect	-.071	.033	-2.191	.029
Study 2c fixed effect	.004	.042	.093	.926
Study 2e fixed effect	.251	.032	7.747	<.001
Study 2e fixed effect	.186	.026	7.284	<.001
Study 2f fixed effect	-.012	.029	-.423	.672

Table A24: Regression Predicting Effect of Default Present on Average Donation, Depending on Income (Study 2)

Source	β	Std. Error	t	p
Constant	7.840	.481	16.286	<.001
Default Present = Yes	-.122	.470	-.260	.795
Default Present X Income	-.126	.215	-.588	.556
Income	.433	.190	2.278	.023
Study 2b fixed effect	-.101	.440	-.229	.819
Study 2c fixed effect	-.495	.547	-.905	.365
Study 2e fixed effect	-1.920	.381	-5.034	<.001
Study 2e fixed effect	-2.730	.317	-8.600	<.001
Study 2f fixed effect	-2.196	.376	-5.833	<.001

Table A25: Regression Predicting Effect of Default Size on Revenue per Person, Depending on Reactance (Study 2)

Source	β	Std. Error	t	p
Constant	6.521	.545	11.964	<.001
Default Level = None	.511	.231	2.206	.027
Default Size	.070	.060	1.165	.244
Default Size x Reactance	-.012	.019	-.638	.523
Reactance	-.761	.158	-4.806	<.001
Study 2b fixed effect	-.638	.336	-1.899	.058
Study 2c fixed effect	-.455	.433	-1.052	.293
Study 2d fixed effect	.855	.320	2.670	.008
Study 2e fixed effect	-.276	.269	-1.024	.306
Study 2f fixed effect	-1.196	.299	-4.002	<.001

Table A26: Regression Predicting Effect of Default Size on Donation Rate, Depending on Reactance (Study 2)

Source	β	Std. Error	t	p
Constant	.758	.052	14.433	<.001
Default Level = None	-.032	.022	-1.428	.153
Default Size	-.003	.006	-.562	.574
Default Size x Reactance	.000	.002	-.201	.840
Reactance	-.055	.015	-3.599	<.001
Study 2b fixed effect	-.071	.032	-2.195	.028
Study 2c fixed effect	.014	.042	.348	.728
Study 2d fixed effect	.234	.031	7.575	<.001
Study 2e fixed effect	.173	.026	6.661	<.001
Study 2f fixed effect	-.008	.029	-.280	.779

Table A27: Regression Predicting Effect of Default Size on Average Donation, Depending on Reactance (Study 2)

Source	β	Std. Error	t	p
Constant	9.295	.638	14.559	<.001
Default Level = None	1.146	.259	4.428	<.001
Default Size	.144	.072	2.002	.045
Default Size x Reactance	-.016	.023	-.661	.509
Reactance	-.650	.185	-3.514	<.001
Study 2b fixed effect	-.021	.435	-.047	.962
Study 2c fixed effect	-.951	.541	-1.760	.079
Study 2d fixed effect	-1.343	.365	-3.674	<.001
Study 2e fixed effect	-2.327	.320	-7.276	<.001
Study 2f fixed effect	-2.113	.372	-5.674	<.001

Table A28: Regression Predicting Effect of Default Size on Revenue per Person, Depending on Income (Study 2)

Source	β	Std. Error	t	p
Constant	3.881	.334	11.636	<.001
Default Level = None	.393	.237	1.658	.097
Default Size	.003	.027	.124	.902
Default Size x Income	.015	.012	1.215	.225
Income	.247	.099	2.505	.012
Study 2b fixed effect	-.640	.337	-1.897	.058
Study 2c fixed effect	-.272	.440	-.618	.537
Study 2d fixed effect	.684	.341	2.007	.045
Study 2e fixed effect	-.355	.271	-1.310	.190
Study 2f fixed effect	-1.283	.300	-4.276	<.001

Table A29: Regression Predicting Effect of Default Size on Donation Rate, Depending on Income (Study 2)

Source	β	Std. Error	t	p
Constant	.583	.032	18.127	<.001
Default Level = None	-.041	.023	-1.785	.074
Default Size	-.007	.003	-2.551	.011
Default Size x Income	.001	.001	.870	.384
Income	.010	.010	1.039	.299
Study 2b fixed effect	-.071	.033	-2.185	.029
Study 2c fixed effect	.024	.042	.559	.576
Study 2d fixed effect	.231	.033	7.022	<.001
Study 2e fixed effect	.167	.026	6.385	<.001
Study 2f fixed effect	-.013	.029	-.462	.644

Table A30: Regression Predicting Effect of Default Size on Average Donation, Depending on Income (Study 2)

Source	β	Std. Error	t	p
Constant	6.927	.391	17.699	<.001
Default Level = None	1.078	.266	4.056	<.001
Default Size	.072	.032	2.208	.027
Default Size x Income	.016	.015	1.070	.285
Income	.266	.112	2.371	.018
Study 2b fixed effect	-.021	.437	-.048	.962
Study 2c fixed effect	-.775	.548	-1.414	.157
Study 2d fixed effect	-1.511	.385	-3.922	<.001
Study 2e fixed effect	-2.386	.321	-7.425	<.001
Study 2f fixed effect	-2.230	.374	-5.964	<.001

Table A31: Regression Predicting Effect of Default Size on Revenue per Person, Controlling for Default Order (Study 2)

Source	β	Std. Error	t	p
Constant	4.334	.337	12.846	<.001
Default Level = None	.449	.310	1.448	.148
Default Size	.035	.042	.845	.398
Default Order	-.110	.793	-.139	.889
Study 2b fixed effect	-.636	.336	-1.893	.058
Study 2c fixed effect	-.753	.561	-1.343	.179
Study 2d fixed effect	.837	.321	2.610	.009
Study 2e fixed effect	-.317	.278	-1.140	.254
Study 2f fixed effect	-1.259	.301	-4.180	<.001

Table A32: Regression Predicting Effect of Default Size on Donation Rate, Controlling for Default Order (Study 2)

Source	β	Std. Error	t	p
Constant	.601	.032	18.484	<.001
Default Level = None	-.039	.030	-1.320	.187
Default Size	-.004	.004	-.985	.325
Default Order	-.010	.076	-.136	.892
Study 2b fixed effect	-.070	.032	-2.164	.031
Study 2c fixed effect	.033	.054	.614	.539
Study 2d fixed effect	.232	.031	7.519	<.001
Study 2e fixed effect	.170	.027	6.343	<.001
Study 2f fixed effect	-.013	.029	-.447	.655

Table A33: Regression Predicting Effect of Default Size on Average Donation, Controlling for Default Order (Study 2)

Source	β	Std. Error	t	p
Constant	7.403	.390	18.999	<.001
Default Level = None	1.193	.351	3.404	.001
Default Size	.091	.047	1.931	.054
Default Order	.083	.878	.095	.924
Study 2b fixed effect	-.040	.435	-.093	.926
Study 2c fixed effect	-1.761	.688	-2.558	.011
Study 2d fixed effect	-1.353	.366	-3.700	<.001
Study 2e fixed effect	-2.375	.329	-7.222	<.001
Study 2f fixed effect	-2.167	.374	-5.799	<.001

Table A34: Regression Predicting Effect of Default Size on Revenue per Person, Depending on Default Order (Study 2)

Source	β	Std. Error	t	p
Constant	4.264	.341	12.502	<.001
Default Level = None	.555	.319	1.740	.082
Default Size	.232	.146	1.593	.111
Default Order	-.268	.800	-.335	.738
Default Size x Default Order	-.183	.130	-1.409	.159
Study 2b fixed effect	-.635	.336	-1.889	.059
Study 2c fixed effect	-.749	.561	-1.336	.182
Study 2d fixed effect	.839	.321	2.619	.009
Study 2e fixed effect	-.348	.279	-1.248	.212
Study 2f fixed effect	-1.422	.323	-4.408	<.001

Table A35: Regression Predicting Effect of Default Size on Donation Rate, Depending on Default Order (Study 2)

Source	β	Std. Error	t	p
Constant	.604	.033	18.400	<.001
Default Level = None	-.045	.031	-1.471	.141
Default Size	-.015	.014	-1.049	.294
Default Order	-.002	.077	-.022	.982
Default Size x Default Order	.010	.013	.799	.424
Study 2b fixed effect	-.070	.032	-2.166	.030
Study 2c fixed effect	.033	.054	.610	.542
Study 2d fixed effect	.232	.031	7.514	<.001
Study 2e fixed effect	.171	.027	6.386	<.001
Study 2f fixed effect	-.004	.031	-.130	.897

Table A36: Regression Predicting Effect of Default Size on Average Donation, Depending on Default Order (Study 2)

Source	β	Std. Error	t	p
Constant	7.304	.391	18.686	<.001
Default Level = None	1.372	.356	3.848	<.001
Default Size	.561	.183	3.069	.002
Default Order	-.489	.903	-.541	.588
Default Size x Default Order	-.429	.161	-2.663	.008
Study 2b fixed effect	-.042	.434	-.097	.923
Study 2c fixed effect	-1.760	.687	-2.561	.010
Study 2d fixed effect	-1.360	.365	-3.725	<.001
Study 2e fixed effect	-2.442	.329	-7.414	<.001
Study 2f fixed effect	-2.551	.400	-6.376	<.001

Table A37: Regression Predicting Effect of Default Size on Revenue per Person, Depending on Number of Menu Options (Study 2)

Source	β	Std. Error	t	p
Constant	3.216	.467	6.889	<.001
Default Level = None	.870	.316	2.755	.006
Default Size	.142	.041	3.453	.001
Num Options	.178	.068	2.610	.009
Default Size x Num Options	-.019	.007	-2.668	.008
Study 2b fixed effect	-.644	.342	-1.880	.060
Study 2e fixed effect	-.420	.320	-1.310	.190

(Studies 2a, 2b and 2e only)

Table A38: Regression Predicting Effect of Default Size on Donation Rate, Depending on Number of Menu Options (Study 2)

Source	β	Std. Error	t	p
Constant	.458	.044	10.448	<.001
Default Level = None	-.005	.030	-.184	.854
Default Size	-.001	.004	-.364	.716
Num Options	.035	.006	5.461	<.001
Default Size x Num Options	.000	.001	-.682	.495
Study 2b fixed effect	-.072	.032	-2.166	.030
Study 2e fixed effect	.075	.030	-.130	.897

(Studies 2a, 2b and 2e only)

Table A39: Regression Predicting Effect of Default Size on Average Donation, Depending on Number of Menu Options (Study 2)

Source	β	Std. Error	t	p
Constant	7.321	.542	13.500	<.001
Default Level = None	1.432	.329	4.360	<.001
Default Size	.331	.053	6.285	<.001
Num Options	-.132	.078	-1.702	.089
Default Size x Num Options	-.041	.009	-4.634	<.001
Study 2b fixed effect	.061	.431	.141	.888
Study 2e fixed effect	-1.320	.354	-3.731	<.001

(Studies 2a, 2b and 2e only)

Table A40: Regression Predicting Effect of Default Present on Average Donation, Default Framed as Suggested (Study 2)

Source	β	Std. Error	t	p
Constant	8.883	.369	24.057	<.001
Default Present = Yes	-1.010	.288	-3.502	<.001
Study 2b fixed effect	.055	.535	.103	.918
Study 2d fixed effect	-1.604	.453	-3.539	<.001
Study 2e fixed effect	-2.770	.393	-7.040	<.001

(Studies 2a, 2b, 2d and 2e only)

Table A41: Regression Predicting Effect of Default Size on Average Donation, Default Framed as Suggested (Study 2)

Source	β	Std. Error	t	p
Constant	6.715	.424	15.827	<.001
Default Level = None	1.912	.330	5.799	<.001
Default Size	.150	.028	5.427	<.001
Study 2b fixed effect	.151	.529	.286	.775
Study 2d fixed effect	-1.149	.455	-2.524	.012
Study 2e fixed effect	-2.408	.394	-6.106	<.001

(Studies 2a, 2b, 2d and 2e only)

Table A42: Regression Predicting Effect of Default Size on Revenue per Person, Default Framed as Suggested (Study 2)

Source	β	Std. Error	t	p
Constant	3.707	.372	9.962	<.001
Default Level = None	1.020	.311	3.275	.001
Default Size	.070	.025	2.834	.005
Study 2b fixed effect	-.524	.410	-1.278	.201
Study 2d fixed effect	1.267	.409	3.098	.002
Study 2e fixed effect	-.192	.339	-.568	.570

(Studies 2a, 2b, 2d and 2e only)

Table A43: Regression Predicting Effect of Default Present on Average Donation, Default Framed as Random (Study 2)

Source	β	Std. Error	t	p
Constant	8.752	.385	22.704	<.001
Default Present = Yes	-.407	.297	-1.370	.171
Study 2b fixed effect	.020	.558	.035	.972
Study 2d fixed effect	-1.577	.475	-3.317	.001
Study 2e fixed effect	-2.454	.415	-5.912	<.001

(Studies 2a, 2b, 2d and 2e only)

Table A44: Regression Predicting Effect of Default Size on Average Donation, Default Framed as Random (Study 2)

Source	β	Std. Error	t	p
Constant	7.793	.452	17.234	<.001
Default Level = None	.837	.343	2.443	.015
Default Size	.074	.030	2.503	.012
Study 2b fixed effect	.046	.557	.082	.935
Study 2d fixed effect	-1.381	.481	-2.874	.004
Study 2e fixed effect	-2.264	.421	-5.379	<.001

(Studies 2a, 2b, 2d and 2e only)

Table A45: Regression Predicting Effect of Default Size on Revenue per Person, Default Framed as Random (Study 2)

Source	β	Std. Error	t	p
Constant	4.134	.388	10.653	<.001
Default Level = None	.462	.321	1.437	.151
Default Size	.016	.026	.619	.536
Study 2b fixed effect	-.429	.425	-1.009	.313
Study 2d fixed effect	1.108	.420	2.638	.008
Study 2e fixed effect	.222	.355	.625	.532

(Studies 2a, 2b, 2d and 2e only)

Table A46: Regression Predicting Effect of Default Present on Revenue per Person, Depending on Default Framing (Study 2)

Source	β	Std. Error	t	p
Constant	4.903	.266	18.416	<.001
Default Present = Yes	-.370	.231	-1.604	.109
Default Framing	-.155	.106	-1.455	.146
Study 2b fixed effect	-.635	.343	-1.853	.064
Study 2d fixed effect	.735	.322	2.284	.022
Study 2e fixed effect	-.409	.270	-1.514	.130

(Studies 2a, 2b, 2d and 2e only)

Table A47: Regression Predicting Effect of Default Present on Donation Rate, Depending on Default Framing (Study 2)

Source	β	Std. Error	t	p
Constant	.556	.025	22.619	<.001
Default Present = Yes	.000	.021	-.002	.999
Default Framing	.011	.010	1.083	.279
Study 2b fixed effect	-.070	.032	-2.206	.028
Study 2d fixed effect	.251	.030	8.450	<.001
Study 2e fixed effect	.187	.025	7.479	<.001

(Studies 2a, 2b, 2d and 2e only)

Table A48: Regression Predicting Effect of Default Present on Average Donation, Depending on Default Framing (Study 2)

Source	β	Std. Error	t	p
Constant	8.887	.330	26.938	<.001
Default Present = Yes	-.707	.260	-2.720	.007
Default Framing	-.332	.118	-2.821	.005
Study 2b fixed effect	-.117	.443	-.265	.791
Study 2d fixed effect	-1.697	.367	-4.629	<.001
Study 2e fixed effect	-2.670	.321	-8.317	<.001

(Studies 2a, 2b, 2d and 2e only)

Table A49: Regression Predicting Effect of Default Size on Revenue per Person, Depending on Default Framing (Study 2)

Source	β	Std. Error	t	p
Constant	4.198	.294	14.283	<.001
Default Level = None	.639	.263	2.424	.015
Default Size	.037	.018	2.084	.037
Default Framing	-.339	.148	-2.287	.022
Default Size x Framing	.030	.017	1.732	.083
Study 2b fixed effect	-.631	.342	-1.843	.065
Study 2d fixed effect	.885	.329	2.691	.007
Study 2e fixed effect	-.278	.278	-1.003	.316

(Studies 2a, 2b, 2d and 2e only)

Table A50: Regression Predicting Effect of Default Size on Donation Rates, Depending on Default Framing (Study 2)

Source	β	Std. Error	t	p
Constant	.607	.027	22.386	<.001
Default Level = None	-.041	.024	-1.684	.092
Default Size	-.006	.002	-3.486	<.001
Default Framing	.013	.014	.916	.360
Default Size x Framing	-.000034	.002	-.111	.912
Study 2b fixed effect	-.070	.032	-2.204	.028
Study 2d fixed effect	.229	.030	7.529	<.001
Study 2e fixed effect	.166	.026	6.474	<.001

(Studies 2a, 2b, 2d and 2e only)

Table A51: Regression Predicting Effect of Default Size on Average Donation, Depending on Default Framing (Study 2)

Source	β	Std. Error	t	p
Constant	7.241	.339	21.347	<.001
Default Level = None	1.395	.285	4.899	<.001
Default Size	.113	.020	5.635	<.001
Default Framing	-.553	.157	-3.514	<.001
Default Size x Framing	.038	.019	1.947	.052
Study 2b fixed effect	-.030	.439	-.069	.945
Study 2d fixed effect	-1.267	.371	-3.419	.001
Study 2e fixed effect	-2.303	.325	-7.094	<.001

(Studies 2a, 2b, 2d and 2e only)

Table A52: Regression Predicting Effect of Default Present on Revenue per Person, Depending on Organization Favorability (Study 2)

Source	β	Std. Error	t	p
Constant	1.330	1.756	.757	.449
Default Present = Yes	3.252	1.897	1.715	.086
Org Favorability	1.182	.591	2.001	.045
Default Present X Favorability	-1.142	.620	-1.842	.066
Study 2b fixed effect	-.735	.344	-2.138	.033
Study 2c fixed effect	-.448	.433	-1.035	.301
Study 2d fixed effect	.654	.317	2.061	.039
Study 2e fixed effect	-.589	.286	-2.064	.039
Study 2f fixed effect	-1.455	.335	-4.342	<.001

Table A53: Regression Predicting Effect of Default Present on Revenue per Person, Depending on Organization's Donor Appeal (Study 2)

Source	β	Std. Error	t	p
Constant	4.556	.276	16.531	<.001
Default Present = Yes	.098	.251	.390	.696
Org Appeal	.012	.005	2.575	.010
Default Present X Appeal	-.010	.005	-2.057	.040
Study 2b fixed effect	-.665	.338	-1.971	.049
Study 2c fixed effect	-.444	.432	-1.027	.304
Study 2d fixed effect	.665	.317	2.102	.036
Study 2e fixed effect	-.620	.276	-2.241	.025
Study 2f fixed effect	-1.483	.317	-4.680	<.001

Table A54: Regression Predicting Effect of Default Present on Donation Rate, Depending on Organization Favorability (Study 2)

Source	β	Std. Error	t	p
Constant	.273	.169	1.619	.106
Default Present = Yes	.320	.182	1.757	.079
Org Favorability	.096	.057	1.688	.092
Default Present X Favorability	-.106	.060	-1.775	.076
Study 2b fixed effect	-.077	.033	-2.318	.021
Study 2c fixed effect	-.007	.042	-.180	.857
Study 2dfixed effect	.246	.030	8.064	<.001
Study 2e fixed effect	.178	.027	6.501	<.001
Study 2f fixed effect	-.022	.032	-.694	.488

Table A55: Regression Predicting Effect of Default Present on Donation Rate, Depending on Organization's Donor Appeal (Study 2)

Source	β	Std. Error	t	p
Constant	.528	.026	19.947	<.001
Default Present = Yes	.036	.024	1.477	.140
Org Appeal	.001	<.001	2.972	.003
Default Present X Appeal	-.001	<.001	-2.478	.013
Study 2b fixed effect	-.073	.032	-2.256	.024
Study 2c fixed effect	-.007	.042	-.180	.857
Study 2d fixed effect	.246	.030	8.088	<.001
Study 2e fixed effect	.169	.027	6.358	<.001
Study 2f fixed effect	-.034	.030	-1.118	.264

Table A56: Regression Predicting Effect of Default Present on Average Donation, Depending on Organization Favorability (Study 2)

Source	β	Std. Error	t	p
Constant	6.639	1.940	3.422	.001
Default Present = Yes	1.254	2.105	.596	.551
Org Favorability	.702	.646	1.085	.278
Default Present X Favorability	-.555	.685	-.810	.418
Study 2b fixed effect	-.172	.444	-.387	.699
Study 2c fixed effect	-.730	.543	-1.344	.179
Study 2d fixed effect	-1.747	.364	-4.800	<.001
Study 2e fixed effect	-2.816	.339	-8.317	<.001
Study 2f fixed effect	-2.306	.411	-5.607	<.001

Table A57: Regression Predicting Effect of Default Present on Average Donation, Depending on Organization's Donor Appeal (Study 2)

Source	β	Std. Error	t	p
Constant	8.627	.342	25.223	<.001
Default Present = Yes	-.365	.289	-1.265	.206
Org Appeal	.004	.005	.765	.444
Default Present X Appeal	-.002	.005	-.431	.667
Study 2b fixed effect	-.115	.439	-.262	.794
Study 2c fixed effect	-.734	.543	-1.350	.177
Study 2d fixed effect	-1.734	.364	-4.770	<.001
Study 2e fixed effect	-2.782	.330	-8.442	<.001
Study 2f fixed effect	-2.250	.393	-5.728	<.001

**Table A58: Regression Predicting Effect of Default Presence on Revenue per Person,
Depending on whether Charity Navigator Rating was included (Study 2)**

Source	β	Std. Error	t	p
Constant	4.845	.256	18.906	<.001
Default Present = Yes	-.276	.207	-1.333	.182
Navigator Rating Shown	-1.166	.663	-1.759	.079
Default Present x Shown	.599	.693	.865	.387
Study 2b fixed effect	-.634	.338	-1.879	.060
Study 2c fixed effect	-.427	.433	-.987	.324
Study 2d fixed effect	.721	.316	2.279	.023
Study 2e fixed effect	-.432	.265	-1.630	.103
Study 2f fixed effect	-.903	.358	-2.520	.012

**Table A59: Regression Predicting Effect of Default Presence on Donation Rate,
Depending on whether Charity Navigator Rating was included (Study 2)**

Source	β	Std. Error	t	p
Constant	.560	.025	22.740	<.001
Default Present = Yes	-.006	.020	-.324	.746
Navigator Rating Shown	-.086	.064	-1.347	.178
Default Present x Shown	.056	.067	.835	.404
Study 2b fixed effect	-.070	.032	-2.153	.031
Study 2c fixed effect	-.006	.042	-.134	.894
Study 2d fixed effect	.252	.030	8.293	<.001
Study 2e fixed effect	.188	.025	7.391	<.001
Study 2f fixed effect	.011	.034	.322	.747

**Table A60: Regression Predicting Effect of Default Presence on Average Donation,
Depending on whether Charity Navigator Rating was included (Study 2)**

Source	β	Std. Error	t	p
Constant	8.726	.321	27.202	<.001
Default Present = Yes	-.481	.238	-2.022	.043
Navigator Rating Shown	-1.242	.871	-1.427	.154
Default Present x Shown	.560	.908	.617	.538
Study 2b fixed effect	-.105	.439	-.240	.810
Study 2c fixed effect	-.737	.543	-1.358	.175
Study 2d fixed effect	-1.720	.363	-4.738	<.001
Study 2e fixed effect	-2.698	.318	-8.498	<.001
Study 2f fixed effect	-1.764	.445	-3.968	<.001

Table A61: Regression Predicting Effect of Default Present on Revenue per Person, Depending on Information Valence (Study 2)

Source	β	Std. Error	t	p
Constant	4.268	.301	14.180	<.001
Default Present = Yes	.218	.245	.890	.374
Positive Info	1.336	.389	3.434	.001
Default Present X Positive Info	-1.236	.402	-3.073	.002
Study 2b fixed effect	-.360	.356	-1.011	.312
Study 2c fixed effect	-.174	.446	-.390	.697
Study 2d fixed effect	.559	.335	1.668	.095
Study 2e fixed effect	-.412	.264	-1.561	.119
Study 2f fixed effect	-1.056	.319	-3.308	.001

Table A62: Regression Predicting Effect of Default Presence on Donation Rate, Depending on Information Valence (Study 2)

Source	β	Std. Error	t	p
Constant	.513	.029	17.727	<.001
Default Present = Yes	.028	.024	1.189	.235
Positive Info	.105	.037	2.820	.005
Default Present X Positive Info	-.083	.039	-2.149	.032
Study 2b fixed effect	-.044	.034	-1.281	.200
Study 2c fixed effect	.019	.043	.443	.658
Study 2d fixed effect	.233	.032	7.224	<.001
Study 2e fixed effect	.189	.025	7.440	<.001
Study 2f fixed effect	.010	.031	.337	.736

Table A63: Regression Predicting Effect of Default Presence on Average Donation, Depending on Information Valence (Study 2)

Source	β	Std. Error	t	p
Constant	8.383	.390	21.510	<.001
Default Present = Yes	-.132	.304	-.433	.665
Positive Info	.649	.445	1.459	.145
Default Present X Positive Info	-.721	.460	-1.570	.117
Study 2b fixed effect	.013	.462	.028	.978
Study 2c fixed effect	-.604	.563	-1.074	.283
Study 2d fixed effect	-1.729	.381	-4.538	<.001
Study 2e fixed effect	-2.668	.318	-8.382	<.001
Study 2f fixed effect	-2.078	.400	-5.193	<.001

Table A62: Regression Predicting Effect of Default Presence on Revenue per Person, Depending on Information Valence (Study 2a)

Source	β	Std. Error	t	p
Constant	2.475	.565	4.378	<.001
Default Present = Yes	2.356	.747	3.156	.002
Positive Info	3.640	.827	4.404	<.001
Default Present X Positive Info	-3.236	1.076	-3.008	.003

Table A63: Regression Predicting Effect of Default Presence on Donation Rate, Depending on Information Valence (Study 2a)

Source	β	Std. Error	t	p
Constant	.354	.049	7.221	<.001
Default Present = Yes	.255	.065	3.951	<.001
Positive Info	.279	.072	3.892	<.001
Default Present X Positive Info	-.283	.093	-3.039	.003

Table A64: Regression Predicting Effect of Default Presence on Average Donations, Depending on Information Valence (Study 2a)

Source	β	Std. Error	t	p
Constant	7.000	.886	7.903	<.001
Default Present = Yes	.932	1.060	.879	.380
Positive Info	2.673	1.133	2.359	.019
Default Present X Positive Info	-1.944	1.401	-1.388	.166

Table A65: Regression Predicting Effect of Default Size on Revenue per Person, Depending on Information Valence (Study 2a)

Source	β	Std. Error	t	p
Constant	2.513	.691	3.638	<.001
Default Level = None	.351	.738	.476	.635
Default Size	.208	.062	3.348	.001
Positive Info	2.808	.685	4.100	<.001
Default Size X Positive Info	-.188	.073	-2.581	.010

Table A66: Regression Predicting Effect of Default Size on Donation Rate, Depending on Information Valence (Study 2a)

Source	β	Std. Error	t	p
Constant	.596	.060	9.948	<.001
Default Level = None	-.209	.064	-3.271	.001
Default Size	-.001	.005	-.229	.819
Positive Info	.208	.059	3.492	.001
Default Size X Positive Info	-.015	.006	-2.445	.015

Table A67: Regression Predicting Effect of Default Size on Average Donations, Depending on Information Valence (Study 2a)

Source	β	Std. Error	t	p
Constant	4.526	.768	5.890	<.001
Default Level = None	2.891	.846	3.419	.001
Default Size	.348	.071	4.929	<.001
Positive Info	1.990	.832	2.393	.017
Default Size X Positive Info	-.107	.087	-1.221	.223

Table A68: Regression Predicting Effect of Default Size on Negative Default Attitudes (Study 2)

Source	β	Std. Error	t	p
Constant	3.919	.188	20.843	<.001
Default Size	.053	.003	17.159	<.001
Study 2b fixed effect	-.085	.086	-.993	.321
Study 2c fixed effect	-.294	.107	-2.756	.006
Study 2d fixed effect	-.125	.076	-1.641	.101
Study 2e fixed effect	.069	.069	.998	.318
Study 2f fixed effect	.220	.078	2.814	.005
Org Pos Charity	-.110	.063	-1.756	.079

(Includes default conditions only)

Table A69: Regression Predicting Effect of Default Size on Positive Default Attitudes (Study 2)

Source	β	Std. Error	t	p
Constant	4.071	.151	27.037	<.001
Default Size	-.019	.002	-7.628	<.001
Study 2b fixed effect	-.098	.069	-1.427	.154
Study 2c fixed effect	-.133	.085	-1.559	.119
Study 2d fixed effect	-.090	.061	-1.469	.142
Study 2e fixed effect	.076	.055	1.388	.165
Study 2f fixed effect	-.043	.062	-.689	.491
Org Pos Charity	-.054	.050	-1.079	.281

(Includes default conditions only)

Table A70: Regression Predicting Effect of Default Size on Revenue per Person (Study 2)

Source	β	Std. Error	t	p
Constant	4.902	.943	5.199	<.001
Default Size	.022	.015	1.421	.155
Study 2b fixed effect	-1.000	.429	-2.328	.020
Study 2c fixed effect	-1.041	.535	-1.948	.052
Study 2d fixed effect	.235	.382	.615	.538
Study 2e fixed effect	-.881	.344	-2.557	.011
Study 2f fixed effect	-1.519	.391	-3.884	<.001
Org Pos Charity	-.032	.314	-.100	.920

(Includes default conditions only)

Table A71: Regression Predicting Effect of Default Size on Revenue per Person, Controlling for Attitudes Towards the Default (Study 2)

Source	β	Std. Error	t	p
Constant	5.520	1.123	4.914	<.001
Default Size	.082	.016	5.163	<.001
Positive Default Attitudes	.707	.119	5.934	<.001
Negative Default Attitudes	-.893	.095	-9.352	<.001
Study 2b fixed effect	-1.006	.419	-2.400	.016
Study 2c fixed effect	-1.210	.523	-2.315	.021
Study 2d fixed effect	.187	.373	.501	.616
Study 2e fixed effect	-.873	.336	-2.598	.009
Study 2f fixed effect	-1.292	.382	-3.382	.001
Org Pos Charity	-.091	.307	-.298	.766

(Includes default conditions only)

Table A72: Regression Predicting Effect of Default Size on Donation Rates (Study 2)

Source	β	Std. Error	t	p
Constant	.685	.092	7.419	<.001
Default Size	-.006	.002	-3.710	<.001
Study 2b fixed effect	-.094	.042	-2.242	.025
Study 2c fixed effect	-.075	.052	-1.431	.153
Study 2d fixed effect	.163	.037	4.344	<.001
Study 2e fixed effect	.096	.034	2.846	.004
Study 2f fixed effect	-.053	.038	-1.390	.165
Org Pos Charity	-.008	.031	-.253	.800

(Includes default conditions only)

Table A73: Regression Predicting Effect of Default Size on Donation Rates, Controlling for Attitudes Towards the Default (Study 2)

Source	β	Std. Error	t	p
Constant	.401	.108	3.704	<.001
Default Size	.001	.002	.555	.579
Positive Default Attitudes	.140	.011	12.179	<.001
Negative Default Attitudes	-.073	.009	-7.900	<.001
Study 2b fixed effect	-.087	.040	-2.151	.032
Study 2c fixed effect	-.078	.050	-1.544	.123
Study 2d fixed effect	.166	.036	4.622	<.001
Study 2e fixed effect	.090	.032	2.790	.005
Study 2f fixed effect	-.031	.037	-.851	.395
Org Pos Charity	-.008	.030	-.278	.781

(Includes default conditions only)

Table A74: Regression Predicting Effect of Default Size on Average Donation (Study 2)

Source	β	Std. Error	t	p
Constant	7.355	1.057	6.957	<.001
Default Size	.095	.018	5.335	<.001
Study 2b fixed effect	-.322	.538	-.598	.550
Study 2c fixed effect	-.696	.683	-1.019	.308
Study 2d fixed effect	-1.373	.432	-3.177	.002
Study 2e fixed effect	-2.333	.400	-5.826	<.001
Study 2f fixed effect	-2.008	.469	-4.278	<.001
Org Pos Charity	.017	.350	.048	.962

(Includes default conditions only)

Table A75: Regression Predicting Effect of Default Size on Average Donation, Controlling for Attitudes Towards the Default (Study 2)

Source	β	Std. Error	t	p
Constant	11.155	1.283	8.693	<.001
Default Size	.129	.019	6.899	<.001
Positive Default Attitudes	-.288	.138	-2.097	.036
Negative Default Attitudes	-.697	.115	-6.085	<.001
Study 2b fixed effect	-.370	.532	-.695	.487
Study 2c fixed effect	-.712	.676	-1.053	.292
Study 2d fixed effect	-1.364	.428	-3.184	.001
Study 2e fixed effect	-2.178	.397	-5.487	<.001
Study 2f fixed effect	-1.811	.466	-3.890	<.001
Org Pos Charity	-.088	.347	-.253	.800

(Includes default conditions only)

Table A76: Regression Predicting Effect of Default Present on Charity Attitudes (Study 2)

Source	β	Std. Error	t	p
Constant	1.171	.224	5.229	<.001
Default Present = Yes	.023	.029	.789	.430
Study 2b fixed effect	-.458	.048	-9.609	<.001
Study 2c fixed effect	-.439	.058	-7.586	<.001
Study 2d fixed effect	.170	.042	4.007	<.001
Study 2e fixed effect	.179	.039	4.522	<.001
Study 2f fixed effect	-.352	.055	-6.359	<.001
Org Pos Charity	.693	.078	8.827	<.001

Table A77: Regression Predicting Effect of Default Present on Donation Attitudes (Study 2)

Source	β	Std. Error	t	p
Constant	1.803	.263	6.846	<.001
Default Present = Yes	-.276	.205	-1.343	.179
Study 2b fixed effect	.501	.351	1.427	.154
Study 2c fixed effect	-.088	.449	-.196	.845
Study 2d fixed effect	15.039	.328	45.835	<.001
Study 2e fixed effect	14.406	.275	52.475	<.001
Study 2f fixed effect	14.422	.312	46.224	<.001

Table A78: Regression Predicting Effect of Default Size on Charity Attitudes (Study 2)

Source	β	Std. Error	t	p
Constant	1.264	.252	5.010	<.001
Default Size	-.004	.002	-1.617	.106
Study 2b fixed effect	-.471	.060	-7.818	<.001
Study 2c fixed effect	-.447	.073	-6.142	<.001
Study 2d fixed effect	.133	.052	2.549	.011
Study 2e fixed effect	.150	.048	3.088	.002
Study 2f fixed effect	-.353	.065	-5.440	<.001
Org Pos Charity	.684	.088	7.772	<.001

(Includes default conditions only)

Table A79: Regression Predicting Effect of Default Size on Donation Attitudes (Study 2)

Source	β	Std. Error	t	p
Constant	1.628	.360	4.520	<.001
Default Size	-.00032	.017	-.019	.985
Study 2b fixed effect	.595	.470	1.266	.206
Study 2c fixed effect	-.092	.590	-.156	.876
Study 2d fixed effect	14.710	.422	34.871	<.001
Study 2e fixed effect	14.290	.361	39.610	<.001
Study 2f fixed effect	14.394	.398	36.188	<.001

(Includes default conditions only)

Table A80: Regression Predicting Effect of Default Presence and Number of Menu Options on Donation Rates (Study 2)

Source	β	Std. Error	t	p
Constant	.310	.039	7.916	<.001
Default Present = Yes	.206	.046	4.494	<.001
Number of Options	.065	.008	8.430	<.001
Default Present x Num Options	-.043	.008	-5.298	<.001
Study 2b fixed effect	-.075	.032	-2.337	.020
Study 2c fixed effect	-.054	.054	-1.002	.317
Study 2d fixed effect	.088	.038	2.344	.019
Study 2e fixed effect	.076	.030	2.557	.011
Study 2f fixed effect	-.083	.030	-2.780	.005

Table A81: Regression Predicting Effect of Default Present on Log of Revenue per Person (Study 3)

Source	β	Std. Error	t	p
Constant	0.03	0.01	2.59	<.001
Default Present = Yes	0.025	0.01	2.34	.019
Designated Options = 5	-0.009	0.01	-0.91	.364
Reminder = Yes	0.005	0.01	0.49	.626
Consecutive Years Giving to AF	0.19	0.004	38.53	<.001

Table A82: Regression Predicting Effect of Default Levels on Log of Revenue per Person (Study 3)

Source	β	Std. Error	t	p
Constant	0.08	0.01	5.75	<.001
No Default	-0.04	0.01	-2.96	.003
Default Level = Medium or High	-0.025	0.01	-1.82	.069
Designated Options = 5	-0.009	0.01	-0.88	.377
Reminder = Yes	0.005	0.01	0.49	.627
Consecutive Years Giving to AF	0.19	0.004	38.53	<.001

Table A83: Regression Predicting Effect of Default Levels on Log of Revenue per Person, Depending on Donor Age (Study 3)

Source	β	Std. Error	t	p
Constant	0.03	0.01	2.10	.036
Low Default Level	0.05	0.01	3.32	<.001
Medium Default Level	0.009	0.02	0.64	.520
High Default Level	0.02	0.02	1.57	.118
Age	0.02	0.007	2.38	.017
Designated Options = 5	-0.009	0.01	-0.85	.394
Reminder = Yes	0.008	0.01	0.73	.463
Consecutive Years Giving to AF	0.18	0.005	35.16	<.001
Age x Low Default Level	0.04	0.01	2.96	.003
Age x Medium Default Level	0.02	0.01	1.14	.254
Age x High Default Level	0.0035	0.01	0.235	.814

Table A84: Regression Predicting Effect of Default Present on Log of Revenue per Person, Depending on Number of Consecutive Years of Giving (Study 3)

Source	β	Std. Error	t	p
Constant	0.035	0.01	2.65	.008
Default Present = Yes	0.025	0.01	2.36	.018
Consec. Yrs. of Giving to AF	0.14	0.006	20.96	<.001
Designated Options = 5	-0.01	0.01	-0.94	.346
Reminder = Yes	0.005	0.01	0.53	.599
Consecutive Years Giving to AF x Default Present	0.11	0.009	11.41	<.001

Table A85: Regression Predicting Effect of Default Present on Log of Revenue per Person, Depending on Donation in the Last Campaign (Study 3)

Source	β	Std. Error	t	p
Constant	0.04	0.01	2.87	.004
Default Present = Yes	-0.002	0.01	-0.19	.851
Donated Last Year	-0.04	0.03	-1.25	.210
Designated Options = 5	-0.009	0.01	-0.89	.371
Reminder = Yes	0.004	0.01	0.36	.720
Consecutive Years Giving to AF	0.17	0.006	28.38	<.001
Donated Last Year x Default Present	0.38	0.04	9.85	<.001

Table A86: Regression Predicting Effect of Default Present on Donation Rate Depending on Donation in the Last Campaign (Study 3)

Source	β	Std. Error	t	P
Constant	-6.96	0.46	-14.98	<.001
Default Present = Yes	0.71	0.31	2.25	.024
Designated Options = 5	-0.16	0.29	-0.55	.581
Reminder = Yes	0.09	0.29	0.32	.747
Age	0.85	0.13	6.66	<.001
Consecutive Years Giving to AF	0.12	0.04	3.25	.001
Donated Last Year	4.11	0.35	11.75	<.001

Table A87: Regression Predicting Effect of Default Level on Log of Average Donation (Study 3)

Source	β	Std. Error	t	p
Constant	0.74	0.27	2.75	.007
No Default	0.37	0.12	3.10	.003
Medium Default Level	0.20	0.13	1.53	.130
High Default Level	0.37	0.13	2.77	.007
Designated Options = 5	-0.19	0.10	-1.91	.059
Reminder = Yes	0.007	0.10	0.08	.939
Log Lifetime Amount to AF	0.215	0.10	2.08	.041
Log Value of Middle Menu Option	0.80	0.05	14.47	<.001

Table A88: Regression Predicting Effect of Default Present on Log of Average Donation (Study 3)

Source	β	Std. Error	t	p
Constant	1.14	0.31	3.69	<.001
Default Present = Yes	-0.23	0.11	-2.08	.041
Designated Options = 5	-0.24	0.10	-2.33	.022
Reminder = Yes	0.02	0.10	0.17	.865
Log Lifetime Amount to AF	0.19	0.11	1.77	.080
Log Value of Middle Menu Option	0.81	0.06	13.92	<.001

Table A89: Regression Predicting Effect of Default Level on Log of Average Donation, Depending on Prior Donation Reminder (Study 3)

Source	β	Std. Error	t	p
Constant	0.36	0.30	1.18	.242
No Default	0.55	0.20	2.71	.008
Medium Default Level	0.29	0.19	1.53	.129
High Default Level	0.74	0.19	3.77	<.001
Designated Options = 5	0.26	0.16	1.66	.100
Reminder = Yes	-0.13	0.10	-1.33	.188
Log Lifetime Amount to AF	0.17	0.10	1.69	.094
Log Value of Middle Menu Option	0.85	0.06	14.83	<.001
Reminder x No Default	-0.36	0.25	-1.41	.163
Reminder x Medium Default Level	-0.19	0.26	-0.75	.454
Reminder x High Default Level	-0.69	0.28	-2.51	.014

Table A90: Regression Predicting Effect of Default Level (Low vs. Medium/High) on Log of Average Donation, Depending on Prior Donation Reminder (Study 3)

Source	β	Std. Error	t	p
Constant	0.48	0.30	1.59	.116
No Default	0.55	0.21	2.67	.009
Default Level = Medium or High	0.51	0.16	3.15	.002
Designated Options = 5	0.25	0.16	1.56	.122
Reminder = Yes	-0.17	0.09	-1.72	.091
Log Lifetime Amount to AF	0.20	0.10	1.96	.054
Log Value of Middle Menu Option	0.83	0.06	14.62	<.001
Reminder x No Default	-0.33	0.26	-1.30	.198
Reminder x Medium or High Default	-0.43	0.23	-1.88	.063

Table A91: Regression Predicting Effect of Default Level on Log of Average Donation, Depending on Last Donation Amount (Study 3)

Source	β	Std. Error	t	p
Constant	1.41	0.34	4.04	<.001
Low Default Level	-1.56	0.49	-3.20	.002
Medium Default Level	-0.49	0.57	-0.855	.395
High Default Level	-0.10	0.61	-0.169	.866
Log Value of Middle Menu Option	0.73	0.07	10.83	<.001
Designated Options = 5	-0.16	0.10	-1.63	.107
Reminder = Yes	0.06	0.10	0.62	.537
Log Lifetime Amount to AF	0.21	0.11	2.03	.046
Log Middle Option x Low Default	0.26	0.10	2.53	.014
Log Middle Option x Medium Default	0.07	0.12	0.57	.568
Log Middle Option x High Default	0.025	0.13	0.20	.842

Table A92: Regression Predicting Effect of Default Level on Log of Average Donation, Depending on Lifetime Donation Amount (Study 3)

Source	β	Std. Error	t	p
Constant	1.04	0.31	3.33	.001
Default Present = Yes	-0.26	0.11	-2.32	.023
Log Lifetime Amt. to School	-0.67	0.47	-1.43	.157
Designated Options = 5	0.64	0.46	1.40	.166
Reminder = Yes	0.83	0.06	13.61	<.001
Log Lifetime Amount to AF	-0.22	0.10	-2.22	.029
Log Value of Middle Menu Option	0.03	0.10	0.29	.767
Log Lifetime Amount to School x Default Present	0.23	0.18	1.25	.214

WEB APPENDIX B: RESULTS FOR STUDIES 2A TO 2F.

In the paper, we have reported an overall analysis, combining Studies 2A to 2F. We have noted that the results vary somewhat across studies. In part, this is because of differences in the charities and decision contexts tested in the different studies. In this section, we discuss the general robustness of the findings across the studies and report more detailed results.

Effects of Default Inclusion.

Table B1 shows the effect of including a defaulted option (e.g., default vs. control) in each study. Table B2 provides a comparison between each specific default tested in each study and the relevant control condition.

Revenue per Person. Two studies showed directionally positive effects and five studies showed directionally negative effects. In particular, for one study (2e) defaults had a significant negative effect ($5.06 vs. $4.03, t = 3.13, *p*=.002), and in another study (2d) we found a marginal negative effect of defaults ($6.16 vs. $5.15, t = 1.83, *p*=.07). The differences in the other studies were not significant.

Donation rate. Three studies showed directionally positive effects and four studies showing directionally negative effects. In particular, defaults significantly increased participation in one study (2a: 48% vs. 61%, t = 2.60, *p*=.01), and significantly decreased participation in another study (2e: 83% vs. 73%, t = 2.92, *p*=.004). We also found a marginal negative effect of defaults (2c: 64% vs. 50%, t = 1.66, *p*=.099). The differences in the other studies were not significant.

Average Donation. The donation amount was directionally higher in two of the studies, and lower in five of the studies. None of the effects in individual studies were significant.

However, in two studies, donors' amounts were marginally higher in the control vs. default conditions (2d: $7.41 vs. $6.42, t = 1.72, p=.09; 2e: $6.13 vs. $5.53, t = 1.71, p =.09).

Effects of Default Size.

Table B3 shows the correlation between default size and each of the dependent variables for each study, except for 2c which only tested a single default amount.

Revenue per Person. In the individual studies, higher defaults had stronger net effects in five studies, and weaker net effects in one study. Only one study had a significant effect, with higher defaults leading to higher net contributions (2a: β=.12, t = 2.35, p=.02).

Donation Rate. Across the individual studies, participation was directionally lower for higher defaults in five of the six studies. This negative effect of higher defaults on participation was significant in one study (2b: β = -.018, t = 3.78, p<.001), and marginally significant in three other studies (2a: β = -.009, t = 1.94, p=.053; 2d: β = -.006, t=1.78, p=.076; 2e: β =-.004, t=1.76, p=.079).

Average Donation. Across the studies, higher defaults yielded directionally higher net contributions in five of six studies. There was a significant positive effect of higher defaults in three studies (2a: β =.297, t=5.31, p<.001; 2b: β =.197, t=2.89, p=.004; 2e: β =.058, t=.215, p=.031).

Table B1: Effects of All Defaults vs. Control For Each Study

Study	N	Donated		Average Donation		Revenue per person	
		Difference	Significance	Difference	Significance	Difference	Significance
2a	453	+12%	$\chi^2=6.7, p=.01$	-$.34	$t=-.49, p=.63$	+$.86	$t=1.6, p=.12$
2b	364	+6%	$\chi^2=1.4, p=.23$	-$1.22	$t=1.4, p=.15$	-$.04	$t=-.06, p=.95$
2c	169	-13%	$\chi^2=2.7, p=.10$	+$1.07	$t=1.0, p=.31$	-$.40	$t=-.47, p=.64$
2d	487	-3%	$\chi^2=.46, p=.50$	-$.99	$t=-1.7, p=.09$	-$1.01	$t=-1.8, p=.07$
2e	1411	-10%	$\chi^2=8.5, p<.01$	-$.60	$t=-1.7, p=.09$	-$1.03	$t=-3.1, p<.01$
2f	602	+4%	$\chi^2=.67, p=.42$	+$.40	$t=.74, p=.46$	+$.45	$t=1.1, p=.28$

Table B2: Effects of Specific Defaults vs. Control For Each Study

Study	Default	N	Donated		Average Donation		Revenue per person	
			Mean (SD)	vs. Control	Mean (SD)	vs. Control	Mean (SD)	vs. Control
2a	None	186	48%		$8.63 (5.56)		$4.18 (5.79)	
	$0.50	90	69%	$\chi^2=10.3, p<.001$	$5.64 (4.16)	$t=-3.6, p<.001$	$3.88 (4.33)	$t=-.43, p=.67$
	$15.00	177	56%	$\chi^2=2.4, p=.12$	$9.95 (5.00)	$t=2.3, p=.02$	$5.62 (6.20)	$t=1.7, p=.09$
2b	None	141	45%		$9.10 (5.44)		$4.06 (5.80)	
	$0.50	76	68%	$\chi^2=11.2, p<.001$	$6.33 (4.58)	$t=2.9, p<.01$	$4.33 (4.80)	$t=.34, p=.73$
	$15.00	147	42%	$\chi^2=.18, p=.67$	$9.18 (5.58)	$t=.08, p=.93$	$3.87 (5.80)	$t=-.28, p=.78$
2c	None	58	64%		$7.05 (4.59)		$4.50 (5.00)	
	$15.00	111	50%	$\chi^2=2.7, p=.10$	$8.13 (5.13)	$t=1.0, p=.31$	$4.10 (5.46)	$t=-.47, p=.64$
2d	None	95	83%		$7.41 (4.93)		$6.16 (5.28)	
	$0.25	103	83%	$\chi^2=.01, p=.91$	$5.99 (4.76)	$t=-1.9, p=.06$	$4.94 (4.89)	$t=-1.7, p=.09$
	$0.50	93	77%	$\chi^2=.98, p=.32$	$6.31 (4.44)	$t=-1.4, p=.15$	$4.89 (4.72)	$t=-1.7, p=.08$
	$2.00	98	87%	$\chi^2=.48, p=.49$	$6.41 (4.45)	$t=-1.4, p=.17$	$5.56 (4.68)	$t=-.85, p=.40$
	$15.00	98	73%	$\chi^2=2.7, p=.10$	$7.07 (4.15)	$t=-.46, p=.64$	$5.19 (4.74)	$t=-1.3, p=.18$
2e	None	201	83%		$6.13 (4.30)		$5.06 (4.55)	
	$0.25	204	77%	$\chi^2=1.7, p=.20$	$5.15 (3.97)	$t=-2.1, p=.03$	$3.99 (4.10)	$t=-2.5, p=.01$
	$0.50	101	69%	$\chi^2=6.9, p=.01$	$5.59 (4.40)	$t=-.87, p=.39$	$3.87 (4.48)	$t=-2.1, p=.03$
	$1.00	94	72%	$\chi^2=4.1, p=.04$	$5.65 (4.14)	$t=-.78, p=.44$	$4.09 (4.34)	$t=-1.7, p=.08$
	$2.00	208	75%	$\chi^2=3.5, p=.06$	$4.77 (3.43)	$t=-3.1, p<.01$	$3.57 (3.62)	$t=-3.7, p<.001$
	$3.00	94	71%	$\chi^2=4.9, p=.03$	$5.69 (4.08)	$t=-.71, p=.48$	$4.06 (4.31)	$t=-1.8, p=.07$
	$5.00	202	75%	$\chi^2=3.3, p=.07$	$5.89 (4.17)	$t=-.49, p=.62$	$4.43 (4.42)	$t=-1.4, p=.16$
	$10.00	104	68%	$\chi^2=8.1, p<.01$	$6.11 (4.41)	$t=-.03, p=.98$	$4.17 (4.62)	$t=-1.6, p=.11$
	$15.00	203	69%	$\chi^2=2.7, p=.11$	$5.95 (4.53)	$t=-.46, p=.64$	$4.10 (4.67)	$t=-1.3, p=.18$
2f	None	138	51%		$5.89 (3.77)		$3.03 (4.00)	
	$0.25	90	53%	$\chi^2=.08, p=.78$	$5.86 (4.31)	$t=-.04, p=.97$	$3.13 (4.30)	$t=.17, p=.86$
	$5.00	145	57%	$\chi^2=.96, p=.33$	$6.58 (4.27)	$t=1.1, p=.29$	$3.77 (4.59)	$t=1.4, p=.15$
	$10.00	42	48%	$\chi^2=.19, p=.66$	$6.20 (2.07)	$t=.36, p=.72$	$2.95 (3.44)	$t=-.11, p=.91$
	$15.00	94	62%	$\chi^2=2.4, p=.12$	$6.06 (4.43)	$t=.24, p=.81$	$3.74 (4.56)	$t=1.3, p=.21$
	$19.00	93	52%	$\chi^2=0.0, p=.98$	$6.53 (3.88)	$t=.90, p=.37$	$3.37 (4.29)	$t=.61, p=.54$

Table B3: Effects of Default Size For Each Study

Study	N	Donated	Average Donation	Revenue per person
2a	267	$r = -.12, p = .05$	$r = .41, p < .001$	$r = .14, p = .02$
2b	223	$r = -.25, p < .001$	$r = .27, p < .01$	$r = -.04, p = .55$
2d	392	$r = -.09, p = .08$	$r = .08, p = .15$	$r = .01, p = .82$
2e	1210	$r = -.05, p = .09$	$r = .07, p = .03$	$r = .02, p = .45$
2f	464	$r = .002, p = .97$	$r = .02, p = .80$	$r = .01, p = .84$

WEB APPENDIX C: ADDITIONAL STUDY DETAILS AND STIMULI

Study 2a: Web respondents (N=453) participated in a survey about judgment and decision making where there were no correct or wrong answers. Respondents were told that five of them could win a $20 surprise reward for real at the end of the survey (see Figure C2). They were then randomly assigned to a 2 (Information about the charitable organization: Positive, Neutral) X 2 (Number of non-zero menu options in the ask: 1, 5) X 2 (Framing of the pre-selected or defaulted menu option: Suggested option, Pre-selected at Random) X 3 (Default Levels: $0.50, $15, None) experimental design (see Figures C3, C4, C5 for a sample stimuli). The menu options in the condition with 1 non-zero ask was $15 and included a $0 option for respondents to indicate non-participation. The menu options in the condition with 5 non-zero ask were $15, $10, $5, $2, $0.50, and also included a $0 option for respondents to indicate non-participation. Respondents were asked to indicate if they would like to donate a part of their surprise reward to the charitable organization i.e. Direct Relief International in the event of them being selected in the lucky draw. The decision was therefore consequential. A few questions about trait reactance, trust in the organization etc. followed.

Study 2b: Web respondents (N=364) participated in a survey about judgment and decision making where there were no correct or wrong answers. Respondents were told that five of them could win a $20 surprise reward for real at the end of the survey (see Figure C2). They were then randomly assigned to a 2 (Information about the charitable organization: Negative, Neutral) X 2 (Number of non-zero menu options in the ask: 1, 5) X 2 (Framing of the pre-selected or

defaulted menu option: Suggested option, Pre-selected at Random) X 3 (Default Levels: $0.50, $15, None) experimental design (see Figure C6 for information about the charity; Figures C4, C5 for the menu options of a sample stimuli). The setup for this study, including the menu options, was the same as Study 2a except for just one change regarding the valence of the information manipulation. Respondents were asked to indicate if they would like to donate a part of their surprise reward to the charitable organization i.e. Children's Charity Fund in the event of them being selected in the lucky draw. The decision was therefore consequential. A few questions about trait reactance, trust in the organization etc. followed.

Study 2c: Web respondents (N=169) participated in a survey about judgment and decision making where there were no correct or wrong answers. Respondents were told that five of them could win a $20 surprise reward for real at the end of the survey (see Figure C2). They were then randomly assigned to a 2 (Framing of the pre-selected or defaulted menu option: Suggested option, control) X 2 (Design of the ask: open text-box, five non-zero menu options) X 2 (Default Level: $15, None) experimental design (see Figures C7, C8). The five non-zero menu options were the same as the previous studies i.e. $15, $10, $5, $2, $0.50, including a $0 option to indicate non-participation. Respondents were asked to indicate if they would like to donate a part of their surprise reward to the charitable organization i.e. Direct Relief International in the event of them being selected in the lucky draw. The decision was therefore consequential. A few questions about trait reactance, trust in the organization etc. followed.

Study 2d: Web respondents (N=487) participated in a survey about judgment and decision making where there were no correct or wrong answers. Respondents were told that five of them could win a $20 surprise reward for real at the end of the survey (see Figure C2). They were then randomly assigned to a 2 (Information about the charitable organization: Mildly Positive, More Positive) X 2 (Framing of the pre-selected or defaulted menu option: Suggested option, Pre-selected at Random) X 5 (Default Levels: $0.25, $0.50, $2, $15, None) experimental design (see Figures C9, C10 for a sample stimuli). The purpose of the more information condition was to highlight the relief work Direct Relief International was doing in Philippines in the aftermath of the super typhoon Haiyan. This study also employed a longer menu of options: $15, $10, $5, $3, $3, $1, $0.50, $0.25 including a $0 option for respondents to indicate non-participation. The purpose of this longer menu was to increase options to donate low amounts. Respondents were asked to indicate if they would like to donate a part of their surprise reward to the charitable organization in the event of them being selected in the lucky draw. The decision was therefore consequential. A few questions about trait reactance, trust in the organization etc. followed.

Study 2e: Web respondents (N=1411) participated in a survey about judgment and decision making where there were no correct or wrong answers. Respondents were told that five of them could win a $20 surprise reward for real at the end of the survey (see Figure C2). All respondents first indicated if they had donated to a list of Top 15 US Charities in the past two years. If they answered in the affirmative for one or more charities they were marked as warm donors, otherwise they were marked as cold donors. The cold donors were then presented with the same list of charities, and asked to indicate if they had any preferred charities (only one).

Respondents were then randomly assigned to a 2 (Charity type: Preferred, Assigned) X 2 (Number of menu options in the ask: 4, 8) X 2 (Framing of the pre-selected or defaulted menu option: Suggested option, Pre-selected at Random) experimental design (see Figures C12 and C13). The menu options were: $0.25, $0.50, $1, $2, $3, $5, $10, $15, None, or $15, $5, $2, $0.25, None, and all the non-zero menu options in the ask were used as defaults in this experiment and comprised the last factor in the design. Instead of using a $0 option to indicate non-participation, the menu of options included a choice saying "I am not interested in donating at this time". The assigned organization was Direct Relief International which was not in the Top 15 list (see Figure C11). Respondents were asked to indicate if they would like to donate a part of their surprise reward to the charitable organization in the event of them being selected in the lucky draw. The decision was therefore consequential. A few questions about trait reactance, trust in the organization etc. followed.

Study 2f: Web respondents (N=602) participated in a survey about judgment and decision making where there were no correct or wrong answers. Respondents were told that five of them could win a $20 surprise reward for real at the end of the survey (see Figure C2). They were then randomly assigned to one of 18 charities that comprised Top 15 US Charities that were used in Study 2e, Direct Relief International, and two other charities – American Refugee Committee and Palestine Children's Relief Fund. Apart from this factor, the study varied the menu options that were presented to the respondents along with the default options – $0.25, $1, $3, $5, $15 (default = $0.25, $5, $15); $5, $6, $8, $10, $19 (default = $5, $15, $19); $0.25, $5, $10, $15, $19 (default = $0.25, $5, $15, $19). Instead of using a $0 option to indicate non-participation,

the menu of options included a choice saying "I am not interested in donating at this time". In the page showing information about the assigned charity, a random group of respondents were given quality information using CharityNavigator.org rating of its overall performance based on efficiency, accountability and transparency. Furthermore, in the same page that contained information about the assigned charity, a random group of respondents were asked to indicate if they would like to donate some of their reward if they are randomly chosen to receive the surprise amount. This prompting was done before respondents saw the actual menu of options along with the defaulted options, if any. Respondents were then presented with the options to indicate their donation amount. On this page, a random group of respondents were assigned to an additional appeal manipulation that highlighted either "Every penny helps!" or "Every dollar helps!" or no such additional appeal was used (see Figures C14 and C15). A few questions about trait reactance, trust in the organization etc. followed.

Table C1: Manipulations used in Studies 2a to 2f

Study#	Manipulation 1	Manipulation 2	Manipulation 3	Manipulation 4	Manipulation 5
2a	Suggested vs. Random Default framing	One vs. Five non-zero menu options*	Positive vs. Neutral information about the Fundraising Organization		
2b	Suggested vs. Random Default framing	One vs. Five non-zero menu options*	Negative vs. Neutral information about the Fundraising Organization		
2c	Suggested vs. Nothing	A menu of options (including 0*) vs. an open text-box			
2d	Suggested vs. Random Default framing		Mildly Positive vs. More Positive information about the Fundraising Organization		
2e	Suggested vs. Random Default framing	Four vs. Eight menu options[#]	Participants indicated if they had donated to a list of Top 15 US Charities in the past two years (Yes = Warm Donor, No=Cold Donor). Cold donors were then asked to indicate their preferred organization in the list. Warm Donors were randomly assigned to either one of the organizations to which they had donated in the past two years, or a pre-selected organization (*Direct Relief International*[$]) Cold Donors were randomly assigned to their preferred organization or a pre-selected organization (*Direct Relief International*[$])		
2f		Both length and menu option were manipulated. The menu options[#] were:0.25,1,3, 5, 15; 5, 6, 8, 10, 19; 0.25, 5,10, 15, 19	Quality Information vs. No Quality Information (charitynavigator.org rating) for the Top 15 US Charities, along with DRI, ARC, and PCRF. Participants were randomly assigned to one organization.	*Before* seeing the menu options, a random group of participants were asked to indicate if they would like to donate some of their reward if they are randomly chosen to receive the surprise amount	Every penny helps! vs. Every dollar helps! (vs control i.e. no additional appeal)

* A zero option was included in the menu options for respondents to indicate non-participation.

[#] To indicate non-participation, the menu included an option "I am not interested in donating at this time"

[$] *Direct Relief International* is not in the list of Top 15 US Charities. Unlike the Top 15 charities where only their names were mentioned, a little more information was provided about Direct Relief International.

FIGURES

Figure C1: Stimuli used for Study 1. The figure shows a default = $3.

American Red Cross

We are doing a charity donation drive for respondents of the CRL Lab this week, and would like to know if you would be willing to donate a part of the money you earned from studies today to the American Red Cross.

All the money collected from respondents like you will be donated directly to the American Red Cross.

Please choose the amount you would like to donate today (a suggested option has been pre-selected).

- ☑ $3.00
- ☐ $2.50
- ☐ $2.00
- ☐ $1.50
- ☐ $1.00
- ☐ $0.50
- ☐ $0

Thank you for your consideration.

Figure C2: Common Stimuli used in Studies 2a to 2f to inform participants about the surprise reward.

Figure C3: Positive versus Neutral Information in Study 2a.

Remember that you could get a $20 surprise reward as part of this survey.

Next, you will be asked if you would want to donate a part of this reward to **Direct Relief International**. The rest of the money would be for you to keep.

A little information about Direct Relief Interational:

Founded in 1948, Direct Relief International (www.directrelief.org) is California's largest international humanitarian nonprofit organization. Direct Relief provides medical assistance to improve the health and lives of people affected by poverty and disaster - at home and throughout the world.

Forbes magazine has rated Direct Relief 100% efficient in fundraising for the eighth time in 2010 (meaning that every dollar donated is spent on relief efforts and not on overhead or fundraising). Independent charity rating agency, Charity Navigator (www.charitynavigator.org) has given this organization the highest rating (4-star) on both financial performance, and accountability and transparency.

Since you may be randomly chosen to receive the surprise $20 reward, your decision here is consequential. If you happen to be selected in the lucky draw, we will donate the allotment you choose here to Direct Relief, and the remaining balance will be paid to you through Mturk.

Remember that you could get a $20 surprise reward as part of this survey.

Next, you will be asked if you would want to donate a part of this reward to **Direct Relief International**. The rest of the money would be for you to keep.

Since you might be randomly chosen to receive the surprise $20 reward, your decision here is consequential. If you happen to be selected in the lucky draw, we will donate the allotment you choose here to Direct Relief, and the remaining balance will be paid to you through Mturk.

Figure C4: Menu options with two choices (including a zero option to indicate non-participation) showing suggested versus random default framing in Study 2a. The figure shows a default = $15.

Imagine that you do get a $20 surprise reward as part of this survey. You could choose to donate, if you wish.

Please select below how much money you choose to donate to Direct Relief International, in case you win. (A suggested option has been pre-selected.)

- ● $15
- ○ $0

Imagine that you do get a $20 surprise reward as part of this survey. You could choose to donate, if you wish.

Please select below how much money you choose to donate to Direct Relief International, in case you win. (An option has been pre-selected at random).

- ● $15
- ○ $0

Figure C5: Menu options with six choices (including a zero option to indicate non-participation) showing suggested versus random default framing in Study 2a. The figure shows a default = $15.

Imagine that you do get a $20 surprise reward as part of this survey. You could choose to donate, if you wish.

Please select below how much money you choose to donate to Direct Relief International, in case you win. (A suggested option has been pre-selected.)

- ◉ $15
- ○ $10
- ○ $5
- ○ $2
- ○ $0.50
- ○ $0

Imagine that you do get a $20 surprise reward as part of this survey. You could choose to donate, if you wish.

Please select below how much money you choose to donate to Direct Relief International, in case you win. (An option has been pre-selected at random).

- ◉ $15
- ○ $10
- ○ $5
- ○ $2
- ○ $0.50
- ○ $0

Figure C6: Negative versus Neutral Information in Study 2b. The menu options in this study were the same as Study 2a as shown in Figures C2 to C5.

Remember that you could get a $20 surprise reward as part of this survey.

Next, you will be asked if you would want to donate a part of this reward to **Children's Charity Fund, Inc.**. The rest of the money would be for you to keep.

A little information about Children's Charity Fund, Inc.:

Founded in 1991, Children's Charity Fund, Inc. (www.childrenscharityfund.org) educates and informs the public concerning the needs of handicapped and disabled children. They also purchase medical equipment for handicapped and disabled children and provide educational grants to help such children further their education.

Independent charity rating agency, Charity Navigator (www.charitynavigator.org) has given this organization their lowest rating (0-star) on both financial performance, and accountability & transparency. According to Charity Navigator, this organization spends $0.86 to raise each dollar in support, making them one of the most inefficient charities. This inefficiency forces them to devote more than 85% of their budgets to fundraising, limiting the difference they can make with your dollars.

Since you may be randomly chosen to receive the surprise $20 reward, your decision here is consequential. If you happen to be selected in the lucky draw, we will donate the allotment you choose here to Children's Charity Fund and the remaining balance will be paid to you through Mturk.

Remember that you could get a $20 surprise reward as part of this survey.

Next, you will be asked if you would want to donate a part of this reward to **Children's Charity Fund, Inc.**. The rest of the money would be for you to keep.

Since you may be randomly chosen to receive the surprise $20 reward, your decision here is consequential. If you happen to be selected in the lucky draw, we will donate the allotment you choose here to Children's Charity Fund and the remaining balance will be paid to you through Mturk.

Figure C7: Menu options used in Study 2c showing suggested default versus no default framing. The study only used a high default ($15) and a no default condition.

Imagine that you do get a $20 surprise reward as part of this survey. You could choose to donate, if you wish.

Please select below how much money you choose to donate to Direct Relief International, in case you win.

Suggested Donation: $15

○ $15

○ $10

○ $5

○ $2

○ $0.50

○ $0

Imagine that you do get a $20 surprise reward as part of this survey. You could choose to donate, if you wish.

Please select below how much money you choose to donate to Direct Relief International, in case you win.

One of the potential options has been pre-selected for you.

● $15

○ $10

○ $5

○ $2

○ $0.50

○ $0

Figure C8: Open text-box used in Study 2c showing suggested default versus no default framing. The figure shows a default = $15.

Imagine that you do get a $20 surprise reward as part of this survey. You could choose to donate, if you wish.

Please enter below how much money you choose to donate to Direct Relief International, in case you win.

Suggested Donation: $15

Amount in Dollars (don't put a '$' sign)

Imagine that you do get a $20 surprise reward as part of this survey. You could choose to donate, if you wish.

Please select below how much money you choose to donate to Direct Relief International, in case you win.

A potential amount has been pre-entered for you.

Amount in Dollars (don't put a '$' sign)   15

Figure C9: Information manipulation (mildly positive versus more positive) used in Study 2d.

Direct Relief INTERNATIONAL

Remember that you could get a $20 surprise reward as part of this survey.

Next, you will be asked if you would want to donate a part of this reward to **Direct Relief International**. The rest of the money would be for you to keep.

A little information about Direct Relief Interational:

Founded in 1948, Direct Relief International (www.directrelief.org) is California's largest international humanitarian nonprofit organization. Direct Relief provides medical assistance to improve the health and lives of people affected by poverty and disaster - at home and throughout the world.

Forbes magazine has rated Direct Relief 100% efficient in fundraising for the eighth time in 2010 (meaning that every dollar donated is spent on relief efforts and not on overhead or fundraising). Independent charity rating agency, Charity Navigator (www.charitynavigator.org) has given this organization the highest rating (4-star) on both financial performance, and accountability and transparency.

Since you may be randomly chosen to receive the surprise $20 reward, your decision here is consequential. If you happen to be selected in the lucky draw, we will donate the allotment you choose here to Direct Relief, and the remaining balance will be paid to you through Mturk.

Direct Relief INTERNATIONAL

Remember that you could get a $20 surprise reward as part of this survey.

Next, you will be asked if you would want to donate a part of this reward to **Direct Relief International**. The rest of the money would be for you to keep.

A little information about Direct Relief International:

Founded in 1948, Direct Relief International (www.directrelief.org) is California's largest international humanitarian nonprofit organization. Direct Relief provides medical assistance to improve the health and lives of people affected by poverty and disaster - at home and throughout the world.

Forbes magazine has rated Direct Relief 100% efficient in fundraising for the eighth time in 2010 (meaning that every dollar donated is spent on relief efforts and not on overhead or fundraising). Independent charity rating agency, Charity Navigator (www.charitynavigator.org) has given this organization the highest rating (4-star) on both financial performance, and accountability and transparency.

Now, more than 1.5 tons of emergency medicine and medical supplies – valued at $275,000 – are en route to the Philippines, with more on the way, as Direct Relief's Emergency Team continues to monitor health-related needs following Super Typhoon Haiyan – the most powerful storm to ever make landfall.

The typhoon battered the island nation early Friday morning (local time) with winds equivalent to a Category 5 hurricane. One million people are displaced and 12 million could potentially be affected, officials estimate. Electricity and communications lines have been cut off in most of the affected area – an area still reeling from a 7.2 magnitude earthquake that hit less than one month ago. Direct Relief International is currently raising money for these relief efforts.

Since you may be randomly chosen to receive the surprise $20 reward, your decision here is consequential. If you happen to be selected in the lucky draw, we will donate the allotment you choose here to Direct Relief, and the remaining balance will be paid to you through Mturk.

Figure C10: Menu options with nine choices (including a zero option to indicate non-participation) showing suggested versus random default framing in Study 2d. The figure shows a default = $15.

Imagine that you do get a $20 surprise reward as part of this survey. You could choose to donate, if you wish.

Please select below how much money you choose to donate to Direct Relief International, in case you win. (A suggested option has been pre-selected.)

◉ $15

◯ $10

◯ $5

◯ $3

◯ $2

◯ $1

◯ $0.50

◯ $0.25

◯ $0

Imagine that you do get a $20 surprise reward as part of this survey. You could choose to donate, if you wish.

Please select below how much money you choose to donate to Direct Relief International, in case you win. (An option has been pre-selected at random).

◉ $15

◯ $10

◯ $5

◯ $3

◯ $2

◯ $1

◯ $0.50

◯ $0.25

◯ $0

Figure C11: Information about Direct Relief International (DRI) provided in Study 2e. A random group of *Warm* donors (who had donated to at least one of the Top 15 US Charities) and a random group of *Cold* donors (who had not donated to any of the Top 15 US Charities) were assigned to DRI at runtime.

Remember that you could get a $20 surprise reward as part of this survey.

Next, you will be asked if you would want to donate a part of this reward to ${e://Field/OrgName}. The rest of the money would be for you to keep.

A little information about Direct Relief International:

Founded in 1948, Direct Relief International (www.directrelief.org) is California's largest international humanitarian nonprofit organization. Direct Relief provides medical assistance to improve the health and lives of people affected by poverty and disaster - at home and throughout the world.

Forbes magazine has rated Direct Relief 100% efficient in fundraising for the eighth time in 2010 (meaning that every dollar donated is spent on relief efforts and not on overhead or fundraising). Independent charity rating agency, Charity Navigator (www.charitynavigator.org) has given this organization the highest rating (4-star) on both financial performance, and accountability and transparency.

Hurricanes pose an annual threat to millions of people living in at-risk regions around the world. The best defense is smart preparation. Since 2007, Direct Relief has done just that by providing vulnerable partner health facilities with medicines and medical supplies to improve their ability to respond quickly. During the recent Super Typhoon Haiyan in Philippines (November 2013), more than 1.5 tons of emergency medicine and medical supplies – valued at $275,000 – were sent to the country. Direct Relief's Emergency Team continues to monitor health-related needs following the typhoon, and are currently raising money for these relief efforts.

Figure C12: Menu options with nine choices (including an explicit option to indicate non-participation) showing suggested versus random default framing in Study 2e. The figure shows a default = $15.

If you are randomly selected to receive the $20 surprise reward as part of this survey, you could choose to donate to ${e://Field/OrgName}, if you wish. If you do choose to donate, we will donate the amount you specify directly to
${e://Field/OrgName}, and you will receive the remainder via Mturk.

You need to make your decision about donating now. Please select below how much money, if any, you would donate to ${e://Field/OrgName}, in case you win.

(A suggested option has been pre-selected)

- ⦿ $15
- ○ $10
- ○ $5
- ○ $3
- ○ $2
- ○ $1
- ○ $0.50
- ○ $0.25
- ○ *I am not interested in donating at this time*

If you are randomly selected to receive the $20 surprise reward as part of this survey, you could choose to donate to ${e://Field/OrgName}, if you wish. If you do choose to donate, we will donate the amount you specify directly to
${e://Field/OrgName}, and you will receive the remainder via Mturk.

You need to make your decision about donating now. Please select below how much money, if any, you would donate to ${e://Field/OrgName}, in case you win.

(An option has been pre-selected at random)

- ⦿ $15
- ○ $10
- ○ $5
- ○ $3
- ○ $2
- ○ $1
- ○ $0.50
- ○ $0.25
- ○ *I am not interested in donating at this time*

Figure C13: Menu options with five choices (including an explicit option to indicate non-participation) showing suggested versus random default framing in Study 2e. The figure shows a default = $15.

If you are randomly selected to receive the $20 surprise reward as part of this survey, you could choose to donate to ${e://Field/OrgName}, if you wish. If you do choose to donate, we will donate the amount you specify directly to
${e://Field/OrgName}, and you will receive the remainder via Mturk.

You need to make your decision about donating now. Please select below how much money, if any, you would donate to ${e://Field/OrgName}, in case you win.

(An option has been pre-selected at random)

○ $15

○ $5

○ $2

○ $0.25

○ *I am not interested in donating at this time*

If you are randomly selected to receive the $20 surprise reward as part of this survey, you could choose to donate to ${e://Field/OrgName}, if you wish. If you do choose to donate, we will donate the amount you specify directly to
${e://Field/OrgName}, and you will receive the remainder via Mturk.

You need to make your decision about donating now. Please select below how much money, if any, you would donate to ${e://Field/OrgName}, in case you win.

(An option has been pre-selected at random)

○ $15

○ $5

○ $2

○ $0.25

○ *I am not interested in donating at this time*

Figure C14: One of the Top 15 US Charities used in Study 2f showing manipulations for no quality information versus quality information (*CharityNavigator.org* rating). The bottom panel also shows the manipulation to ask participants to indicate their intent to donate before looking at the menu options.

Remember that you could get a $20 surprise reward as part of this survey.

Next, you will be asked if you would want to donate a part of this reward to **${e://Field/OrgName}**. The rest of the money would be for you to keep.

Since you might be randomly chosen to receive the surprise $20 reward, your decision here is consequential. If you happen to be selected in the lucky draw, we will donate the allotment you choose here to ${e://Field/OrgName}, and the remaining balance will be paid to you through Mturk.

Remember that you could get a $20 surprise reward as part of this survey.

Next, you will be asked if you would want to donate a part of this reward to **${e://Field/OrgName}**. The rest of the money would be for you to keep.

America's leading independent charity evaluator, Charity Navigator, rates ${e://Field/OrgName} a 4 (out of 4) on its overall performance (based on efficiency, accountability and transparency).

Since you might be randomly chosen to receive the surprise $20 reward, your decision here is consequential. If you happen to be selected in the lucky draw, we will donate the allotment you choose here to ${e://Field/OrgName}, and the remaining balance will be paid to you through Mturk.

Do you think you would like to donate some of your reward if you are randomly chosen to receive the reward?

○ Yes

○ No

Figure C15: The three menu options used in Study 2f along with the penny helps, dollar helps, or control additional appeal.

Every penny helps!

If you are randomly selected to receive the $20 surprise reward as part of this survey, you could choose to donate to ${e://Field/OrgName}, if you wish. If you do choose to donate, we will donate the amount you specify directly to ${e://Field/OrgName}, and you will receive the remainder via Mturk.

You need to make your decision about donating now. Please select below how much money, if any, you would donate to ${e://Field/OrgName}, in case you win.

- ○ $19
- ◉ $15
- ○ $10
- ○ $5
- ○ $0.25
- ○ *I am not interested in donating at this time*

Every dollar helps!

If you are randomly selected to receive the $20 surprise reward as part of this survey, you could choose to donate to ${e://Field/OrgName}, if you wish. If you do choose to donate, we will donate the amount you specify directly to ${e://Field/OrgName}, and you will receive the remainder via Mturk.

You need to make your decision about donating now. Please select below how much money, if any, you would donate to ${e://Field/OrgName}, in case you win.

- ◉ $15
- ○ $5
- ○ $3
- ○ $1
- ○ $0.25
- ○ *I am not interested in donating at this time*

If you are randomly selected to receive the $20 surprise reward as part of this survey, you could choose to donate to ${e://Field/OrgName}, if you wish. If you do choose to donate, we will donate the amount you specify directly to ${e://Field/OrgName}, and you will receive the remainder via Mturk.

You need to make your decision about donating now. Please select below how much money, if any, you would donate to ${e://Field/OrgName}, in case you win.

- ○ $19
- ○ $10
- ○ $8
- ○ $6
- ○ $5
- ○ *I am not interested in donating at this time*

Figure C16: Example of two pledge cards sent to donors i.e. people with prior donation history. The top panel shows a card in a treatment condition with a suggested default, no reminders, and two designates of the donated fund. The bottom panel shows a control pledge card with no defaults, but with a reminder and two designates of the donated fund. This example has a reminder and two possible designates of the donated fund. The information about the identity of the specific donor and the school are shown as hidden.

Figure C17: Example of two pledge cards sent to non-donors i.e. people with no prior donation history. The menu options in these pledge cards are fixed because there is no prior donation information. The top panel shows a card sent in the treatment condition and the bottom panel shows a card sent in the control condition. Each of these example cards have two possible designates of the donated fund, and, by definition, are no reminders. The information about the identity of the specific donor and the school are shown as hidden.

Table C2: Table shows that all the experimental cells are well-balanced on major demographics in Study 3.

Conditions	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16	p-value of F-test[#]
Mean Age in years	52	51	52	52	52	50	52	51	52	51	51	53	52	52	51	51	.99
Mean Years of association with School	24	23	22	24	23	22	23	23	23	23	24	24	24	23	23	23	.99
Mean Number of consecutive years of giving to Annual Fund	0.18	0.21	0.20	0.15	0.16	0.21	0.22	0.21	0.09	0.20	0.25	0.18	0.23	0.14	0.18	0.21	.99
Mean Lifetime giving to Annual Fund ($)	1193	1355	1096	1124	1150	1531	1210	1362	918	1136	1528	1753	1502	1073	1120	1413	.08
Mean Lifetime giving to School ($)	1266	1394	1147	1554	1201	2185	1317	1391	973	1453	1842	1976	1758	1144	1131	1609	.28
Mean middle menu option in ask string ($)	184	202	205	162	182	199	186	175	146	187	207	187	187	185	156	178	.11
DONATED LAST YEARs (%)	7	7	6	6	8	7	7	8	5	8	8	9	5	6	8	7	.99
SYBUNTs (%)	20	22	21	19	18	25	21	22	21	20	18	19	22	18	22	22	.85
LNNs (%)	73	71	73	75	74	68	72	70	74	72	73	72	73	76	71	71	.99
Number of Observations	338	328	362	344	372	382	362	369	329	346	372	363	373	351	367	2486	

[#] Using bootstrapped F-distribution calculated from the entire data

Table C3: Condition Legends indicating various experimental cells with description of factors manipulated in Study 3.

Conditions	Last Donation	Menu Options	Default Level	Reminder	#Designate of Funds
C1	d	2d, d, 0.5d, Other	High amount (2d)	No	2
C2	d	2d, d, 0.5d, Other	High amount (2d)	Yes	2
C3	d	2d, d, 0.5d, Other	Medium amount (d)	No	2
C4	d	2d, d, 0.5d, Other	Medium amount (d)	Yes	2
C5	d	2d, d, 0.5d, Other	Low amount (0.5d)	No	2
C6	d	2d, d, 0.5d, Other	Low amount (0.5d)	Yes	2
C7	d	2d, d, 0.5d, Other	None	No	2
C8	d	2d, d, 0.5d, Other	None	Yes	2
C9	d	2d, d, 0.5d, Other	High amount (2d)	No	5
C10	d	2d, d, 0.5d, Other	High amount (2d)	Yes	5
C11	d	2d, d, 0.5d, Other	Medium amount (d)	No	5
C12	d	2d, d, 0.5d, Other	Medium amount (d)	Yes	5
C13	d	2d, d, 0.5d, Other	Low amount (0.5d)	No	5
C14	d	2d, d, 0.5d, Other	Low amount (0.5d)	Yes	5
C15	d	2d, d, 0.5d, Other	None	No	5
C16	d	2d, d, 0.5d, Other	None	Yes	5

d=Last donation amount in Dollars

Table C4: Scale used in Study 2 to measure Donation Attitudes

Helping others is usually a waste of time.
When given the opportunity, I enjoy aiding others who are in need.
It feels wonderful to assist others in need.
Unless they are part of my family, helping the elderly isn't my responsibility.
Children should be taught about the importance of helping others.
I feel at peace with myself when I have helped others.
I feel proud when I know that my generosity has benefited a needy person.
Helping people does more harm than good because they come to rely on others and not themselves.
I rarely contribute money to a worthy cause.
Giving aid to the poor is the right thing to do.

Adapted from Nickell, G.S. (1998, August). The Helping Attitude Scale: A new measure of prosocial tendencies. Paper presented at the American Psychological Association, San Francisco.

WEB APPENDIX D: CHARITABLE ORGANIZATIONS PRETEST

All the 19 Charitable organizations used in Studies 1 and 2a to 2f were pre-tested with a random sample of online participants (N=218). The following table shows all the charities along with the pre-test scores on the four important dimensions.

Table D1: Pre-test scores of all Charitable Organizations used in Studies 1 and 2

	Organization Name	Awareness	Positive View	Personal Involvement	Relative Donor Appeal
1	Direct Relief International	1.96	2.82	0.01	11.18
2	United Way	1.12	3.27	0.16	39.92
3	Salvation Army	1.01	3.49	0.30	79.11
4	Task Force for Global Health	1.96	2.87	0.01	13.48
5	Feeding America	1.39	3.34	0.04	60.73
6	Catholic Charities USA	1.59	2.91	0.06	26.24
7	Goodwill Industries International	1.04	3.30	0.28	56.10
8	Food for the Poor	1.90	3.25	0.03	34.49
9	American Cancer Society	1.02	3.65	0.16	91.87
10	YMCA	1.04	3.50	0.19	46.61
11	World Vision	1.72	3.01	0.02	27.81
12	St. Jude Children's Research Hospital	1.04	3.80	0.13	206.21
13	Boys & Girls Club of America	1.07	3.54	0.13	58.51
14	American National Red Cross	1.00	3.66	0.20	64.22
15	Habitat for Humanity	1.06	3.78	0.14	85.78
16	Feed the Children	1.42	3.39	0.03	49.23
17	Palestine Children's Relief Fund	1.97	2.80	0.01	25.44
18	American Refugee Committee International	1.93	2.84	0.00	8.41
19	Children's Charity Fund Inc.	1.90	3.01	0.01	15.47

The top 15 US Charities are shown shaded in the table (rows 2 and 16) and were used in Study 2e. Study 2f used charities 1 to 18. Study 2b used charity 19. Except for Study 2b, all charities used Direct Relief International.

Below we describe the meaning of each of the 4 column of scores for the charities.

Awareness: Every Participant was asked if they either Heard of the Charity (1) or Are not familiar with the Charity (2). The scores represent average across all participants. Lower value indicates greater awareness.

Positive View: Every Participant rated each of the charities on:

a) How favorable they feel about the programs each of these organizations run with the money they collect from private donations (1- Very unfavorable to 5- Highly favorable)
b) How trustworthy do they think each of the charitable organizations is (1- Not at all trustworthy to 5- Very trustworthy)
c) How closely does the mission of these organizations fit with their personal goals that currently are most important to them (1- Not at all to 3- Very close fit).

These scores were highly correlated (Cronbach's alpha = 0.97, bootstrapped 95% CI [0.94, 0.98]) and therefore they were combined. The Positive View column reflects the average of these scores. Higher value indicates more positive view.

Personal Involvement: Participants were asked if they or their family have ever donated to, volunteered with or benefited from any of these organizations. For each organization, participants indicated if any of the above three were applicable (0=No, 1=Yes).

We combined these scores (Cronbach's alpha = 0.59, bootstrapped 95% CI [0.47, 0.68]) and used these scores to indicate Personal Involvement. Higher score indicates higher involvement.

Relative Donor Appeal: Participants were asked to imagine that $1,000 was going to be donated to these charities, and they were responsible for deciding how much would go to each. participants then allocated the sum across these charities. The online interface ensured that the sum of the allocations added to $1,000. The Amount Donated scores indicate the money allocated. Higher value indicates higher dollar amount allocated, on average.

WEB APPENDIX E: EFFECTS OF SUGGESTION AMOUNTS IN PRIOR STUDIES

	Relative Amount	Δ Donation Rate	Δ Average Donation	Δ Revenue
Dhingra et al (2012) -- $0	-100%	-14%	-3%	-16%
Altmann et al (2014) -- €10	-80%	1%	0%	1%
Alpizar et al (2008) -- $2 reference	-67%	30%	-40%	-23%
Briers et al (2007) -- S2 €0.5 exchange	-66%	48%	5%	55%
Altmann et al (2014) -- €20	-60%	0%	0%	-1%
Shang and Croson (2009) -- $75	-30%	N/A	3%	N/A
Alpizar et al (2008) -- $5 reference	-17%	6%	-34%	-30%
Edwards and List (2014) -- $20	-16%	49%	-19%	20%
Altmann et al (2014) -- €50	-1%	-4%	9%	5%
Dhingra et al (2012) -- $5	25%	41%	4%	46%
Adena et al (2014) -- €100	40%	-10%	23%	13%
Alpizar et al (2008) -- $10 reference	67%	4%	-1%	4%
Shang and Croson (2009) -- $180	69%	N/A	4%	N/A
Briers et al (2007) -- S2 €3.0 exchange	105%	-22%	105%	60%
Schwarzwald et al (1983) -- ISL 40	115%	3%	15%	18%
Dhingra et al (2012) -- $10	150%	58%	22%	93%
Schwarzwald et al (1983) -- ISL 50	169%	-28%	21%	-12%
Adena et al (2014) -- €200	180%	-26%	43%	7%
Shang and Croson (2009) -- $300	181%	N/A	37%	N/A
Schwarzwald et al (1983) -- ISL 60	223%	-23%	-35%	-50%
Croson and Shang (2013) -- $600	397%	N/A	43%	N/A
Fraser, Hite and Sauer (1988) -- $20	400%	-27%	190%	112%
Croson and Shang (2013) -- $1000	728%	N/A	16%	N/A

Raw Cell-Level Correlation		**-0.43**	**0.45**	**0.42**
		p=.071	*p*=.031	*p*=.086

Sample-Weighted Correlation		**-0.47**	**0.60**	**0.48**
		p=.025	*p*=.002	*p*=.022

Relative amount is the percent increase or decrease of the suggested amount, relative to the average donation in the control condition among donors.