Multi-Choice Defaults in Charitable Giving

(Or: How to Manipulate People for Social Good)

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ABSTRACT

Default effects can explain why people end up with a large choice set when they are asked to delete options they do not want, and a smaller choice set when they are asked to add options they do want. This discrepancy may be driven by what Yaniv and Schul (2000) term the "middling options" - options that are chosen when they are defaulted, but eliminated when they are not defaulted. The present study examines whether defaulting the middling options in a charitable giving scenario results in more options chosen, with implications for increasing donations to less popular charitable organizations and causes. We do not find evidence to support our hypothesis in our first study, but after strengthening our manipulation in the second study, we find that defaulting the middling options results in a larger final choice set size.

INTRODUCTION

Have you been subscribed to the same magazines for the past decade? Have you ever unwittingly paid for insurance on a car rental, reservations on a flight, or the wrong shipping option on Amazon? Have you installed extraneous software on the computer because you couldn't be bothered to uncheck the little boxes on the set-up menu? This is the power of defaults at work. A default is an option that becomes a choice when a decision-maker does not choose otherwise; defaulting an option often increases the likelihood that it will be chosen (Brown & Krishna, 2004; Thaler & Sunstein, 2008; Goswami & Urminsky, 2015). The default on magazine subscriptions is automatic renewal unless subscribers opt-out. Rental car companies, airlines, and e-commerce sites often default more expensive options to boost profits. Software manufacturers intentionally design their installation menus with certain settings already defaulted.

While they certainly have the capacity to manipulate customers and serve profits, defaults can also work for social good. Most research on default effects look at binary choices in which people choose to opt-in or opt-out. When organ donation participation is defaulted in an opt-out country like Austria, participation rates reach 99.98%. However, when the default is to not participate in organ donation in an opt-in country like Germany, participation rates hover at just 12% (Johnson & Goldstein, 2003). The same phenomenon appears in retirement saving schemes. Raising employees' default 401(k) contribution from 0% to 3% nearly doubles the proportion of employees saving money for retirement (Choi et al., 2002). Despite these promising findings, defaults have not yet permeated the real world of charitable giving: over three-quarters of

American charities do not use defaults in their online donation solicitations, even though doing so is relatively low-effort and high-reward (Goswami & Urminsky, 2015).

Of the charities that do leverage defaults, most focus on defaulting a suggested donation amount to a single charitable cause. We are interested in more complex multi-choice defaults, where one or more options are defaulted and donors can choose to give to multiple charities at once. This default design has potential applications to how civic governments, community organizations, and large nonprofits simultaneously solicit donations for multiple charitable causes. The pitfall of these designs is that the less popular "middling" charities do not generate a lot of donations compared to their more favored neighbors. Past research has shown that defaulting the middling options alters the decision-maker's perception of the status quo, such that accepting a middling option into the final choice set is much easier when it is defaulted than when it is not.

In the present study, we default different charity options (less popular "middling options" and more favored "high-fit options") and investigate the effects of which charities are defaulted on the resulting choice set size. We predict that high-fit options are likely to be accepted into the final choice set regardless of whether they are defaulted. Contrary to that, we predict that middling options are much more likely to be accepted into the final choice set only when they are defaulted. This is because people have a lower criteria for eliminating an option and a higher criteria for accepting an option; in other words, middling options are unlikely to be eliminated when they are defaulted, but they are unlikely to be accepted when they are non-defaulted. Driven by this default effect on middling options, we expect that people will donate to more charities overall when middling options are defaulted than when high-fit options are defaulted.

In the following sections, we will examine the mechanisms that drive defaults and how defaults influence charitable giving before delving into multi-choice default designs and their unique effect on middling options.

I. How Defaults Work

Thaler and Sunstein (2008) propose three concurrent mechanisms that drive default effects: status quo bias, social norms, and inertia. The status quo bias describes the perception of the current status as a baseline and any change from that current status as a loss (Thaler & Sunstein, 2008). The defaulted options become a baseline, and deviating from the default is regarded as a loss. The default may serve as a reference point for comparing options; positive aspects of the defaulted options and negative aspects of the competing options become more salient. Because people are averse to losing the positive aspects of the defaulted options, they are more likely to stick with the defaults (Dinner et al., 2011). There may be an affective component to the status quo bias as well: people feel more responsible for an outcome when they made a decision to change the status quo, but not when they made a decision to leave the status quo as it is (Ritov & Baron, 1992). Because action causes greater regret than inaction, people have a tendency to sidestep this regret by sticking with the defaulted options.

A second driving force behind default effects is social norms. Defaulted options imply that they are the best option, or perhaps the most popular option (Thaler & Sunstein, 2008). Defaults inform decision-makers by implying that they were endorsed by the choice architect (e.g. policy-makers or marketers) (Brown & Krishna, 2004). Different default options can imply different social norms. In a study of Germans and Austrians, participants attach vastly different meanings to participating in organ donation depending on whether they live in an opt-in country

or an opt-out country. In Germany (an opt-in country), the perception of organ donation is akin to donating half of your wealth to charity upon your death. In Austria (an opt-out country), the perception of organ donation is akin to letting others go ahead of you in line or volunteering a little time to help the poor (Davidai, Gilovich, & Ross, 2012). Defaults shape perceived social norms and the implicit recommendations of policy-makers.

Finally, it has been proposed that defaults work so well because they reduce the effort of making difficult decisions. People can be described as "cognitive misers" who try to find the shortest, least effortful way to make a decision because they are limited in their information-processing ability (Fiske & Taylor, 1984). The "inertia" of going with the default options to avoid effortful decision-making contributes to the effectiveness of defaults. While inertia may be a contributing component to default effects, it is unlikely to be the primary mechanism. There is evidence that making decisions when defaults are present can actually require more effort. When presented with a default, people take longer when making the decision. This may be because the default distracts from other decision factors, such as product quality or recommendations from others (Goswami & Urminsky, 2015).

II. Defaults in the Charity Domain

Charitable giving is a domain ripe for testing default effects, but it has not been tilled by many researchers. Past charity default studies have focused on defaulting a suggested donation amount and testing its effects on resulting donations. In a field study with a German opera house, solicitation letters were sent asking for donations to a nonprofit project sponsored by the opera house. Potential donors received one of three types of letters: a letter with no donation suggestion, a letter asking for a suggested donation of 100 euros, and a letter asking for a

suggested donation of 200 euros. As the donation suggestions increased, so did the mean donation per person. However, increasing donation defaults also decreased the donor participation rate (Adena, Huck, & Rasul, 2014). The same effect was found in donation defaults of smaller magnitudes, as shown in a restaurant field study with suggested donation amounts on a cash register jar (Charness & Cheung, 2013). Donation solicitations across different mediums - such as a web field study asking for donations over the Internet - report similar findings that higher default amounts result in higher donations per person, but lower participation in donations (Altmann et al., 2014).

These effects are consistent with default effects in the charity domain proposed by Goswami and Urminsky (2015). First, defaults have a *scale-back effect*: when smaller monetary amounts are defaulted, there is less money donated per person. A small default may set a perceived norm that people do not usually donate much and that lower donation amounts are socially acceptable. Second, the scale-back effect is counteracted by the *lower-bar effect*: when smaller amounts are defaulted, more people choose to donate. The rise in participation is entwined with the "warm glow effect," the value derived from acting charitably apart from its positive outcomes for those who are helped (Andreoni, 1998). When a small donation amount is defaulted, people essentially get the warm glow of donating at a discounted price. They do not need to pass a high donation bar in order to bask in a warm image of the prosocial self. Third, defaults influence charitable decision-making through the *default-distraction effect*: when a default is present, people do not pay as much attention to other decision factors because they are focused on the default. When defaults were present and participants received additional information about positive reviews of the charity, they were not influenced by this information

and did not change their donation decisions. In the absence of defaults, participants reacted to positive information about the charity by increasing their donations. Defaults may make decision-making more effortful, thus muffling people's ability to process additional information (Goswami & Urminsky, 2015).

Much of defaults research in the charity domain is limited to defaulting one option at the expense of others, and choosing one option at the expense of others. In the above studies, a single suggested donation amount was defaulted, and a single donation decision was made. This makes sense in the context of defaulting monetary amounts, since it may not be rational to default multiple suggested amounts or choose multiple amounts to donate. But defaults in charitable giving can extend beyond monetary amounts. An individual may choose to donate to multiple charities or multiple charitable programs at once, a choice design that we will explore in the present study. These default designs where choosing one option does not require giving up another option have been researched in consumer product scenarios, and that is where we will turn our attention next.

III. Multi-Choice Defaults

A type of default that has not been explored in the charity domain is defaults in multi-choice tasks, in which one or more options are selected from a list of options (Beach, 1993). Among a set of options, one or more options are defaulted and any number of options can be chosen. This differs from binary-choice defaults, where a pairwise comparison is made between Option A and Option B. Instead, each option in the option set is compared against a preset criteria, which may differ depending on how the decision is framed (Yaniv & Schul, 1997).

III.1 Addition versus Deletion Framing

In the consumer product domain, research on multi-choice defaults has focused on presenting people with a default model that they can either add to or subtract from. In the *addition frame*, nothing is defaulted and people are asked to build up from a basic product. In the *deletion frame*, everything is defaulted and people are asked to scale down from a fully-loaded product (Levin et al., 2002). In a field study with a European car manufacturer, Goldstein et al. (2008) found that presenting customers with a fully-loaded car and having them opt-out of features they did not want yielded more features chosen than presenting customers with a basic car and having them opt-in to features they did want. As an added boon, the opt-out deletion frame also raised the average sales price by $1500, without detriment to customer satisfaction.

Why does deletion framing yield more chosen options than addition framing? Three potential mechanisms have emerged from past literature: loss aversion, saliency of positive and negative information, and the "dual-criterion framework". Loss aversion is consistent with default effects found in the consumer product domain, and saliency of information is consistent with default effects in the knowledge domain where there is a single correct answer. We will ultimately focus on the dual-criterion framework because it is the model most relevant to charitable giving.

Park, Jun, and MacInnis (2000) tell a story of loss aversion through their hypothetical version of the Goldstein et al. (2008) car study described above. Consistent with Goldstein et al., they found that more features were selected in the deletion frame than the addition frame, and that this discrepancy was stable across different feature prices and product category prices (from expensive automobiles to moderately-expensive computers to inexpensive treadmills). In

deletion framing, the expected utility lost in product quality from deleting a feature outweighs the expected utility gained in money saved. Leaving a feature selected translates into higher utility than actively unselecting it. In addition framing, the expected utility lost in money spent from adding a feature outweighs the expected utility gained in product quality. Leaving a feature unselected translates into higher utility than actively selecting it. Quality losses are weighted highly in the deletion frame, and monetary losses are weighted highly in the addition frame (Levin et al., 2002). Since loss aversion has been shown to be greater for quality losses than monetary losses (Hardie, Johnson, & Fader, 1993), people are more averse to deleting options in the deletion frame than to adding options in the addition frame.

While loss aversion provides a compelling explanation in the consumer product domain, it may not map onto charitable giving. Park, Jun, and MacInnis predict that people will be averse to monetary loss in the addition frame and averse to utility loss in the deletion frame. While donation certainly constitutes a monetary loss, there is no direct utility loss in charitable giving scenarios - people are not losing product features from which they could have derived consumption utility. While the act of charitable giving may translate into utility in the form of a "warm glow," this warm glow effect is insensitive to the quantity of charities or donation amounts (Imas, 2014). Thus, it is less plausible that loss aversion will be the driving mechanism behind multi-choice defaults in the charity domain.

An alternative explanation is that addition framing makes positive information more salient, while deletion framing makes negative information more salient. When choosing between a pair of options (one with extremely positive and extremely negative dimensions, and one with neutral dimensions), participants were more likely to choose the extreme option over

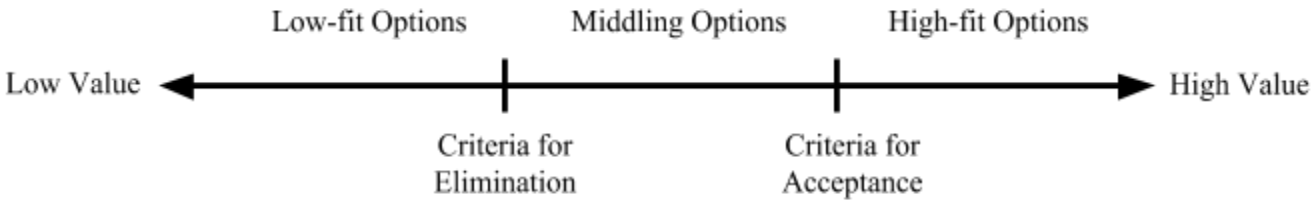
the neutral option in both the addition framing condition and the deletion framing condition (Shafir, 1993). This is because participants attended to the positive aspects of the extreme option in the addition frame, and the negative aspects of the extreme option in the deletion frame.

In a multi-choice task designed by Yaniv and Schul (1997), participants were presented with lists of 20 possible answers to various general knowledge questions; they were either asked to accept potentially correct answers or to eliminate potentially incorrect answers. As with the other studies we have reviewed so far, the deletion frame resulted in a much larger set of remaining answers than the addition frame. Yaniv and Schul propose that addition framing made positive evidence in favor of the potentially correct answers more salient, while deletion framing made negative evidence against the potentially incorrect answers more salient. However, like the loss aversion mechanism, this explanation may also lack applicability to the charitable giving domain. It is much simpler to tease out positive and negative evidence in a decision task with a single correct answer than in a decision task testing for preferences.

A third explanation for the discrepancy between deletion choice sets and addition choice sets is the "dual-criterion framework" proposed by Yaniv and Schul (2000), which posits that addition and deletion frames lead to different perceptions of the status quo. This is the explanation on which we base our present study. Rationally, addition and deletion strategies should result in the same outcomes. But this is not the case because the criteria for acceptance into a choice set generated by the addition strategy is higher than the criteria for elimination from the choice set generated by the deletion strategy. In other words, it is more difficult for an option to be accepted into the choice set than to avoid being eliminated from the choice set. That is why deletion framing results in larger choice sets.

III.2 Middling Options

The biggest discrepancy in the differential choice set sizes generated by addition and deletion framing occurs for "middling" options. According to Yaniv and Schul (2000), there are two types of options: *clear-cut options* (where the choice is not dependent on the decision framing used) and *middling options* (where the choice is susceptible to the decision framing used). Clear-cut options can either be high-fit or low-fit. Regardless of framing, high-fit options are accepted into the choice set because their value is higher than the criteria for acceptance, and low-fit options are excluded because their value is lower than the criteria for elimination.



This figure is adapted from Yaniv and Schul (2000).

The value of middling options falls between the criteria for elimination and the criteria for acceptance. If middling options are under the deletion frame, their value exceeds the criteria for elimination and they are accepted into the choice set. If they are under the addition frame, their value falls short of the criteria for acceptance and they are not selected into the choice set. Yaniv and Schul (2000) presented participants with a choice set of occupations that included high-fit, low-fit, and middling options, asking them to mark the ones that fit a character described in a vignette, or to mark the ones that did not fit the character. Participants' final choice set included more options under the deletion frame than the addition frame. They found this effect to be stable across different numbers of initial options, as well as different ratios of

high-fit to middling to low-fit options. This brings us to our present study, where we will examine the effects of defaulting middling options in the charitable giving domain.

PRESENT STUDY

In the present study, we ask whether defaulting the middling options will increase the total number of options chosen in a charitable giving scenario. Unlike previous studies on defaults in the charity domain (Charness & Cheung, 2013; Adena, Huck, & Rasul, 2014; Altmann et al., 2014; Goswami & Urminsky, 2015), we do not default a suggested donation amount. Instead, we default different charity options and test the effects of which charities we default on the resulting choice set size. This bears more similarity to the default design set-up in consumer product studies that examine the effects of addition and deletion framing (Park, Jun, and MacInnis, 2000; Levin et al., 2002; Goldstein et al., 2008). Even so, these default designs have been limited to situations where no options were defaulted in the addition frame, and all options were defaulted in the deletion frame. Our default design encompasses a list of options where some are defaulted and some are non-defaulted.

We test our research question through hypothetical giving scenarios in online surveys. Participants are presented with a list of charity options and asked to select the ones that they wish to donate a preset amount of money to. To manipulate a subset of the charities on the list to be high-fit options, participants were told that donations to those charities would be matched by an external donor. The remaining charities became middling options. The present study explores the effect of defaulting the high-fit options versus the middling options on the size of the final choice set.

Hypothesis

We hypothesize that defaulting the middling charities will result in a greater number of options in the final choice set. In this set-up, the middling options are under deletion framing and the high-fit options are under addition framing. Since the value of the middling options should exceed the criteria for elimination, they are likely to be accepted into the final choice set. The high-fit options are likely to be chosen regardless of framing. This results in a greater number of total options chosen.

On the other hand, we hypothesize that defaulting the high-fit charities will result in less options in the final choice set. In this set-up, the high-fit options are under deletion framing and the middling options are under addition framing. Since the value of the middling options should fall below the criteria for acceptance, they are likely to be eliminated from the final choice set. Again, the high-fit options are likely to be chosen regardless of framing. With a lower likelihood that the middling options are selected, this results in a smaller number of total options chosen.

We expect these effects to hold based on Yaniv and Schul's (2000) proposal that addition framing and deletion framing create different perceptions of the status quo. A higher acceptance criteria in the addition frame means that middling options do not make the cut, while a lower elimination criteria in the deletion frame means that middling options do make the cut. Defaulting the middling options will put them under the deletion frame, resulting in a greater likelihood of donating to these charities.

STUDY 1

In this study, we test our prediction that defaulting the middling options rather than the high-fit options in a charitable giving scenario leads to the selection of a greater number of options in the final choice set.

Methods

Participants recruited on the Amazon Mechanical Turk service were presented with a hypothetical charitable giving scenario. Each participant was paid $0.30 upon completion of the study. 257 responses were collected over a 12-hour period. A total of 37 responses were discarded for failure to complete the study, incorrectly answering a comprehension question, or not meeting a minimum time criteria. We discarded participants who spent less than one minute on the study because it is unlikely that they processed the scenario fully or gave responses that reflected their actual preferences. Our final sample size was 220 participants. 63.2% of participants were male and 36.4% of participants were female (0.4% of participants answered "other"). The average age was 33.7 years.

Participants were shown a list of six different charitable programs supported by the Rotary Foundation, a global nonprofit for international humanitarianism. These six programs encompass different charitable causes and were taken from a real donation form used by the Rotary Foundation to solicit donations. Each charitable program on the list had a checkbox next to it, and checking a box signified a participant's willingness to donate a preset amount of $2 to that program. Participants could choose to donate to anywhere from a minimum of one charity to a maximum of six charities. (A design flaw we experienced in Qualtrics forced participants to

choose at least one charity without giving them the option to choose zero charities. We fixed this design flaw in Study 2 to allow participants to select a minimum of zero charities).

Participants were told that donations to three of these charities (the high-fit options) would be matched by an external donor. The remaining three charities were middling options. The motivation for the matching manipulation was to reduce variation across participants in terms of which charities they considered high-fit and middling. It is important to note that the matching manipulation is intended to make participants *more likely* to select the high-fit options than the middling options, not to guarantee that the high-fit options are always selected. This differs from Yaniv and Schul's (2000) definition of high-fit options as options that are always selected regardless of defaulting.

Our main manipulation was defaulting three high-fit options versus defaulting three middling options. We did this by pre-checking the checkboxes next to three charities in each condition. To account for the effects of ordering (whether defaulted charities were presented at the top or the bottom of the list), we used a 2 (high-fit versus middling) x 2 (top versus bottom) between-subjects design. Participants were randomly assigned to one of four conditions. Our dependent measure was the number of charities (out of six) that participants chose to donate to.

Results and Discussion

To test the hypothesis that defaulting specific options (high-fit charities versus middling charities) would affect the size of final choice sets, a two-way analysis of variance (ANOVA) was conducted between-subjects. There was no statistically significant difference between the number of options in the final choice set when high-fit charities were defaulted ($M = 3.56$, $SD = 2.12$) and when middling charities were defaulted ($M = 3.39$, $SD = 2.22$), $F(1,216) = 0.70$, $p >$

0.05. The directionality of our results was actually opposite of what we predicted. Contrary to our hypothesis, defaulting high-fit options led to a slightly larger average choice set than defaulting middling options.

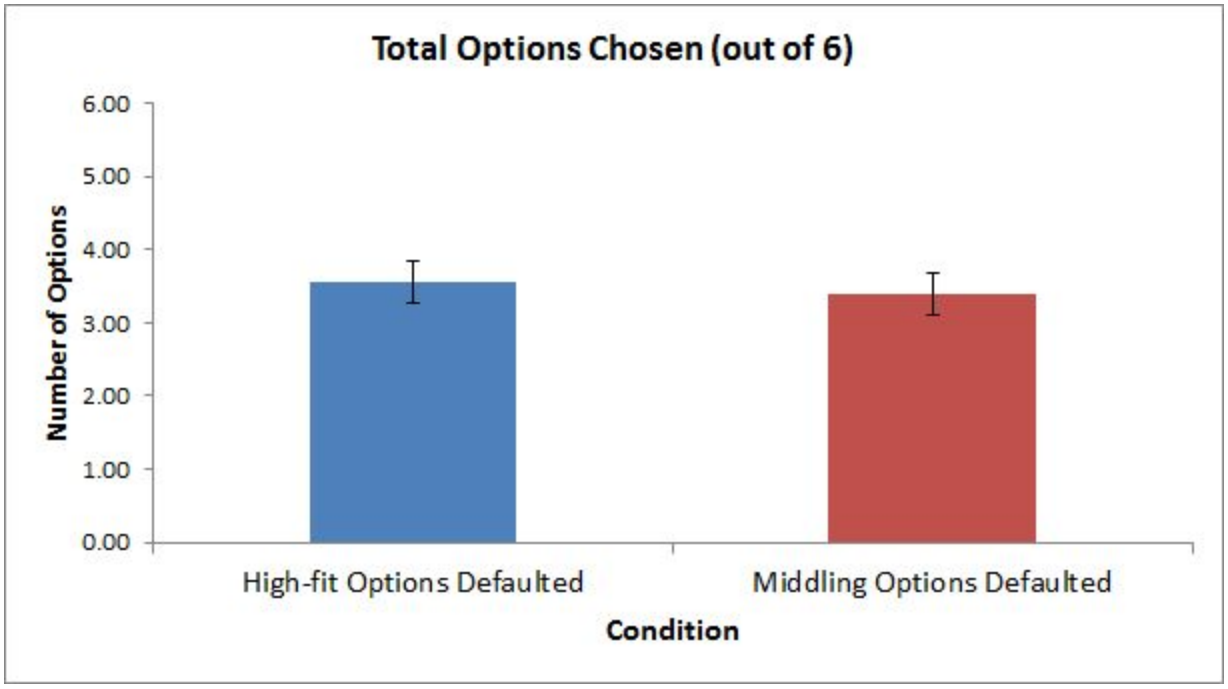


Figure 1.1: *There is no statistically significant difference between the number of high-fit options chosen when middling options were defaulted (M = 3.39, SD = 2.22) and when high-fit options were defaulted (M = 3.56, SD = 2.12), F(1,216) = 0.70, p > 0.05*

In line with our prediction, the order that the defaulted options were presented had no significant effect on our dependent measure. There was no statistically significant difference between the number of options in the final choice set when the defaulted options were displayed at the top of the list (M = 3.57, SD = 2.12) and when the defaulted options were displayed at the bottom of the list (M = 3.38, SD = 2.22), F(1,216) = 0.85, p > 0.05. Additionally, there was no significant interaction effect between defaulting high-fit versus middling charities and displaying defaults on the top versus bottom, F(1,216) = 0.57, p > 0.05.

Defaulting three high-fit options versus defaulting three middling options seemed to have no effect on the total number of options participants ended up choosing. We suspect that the particular scenario that participants were presented with did not clearly differentiate between high-fit and middling options in a way that distinguished their values from one another. Thus, participants may have treated high-fit options and middling options the same way regardless of which ones were defaulted. We explore ways to strengthen our manipulation of participants' value judgments of high-fit and middling charities in a second experiment.

STUDY 2

In Study 2, we again test our hypothesis that defaulting the middling options rather than the high-fit options will result in a larger final choice set size. After analyzing participant comments on the phrasing of the hypothetical giving scenario and the design of Study 1 overall, we sought to improve our experimental design of Study 2 in two key aspects:

First, we believe that the manipulation on participants' charitable preferences may not have been strong enough. In Study 1, participants were told that an external donor would match donations for three charitable programs, thus making these programs the high-fit options. The remaining programs that were not matched became the middling options. However, the three matched options changed from condition to condition - an option might be presented as high-fit in one condition and middling in another. The purpose of the matching manipulation is to make participants prefer certain charities over others, so we decided to keep the same three charities matched across all conditions. We chose to apply donation matching to three charitable causes that participants from Study 1 had expressed affinity for in a free response question about causes

they liked to support. Not only were these three charities likely to be implicitly preferred by participants, they were also explicitly influenced to be high-fit options through the donation matching manipulation. We also made the matching manipulation more explicit by indicating that a charity was matched next to each option in the list, and not just in the task instructions. In Study 2, the same high-fit options hold across all conditions, and the difference between high-fit options and middling options is made more salient.

Second, we wanted to increase the spread of the final choice set sizes, so that participants were not too tightly clustered around choosing 3-4 options in a list of six because half of the options had been defaulted. In Study 2, we wanted to default a smaller proportion of options to alleviate the potential norm it imposes on participants to donate to half of the options on the list. The final change we made was to make all the options different charities that pertained to different causes, as opposed to separate programs that were all part of a single charity. This might compel participants to donate to more options because their donations would be benefiting different charities rather than different programs within a single organization.

Methods

Participants recruited on the Amazon Mechanical Turk service were presented with a hypothetical charitable giving scenario. Each participant was paid $0.30 upon completion of the study. 189 responses were collected over a 12-hour period. A total of 6 responses were discarded for incorrectly answering a comprehension question. Our final sample size was 183 participants. 61.2% of participants were male and 38.6% of participants were female. The average age was 38.4 years.

Participants were shown a list of 10 different charity organizations encompassing different charitable causes. The 10 charitable causes were chosen according to the most popular causes listed on CharityNavigator.org and by aggregating participant free responses from Study 1 about causes they personally supported. The 10 charity organizations representing those causes were selected from a list of top-rated charities on CharityWatch.org that received high marks for their impact, effectiveness, and ethical practices.

Each charity on the list had a checkbox next to it, and checking a box signified a participant's willingness to donate a preset amount of $2 to that charity. Participants could choose to donate to anywhere from a minimum of zero charities to a maximum of 10 charities. They were told that donations to three of these charities (the high-fit options) would be matched by an external donor. The remaining seven charities were middling options.

Our main manipulation was defaulting three high-fit options versus defaulting three middling options. We did this by pre-checking the checkboxes next to three charities in each condition. To account for the effects of ordering (whether defaulted charities were presented at the top or the bottom of the list), we used a 2 (high-fit versus middling) x 2 (top versus bottom) between-subjects design. Participants were randomly assigned to one of four conditions. We measured how our manipulation affected the number of charities participants selected into their final choice sets and which charities they chose to donate to.

Results and Discussion

In line with our hypothesis, defaulting the middling options led to a larger final choice set than defaulting the high-fit options. A two-way analysis of variance (ANOVA) was conducted between-subjects to test the effects of defaulting high-fit charities versus middling charities.

Participants selected a significantly higher number of options into the final choice set when middling charities were defaulted (M = 5.20, SD = 3.90) compared to when high-fit charities were defaulted (M = 4.38, SD = 3.91), $F(1,179) = 4.07$, $p < 0.05$.

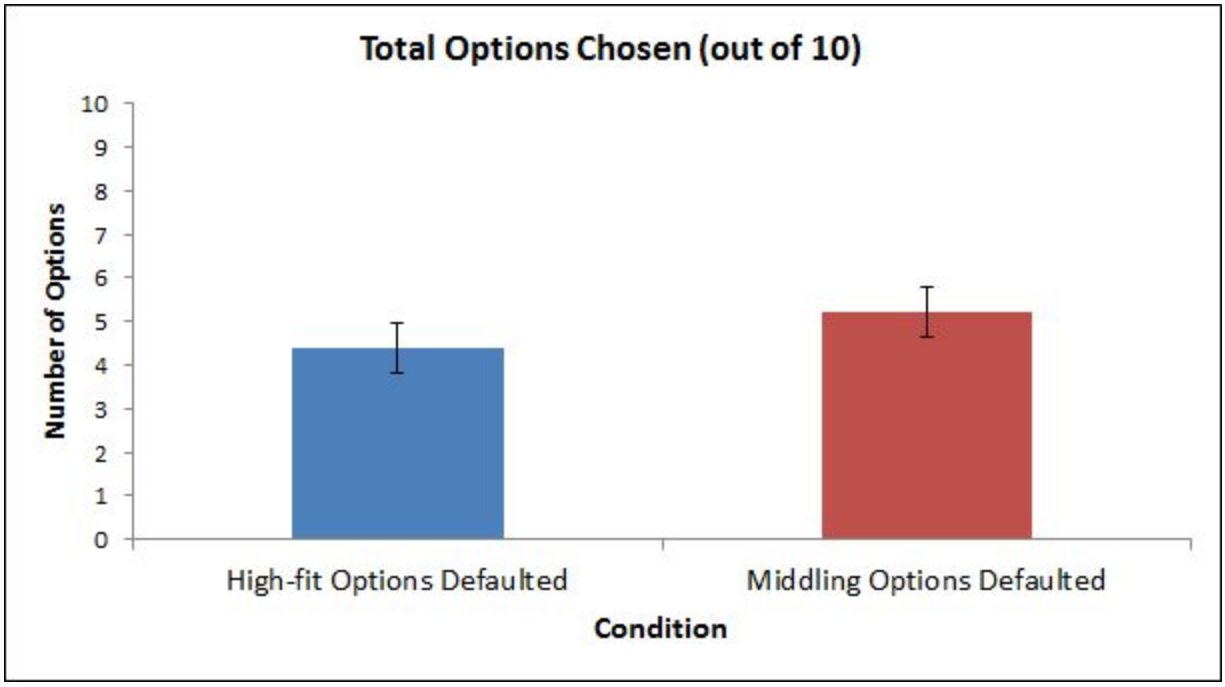


Figure 2.1: *Participants selected significantly more options in total when middling options were defaulted (M = 5.20, SD = 3.90) than when high-fit options were defaulted (M = 4.38, SD = 3.91), F(1,179) = 4.07, p < 0.05*

According to our hypothesis, this effect on the final choice set size should be driven by participants in the "Middling Options Defaulted" condition being more likely to choose the three middling options that were defaulted. There should be no difference in the number of high-fit options that were selected between the "Middling Options Defaulted" and the "High-fit Options Defaulted" conditions, because participants should be equally likely to select the high-fit options regardless of whether they are presented in an addition frame or a deletion frame.

To test this prediction, an ANOVA was conducted between-subjects to test the effects of our manipulation on the number of high-fit charities that were selected (out of a total of three high-fit charities). As predicted, there was no statistically significant difference between the number of high-fit charities selected when middling options were defaulted ($M = 1.90$, $SD = 1.57$) and when high-fit options were defaulted ($M = 2.13$, $SD = 1.57$), $F(1,179) = 0.16$, $p > 0.05$. The effect of the default manipulation on the final choice set size is not driven by the selection of high-fit options. In absolute numbers, the number of high-fit options chosen when they were defaulted might be slightly higher on average than when they were not defaulted due to the status quo bias, whereby the inaction of sticking with the defaulted options causes less regret than the action of actively selecting non-defaulted options.

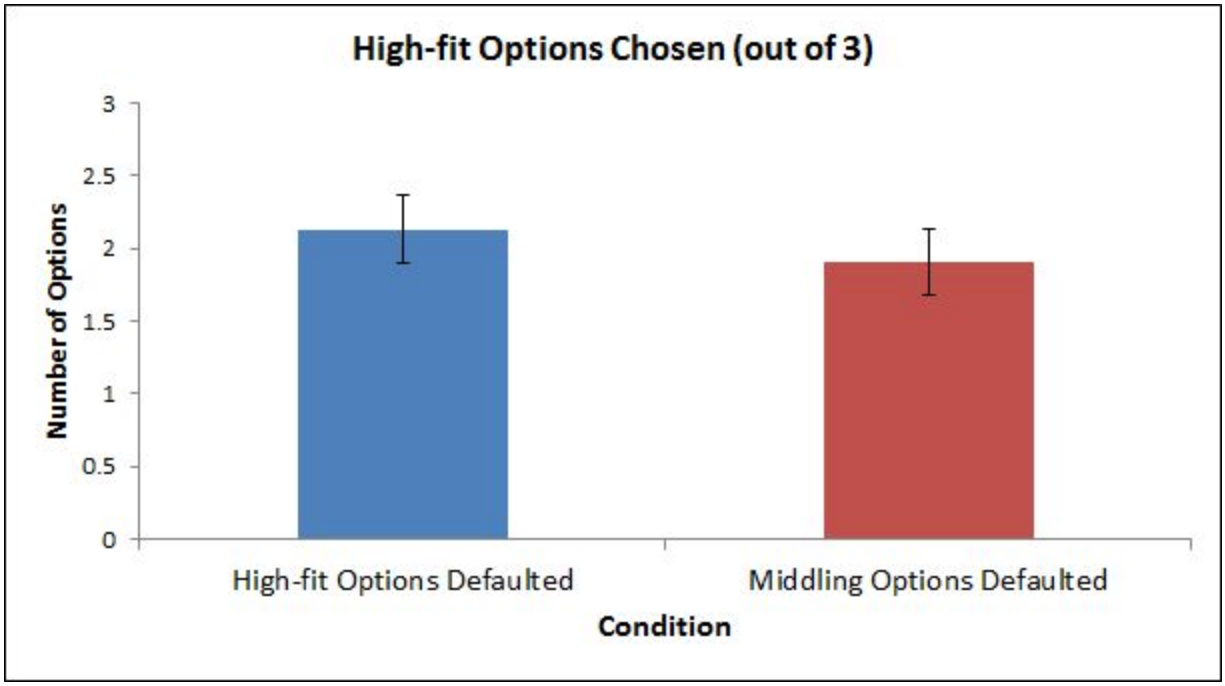


Figure 2.2: *In line with our hypothesis, there is no statistically significant difference between the number of high-fit options chosen when middling options were defaulted ($M = 1.90$, $SD = 1.57$) and when high-fit options were defaulted ($M = 2.13$, $SD = 1.57$), $F(1,179) = 0.16$, $p > 0.05$*

We now investigate whether participants in the "Middling Options Defaulted" condition selected more middling options than the "High-fit Options Defaulted" condition. This would support our hypothesis that the difference in final choice set size between conditions is driven by the selection of middling options rather than the selection of high-fit options. An ANOVA was conducted between-subjects to test the effects of our manipulation on the number of middling charities that were selected (out of a total of seven middling charities).

As predicted, when three middling charities were defaulted, more middling options ended up in the final choice set (M = 3.30, SD = 3.12). This was significantly greater than the number of middling options selected when three high-fit charities were defaulted (M = 2.25, SD = 3.14), $F(1,179) = 10.39$, $p < 0.01$. The effect of the default manipulation on the final choice set size was indeed driven by the selection of middling options.

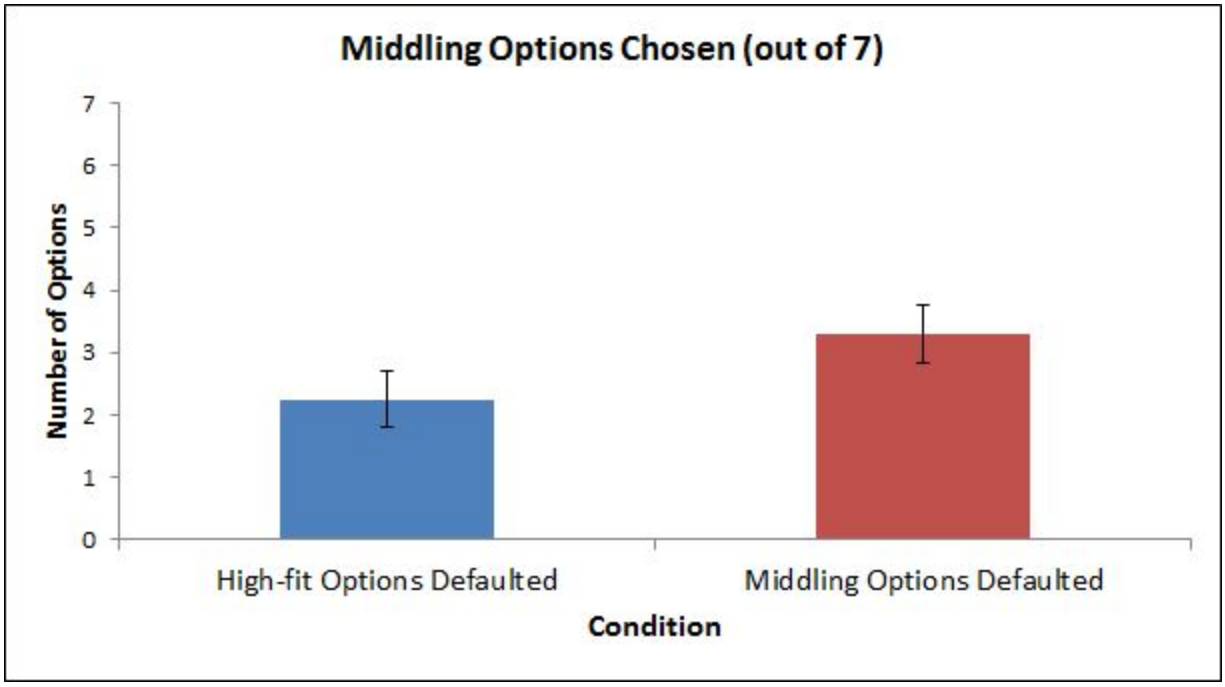


Figure 2.3: *Participants selected significantly more middling options when middling options were defaulted (M = 3.30, SD = 3.12) than when high-fit options were defaulted (M = 2.25, SD = 3.14), $F(1,179) = 10.39$, $p < 0.01$*

Among the seven middling options, three were affected by the manipulation (defaulted for half of the participants and non-defaulted for the other half) and four were unaffected by the manipulation (non-defaulted for all participants). Our results would not lend great weight to our hypothesis if it were the four unaffected options varying between conditions rather than the three affected options. Thus, we conduct another set of ANOVAs to examine the effect of the manipulation on the three affected options and on the four unaffected options.

In line with our hypothesis, a significantly higher number of the three options affected by the manipulation were selected when they were defaulted ($M = 1.45$, $SD = 1.57$) than when they were non-defaulted ($M = 0.81$, $SD = 1.57$), $F(1,179) = 15.26$, $p < 0.001$. Furthermore, how many of the four options unaffected by the manipulation that were ultimately selected did not differ between conditions ($M = 1.86$, $SD = 2.02$; $M = 1.44$, $SD = 2.03$), $F(1,179) = 3.85$, $p > 0.05$. This supports our prediction that the middling options that were defaulted significantly increase not only the likelihood that they were selected, but also the size of the final choice set.

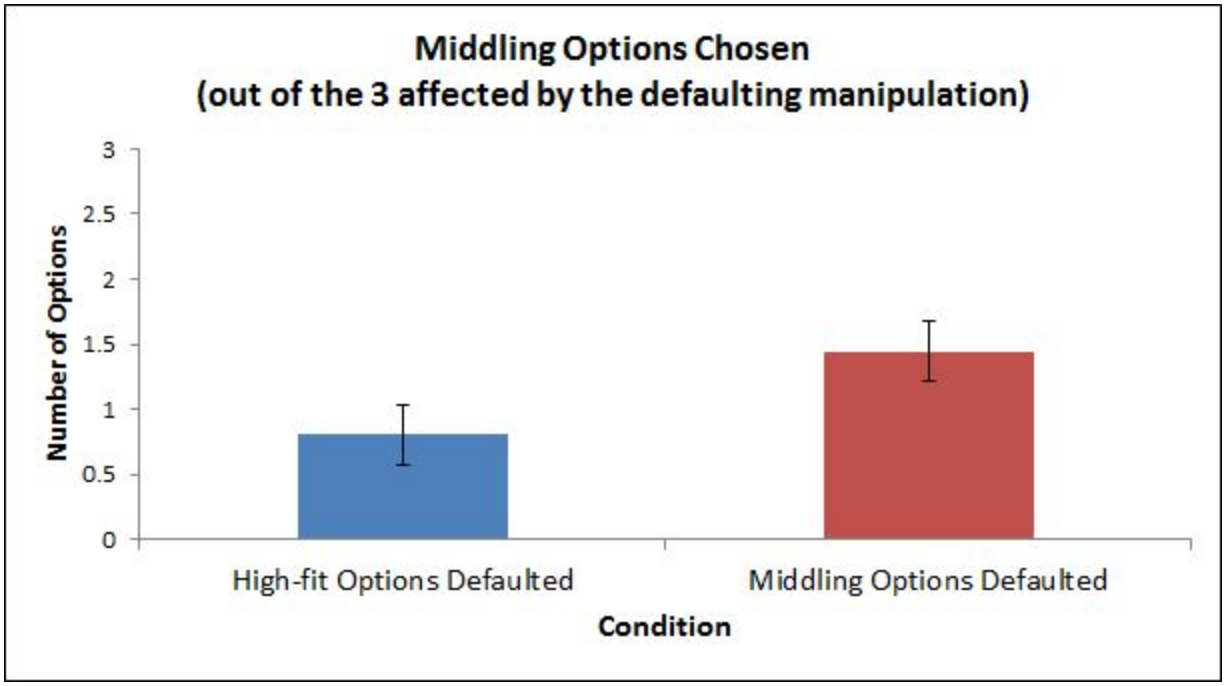


Figure 2.4: *Out of the 3 middling options affected by the defaulting manipulation, participants selected significantly more middling options when those middling options were defaulted (M = 1.45, SD = 1.57) than when high-fit options were defaulted (M = 0.81, SD = 1.57), F(1,179) = 15.26, p < 0.001*

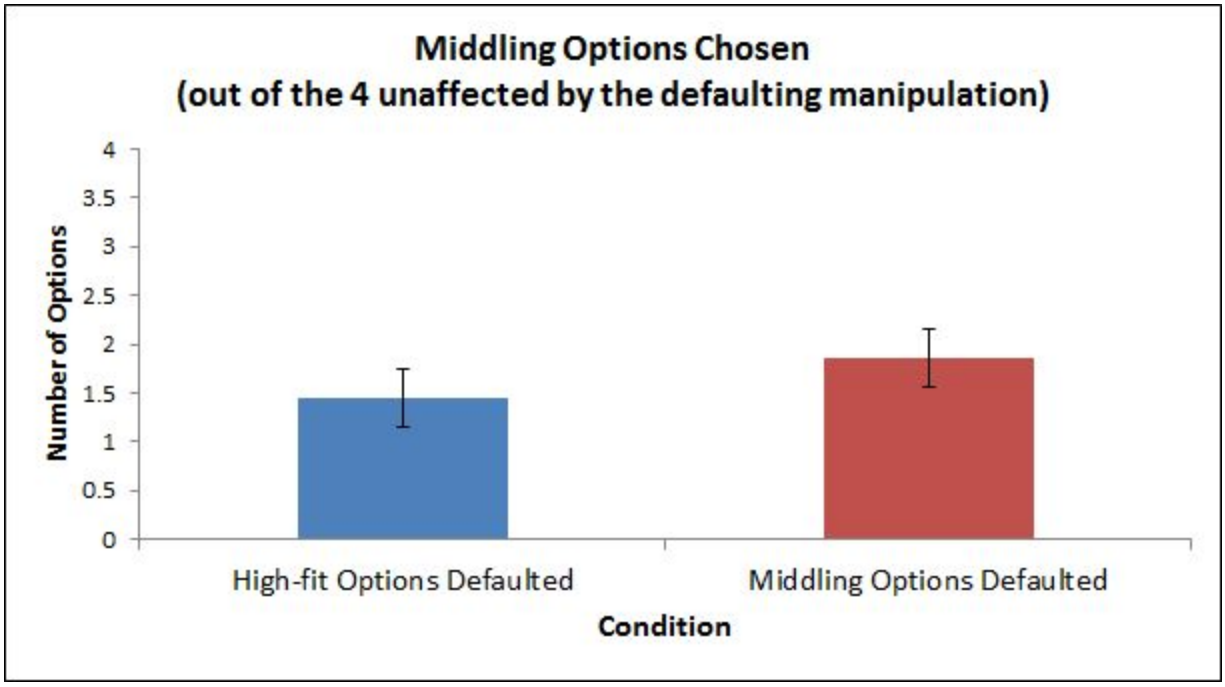


Figure 2.5: *In line with our hypothesis, out of the 4 middling options unaffected by the defaulting manipulation, there is no statistically significant difference between the number of high-fit options chosen when middling options were defaulted (M = 1.86, SD = 2.02) and when high-fit options were defaulted (M = 1.44, SD = 2.03), F(1,179) = 3.85, p > 0.05*

Additionally, the order that the defaulted options were presented had no significant effect on any our dependent measures. There was no statistically significant difference between the number of options in the final choice set when the defaulted options were displayed at the top of the list (M = 4.45, SD = 3.91) and when the defaulted options were displayed at the bottom of the list (M = 5.14, SD = 3.90), F(1,179) = 2.86, p > 0.05. Additionally, there was no significant interaction effect between defaulting high-fit versus middling charities and displaying defaults

on the top versus bottom, $F(1,179) = 1.04$, $p > 0.05$. The same statistical insignificance was found when comparing top versus bottom ordering for the number of high-fit options ($M = 1.93$, $SD = 1.57$; $M = 2.10$, $SD = 1.57$), $F(1,179) = 1.05$, $p > 0.05$, as well as the number of middling options ($M = 2.51$, $SD = 3.14$; $M = 3.03$, $SD = 3.12$), $F(1,179) = 2.54$, $p > 0.05$, that were selected into the final choice set. This confirms that our findings were driven by the defaulting manipulation rather than any effects of ordering and where the defaults were displayed in a list.

GENERAL DISCUSSION

The present study explores defaulting the middling options in multi-choice tasks, a type of default set-up that has been researched in the consumer product domain, but not yet the charity domain. Among a list of options, each option is compared against a criteria that depends on the framing of the decision. It is much easier for an option to avoid elimination than to be actively accepted into a choice set. Middling options are especially susceptible to this phenomenon; they are likely to be accepted when they are defaulted, but likely to be eliminated when they are not defaulted. High-fit options, on the other hand, are likely to be accepted regardless of whether they are defaulted or not.

We investigated whether defaulting the middling options in a charitable giving scenario would lead to a larger final choice set than defaulting the high-fit options. Study 1 yielded statistically equivalent choice set sizes in both default set-ups, but we suspected that this was due to two main issues in the study design: 1) the high-fit options were not differentiated enough from the middling options to create a divergent effect through defaulting, and 2) the ratio of defaulted options to total options was too high, potentially establishing a norm to select a certain

number of options. After addressing these issues in the design of Study 2, we found evidence supporting our hypothesis: defaulting middling options led to a larger final choice set than defaulting high-fit options. Within an option set, high-fit options were equally likely to be chosen regardless of whether they were defaulted. It was the middling options that made the difference: defaulting middling options made them much more likely to be accepted into the final choice set.

Limitations

Ideally, our hypothetical charitable giving scenario captures participants' real preferences even if they have no direct financial or social incentive. However, hypothetical scenarios certainly lack ecological validity because participants do not have to give up their own money in order to "donate," and sensitivity to monetary loss is not as salient. In Study 2, even though participants were given the option to donate to zero charities, only four out of 183 participants selected zero charities. It is unclear whether this was due to altruistic motives or due to the fact that there is no reason not to donate in a hypothetical situation. A lab study conducted with real money or a field study with a real charity would clarify whether our findings extend to the real world.

A second limitation is that the matching manipulation to separate out high-fit options from middling options may have muted the effect of defaulting by distracting participants with another decision factor. Goswami and Urminsky (2015) found that participants exerted more effort and took longer to make decisions when defaults were present. Introducing the matching manipulation on top of the default manipulation may have made decision-making more effortful, and defaulting may not have had as strong of an effect in the face of too many decision factors. An alternative way to distinguish high-fit options from middling options would have been to

conduct a pretest to identify charities that participants consistently donated to in the absence of defaults. Setting these inherently valuable charities as the high-fit options would eliminate the need for a matching manipulation to explicitly manipulate the value of the options.

A third limitation is having a preset donation amount for each donation decision. In the real world, some people might prefer donating a larger amount to one charity rather than small amounts to multiple charities, since they perceive they are making more of an impact donating to the one instead of the many. Having a small preset donation amount in our study might have made participants less likely to donate to multiple charities because they do not believe they are impacting the charities very substantially. The purpose of our study was to investigate the effects of defaulting certain options rather than defaulting different donation amounts, which necessitated the preset donation amount in our experimental design. However, future studies could explore how the preset donation amount interacts with which options are defaulted to determine the final choice set size.

Future Directions

If defaulting middling options really does result in a larger final choice set because it is easier to refrain from eliminating a middling option than to actively accept one, then defaulting more middling options should result in an even larger final choice set. We defaulted just three options out of a list of six options (Study 1) or ten options (Study 2). A future study could investigate how the number of options defaulted interacts with which options are defaulted. If our hypothesis is correct, then defaulting six middling options would result in a larger final choice set than defaulting three middling options, but defaulting six high-fit options would result

in a equal-sized final choice set as defaulting three high-fit options. This would lend stronger support to our current findings.

A second avenue of exploration is the role of regret. Inaction causes less regret than action, so people feel more responsible for the negative consequences of changing the status quo than for leaving the status quo as is (Ritov & Baron, 1992). In a multi-choice decision, anticipating regret for making a wrong choice makes people more likely to add fewer options in the addition frame and delete fewer options in the deletion frame. This widens the discrepancy in final choice set size, as people end up with an even smaller choice set in the addition frame and an even larger choice set in the deletion frame (Park, Jun, & MacInnis, 2000). Applying this to our study, participants could be told that their choices could not be changed following the submission of the donation form (the regret condition) or that their choices could be changed up to 24 hours following the submission of the donation form (the no-regret condition). If regret is indeed a moderator for default effects on middling options, then participants should donate to more charities when a sense of regret is made salient.

Beyond these research questions, there is the broader question of whether defaulting middling options will lead to donation decisions that are actually consistent with people's moral priorities. Even though participants report experiencing more decision difficulty when making choices in the deletion frame instead of the addition frame (Heller, Levin, & Goransson, 2002), participants also make decisions that are more consistent with their priorities when using the deletion strategy (Kogut, 2009). This is because people choose what they think they should choose when eliminating options from the choice set, but they focus on immediate "wants" rather than "shoulds" when adding options to the choice set. Given this phenomenon,

participants' choices of the final choice set should align more closely with their moral priorities when middling options are presented in the deletion frame (defaulted) rather than the addition frame (non-defaulted). One way we could examine this is by asking participants to select which options they think they "should have chosen" and compare it to their actual decisions. Another proxy for whether a decision aligns with participants' priorities is a satisfaction rating of their decision after they have made it. Participants should be more satisfied with their decisions when middling options are defaulted because what they think they should have chosen would align more closely with what they actually chose.

Conclusion

As our study has shown, manipulating which options are defaulted within a list of choices can influence how many options are ultimately chosen. Our finding that defaulting the middling options can increase the size of the final choice set has positive implications for designing prosocial decisions. By placing the decision to donate in a deletion frame rather than an addition frame, we can increase donations to organizations and causes that people might not otherwise support. The power of defaults extends beyond simple binary choices, expanding our capacity to help people make altruistic, prosocial decisions in their everyday lives.

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APPENDIX 1: Study 1

I. Giving Scenario and Matching Manipulation

All participants were presented with the same general introduction about Rotary International and its six charitable programs. Depending on which ordering condition they were in (defaults at the top versus defaults at the bottom), participants were either told that donations to the top three programs would be matched, or that donations to the bottom three programs would be matched.

The Rotary Foundation is a global nonprofit organization that supports international humanitarian, educational, and cultural exchange programs to achieve world understanding and peace. It is supported by donations from people all over the world. As a donor, you can contribute to up to 6 different charity programs:

1. PROMOTING PEACE

2. FIGHTING DISEASE

3. PROVIDING CLEAN WATER

4. SAVING MOTHERS AND CHILDREN

5. SUPPORTING EDUCATION

6. GROWING LOCAL ECONOMIES

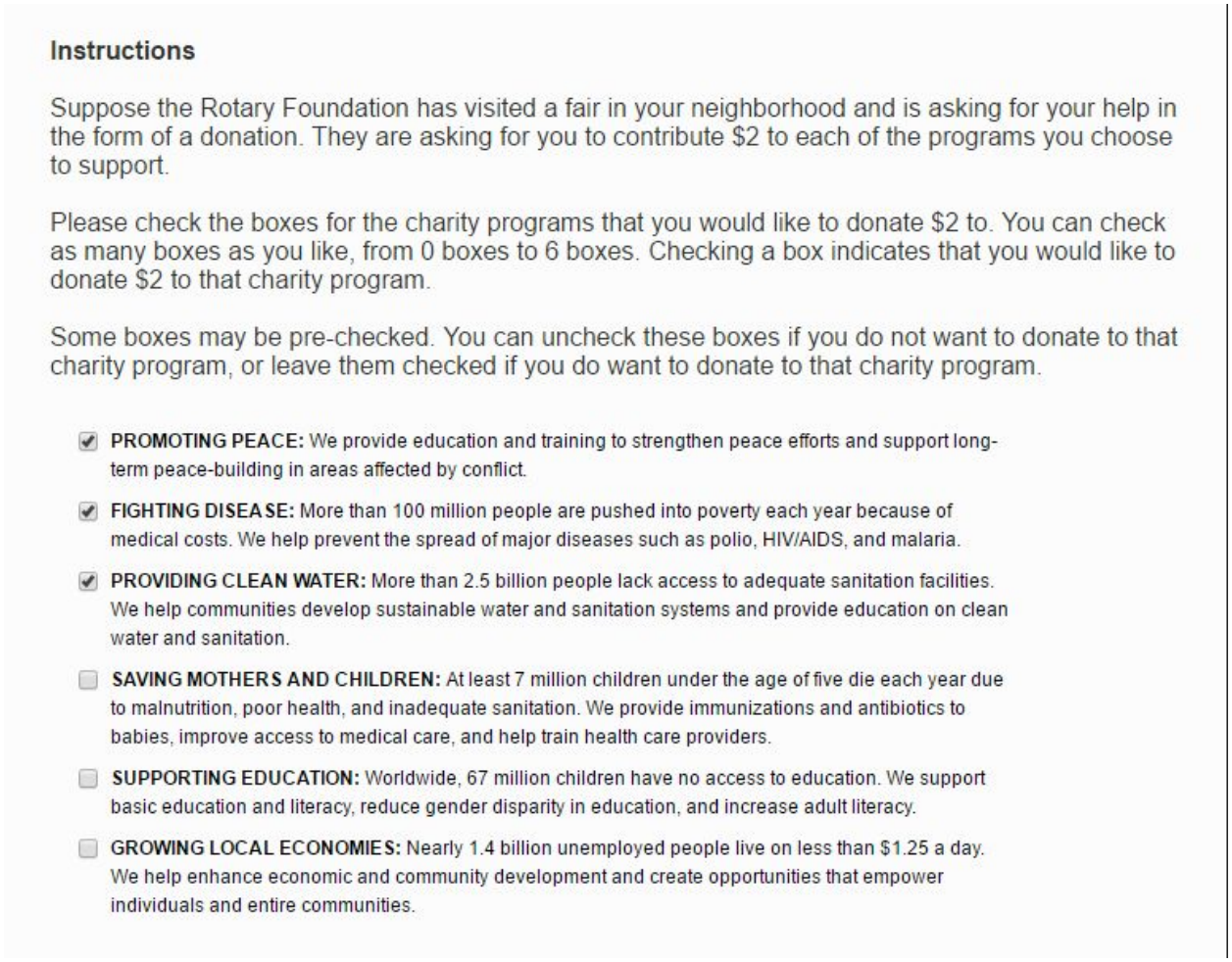
Each year, Rotary International *randomly* selects 3 of these charity programs to match every donation with an equal donation of its own. This year, the 3 programs eligible for matched donations are:

- **PROMOTING PEACE**
- **FIGHTING DISEASE**
- **PROVIDING CLEAN WATER**

For example, if you donate $2 to the FIGHTING DISEASE program, Rotary International will also donate $2 to the FIGHTING DISEASE program (total donation = $4). However, if you donate $2 to an unmatched program such as SUPPORTING EDUCATION, Rotary International will not match your donation (total donation = $2).

II. Conditions where Defaults are Displayed at the Top

In the "high-fit charities defaulted x defaults displayed at the top" condition, the top three options were defaulted and participants were told that donations to the top three options would be matched. In the "middling charities defaulted x defaults displayed at the top" condition, the top three options were defaulted and participants were told that donations to the bottom three options would be matched.



Instructions

Suppose the Rotary Foundation has visited a fair in your neighborhood and is asking for your help in the form of a donation. They are asking for you to contribute $2 to each of the programs you choose to support.

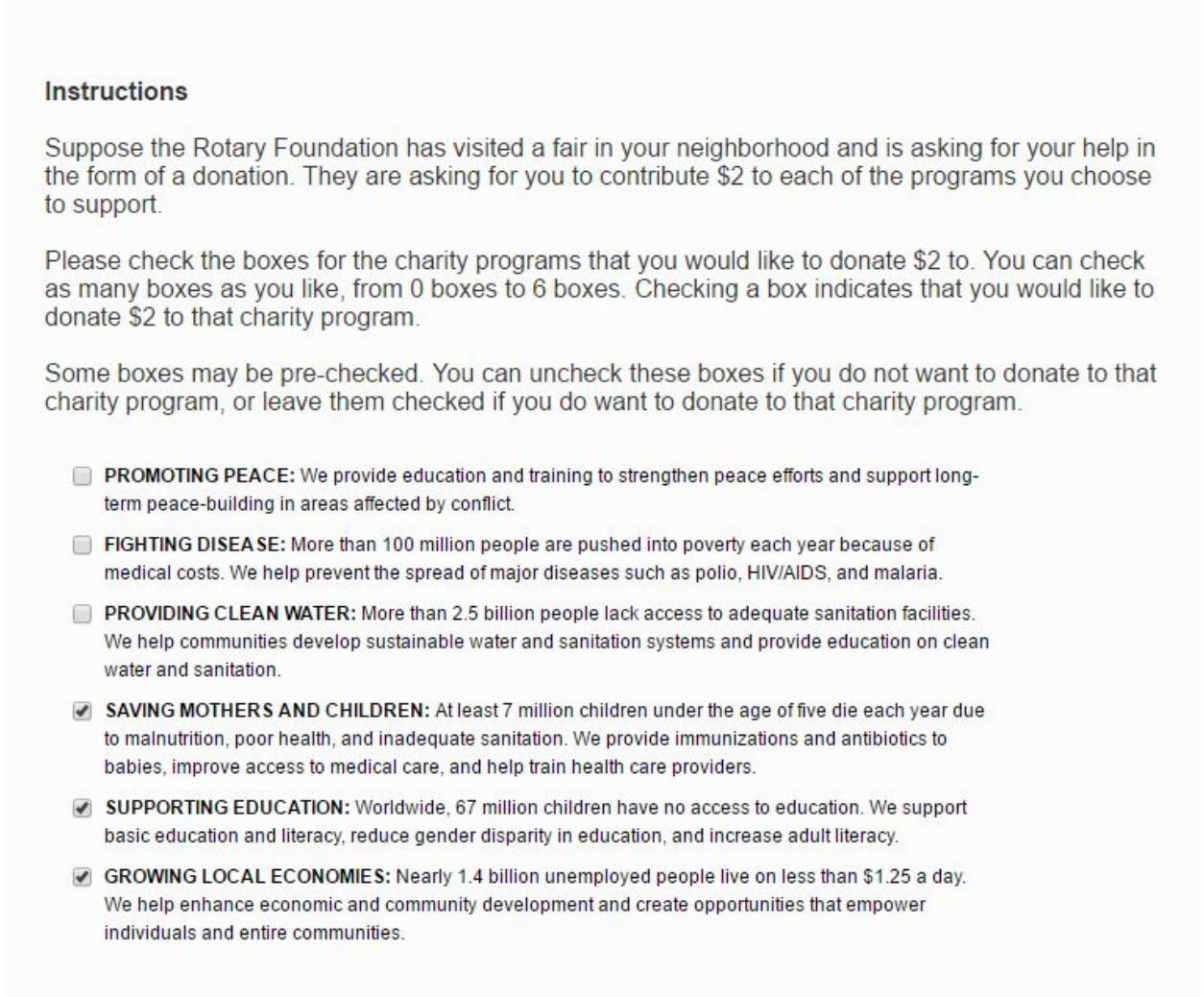
Please check the boxes for the charity programs that you would like to donate $2 to. You can check as many boxes as you like, from 0 boxes to 6 boxes. Checking a box indicates that you would like to donate $2 to that charity program.

Some boxes may be pre-checked. You can uncheck these boxes if you do not want to donate to that charity program, or leave them checked if you do want to donate to that charity program.

- ☑ **PROMOTING PEACE:** We provide education and training to strengthen peace efforts and support long-term peace-building in areas affected by conflict.
- ☑ **FIGHTING DISEASE:** More than 100 million people are pushed into poverty each year because of medical costs. We help prevent the spread of major diseases such as polio, HIV/AIDS, and malaria.
- ☑ **PROVIDING CLEAN WATER:** More than 2.5 billion people lack access to adequate sanitation facilities. We help communities develop sustainable water and sanitation systems and provide education on clean water and sanitation.
- ☐ **SAVING MOTHERS AND CHILDREN:** At least 7 million children under the age of five die each year due to malnutrition, poor health, and inadequate sanitation. We provide immunizations and antibiotics to babies, improve access to medical care, and help train health care providers.
- ☐ **SUPPORTING EDUCATION:** Worldwide, 67 million children have no access to education. We support basic education and literacy, reduce gender disparity in education, and increase adult literacy.
- ☐ **GROWING LOCAL ECONOMIES:** Nearly 1.4 billion unemployed people live on less than $1.25 a day. We help enhance economic and community development and create opportunities that empower individuals and entire communities.

III. Conditions where Defaults are Displayed at the Bottom

In the "high-fit charities defaulted x defaults displayed at the bottom" condition, the bottom three options were defaulted and participants were told that donations to the bottom three options would be matched. In the "middling charities defaulted x defaults displayed at the bottom" condition, the bottom three options were defaulted and participants were told that donations to the top three options would be matched.



Instructions

Suppose the Rotary Foundation has visited a fair in your neighborhood and is asking for your help in the form of a donation. They are asking for you to contribute $2 to each of the programs you choose to support.

Please check the boxes for the charity programs that you would like to donate $2 to. You can check as many boxes as you like, from 0 boxes to 6 boxes. Checking a box indicates that you would like to donate $2 to that charity program.

Some boxes may be pre-checked. You can uncheck these boxes if you do not want to donate to that charity program, or leave them checked if you do want to donate to that charity program.

- ☐ **PROMOTING PEACE:** We provide education and training to strengthen peace efforts and support long-term peace-building in areas affected by conflict.
- ☐ **FIGHTING DISEASE:** More than 100 million people are pushed into poverty each year because of medical costs. We help prevent the spread of major diseases such as polio, HIV/AIDS, and malaria.
- ☐ **PROVIDING CLEAN WATER:** More than 2.5 billion people lack access to adequate sanitation facilities. We help communities develop sustainable water and sanitation systems and provide education on clean water and sanitation.
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- ☑ **SUPPORTING EDUCATION:** Worldwide, 67 million children have no access to education. We support basic education and literacy, reduce gender disparity in education, and increase adult literacy.
- ☑ **GROWING LOCAL ECONOMIES:** Nearly 1.4 billion unemployed people live on less than $1.25 a day. We help enhance economic and community development and create opportunities that empower individuals and entire communities.

APPENDIX 2: Study 2

I. Giving Scenario and Matching Manipulation

All participants were presented with the same general introduction about the neighborhood charity fair and the 10 charity organizations they could choose to donate to. All participants were told that donations to three charities would be matched by an external donor.

Instructions

Your neighborhood is hosting a charity fair to raise donations for 10 different charity organizations. These are real charities that have been top-rated for impact, effectiveness, and ethical practices by the American Institute of Philanthropy. As a potential donor, you can contribute $2 to each of the charities you choose to support.

This year, your local government has chosen 3 charities to **MATCH** each donation with an equal donation of its own. If you donate $2 to a matched charity, your local government will also donate $2 to that charity, and that charity will receive $4 in total. However, if you donate $2 to an unmatched charity, that charity will only receive $2 in total.

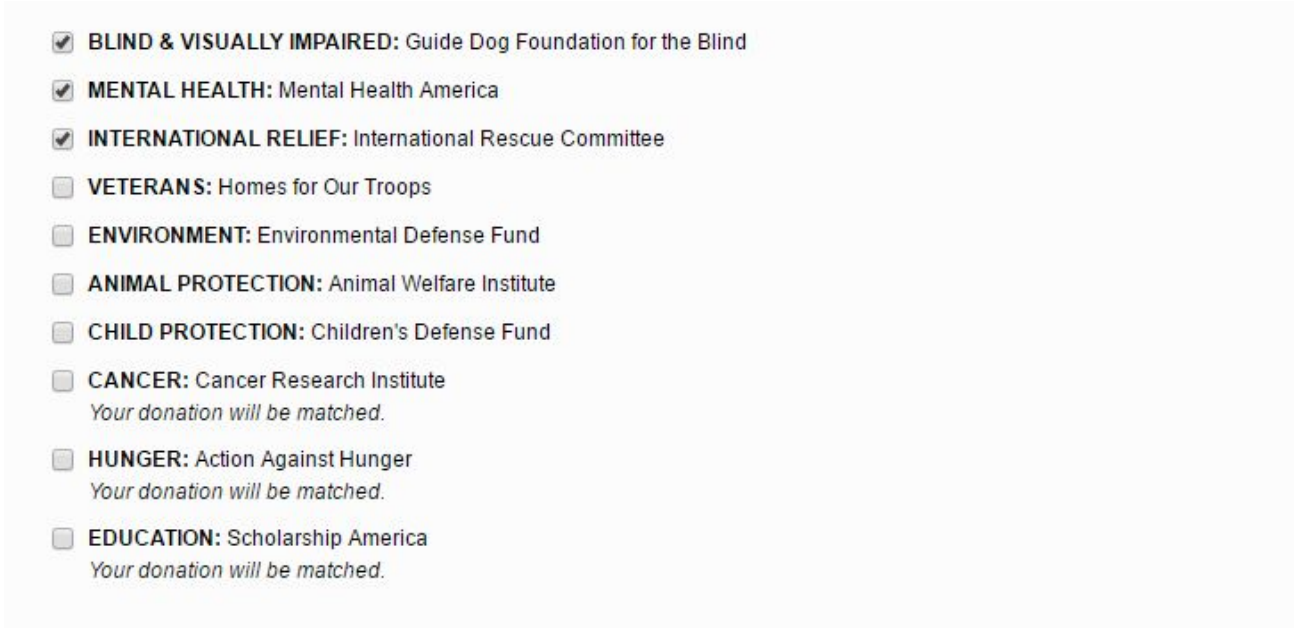
Below, you will see a list of 10 charities. **Checking a box indicates that you would like to donate $2 to that charity.** You can check as many boxes as you like, from 0 boxes to 10 boxes. Some boxes have been pre-checked as an example: you can uncheck these boxes if you do not want to donate to that charity program, or leave them checked if you do want to donate to that charity program.

II. Condition 1: High-fit Charities Defaulted x Defaults Displayed at the Top

- [x] **EDUCATION:** Scholarship America
  Your donation will be matched.
- [x] **HUNGER:** Action Against Hunger
  Your donation will be matched.
- [x] **CANCER:** Cancer Research Institute
  Your donation will be matched.
- [ ] **CHILD PROTECTION:** Children's Defense Fund
- [ ] **ANIMAL PROTECTION:** Animal Welfare Institute
- [ ] **ENVIRONMENT:** Environmental Defense Fund
- [ ] **VETERANS:** Homes for Our Troops
- [ ] **INTERNATIONAL RELIEF:** International Rescue Committee
- [ ] **MENTAL HEALTH:** Mental Health America
- [ ] **BLIND & VISUALLY IMPAIRED:** Guide Dog Foundation for the Blind

III. Condition 2: High-fit Charities Defaulted x Defaults Displayed at the Bottom

IV. Condition 3: Middling Charities Defaulted x Defaults Displayed at the Top



V. Condition 4: Middling Charities Defaulted x Defaults Displayed at the Bottom