Thinking, good and bad? Deliberative thinking and the singularity effect in charitable giving

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Abstract

Can deliberation increase charitable giving when giving is impulsive (i.e., a one-time small gift in response to an immediate appeal)? We conduct two studies in Israel and Sweden to compare two forms of deliberation, unguided and guided, in their ability to decrease the singularity effect (i.e., giving more to one than many victims), often evident in impulsive giving. Under unguided deliberation, participants were instructed to simply think hard before making a donation decision whereas participants in the guided deliberation condition were asked to think how much different prespecified decision attributes should influence their decision. We find that both types of deliberation reduce the singularity effect, as people no longer value the single victim higher than the group of victims. Importantly, this is driven by donations being decreased under deliberation only to the single victim, but not the group of victims. Thus, deliberation affects donations negatively by overshadowing the affective response, especially in situations in which affect is greatest (i.e., to a single victim). Last, the results show that neither type of deliberation significantly reversed the singularity effect, as people did not help the group significantly more than the single victim. This means that deliberate thinking decreased the overall willingness to help, leading to a lower overall valuation of people in need.

Keywords: charity, singularity effect, deliberation, affect, identified victim

1   Introduction

Charitable giving is both motivated by affective reactions and deliberative thinking (Bloom, 2017; Greene, 2013; Lindauer et al., 2020; Slovic, 2007). This is especially true for

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impulsive giving where people encounter a help request and are required to make an immediate donation decision, such as donations to a beggar on the street, or in response to a direct appeal from a charity organization. Impulsive giving is typically a one-off and immediate donation decision that is driven more by other factors (e.g., affect towards the help appeal) than giving where donors deliberately plan how much they will donate to various organizations and causes. For impulsive giving, research has shown that affect associated with a charitable cause (e.g., sympathy for a victim; Kogut & Ritov, 2005a) as well as thinking about a cause (e.g., is this an effective charity?; Caviola et al., 2020) may drive charitable donations. Nevertheless, the effects of affect and deliberation on impulsive charitable giving is not fully understood (Slovic, 2007; Västfjäll & Slovic, 2020). More specifically, when is one more beneficial than the other? For example, within the Effective Altruism movement, deliberation is viewed as the preferred driver of behavior; people should ideally make well-thought-out donation decisions to maximize welfare (MacAskill, 2016; Singer, 2009). Thus, to deliberate, or to think deep and carefully about a matter or decision, is in this view a prerequisite for "good" decisions about where to give. At the same time, plenty of research has shown that charitable decisions many times are driven by intuitive and affective processes (Loewenstein & Small, 2007; Slovic, 2007). Even when people are encouraged to think about their donation decision in line with the mindset of Effective Altruism, many still prefer to follow their subjective preferences over careful and deliberate considerations (Berman et al., 2018; Caviola et al., 2020), and are more drawn by aspects that are easy to evaluate – such as overhead ratios – than aspects which are less easily evaluable (such as cost-effectiveness of the donation; Caviola et a., 2014; Hsee, 1996). Some recent literature even suggests that prosocial choices are driven by intuitive thinking and that deliberation may erode giving (Rand et al., 2012), whereas other research has shown that deliberative and intuitive thinking has similar effects on giving (Tinghög et al., 2013: Kvarven et al., 2020). Thus, whether deliberate thinking is good or bad for impulsive charitable giving is unclear.

At the same time, relying on affect in impulsive giving is no panacea – it may lead to systematic biases in the way charitable choices reflect humanitarian values (Baron & Szymanska, 2011). For example, people respond more readily to sudden crises than to ongoing or chronic conditions — even when the latter concerns a greater tragedy involving more victims (Slovic, 2007); they rather give to causes that evoke personal fears or anxieties (Kogut & Ritov, 2011); to help attractive, rather than needy victims (Cryder et al., 2017), and to support programs that help a greater percentage of those in need, rather than programs that help more people (the proportion dominance effect; Bartels, 2006; Fetherstonhaugh et al., 1997). One such well documented help bias in impulsive giving is the singularity effect; people's tendency to help a single identified person in need more than several people who are experiencing the same need, even when the amount needed to save one victim and several victims is kept constant (Kogut et al., 2015; Kogut & Ritov, 2005a; 2005b). This bias occurs mostly when the individual is identified by a name or a photo (Kogut & Ritov,

2005a; 2005b; Slovic et al., 2017).

The singularity effect is driven by affect; people feel stronger empathy, distress, and warm glow for one than for many (Västfjäll et al., 2014). Whereas a strong affective reaction to a single individual may illuminate helping motivations and increase giving (Slovic et al., 2017), the problem arises when a group of victims fail to evoke such affective reactions, thereby reducing the help given to a group. This inconsistency in valuation of human lives can be seen as a bias originated from the intuitive/affective system, rather than the deliberate system (Dickert et al., 2012; Dickert et al., 2015; Loewenstein & Small, 2007; Slovic, 2007; Small et al., 2007; Västfjäll & Slovic, 2013), and from the affective response that a single victim, but not a group of victims, evoke (Erlandsson et al., 2015; Kogut & Ritov, 2005b).

Can the deliberative system be strengthened and thereby increase donations and also help people make less biased impulsive donation decisions? Several studies have examined this question, and some have found that enhancing deliberative thinking decreased biases. For example, Cryder et al., (2017) debiased the *attractiveness effect* by priming deliberative thinking. Likewise, the proportion dominance effect was reduced under deliberation (Bartels, 2006). However, the biases examined in these studies include situations in which people see and are aware of the full picture of those in need when they make the decision (i.e., joint evaluation). In contrast, the singularity effect occurs when people are confronted with only one of two help-targets: a single individual or a group of individuals experiencing the same need (i.e., separate evaluation mode). Thus, the responders are not aware of the other condition, and the relevant attributes are more difficult to detect (Kogut & Ritov, 2005b), which makes the attempt to debias the effect more challenging.

A previous study by Small et al. (2007) also examined the role of deliberation by attempting to increase participants' awareness of a potential bias, the identifiable victim effect, in their impulsive giving decisions. The identifiable victim effect is the tendency to feel more affect for and, thus, to help identified victims, about whom they receive some information, more than unidentified victims (Kogut & Ritov, 2005a; 2011; Lee & Feeley, 2016; Moche et al., 2020). Compared to the singularity effect, the conditions in the identifiable victim effect usually do not differ in number of needy people (e.g., one vs. ten children), but differ only in the level of identifiability (e.g., one identified child vs. one non-identified child; Kogut & Ritov, 2005b). To ask whether this affectively driven helping bias could be reduced, Small et al. (2007) tested a number of interventions for participants who either read about a single, poor identified child or statistical information about millions of poor people in Africa: they explicitly taught people about the effect, placed an identified and unidentified victim next to each other (i.e., joint evaluation), or primed participants' thinking to either a deliberative or an affective mode (Small et al., 2007). Interestingly, these interventions all resulted in people giving less to the single, identified victim (thus minimizing the affective bias), but not more to the group of statistical victims (Small et al., 2007). Thus, these deliberation interventions resulted in an overall decrease of life valuation, without any noticeable increase in the valuation of the statistical victims.

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The results from Small et al. (2007) suggest that deliberation erodes impulsive giving for appeals where affect is a salient driver of the decision to donate. Thus, one goal of this research is to extend the findings of Small et al. to the singularity effect. A second goal is to examine the effect of different forms of deliberation interventions on the singularity effect since not all forms of deliberation are made equal. The Small et al. study investigated only what we would term as unguided forms of deliberation. Participants were left to their own devices to think deliberately without being guided in what their thinking should be focused on. Simply thinking hard may not reduce a bias, especially in a separate evaluation mode, when the relevant attributes are less prominent (Hsee, 1996). However, thinking about relevant decision attributes that are under- or overweighted in the decision may have a stronger effect. For example, deliberative thinking in the effective altruism movement asks potential donors to attend to, and weight some features more (e.g., effectiveness) than others (e.g., overhead cost) in their donation decisions (Caviola et al., 2020; Gneezy et al, 2014; Singer, 2015). Simply asking people to think hard may not necessarily imply that they attend to values they abstractly think are important and should guide their decisions. For example, in one of the studies in Cryder et al. (2017), participants were asked to consider the importance of two attributes before choosing a victim to support: the victims' attractiveness and their level of need. When participants considered these, the attractiveness of the victim (the irrelevant attribute) had the smallest effect on the participants' choices, relative to the other studies in this research, in which participants were merely asked to think more thoroughly about their decision. However, the comparison between the two types of deliberation modes (unguided and guided) were not directly examined by Cryder et al. (2017).

In the current research, we compare the effect of unguided and guided deliberation (that asks people to attend to and think about how much prespecified decision attributes should influence their decision) on charitable giving. The rationale behind guided deliberation is to focus people's attention to decision attributes they may underweight in their choices (e.g., number of victims), which may help overcome the shortcomings of unguided deliberation discussed above. Thus, we test whether guided deliberation can reduce or even reverse the singularity effect – an effect that is driven by the affective response to the one identified victim – by focusing participants deliberative thinking to attributes such as the number of victims in need and the scope of the problem. People typically endorse normative principles where each life is given equal weight (and thus giving more to more is preferred; Dickert et al., 2015), also shown in that the singularity effect is reversed when people evaluate the single and group of victims side by side (Kogut & Ritov, 2005b). By helping people consider otherwise unattended attributes of relevance in decisions relating to singularity, we reasoned that guided deliberation could make people increase the weight given to the attribute of helping as many people as possible (i.e., number or scope) in relation to the affective components of the decision (e.g., empathy or identification), which, unaided and in separate evaluation, tend to be overweighed (Kogut & Ritov, 2005a).

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2   Method

We conducted two studies in Israel and Sweden that were almost identical. Therefore, we describe the common methodology in both samples below, followed by descriptive information about respective sample.

2.1   Design and procedure

Participants were randomly assigned to one of six conditions in a 2 (singularity: one sick child vs. eight sick children) X 3 (decision mode: control, unguided deliberation, and guided deliberation) between-subject design.

After reading a short study description, consenting, and completing some unrelated tasks (see Supplementary materials), participants read that they were enrolled in a raffle for six prizes of 100 NIS (˜ $30: Israeli study) or 250 SEK (˜ $30: Swedish study) each.[1]

All participants then read about either a single three-year old child or about eight three-year old children. The child(ren) were described as having a serious type of cancer and in need of an expensive treatment, and was depicted with name, age, and a photo. In the single-child condition, the single child was cut out from the picture depicting the eight children (see Supplementary materials). The next step was different for the three condition:

Participants in the *unguided deliberation* condition read the following before making their donation decision (similar to study 2 in Cryder et al., 2017):

> Note! Before you decide whether to commit to contribute any amount, consider your decision well and make sure to rely on rational considerations only.

Participants in the *guided deliberation* condition read:

> Note! Before deciding whether or not to commit to contribute any amount, we present you with four considerations that may be relevant for the donation decision. Rate how much you think each of the considerations should be considered when deciding whether and how much money to donate.
>
> 1. The degree of empathy that the case aroused in me 2. The number of children in need for donation 3. The scope of the problem 4. The degree of identification with the case.

Participants in the guided deliberation condition then rated how much each attribute should be considered in the donation decision on a 7-point Likert scale (1 = *Should be considered a little*, 7 = *Should be considered a lot*) before making their donation decision (similar to study 2 in Bartels, 2006).

Participants in the *control* condition went directly to the next step.

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[1]Participants who wanted to participate in the raffle were also asked to indicate their e-mail address to be contacted if they would win. This was true for both samples.

All participants were then asked if they would be willing to donate some of the money if they would win the study's raffle. If they replied yes to this question, they were also asked to state the amount of money they would like to donate (maximum 100 NIS/250 SEK). Specifically the (translated) questions were;

> **1 child**: By participating in this study, you have the possibility to win 100NIS/250SEK in the raffle that takes place when the study is completed. If you are among the winners, you may consider contributing s ome of the money to help "name of identified child" receive the treatment that could save his life.

> Would you be willing to donate any amount to this cause, if you win?
> Yes/No [willingness to donate measure]

> **8 children**: By participating in this study, you have the possibility to win 100NIS/250SEK in the raffle that takes place when the study is completed. If you are among the winners, you may consider contributing some of the money to help "name of 8 identified children" receive the treatment that could save their lives.

> Would you be willing to donate any amount to this cause, if you win?
> Yes/No [willingness to donate measure]

> Please enter an amount between 0 (no donation) to 100NIS/250SEK that you would like to donate (open box). [asked only if willingness to donate was "yes"]

Finally, participants answered some secondary measures (see below) and demographic questions.

2.2 Measures

2.2.1 Primary measures

The two main dependent variables in the studies were willingness to donate and donation amount. The first decision was whether participants were willing to donate or not (yes/no). The second decision was how much the willing participants wanted to donate if they won the money in the raffle (Israel: 0-100 NIS; Sweden: 0-250 SEK).

2.2.2 Secondary measures

Apart from these two measures, participants answered some secondary measures after their decision(s). These measures related to participants' judgments of their own decision and considerations of the four attributes presented in the guided deliberation intervention. These measures, along with their respective results, are presented in the Supplementary materials and will not be discussed any further here.

2.3   Participants

2.3.1   Israel

Two hundred and forty-five undergraduate Israeli students (64.5% women, M_{age} = 25.35, SD_{age} = 3.98) participated in the study.

2.3.2   Sweden

Seven hundred and twenty-four subjects were recruited through a subject pool which constitutes mainly of students at Linköping University in Sweden. The reason for the bigger sample in the Swedish study was a result of having seen the results from the Israeli study, so we wanted to explore if it would replicate with a bigger sample. Also, the stimuli used in the Swedish sample had not previously been tested (see below), whereas the stimuli in the Israeli sample had been used before and then found a singularity effect (Kogut & Ritov, 2005a). However, 69 subjects were excluded because they cancelled their participation before responding to the dependent variable. Thus, a total of 655 participants (54.5% women, M_{age} = 25.2, SD_{age} = 12.6) completed the study.

2.3.3   Changes in Swedish sample

When conducting the Swedish study, we made two changes. First, we changed the pictures and names of the child victims to better match the ingroup culture of Sweden (Kogut & Ritov, 2007; see Supplementary materials). Second, and related, we added three questions about the new pictures used, as secondary measures (see Supplementary materials).

3   Results

3.1   Israel

3.1.1   Willingness to donate

Figure 1 shows the result for willingness to donate (%) in the six conditions. First, we compared the donation rates to the single and group of children for each of the three decision mode conditions. For participants in the control group, and consistent with a singularity effect, significantly more people were willing to donate when seeing a single child (93.0%) than when seeing eight children (73.2%; $\chi^2(1, N = 84) = 5.96$, $p = .015$). However, there was no difference in willingness to donate to the single or to the group of children in the unguided deliberation condition ($\chi^2(1, N = 82) = 0.72$, $p = .396$) or in the guided deliberation condition ($\chi^2(1, N = 79) = 0.19$, $p = .666$). Second, we compared the three decision mode conditions for a single and a group of children, respectively. This analysis revealed an effect for decision mode in the single child condition — participants were less willing to donate in the guided deliberation condition (74.4%) compared to the

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unguided deliberation (90.2%) and the control (93.0%) conditions ($\chi^2(2, N = 123) = 6.83$, $p = .033$). Similarly, there was an effect of decision mode in the group condition — participants were more likely to donate in the unguided deliberation condition (95.1%) than in the guided deliberation (70.0%) and the control (73.2%) conditions ($\chi^2(2, N = 122) = 9.36$, $p = .009$). Following, to compare the effect of deliberation versus affect, we combined the two deliberation conditions and compared to the control condition. This analysis showed that willingness to donate decreased under deliberation for the single child (control: 93.0%, deliberation: 82.5%), although not significant ($\chi^2(1, N = 123) = 2.60$, $p = .107$), but not for a group of children (control: 73.2%, deliberation: 82.7%; $\chi^2(1, N = 122) = 1.52$, $p = .217$).
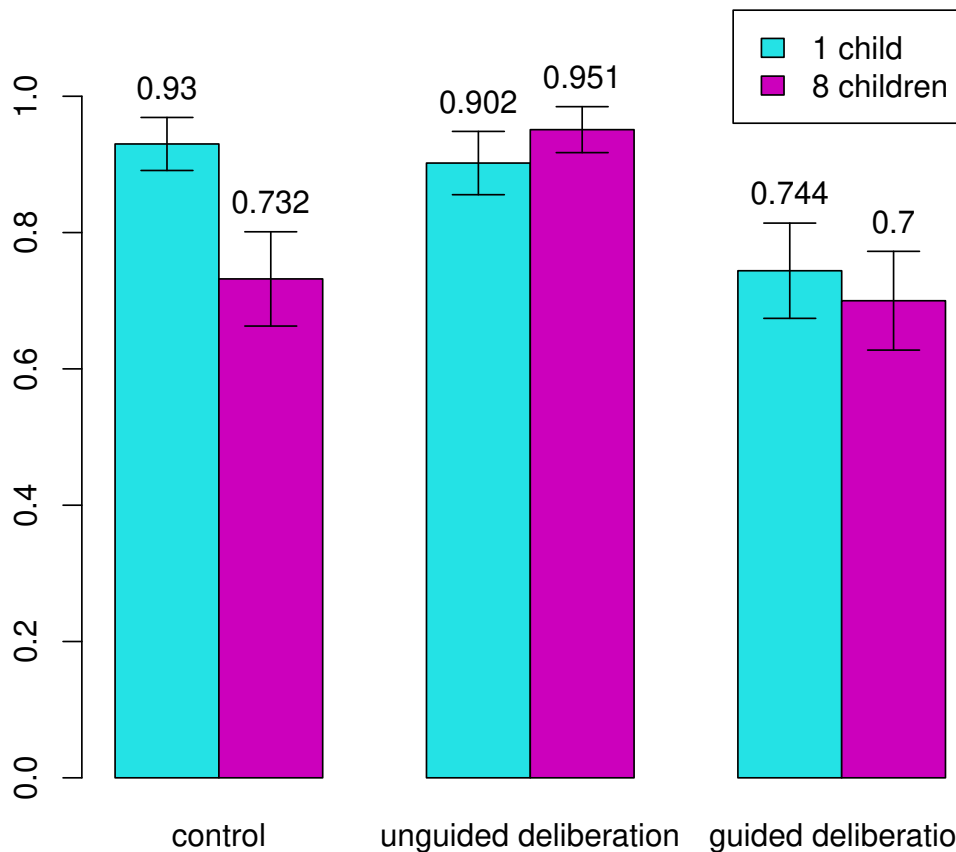

FIGURE 1: Percentage of participants choosing to make a donation in the Israeli sample. Error bars represent standard error (s.e.) of mean.

3.1.2 Donated amount

Figure 2 shows the mean donated amount among all participants for the six conditions. This means that participants who replied "no" to the first question were here considered as participants who donated zero. To further examine the effect of decision mode and singularity on the participants' donations, we ran a 2X3 ANOVA with decision mode and number of victims as the independent factors, and the amount donated among all participants

as the dependent variable. This analysis revealed no main effects. However, the interaction between decision mode and singularity was significant ($F(2, 239) = 4.84$, $p = .009$, $\eta_p^2 = .039$). As illustrated in Figure 2, a simple effect analysis revealed that the amount donated to single victims ($M = 64.98$, $SD = 37.44$) was significantly higher than the amount to a group of victims ($M = 39.20$, $SD = 36.12$) only in the control condition ($F(1, 239) = 10.04$, $p = .002$, $\eta_p^2 = .040$), but not in the two other conditions (F's < 1). Next, we compared the three decision mode conditions for a single and a group of children, respectively. This analysis revealed an effect for decision mode in the single child condition — participants donated more to a single child in the control condition ($M = 64.98$, $SD = 37.44$) compared to the guided deliberation ($M = 43.66$, $SD = 31.60$) and unguided deliberation ($M = 49.74$, $SD = 41.21$) conditions, ($F(2, 120) = 3.73$, $p = .027$). On the other hand, there was no effect for decision mode in the group condition ($F(2, 119) = 1.72$, $p = .183$). Following, to compare the effect of deliberation and affect again, we combined the two deliberation conditions and compared them to the control condition. For the single child, participants in control condition donated more ($M = 64.98$, $SD = 37.44$) than participants in deliberation conditions ($M = 46.63$, $SD = 36.50$; $t(121) = 2.63$, $p = .010$). There was no significant difference in donations to the group of children between participants in control condition ($M = 39.20$, $SD = 36.12$) and in deliberation conditions ($M = 52.06$, $SD = 38.21$; $t(120) = -1.79$, $p = .076$).

3.2   Sweden

3.2.1   Willingness to donate

Figure 3 shows the result for willingness to donate (%) in the six conditions. First, we compared the donation rates to the single and group of children for each of the three decision mode conditions. For participants in the control group, significantly more people were willing to donate when seeing a single child (78.2%) than when seeing eight children (64.8%; $\chi^2(1, N = 218) = 4.78$, $p = .029$). This means that the singularity effect was evident in this condition. However, there was no difference in willingness to donate to the single or to the group of children in the unguided deliberation condition ($\chi^2(1, N = 219) = 0.33$, $p = .57$), or in the guided deliberation condition ($\chi^2(1, N = 218) = 0.19$, $p = .66$). Second, we compared the three decision mode conditions for a single and a group of children, respectively. This yielded no significant results for a single child ($\chi^2(2, N = 327) = 3.89$, $p = .143$), or a group of children ($\chi^2(2, N = 328) = 1.26$, $p = .532$). Since the two deliberation conditions revealed very similar results, we combined the two deliberation conditions and compared them to the control condition. This analysis revealed that willingness to donate decreased under deliberation for the single child (control: 78.2%, deliberation: 67.7%; $\chi^2(1, N = 327) = 3.88$, $p = .049$), but not for a group of children (control: 64.8%, deliberation: 70.9%; $\chi^2(1, N = 328) = 1.26$, $p = .262$)
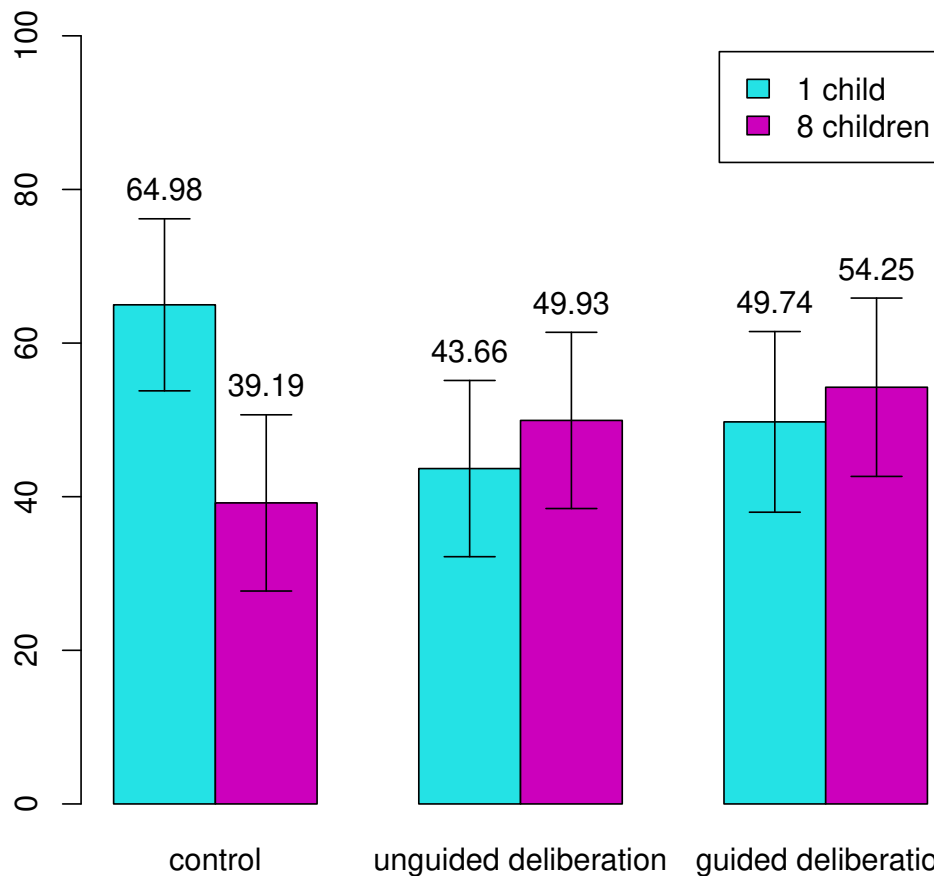
FIGURE 2: Amount donated (NIS) to a single sick child and to a group of eight sick children as a function of decision mode in the Israeli sample. Error bars represent s.e. of mean.

3.2.2 Donated amount

Figure 4 shows the mean donated amount among all participants for the six conditions. Again, participants who replied "no" to the first question were here considered as participants whose donation was zero. A 2x3 ANOVA was conducted with singularity and decision mode as independent factors and donated amount among all participants as dependent variable. There was no significant main effect of singularity ($F(1, 649) = 1.74$, $p = .19$), decision mode ($F(2, 649) = 0.11$, $p = .90$), nor a significant interaction effect ($F(2, 649) = 1.52$, $p = .22$). Second, we compared the three decision mode conditions for a single and a group of children, respectively. This yielded no significant results for a single child ($F(2, 324) = 1.29$, $p = .276$), or a group of children ($F(2, 325) = 0.39$, $p = .679$). We then combined the two deliberation conditions and compared them to control condition. For the single child, participants in in control condition donated more ($M = 130.5$, $SD = 102.0$) than participants in deliberation conditions ($M = 111.4$, $SD = 104.74$), but this effect did not reach significance ($t(325) = 1.57$, $p = .116$). There was no significant difference in donations to the group of children between participants in control condition ($M = 121.4$, $SD = 112.8$) and in deliberation conditions ($M = 132.5$, $SD = 108.3$; $t(326) = –0.86$, $p = .393$).
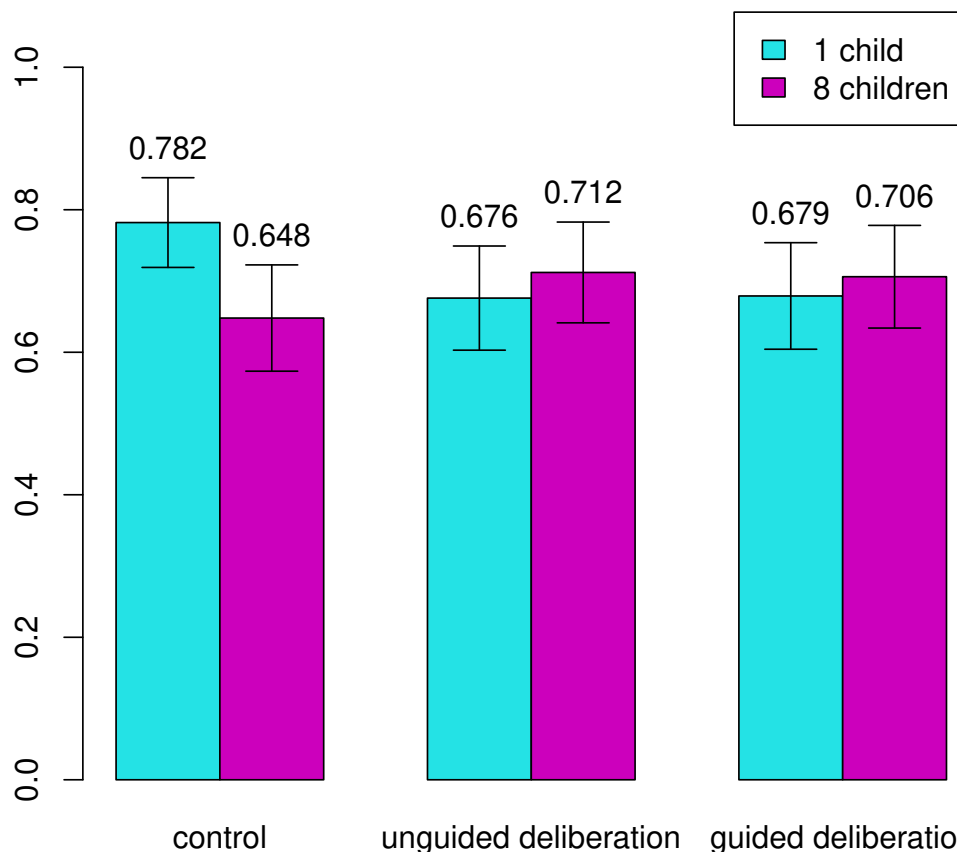
FIGURE 3: Percentage of participants choosing to make a donation in the Swedish sample. Error bars represent s.e. of mean.

4 Discussion

Is thinking good or bad for charitable decisions? We set out to examine this by comparing the effects of instructing participants to think hard (unguided deliberation) or to think about how different attributes of a choice should be weighted (guided deliberation) in an impulsive charitable donation decision. We were particularly interested in decisions affected by the singularity effect, as those decisions have been shown to be driven by affect (Erlandsson et al., 2015; Kogut & Ritov, 2005b). The results of these studies show that in the control condition (without any deliberation manipulation), participants expressed a higher willingness to donate to the single victim than to the group (both samples), and the amount donated was higher for the single victim than for the group (Israel sample) – indicating the singularity effect. However, in the two deliberation conditions, we find that the single individual and the group receive similar amounts of donations. This is driven by the decreasing effect that deliberation had on willingness to donate (Swedish sample) and donated amount (Israel sample) to the single victim, but not to the group of victims. In contrast to our expectations, unguided and guided deliberation did not systematically differ, and guided deliberation did not significantly increase donations to the group in need.
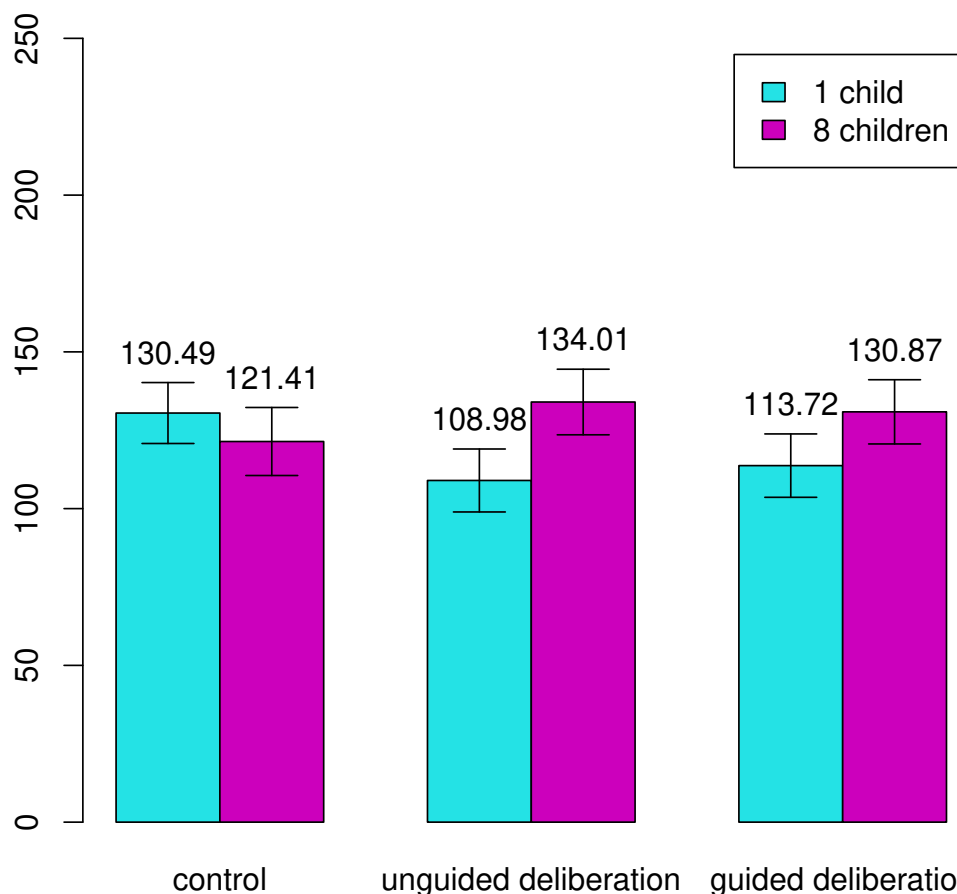
FIGURE 4: Amount donated (SEK) to a single sick child and to a group of eight sick children as a function of decision mode in the Swedish sample. Error bars represent s.e. of mean).

Thus, these results suggest that both forms of deliberation reduce the singularity effect, but in a counter-productive manner. A contribution of this paper is thus that we, using a different method, replicate the findings by Small et al. (2007), although with small effect sizes, in the sense that deliberation interventions decrease donations to a single victim. Another important contribution is that we show that the deliberation interventions do not significantly and consistently increase donations to a group of victims.

Taken together, in the context of the singularity effect, deliberative thinking erodes the affective reaction that a single victim tends to evoke, leading to lessened willingness to help. This result is consistent with the findings that a deliberative decision mode decreases giving to an identified victim (Small et al., 2007). Importantly, however, in our study the reduction in giving to one was not balanced by increased giving to the group as deliberative thinking did not significantly and consistently increase donations to a group of victims. Looking at the comparisons between deliberation and control conditions, there is a small indication that deliberation increases donations to the group, however, the increase was very small and never significant. Thus, deliberative thinking may not improve donation decisions in cases where donations are driven by affect (Erlandsson et al., 2016; Loewenstein & Small, 2007).

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This finding underscores the importance of affect in impulsive and affect-laden donation decisions, as even focusing people on the very specific attributes that should (normatively) increase donations, it does not match the effect of the affective response that an identified victim evokes. Thus, one conclusion from this could be that to preserve high levels of (impulsive) donations we need to identify the cases where affect drives the decision, and sometimes allow donors to follow their affective response, without the interference of deliberation.

Moreover, our results show no consistent difference between the two forms of deliberation. We speculated that guided deliberation (i.e., think about how important the scope of the problem and your feelings should be for this decision) would be superior to unguided deliberation (i.e., instructions to think hard). However, the donations in these two conditions were overall quite similar. Thus, asking people to think about the importance of various attributes did not yield different outcomes than having people think freely. An exception to this was in the Israeli sample, where there was a difference between the two forms of deliberation on willingness to donate. Nevertheless, this was not found for donated amount in the Israel sample and not at all in the Swedish sample, suggesting that the difference between the two forms of deliberation is not consistent. Thus, we cannot conclude that one form of deliberation is better than the other.

One explanation for this overall pattern of no difference between the forms of deliberation might be that this study focused on impulsive giving, in which deliberation might affect the decision process regardless of its content. This effect might apply specifically for affective appeals, where deliberation seemed to mainly inhibit the most affective decisions (i.e., donations to a single child). Deliberate thinking in the context of impulsive giving seems to be similar to its effect on impulsive buying in the domain of consumer behavior, where it may reduce unnecessary purchases (e.g., by making one think "Am I really going to use this?"). Thus, deliberation in impulsive giving, and for affectively driven decisions, might have impacted participants in a similar way (e.g., by making them think "Is it really efficient to donate to this child?"). However, it is important to note that guided and unguided deliberation may affect donation decisions differently in planned giving contexts. For example, guided deliberation might affect which charity organization or cause people choose for regular donations, since the weighing of attributes might affect the decision more when the decision itself is more deliberate to start with. This is an important direction for future research.

Future research is also needed to compare these two deliberation modes in reducing other helping biases (e.g., ingroup effect, attractiveness, proportion dominance, etc.). Further, guided deliberation might need to be better adapted to the appeal at hand or to the separate evaluation mode. For example, in impulsive giving, making people aware of the opportunity cost of other charity appeals when seeing an appeal (Moche et al., 2020) might create a mode closer to that of the joint evaluation mode, and thereby affect the singularity effect (see Caviola et al., 2020). Another possibility is to make participants rank the attributes instead of

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rating them, as this creates an implicit opportunity cost or trade-off thinking as participants are forced to choose which attribute they care most about, or to have participants themselves produce attributes. Last, guided deliberation might affect people's charity decisions more, or qualitatively different, in joint evaluation mode (e.g., proportion dominance) than in separate evaluation mode (e.g., identifiable victim effect; Erlandsson, 2021; Erlandsson et al., 2020).

Last, as a limitation and a possible explanation to why deliberation did not increase donation to the group, at least for the Swedish study, was a finding about how realistic the appeal was perceived. We found that the single child was perceived as a more realistic appeal than the group of children in the Swedish sample (see Supplementary materials). We did not have the same measure for the Israeli sample, thus, we cannot compare this across the studies. This finding suggests that paradigms using a comparison between donations to a single child and a group of children might not be optimal in terms of motivation to engage with the materials, and in this specific case it is possible that the deliberation affected the single child condition more because people felt that it (compared to the group condition) was more representative of a real-life donation appeal. Thus, future studies should consider attempting to equate the perceived appeal's realism for single vs. group conditions. Another explanation for the difference in realism between one and many victims, is that, as the single victim is higher in affect, it may also affect ratings of realism – the stronger the affect the more it is perceived as here and now, leading to higher perceived realism (Slovic & Västfjäll, 2013; Västfjäll, 2003).

In summary, this study investigated and compared whether unguided and guided deliberate thinking could decrease the singularity effect in impulsive giving. The results of two studies conducted in Israel and Sweden suggest that both types of deliberation can make people donate to a group of victims in similar rates as the donations they give to a single victim, and thereby reduce the singularity effect. However, this effect comes at the expense of lowering donations to the single victim, as we found that both types of deliberation caused people to donate significantly less when facing an affect-driven impulsive donation decision (i.e., help a single identified child; similar to Small et al., 2007). Neither type of deliberative thinking significantly nor consistently reversed the singularity effect, as people did not help the group significantly more than the single victim. It seems that affect is crucial in some impulsive donation decisions, and trying to override it with deliberation may lead to lower overall giving.

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