# CHARITABLE GIVING: FRAMING AND THE ROLE OF INFORMATION

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# Charitable Giving: Framing and the Role of Information

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**Abstract**

*We study the impact of information on the effectiveness of a taking as compared to a giving frame for charitable giving. In our laboratory experiment, either the decision maker (giving frame) or the recipient (taking frame) is framed as 'owner' before the decision maker decides on the final allocation of money. Besides the frame, we vary the level of information concerning the worthiness of the receiving charity. In keeping with our theoretical prediction, participants donate significantly more, when the decision is framed as taking rather than as giving. However, this framing effect decreases with increased information on the charity.*

**Keywords:** Information, Giving, Taking, Charity, Experiment

**JEL classification:** C91, D64, D80

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## 1. Introduction and overview

According to "Giving USA 2021: The Annual Report on Philantrophy for the Year 2020", charitable giving reached more than $ 471 billion.[1] Though the unselfish nature of giving as such does not guarantee that the money will be spent for worthy causes, it seems safe to assume that the overall effects of charitable giving are for the better than for the worse. Independently of this, according to the time-honored principle of 'volenti non fit iniuria' the donors cannot be wronged by their own decisions of making a charitable gift. They can be held responsible for their own acts of gift giving. However, the normative force of the argument that the donors are to be held fully responsible for their own decisions depends on the choice situation and in particular on the quality and extent of information of the donors.

From the point of view of a charity that takes its own moral responsibility seriously, the aim of increasing donations for a cause that it deems morally worthy and the moral aim of securing that donors are sufficiently well-informed are both relevant. In pursuing these potentially conflicting moral aims, the charities themselves as well as the regulator are aware that a charity is not merely a passive recipient of voluntary donations: it can to some extent influence the choice architecture of the situation and the motivation as well as the information available to prospective donors when they make their donation-decisions. In particular, as countless empirical (experimental) studies illustrate, setting a default option which is implemented when someone does not make an active choice, may be of crucial importance for choice outcomes (e.g., Samuelson and Zeckhauser 1988, Park, Jun and MacInnis 2000; Madrian and Shea 2001; Johnson et al. 2002; Johnson and Goldstein 2003, Choi et al. 2004, Abadie and Gay 2006, Beshears et al. 2009, Carroll et al. 2009, Chapman et al. 2010, Chetty et al. 2014, Blumenstock et al. 2018).

Since many people accept the default passively, in cases of charitable giving, setting the default to "donate" will tend to increase the donation level (Everett et al. 2015). But it will also reduce incentives to provide information on the side of the charity and to search for information on the side of the donors. Due to this, expected increases in donations come at the price of a reduction of

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[1] https://philanthropynetwork.org/news/giving-usa-2021-year-unprecedented-events-and-challenges-charitable-giving-reached-record-47144

their legitimacy as informed voluntary acts. Doing good by doing nothing will often be no conscious, informed decision at all and insofar normatively precarious.[2]

It is the possible trade-off between the amount of charitable donation and the legitimacy of acquiring donations that the model and experiment of the present paper seek to address. In our laboratory experiment, we follow Grossman and Eckel (2015) and apply a design that is based on a standard dictator game (Kahneman et al. 1986, Forsythe et al. 1994). In this game, we compare the donations under a giving frame with those under a taking frame.

The recipient in our experiment is the *International Federation of the Red Cross and the Red Crescent* (IFRC), a charity which is rather unknown among the German students who participate in the experiment. In a 3x2 design, we vary the (positive) information that we provide about the charity (*noinfo*; *someinfo*; *muchinfo*) and the frame (GIVE; TAKE). We find that the impact of the taking frame decreases with the amount of information provided about the charity. This main result must be seen against the background of three findings. First, in all three information regimes, we find significantly higher donations under the taking than the giving frame. Second, increasing the information level from *noinfo* to *someinfo* and from *noinfo* to *muchinfo*, we find a significant increase in donations under the giving frame. Third, under the taking frame, we find no significant differences in donations between the information regimes.

The next section provides some general modeling background (section 2.1) and a more specific utility-maximization model along with central hypotheses implied by it (section 2.2). Section 3 introduces specifics of the experimental design. Section 4 presents the experimental results, while conclusions follow in section 5. Appendices provide auxiliary information.

## 2. Modeling strategy and background

### 2.1 Elementary models of giving

Charitable giving can be related to giving in a dictator game, where the recipient is a charity (e.g., Eckel and Grossman 1996). A default change in the dictator game can be created by moving from a giving to a taking frame, while keeping the full rights of disposal of the dictator untouched.

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[2] In his book *The community of Advantage*, Sugden (2018) extensively deals with such limits to (government) paternalism.

More specifically, under a *giving frame*, the decision maker initially is in possession of a resource and will continue to be unless this individual decides on changing the initial allocation in an act of "giving". Under a *taking frame*, it is the other person or institution that is in possession of a resource and will continue so unless the decision maker decides on changing the allocation in an act of "taking". In both frames the ultimate holder of the right to dispose of the resource is the dictator who once must take action and once must omit it to bring about the final allocation.[3]

Previous experimental studies yielded an ambiguous picture regarding the effect on (charitable) giving in the dictator game when moving from a giving to a taking frame. Grossman and Eckel (2015) observe no effect. However, Zarghamee et al. (2017) and Korenok et al. (2018) find higher donations to charities under the taking frame. Again, some studies with student participants as recipients report no frame effect (Dreber et al. 2013, Kettner and Cecatto 2014, Smith 2015, Chowdhury et al. 2017), while other studies find higher transfers to the recipient under the taking frame than under the giving frame (Oxoby and Spraggon 2008, Krupka and Weber 2013, Korenok et al. 2014, Brosig-Koch et al. 2017).[4]

Alt et al. (2018) report that the impact of the frame depends on the relation between dictator and recipient: only in the case that the recipient belongs to the dictator's ingroup do they observe higher transfers to the recipient under the taking frame. This indicates that group loyalties as well as interpersonal as opposed to impersonal relations seem to play a role.[5] In more impersonal contexts, Brañas-Garza (2006) and Bachke et al. (2017) find that information about poor third-world recipients or the recipient charity increases donation. Aguiar et al. (2008) suggest that the provision of this information may lead to a reduction of 'moral distance', which in turn increases the intensity of the perceived 'moral obligation' to donate and possibly the actual donation level.[6]

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[3] As an extensive literature concerning consequentialism illustrates, beyond psychological some rather deep philosophical problems are involved here. For the present purposes it suffices to acknowledge this. For an elementary and entertaining introduction to the famous related Trolley problem see Edmonds 2013).

[4] Note that the literature that we consider is different from the one originating in List (2007) and Bardsley (2008), where the action space of the dictator varies with the frame. It is also different from studies such as by Goswami and Urminsky (2016) and Fiala and Noussair (2017), where the default donation but not the frame is altered.

[5] In a WEIRD (Western, Educated, Industrialized, Rich, Democratic) society in the sense of (Henrich et al. 2010, Henrich 2020), in which impersonal relations play a dominant role, enhancing the strength of impersonal ties seems to depend crucially on information that brings what is socially remote 'closer' to potential donors.

[6] By 'moral obligation to give', they allude to a kind of expected personal moral satisfaction, or, a warm glow that is derived from giving (Andreoni 1989) rather than an impersonal universalistic conception of 'moral obligation'.

The goal of our study is to deepen the understanding of what determines the impact of the giving frame (compared to the taking frame) on charitable giving and how this relates to information conditions. In our experiment, we investigate the interaction of a reduction of 'moral distance' by increasing the information about the charity, on the one hand, and the move from a giving to a taking frame, on the other. A traditional utility-maximization model that captures the interaction of relevant influences is presented in the next section. From this model we derive three testable hypotheses with respect to the separate and joint effects of our experimental interventions. We anticipate (1) ceteris paribus, higher donations under the taking than under the giving frame, (2) ceteris paribus, higher donations the more information is provided and, our main hypothesis, (3) a smaller (taking versus giving) frame effect, the more information is provided. On the whole there is room for compensating by additional information for the loss in donations that is to be expected when moving from a taking to a giving frame, in which donation is more strongly influenced by information.

## 2.2 Utility-maximization model and hypotheses derived from it

Consider, with a slight modification, a theoretical utility-maximization framework originally provided by Konow (2010). It considers a mix of altruism that relates to impersonal social norms of giving and a warm glow of giving (in the sense of Andreoni 1989). An individual donor's utility $U$ is given by

$$U = u(e - x) - f(x - \varphi) + \alpha g(x) \qquad (1)$$

where $e$ is the dictator's endowment, and $x$ is the amount that the dictator gives to the charity. For $u(e - x)$, which is the utility the dictator derives from material payoff to herself, it is assumed: $u'(.) > 0, u''(.) < 0$. The second term $f(.)$ represents the disutility the dictator suffers from deviating with her donation from the contextually prevailing giving norm, $\varphi$; assuming that $-f(.)$ is strictly concave in $x$ (with $f''(.) > 0$) and adopting its maximum when

the dictator fully complies with the norm ($x = \varphi$).[7] The third term relates to the 'warm glow' of giving (Andreoni 1989, DellaVigna et al. 2012), with $g'(.) > 0$ and $g''(.) < 0$, while the parameter, $\alpha \geq 0$, represents the intensity of the warm glow. Following Aguiar et al. (2008) the parameter $\alpha$ can be increased by moral-distance-reducing information about the charity.

In a standard dyadic dictator game, the typical assumption is a norm of giving 50 percent of the endowment if the recipient has no own endowment (Andreoni and Bernheim 2009). If the recipient is a charity, the norm might be higher. However, as long as it is below 100 percent, whatever the norm of giving in a giving framework, we assume that the norm is higher in a taking framework. This is supported by an observation of Krupka and Weber (2013), who find that an allocation that leaves the recipient (in their case another person) with less than half of the endowment is perceived as less socially appropriate under the taking frame than under the giving frame.

Given these assumptions, it is easy to demonstrate in our model (see, Konow 2010, Proposition 4 and Appendix A) that a utility-maximizing dictator's donation changes in direct relationship to – though by less than – any change in the giving norm:

$$0 < \frac{dx^*}{d\varphi} < 1 \tag{2}$$

where $x^*$ is the solution to the dictator's utility maximization task. Since

$$\frac{dx^*}{d\varphi} = \frac{-f''}{u'' - f'' + \alpha g''} \tag{3}$$

it is also straightforward that increasing the warm-glow factor $\alpha$ from $\alpha^L$ to $\alpha^H$, reduces the effect of the norm change:

$$\frac{-f''}{u'' - f'' + \alpha^H g''} < \frac{-f''}{u'' - f'' + \alpha^L g''} \tag{4}$$

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[7] The assumption here is that norm compliance can be associated with positive feelings and violation of norms with negative feelings.

Similarly, applying the implicit function theorem to solve for $x = x^*(\alpha)$, substituting this into the first-order condition for utility maximization and differentiating with respect to $\alpha$, we get for the effect of the warm-glow factor:

$$\frac{dx^*}{d\alpha} = \frac{g'}{f'' - u'' - \alpha g''} > 0 \qquad (5)$$

From this we can derive the following hypotheses.

Hypothesis 1:  Ceteris paribus, donations will be higher under the taking frame than under the giving frame.

This is due to our assumption that moving from a giving to a taking frame increases the norm $\varphi$ and relation (2) implying that the optimal donation $x^*$ increases in $\varphi$.

Hypothesis 2:  Ceteris paribus, donations will be higher, the more (positive) information about the charity is provided.

This is due to our assumption that information about the charity increases the warm-glow factor $\alpha$ and equation (5) implying that the optimal donation $x^*$ increases in $\alpha$.

Hypothesis 3: The more detailed the information about the charity, the smaller will be the impact of the taking frame compared with the giving frame on donations.

This directly follows from relation (4).

In terms of practical advice to 'moral' charities which – other things being equal – prefer both higher donations and better informed donors, Hypothesis 2 suggests combining a giving frame

with extensive information efforts. However, Hypothesis 1 indicates that switching to a taking frame could further increase donations. Nevertheless, Hypothesis 3 indicates that there may be situations in which it could conceivably be overall preferable for the charity to choose a giving frame: according to Hypothesis 3 the relative advantage of the taking over the giving frame will decline with increased information and increases in legitimacy may outweigh the opportunity costs of donations forgone. In our final section 5 we will further discuss how our experiment may be relevant for evaluating trade-offs between the amount and the informed voluntariness of donations. In the next sections we will describe our experimental design (section 3) and results (section 4).

## 3. Experimental Design

We conduct a dictator game experiment (Kahneman et al. 1986, Forsythe et al. 1994) with a charity as the recipient (Eckel and Grossman 1996). Donations in our experiment go to an organization that is rather unknown among students in Germany: the *International Federation of the Red Cross and Red Crescent* (IFRC). This differs from Grossman and Eckel (2015) and Korenok et al. (2018) in two respects. First, in their studies, participants could choose the recipient of the donation from a list of well-known charities. Second, even though the *German Red Cross* is part of the IFRC and the two share common goals, our participants have significantly less knowledge about the IFRC than about the well-known *German Red Cross*.[8] Thus, we have created a vague context, in which we can vary the information about the worthiness of the organization.

Our treatment variation follows a 3x2 between-subjects design. Along the first dimension, we vary the participants' information regarding the charity as potential recipient of their donations (and thus the $\alpha$ of the warm-glow component in our utility model). Along the second dimension, we vary the frame between GIVE and TAKE (and thus the giving norm $\varphi$ in our utility model). While the participants are still sitting in the waiting room, we instruct them about some general rules of conduct for the experiment together with the information that, contingent on the outcome

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[8] We elicited the self-reported knowledge of the IFRC and the knowledge of the *German Red Cross*, based on a Likert scale from 1 (very little knowledge) till 7 (very much knowledge). We found significantly different averages of 1.91 for the IFRC and 3.59 for the German Red Cross (Wilcoxon signed-rank test: N = 239, p = 0.000).

of the experiment, money might be transferred to a charity after the experiment. Depending on the treatment, we provide more or less information on the charity. In the treatments GIVE-*noinfo* and TAKE-*noinfo*, we inform participants exclusively about the name of the charity and state that the *German Red Cross* is part of this organization. In the treatments GIVE-*someinfo* and TAKE-*someinfo*, we provide some additional positive information. This information is taken from the official website of the IFRC and includes the size of the organization, the URL of its website, their key areas of work, and their function. An experimenter reads the information aloud to the participants. In the treatments GIVE-*muchinfo* and TAKE-*muchinfo*, we provide the name of the charity, read the information and, additionally, show a video to the participants.[9] The video was produced by the *Austrian Red Cross*. It presents the seven fundamental principles of the IFRC, both in writing and read aloud in German language. The video includes some background music and seven pictures that display typical activities of the IFRC. The presentation of the read out additional information as well as that of the video significantly increased the participants' self-stated knowledge of the IFRC.[10] A transcript of all instructions and charity information provided in the waiting room can be found in Appendix A.

Then, we guide the participants to their randomly assigned private cubicles, where they find their endowments of ten euros. On a computer screen we present further instructions (Appendix A). One half of the participants in a session is privately informed that the money is theirs (giving frame: GIVE-*noinfo*, GIVE-*someinfo*, GIVE-*muchinfo*). They can freely decide to decrease their initial amount and therby increase the amount going to the charity. Choosing the default option by typing in '0' leads to a zero donation. The other half of the participants is informed that the money is the charity's money (taking frame: TAKE-*noinfo*, TAKE-*someinfo*, TAKE-*muchinfo*). The participants can freely choose to decrease the initial amount of the charity's money in order to increase their own. Choosing the default option by typing in '0' leads to a donation of the full endowment.

The donation decision is embedded into a questionnaire to be answered during the session. Irrespective of their decision to donate or not, participants have to wait thirty seconds until they

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[9] Title: "Rotkreuz-Grundsätze". URL: https://www.youtube.com/watch?v=rVfOdY30miI. Uploaded by "Markus Hechenberger" on Jan 20th, 2014. Duration of 3:20 minutes. 8.075 views on April 8th, 2020.

[10] The self-reported knowledge of the IFRC (consider footnote 8 for the elicitation method) increased from the *noinfo* (1.68) over the *someinfo* (1.87) to the *muchinfo* environment (2.13). The difference between the *noinfo* and *muchinfo* environment is statistically significant (Wilcoxon rank-sum test: $N = 161$, $p = 0.003$).

can exit the decision stage. This strongly reduces differences in transaction costs between treatments. Participants are aware of the fact that the opportunity to donate arises only once. The questionnaire is longer than a usual post-experimental survey in order to extend the experiment to a duration of about 45 minutes. Critical inquiries, which might potentially prime prosocial behavior, are placed after the decision. We do not use words such as 'taking', 'giving' or 'donation' (resp. their German language equivalents), neither before nor during the decision process.

The donation process is double blind in the sense that neither the charity nor other participants can observe the amount contributed by any individual participant. The experimenters are unable to relate donations to names or faces of the participants. Curtains make sure that the participants' decision making is unobserved. Payment is conducted by the participants themselves. No show-up fee is included in the payment. Participants find the endowment split into several coins.[11] Photos of a private cubicle and a typical presentation of the money can be found in Appendix B. To muffle sounds, the money is placed upon a matting. After the experiment, participants take the money that they assigned to themselves. Donated money is left on the table. Participants fill in a receipt, fold it and put it into a box. Instructions make it clear that only persons unfamiliar with the purpose and the design of the experiment will handle the receipts for accounting.

We conducted our experiment in 2017 till 2019 at the University of Göttingen. We used zTree (Fischbacher 2007) and ORSEE (Greiner 2015). In total, 239 participants took part in 22 sessions. On average there were 40 participants in each treatment. Within each session, the treatments varied along the frame dimension. The variation regarding the information dimension took place between sessions. The average share of females was 54 percent. The average age of participants was 24 years of age. No significant differences between treatments with respect to these characteristics can be detected.[12] In a few cases, the indicated donation did not coincide with the amount of money left in the cubicle. If the participant mentioned having made a mistake when reporting her decision, we base the analysis on the actual donation (amount of money left in the cubicle). Otherwise, we continue working with the declared donation decision.

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[11] Participants receive three 2-euro, two 1-euro, five 0.20-euro and ten 0.10-euro coins. Between zero and 10 euros every amount in increments of 0.10 euro is feasible.

[12] We find no significant differences between treatments for gender (Fisher's exact test, p = 0.208) and age (Kruskal-Wallis test, p = 0.855).

# 4. Experimental Results

We denote the Wilcoxon rank-sum test as *rank-sum test* and the Fisher's exact test as *exact test.* All tests are two-sided and we require p = 0.05 for significance.

## 4.1 Average donations

The average donations to the IFRC vary substantially between treatments. In GIVE-*noinfo*, participants on average donate 11.6 percent of their endowment of ten euros, while they donate 52.9 percent in TAKE-*noinfo*. In GIVE-*someinfo*, they donate 16.5 percent of the endowment and in TAKE-*someinfo* 51.4 percent. Finally, they donate 24.6 percent of the endowment in GIVE-*muchinfo*. In TAKE-*muchinfo*, they donate 46.9 percent. Fig. 1 visualizes the average donations.
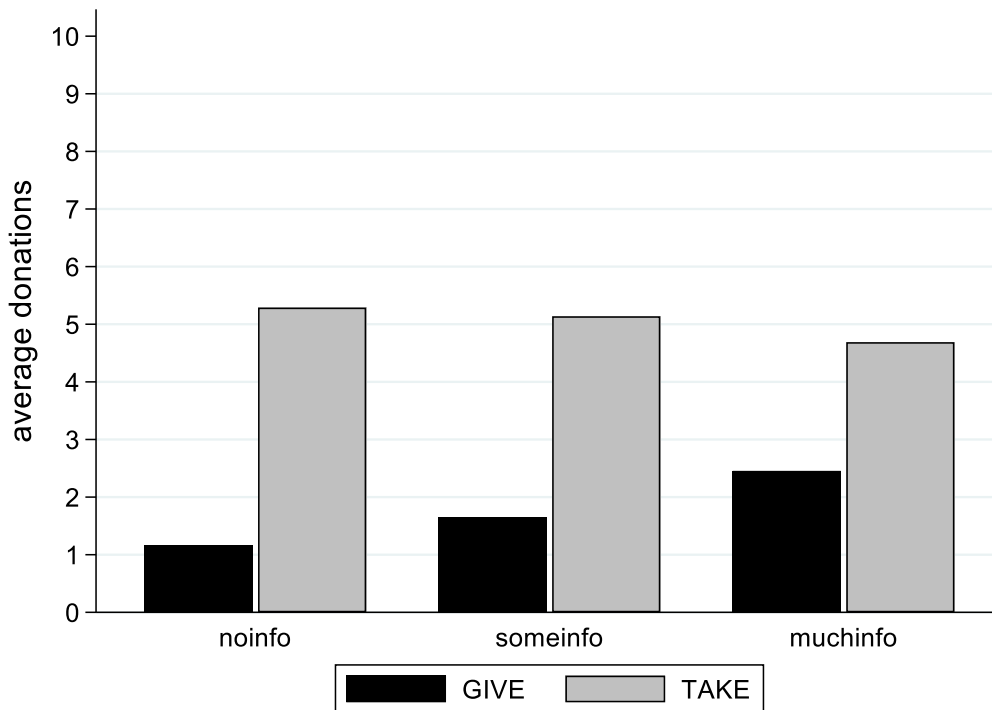


**Fig. 1** Average donations in euros by frame (GIVE / TAKE) and information (*no*, *some*, *much*)

Based on rank-sum tests, we observe that, irrespective of the information environment, donations are significantly higher under the taking than the giving frame.[13] Likewise, the cumulative distribution functions presented in Fig. 2 show a first-order stochastic dominance of the taking frame relative to the giving frame for all three information domains. These findings support Hypothesis 1.

We find no statistical evidence for an effect of the variation in information on donations under the taking frame (Kruskal-Wallis test: $p = 0.685$). This result is confirmed by pairwise treatment comparisons.[14] Under the giving frame, however, we do find some statistical evidence of information effects (Kruskal-Wallis test: $p = 0.011$): donations increase when *some* information and when *much* information is provided (in comparison to the *no* information domain).[15] The difference in donations between *much* information and *some* information is statistically insignificant.[16] On the whole, we find support for Hypothesis 2 on the positive impact of information on donations for the giving frame but not for the taking frame.

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[13] Rank-sum tests: GIVE-*noinfo* vs TAKE-*noinfo*: $p = 0.000$; GIVE-*someinfo* vs TAKE-*someinfo*: $p = 0.000$; GIVE-*muchinfo* vs TAKE-*muchinfo*: $p = 0.001$.

[14] Rank-sum tests: TAKE-*noinfo* vs TAKE-*someinfo*: $p = 0.788$; TAKE-*noinfo* vs TAKE-*muchinfo*: $p = 0.603$; TAKE-*someinfo*: vs TAKE-*muchinfo*: $p = 0.380$.

[15] Rank-sum tests: GIVE-*noinfo* vs GIVE-*someinfo*: $p = 0.032$; GIVE-*noinfo* vs GIVE-*muchinfo*: $p = 0.005$.

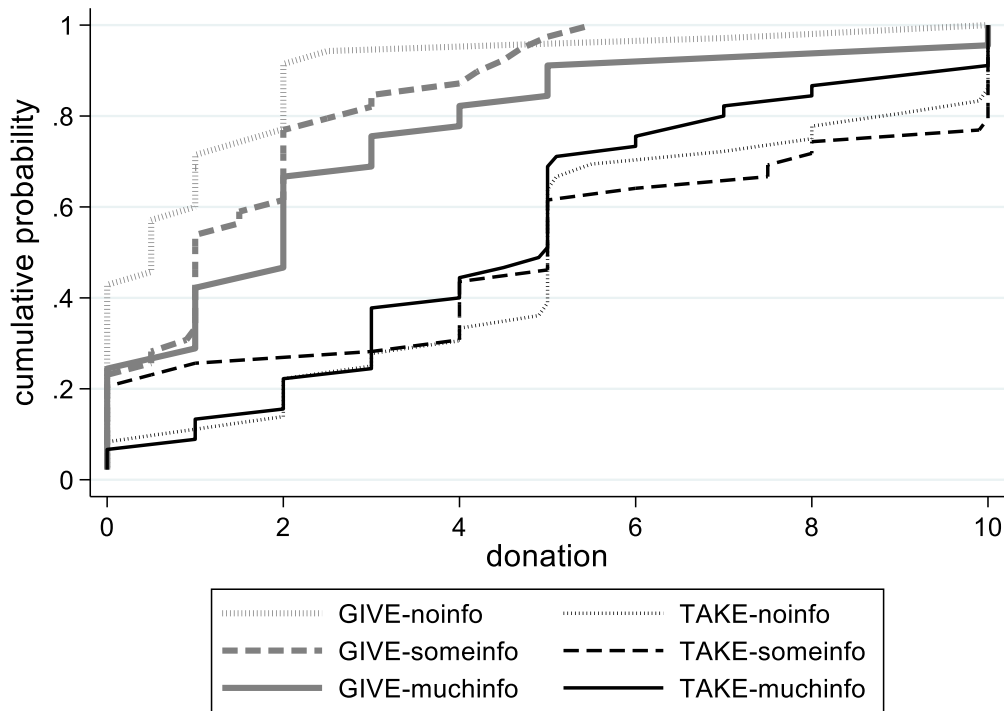[16] Rank-sum test: GIVE-*someinfo* vs GIVE- *muchinfo*: $p = 0.279$.

**Fig. 2** Cumulative distribution of donations by frame (GIVE / TAKE) and information (*no*, *some*, *much*)

We observe that the impact of the taking frame decreases with the information provided. The taking frame (in comparison to the giving frame) increases donations by 41 percentage points (of the endowment) in the *no* information environment, by 35 percentage points in the *some* information domain, and by only 22 percentage points in the *much* information environment. Table 1 presents the results of two ordinary least-squares regressions, for which we adapt the difference-in-difference approach to our setting. In a model without interaction terms, exhibited in column (1), we find a positive coefficient of the taking frame dummy ($p < 0.001$, baseline is the giving frame). The dummies for both types of additional information (pooled over both frames) are not statistically different from zero (baseline is no information). The regression results presented in column (2) exhibit that the coefficient of the interaction term between *some* information and the taking frame is not significantly different from zero. Importantly, we find the interaction between *much* information and the taking frame to have a significantly negative coefficient ($p = 0.032$). In support of Hypothesis 3, this suggests that providing *much* information decreases the frame's impact on donations.

**Table 1** Ordinary least-squares linear regression on donation.

| Donor | (1) | (2) |
|---|---|---|
| Taking frame | 3.207*** (0.359) | 4.132*** (0.657) |
| *Some* information | 0.164 (0.456) | 0.492 (0.644) |
| *Much* information | 0.342 (0.442) | 1.298* (0.623) |
| *Some* information x taking frame | | -0.642 (0.907) |
| *Much* information x taking frame | | -1.898* (0.878) |
| Constant | 1.626*** (0.377) | 1.157* (0.467) |
| N | 239 | 239 |
| R² | 0.254 | 0.269 |

Note: Standard errors in parentheses. Reference category for the taking frame: giving frame. Reference category for *some* information jointly with *much* information: *no* information. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

## 4.2 Share of donors

Since the decision whether to donate or not is most likely altered only for those who are at the threshold to donate anyway, it comes as no surprise that we find a less clear picture with respect to the interaction between framing and information at the extensive margin (see Fig. 3). Nevertheless, the results point in the same direction as those for average donations. In the *no* information environment, we find a share of donors of 0.57 under the giving frame and a share of 0.92 under the taking frame. In the *some* information domain, the share of donors is 0.77 in the giving and 0.79 in the taking frame. In the *much* information environment the impact of the frame is stronger than in the *some* information domain. In the *much* information environment, we observe a share of 0.76 under the giving and of 0.93 under the taking frame.
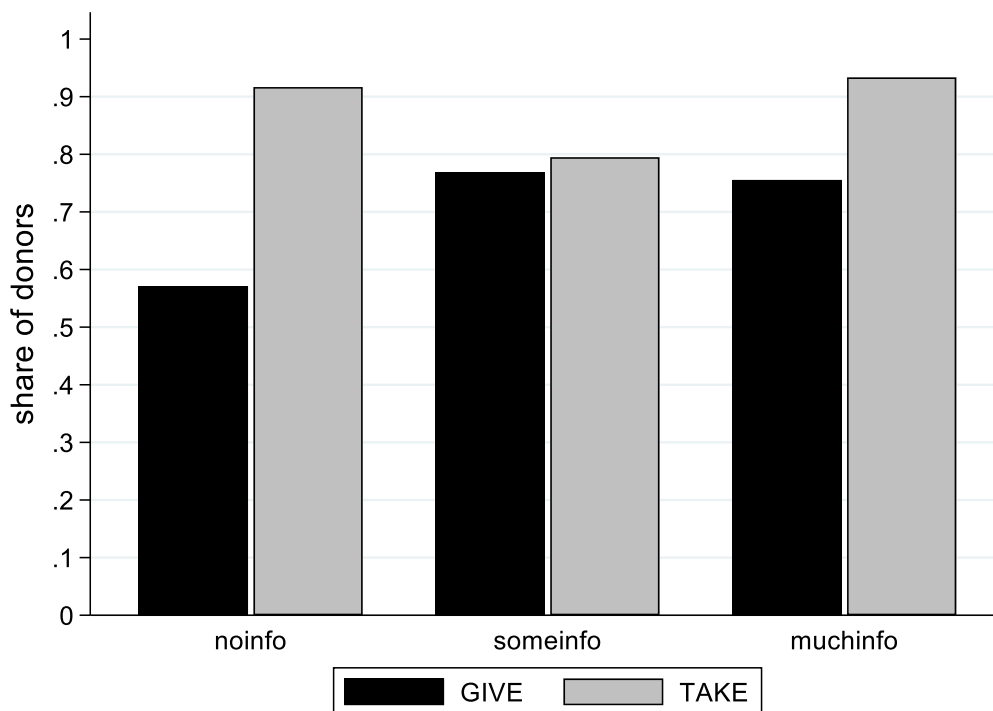
**Fig. 3** Share of donors by frame (GIVE / TAKE) and information (*no*, *some*, *much*)

Based on non-parametric statistics, we find a significantly higher share of donors under the taking than under the giving frame when considering the *no* and the *much* information environment.[17] In the *some* information context, no significant effect of the frame is detectable.[18] With respect to information, we find no significant effect on the share of donors, neither under the taking (exact test: p = 0.151)[19] nor the giving frame (exact test: p = 0.118)[20]. The two probit regressions on the share of donors presented in Table 2 follow the same logic as the regressions presented in Table 1 on average donations. The results exhibited in column (1) confirm that information does not affect the share of donors, while the taking frame (pooled over all information level) has a significantly positive impact (p = 0.001). Table 2, column (2) shows that providing *some* information decreases the impact of the frame on the decision to donate (p =

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[17] Exact tests: GIVE-*noinfo* vs TAKE-*noinfo*: p = 0.001; GIVE-*muchinfo* vs TAKE-*muchinfo*: p = 0.019.
[18] Exact test: GIVE-*someinfo* vs TAKE-*someinfo*: p = 0.500.
[19] Binary exact tests confirm this result: TAKE-*noinfo* vs TAKE-*someinfo*: p = 0.195; TAKE-*someinfo* vs TAKE-*muchinfo*: p = 0.103; TAKE-*noinfo* vs TAKE-*muchinfo*: p = 1.000.
[20] Binary exact tests confirm this result: GIVE-*noinfo* vs GIVE-*someinfo*: p = 0.085; GIVE-*someinfo* vs GIVE-*muchinfo*: p = 1.000; GIVE-*noinfo* vs GIVE-*muchinfo*: p = 0.096.

0.022). The difference in difference between the *much* and the *no* information environment points in the same direction but is statistically not significant.

**Table 2** Probit regression on donating a positive amount.

| Donor | (1) | (2) |
|---|---|---|
| Taking frame | 0.659** (0.194) | 1.203** (0.368) |
| *Some* information | 0.094 (0.232) | 0.556 (0.308) |
| *Much* information | 0.364 (0.235) | 0.512 (0.295) |
| *Some* information x taking frame | | -1.116* (0.486) |
| *Much* information x taking frame | | -0.394 (0.510) |
| Constant | 0.380 (0.184) | 0.180 (0.213) |
| N | 239 | 239 |
| Psdeuo R² | 0.060 | 0.083 |

Note: Standard errors in parentheses. Reference category for the taking frame: giving frame. Reference category for *some* information jointly with *much* information: *no* information. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

## 5. Conclusion

This study analyzes the impact of information on the take-versus-give framing effect in the context of charitable giving. We present a theoretical framework, in which individuals derive utility from the warm glow of giving and can avoid disutility by giving an amount equal to a contextually prevailing norm.

Our experiment provides clear evidence in support of our main hypothesis that information reduces the take-versus-give framing effect on donations. The difference in donations between the taking and the giving frame becomes smaller, the more information about the charity we

provide to our participants. Reading aloud information on the key tasks of the charity instead of just stating the name (the *International Federation of the Red Cross and Red Crescent)* leads to a decrease of the impact of the frame on average donations, although this effect is statistically not significant. The additional presentation of video footage laying out the main principles of the organization leads to a significant decrease of the influence of the taking frame.

This main result rests on three pillars. First, we find that the taking frame leads to higher donations irrespective of the information provided. Second, we find that information increases donations under the giving frame. Third, the analysis shows that participants basically do not react to the additional information when the decision is presented in the taking frame. With respect to our theoretical framework, the third result implies that either the norm effect strongly outweighs the warm glow effect, or that the taking frame crowds out warm-glow motives. We leave this question open to future research.

Our findings can potentially be applied to several domains, where the comparison between a taking versus a giving frame seems relevant. Typical such domains are those, where a default setting might make a big behavioral difference and at the same time might exploit decision biases in ways that undermine the legitimacy that can be derived from informed consent. A prominent special case in point is charitable donation of deceased human donor organs. Here the charity is typically (almost exclusively) a state organization. Granting the morally rather precarious premise that the state has a kind of natural monopoly claim on organs of deceased human donors much of the discussion has focused on the impact of organizing organ donation as Opt-In or Opt-Out schemes (Johnson and Goldstein 2003, Abadie and Gay 2006, Breyer et. al. 2006, Coppen et al. 2008, Rudge and Buggins 2012, and Ugur 2017). In an Opt-In system (giving frame), individuals are non-donors until they opt-in to register as a donor. In an Opt-Out system (taking frame) agents are considered willing donors in case of their own death unless they opt-out.

Opt-Out rules of organ donation have been established in many of the most successful systems of transplanting cadaveric organs. Though it is contested how strongly the Opt-Out rule contributes to the success of these transplant systems (hospital organization and the incentives of hospitals to participate being crucial co-factors (Breyer et.al. 2006)) it seems on the whole clear that the Opt-Out rule has a significant positive impact on the number of cadaveric organs donated for transplantation. Supporters of the rule have pointed this out and argued that those who do not

want to donate could easily opt out and therefore their omission of the act of opting out could be regarded as voluntary if tacit consent. Opponents of the Opt-Out rule have always argued that a pragmatic ascription of voluntary consent in such a weighty matter as organ donation was inacceptable because there was no guarantee that it was an informed voluntary act. They argued that implementing the Opt-Out rule amounted to an exploitation of a procrastination type bias (sometimes adding that the assumed state monopoly on allocating organs of deceased donors amounted to a cold expropriation of property in organs since the potential donors are deprived by the state monopoly of the option of bequeathing their organs to particular individuals or charities during their lifetime for the event of their own death (Kliemt 1997)). For the consent to be of any weight they argued it had to be explicit rather than tacit and appropriate measures to secure that it was informed had to be taken. The Opt-In rule they argued is the best way to accomplish this (again adding that it is also a way to induce the monopolist to disseminate the relevant information). Many supporters of the Opt-Out rule conceded that an explicit informed consent was desirable and offered as an auxiliary argument that relying on better information was futile anyway (and therefore, in view of the additional lives that could be saved by transplanting cadaveric human organs, imposing the Opt-Out rule was justified).

The results of our experiments directly speak to this controversy. They support the view that the taking frame might increase the number of potential post-mortem organ donors. However, the increase in donations comes at a cost of decreased legitimacy. Since the decision to donate is not one that requires the donor to take action, in particular the donors who are most vulnerable to exploitation of their decision biases will be much less attentive than in the case of an Opt-In scheme. Our result that the difference in donations between the taking and the giving frame decreases with an increase of information indicates that this 'legitimacy cost' might be avoidable to a large extent: relatively high donations can be obtained by conscious decisions in the giving frame under the condition that sufficient information is provided.

Other examples like online privacy (Johnson et al. 2002), where users either are asked to allow their personal data to be collected (giving) or must request that their data is not collected (taking) do not involve the state monopoly in establishing the taking frame. But the regulatory issues involved are analogous in that the regulator has to weigh efficiency considerations against considerations of protecting citizens against exploitation of their biases. Our results seem to apply

quite generally, though. First, the increasing effect of the frame might be smaller in a well-informed society. Second, and closely related to the first, the strong effect of the frame in a *no information* environment causes doubt that a donation under a taking frame may be seen as an informed consent. This is centrally important not only for normatively loaded discussions as in the case of organ donation but also for issues of protecting the good of informational self-determination outside the domain of government action. Third, a taking frame decreases generally the incentives to inform those who are meant to give, which is a rather weighty disadvantage from the point of view of protecting individual autonomy vis a vis corporate actors be they public or private.

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