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DO DONATION CEILINGS INCREASE CONTRIBUTIONS? EVIDENCE FROM AN EXPERIMENTAL STUDY

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Abstract: We study how setting a maximum limit on donations affects how much people give to charity. In a laboratory experiment with 210 participants, we compare three conditions: a neutral baseline, a suggested donation amount, and a capped maximum donation. We find that imposing a donation ceiling significantly increases both the likelihood and the amount of giving compared to the baseline. Moreover, ceilings perform at least as well as suggestions in our experimental setting.

Keywords: Charitable giving; Donation ceilings; Behavioral interventions; Lab experiment; Anchoring; Completion effect

JEL Classification: C91, D64, L31

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Introduction

Behavioral economics has shown that charitable giving can be shaped by subtle variations in the environment in which the donation decision is made. For example, Bhati and Hansen (2020), van Teunenbroek *et al.* (2020), Ruehle *et al.* (2021), and Saeri et al. (2023) discuss interventions such as setting default or suggested donation amounts, using moral prompts, personalizing messages, simplifying the presentation of information, highlighting individual beneficiaries, increasing the visibility of donations, describing the impact of donations, and promoting tax-deductibility to influence behavior. These tools work through well-documented behavioral mechanisms and can meaningfully alter donation patterns without changing available options or introducing financial incentives.

We conduct an experimental study to examine the effect of imposing a donation ceiling, that is, setting an upper bound on how much individuals are allowed to give. For instance, a campaign might specify that no donation above ten dollars will be accepted. At first glance, this may seem counterproductive: capping contributions could discourage generosity, especially among those willing to give more. Yet, several behavioral mechanisms suggest that a ceiling could potentially increase overall donations.

First, a ceiling can act as an anchor. By defining the upper limit of what is possible, it implicitly sets a reference point for what counts as a high donation, potentially encouraging individuals to aim closer to that amount. Second, it can facilitate social comparison. When all donors face the same limit, it becomes easier to evaluate one's generosity relative to others, which may strengthen motivations linked to self-image, social image or status (Grossman & Levy, 2024) Third, a ceiling may serve as a motivating target. Behavioral research shows that people are more likely to act when goals are clearly defined and perceived as attainable (Bandura, 1977; Locke and Latham, 1990; Csikszentmihalyi, 1990). A modest ceiling can function like a benchmark, prompting donors to "complete" the act by reaching the top of the scale (Argo et al., 2020). Finally, limiting the number of available options simplifies the decision. By reducing complexity, it can ease cognitive load and mitigate the effects of choice overload (Johnson *et al.*, 2012; Chernev *et al.*, 2015). In donation contexts where many individuals hesitate or opt out altogether, this simplification may increase the likelihood that they follow through.

Our study contrasts donation ceilings with a well-documented and widely used tool: suggested donation amounts. Suggested amounts influence behavior primarily through anchoring, setting a reference point that shapes what donors perceive as appropriate or expected (Prokopec & De Bruyn, 2009; Sunstein, 2014). They can also reduce cognitive effort by simplifying the decision environment, especially for individuals who might feel uncertain or overwhelmed by open-ended choices (Halpern, 2015). Note that these mechanisms are also those associated with donation ceilings. However, suggested amounts may carry a stronger normative signal and can be perceived as more directive or even manipulative. Such perceptions can give rise to psychological reactance (Brehm, 1966), potentially reducing donation rates or long-term engagement (Deci *et al.*, 1999; Adena & Huck, 2020). In contrast, Donation ceilings may exert less overt pressure and preserve a greater sense of autonomy. If donation ceilings prove to be

as effective as suggested amounts, they may be a valuable alternative to consider in charitable giving campaigns. In this study, we will therefore compare a donation ceiling and a suggested donation set at the same amount.

To assess the effectiveness of donation ceilings, we designed an experiment with three conditions: a neutral baseline, a suggested donation, and a donation ceiling set at the same level. While suggested donation amounts have been extensively studied, the idea of imposing an upper limit on donations has received little empirical attention. To our knowledge, this is the first controlled experiment to test the impact of capping donation. The results show that the ceiling significantly increased donations relative to the baseline and performed at least as well as the suggestion. Our findings indicate that donation ceilings are a promising behavioral tool for encouraging charitable giving.

The experiment

The experiment was conducted at the Laboratory of Experimental Economics of Besançon (University Marie and Louis Pasteur, France) between March and September 2024. Subjects were given €10 for completing a psychological questionnaire, which was entirely independent of our experimental manipulation. This design choice aims at enhancing external validity by linking the endowment to participants' own effort rather than granting it as a mere windfall. As highlighted in Umer *et al.* (2022), individuals tend to donate significantly less when their endowment is earned rather than received passively. After completing the questionnaire, the subjects were asked whether they wished to donate to the well-established French charity "Les Restos du Cœur". Here are the exact instructions in the three experimental treatments:

Baseline treatment: *"As part of a partnership with "Les Restos du Cœur", the university invites you to make a donation. Please indicate in the box below the amount, between €0 and €10, that you would like to donate."*

Suggestion treatment: *"As part of a partnership with "Les Restos du Cœur", the university invites you to make a donation. A donation of €6 is suggested. Please indicate in the box below the amount, between €0 and €10, that you would like to donate."*

Ceiling treatment: *"As part of a partnership with "Les Restos du Cœur", the university invites you to make a donation of up to €6. Please indicate in the box below the amount, between €0 and €6, that you would like to donate."*

The experiment consisted of 23 sessions, totaling 210 individuals. Participants were randomly selected from a pre-registered subject pool and invited by email. Most were students from various disciplines and levels of study. Summary statistics describing the sample (age, gender, field of study, and self-reported purchasing power) are reported in Appendix 1.

Upon arrival at the lab, participants received a brief introduction outlining the experimental procedures (anonymity, no communication, phones switched off, etc.) and were then assigned a seat at random. The sessions took place in a room equipped with partitions to prevent any visual or verbal interaction between participants. Each workstation was prepared in advance

with a tablet, a sheet of paper, and a pen. All instructions were displayed on the tablet screen. The main portion of the session involved completing a psychological questionnaire designed by our colleagues in the psychology department. This survey was unrelated to our donation study and served a separate research purpose. Several versions of the questionnaire were used, depending on the needs of their project. However, we ensured that all versions were equal in duration, so as not to introduce differential effort across experimental conditions. The donation decision was presented as a single question inserted between the end of the psychology questionnaire and the start of a short post-experimental survey. Data analysis confirms that the content of the psychological questionnaire had no effect on donation behavior (see Appendix 3). Participants were randomly assigned to one of the three experimental treatments (Baseline: n = 61; Suggestion: n = 73; Ceiling: n = 76).

Results

Table 1 reports summary statistics across treatments. First, we observe that participants donated positive amounts on average across all conditions. In *Baseline*, where no suggestion or constraint was applied, the average donation was €1.07, and about 23% of participants gave a positive amount. These results are aligned with the literature showing that individuals often voluntarily donate part of their endowment to charity, even when the money is earned rather than given as a windfall (Umer *et al.*, 2022).

Table 1 – Overview of the results

	Baseline	Suggestion	Ceiling
Average amount (€)	1.07 (2.65)	1.45 (2.82)	1.46 (2.21)
Donated nothing (%)	76.69%	65.75%	61.84%
Donated at least €6 (%)	6.56%	9.59%	11.84%
# participants	61	76	73

Note: Standard deviations in parentheses.

Comparing *Baseline* and *Suggestion*, we find that suggesting a donation of €6 leads to a higher average contribution (€1.45 vs. €1.07), although the difference is not statistically significant (p=0.134, ranksum test). The share of participants who gave nothing also declined from 76.7% to 65.8%, with this difference reaching marginal significance (p=0.098, proportion test). Overall, suggesting an amount appears to increase both the likelihood and the level of giving, but the effects remain modest and statistically weak in our sample.

Comparing *Baseline* and *Ceiling* treatments reveals more robust differences. The average donation in *Ceiling* (€1.46) is significantly higher than in *Baseline* (p=0.045, ranksum test). In addition, the share of participants donating nothing declines from 76.7% in *Baseline* to 61.8% under *Ceiling*, a statistically significant difference (p=0.034, proportion test). Overall, imposing a moderate ceiling appears to have had a positive impact both on the likelihood of donating and on the amounts given.

Finally, donations under the *Suggestion* and *Ceiling* treatments are not statistically different, both in terms of average donation size (p=0.560, ranksum test) and likelihood of donating (p=0.620, proportion test). Mean donations and donation behaviors are remarkably close across the two treatments. This suggests that, within our experimental framework, setting an upper bound on donation amounts without providing an explicit recommendation performs at least as well as a conventional suggestion, even though the maximum possible donation is only 60% of that in the suggestion condition.

Regression analyses, reported in Appendix 2, confirm the robustness of our findings. Controlling for gender, age, and perceived living standard, both OLS and Tobit models show that the Donation Ceiling significantly increases donations relative to the Baseline, while results for the Suggestion treatment remain insignificant; these conclusions hold when using a capped donation variable that truncates amounts above €6.

Discussion

We test an original design feature in the domain of charitable giving: a donation ceiling that limits the maximum amount one can donate. Our main finding is that implementing such a ceiling performs at least as well as providing a suggested amount, even though participants in the ceiling condition could only donate up to €6, just 60% of the maximum allowed in the baseline and suggestion treatments.

For practitioners, donation ceilings represent a low-cost and psychologically subtle alternative to conventional prompts. Especially in contexts where excessive pressure may backfire, ceilings can shape behavior without triggering reactance or defensiveness. In future applications, donation ceilings could also be combined with complementary pathways for high-end donors, allowing organizations to preserve the benefits of donation ceilings while still accommodating exceptional generosity.

While our design does not allow us to isolate the underlying mechanisms, we conjecture that ceilings may serve as anchors, motivational targets, and reference points for social comparison, activating processes related to self-efficacy and goal completion (Bandura, 1977; Locke & Latham, 1990; Argo et al., 2020; Grossman & Levy, 2024). Future studies could test these channels more directly using mediation analyses or incentive-compatible belief elicitation.

We acknowledge that our results may be sensitive to the specific parameters of the experiment. In particular, we set the donation ceiling at 60% of the endowment, which raises important questions about the role of threshold levels. At this stage, it remains unclear whether lower or higher ceilings would prove more or less effective. This is an open question for future research. What our study demonstrates is that imposing a donation ceiling does have a measurable effect on giving behavior, which is an important starting point for exploring this novel intervention.

Overall, the fact that a simple cap can yield comparable outcomes to a direct suggestion, without the potential downsides of perceived pressure, is an encouraging result for both researchers and practitioners interested in promoting charitable giving.

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix 1 – Sample Composition

Table A1 reports descriptive statistics regarding the composition of our sample across and within our treatments.

Table A1 – Descriptive statistics on participants' characteristics

	Full sample	Baseline	Suggestion	Ceiling
Female (%)	55.71%	40.98%	58.90%	64.47%
Age	20.81	21.77	20.45	20.40
Perceived living standard	4.78	4.64	4.91	4.75
# participants	210	61	76	73

Note: Reported values are either proportions, or averages according to the variable.

The variable *perceived living standard* corresponds to participants' self-reported purchasing power on a 1–10 slider scale, designed to reflect income deciles (1 = bottom 10%, 5 = median, 10 = top 10%). The distribution of responses was approximately normal, with a mean of 4.78 and a standard deviation of 2.08.

We conducted an ad hoc analysis of participant characteristics across treatments to check for any notable imbalances. We find no statistically significant differences between treatments in terms of gender, age, or perceived living standard. Still, we observe an imbalance in gender: the proportion of male participants is higher in the Baseline treatment than in the other two. Although this difference is not statistically significant, we control for gender in the regression analyses presented in Appendix 2. Our findings remain robust with this control, and we find no evidence that gender influences donation behavior.

Appendix 2 – Econometrics regressions

Table A2 – Regression analysis

	OLS (Donation)	Tobit (Donation, 0–10)	Tobit (Capped Donation, 0–6)
Treatment			
Baseline	*Ref.*	*Ref.*	*Ref.*
Suggestion	0.632 (0.500)	2.858 (1.825)	3.121* (1.794)
Donation ceiling	0.620* (0.340)	2.836** (1.317)	3.920** (1.572)
Controls			
Female	–0.208 (0.305)	0.012 (1.221)	–0.471 (1.288)
Age	0.164* (0.083)	0.408** (0.193)	0.416** (0.184)
Perceived living standard	0.154 (0.091)	0.630* (0.323)	0.583* (0.310)
Intercept	–3.138 (1.731)	–16.876*** (4.934)	–16.971*** (4.883)
Number of observations	210	210	210

Note: Standard errors (in parentheses) clustered at the session level. Capped donation is a transformed variable which sets to 6 all donation amounts above 6. This variable is created to allow comparison between the donation ceiling treatments and its counterparts.
**** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$*

Table A2 reports results from three regression models examining the effect of the treatments on donation behavior. Column (1) shows OLS estimates using the raw donation amount as the dependent variable. Column (2) presents Tobit estimates, with donations censored between €0 and €10, reflecting the full range of possible values in the Baseline and Suggestion treatments. Column (3) repeats the Tobit estimation using a capped donation variable that truncates all amounts above €6. This adjustment allows us to define the same upper bound across all treatments, including the Ceiling condition where donations could not exceed €6 by design. This variable is artificial, and only serves the purpose of testing the robustness of our results.

The coefficient on the Donation Ceiling treatment is positive and statistically significant in both Tobit models, and marginally significant in the OLS regression. The Suggestion treatment, by contrast, is not statistically different from Baseline, except in regression (3), in which it is marginally significant. Post-estimation tests also confirm that the Suggestion and Ceiling treatments do not differ significantly from each other. Taken together, these regressions confirm that the main findings presented in the paper are robust to the inclusion of individual controls and the clustering of standard errors at the session level.

Appendix 3 – Robustness to the preliminary questionnaire

Table A3 – Robustness check: controlling for the condition in the preliminary questionnaire

	OLS (Donation)	Tobit (Donation, 0–10)	Tobit (Capped Donation, 0–6)
Treatment			
Baseline	*Ref.*	*Ref.*	*Ref.*
Suggestion	0.600 (0.478)	2.707 (1.784)	2.933* (1.758)
Donation ceiling	0.612* (0.354)	2.676** (1.342)	3.722** (1.581)
Controls			
Female	–0.204 (0.319)	0.013 (1.225)	–0.470 (1.284)
Age	0.165* (0.084)	0.411** (0.196)	0.419** (0.184)
Perceived living standard	0.143 (0.091)	0.611* (0.323)	0.560* (0.311)
Psych. manipulation			
Control	*Ref.*	*Ref.*	*Ref.*
Anchor	0.370 (0.466)	0.929 (1.501)	1.092 (1.466)
Anagram	0.242 (0.426)	1.135 (1.315)	1.423 (1.430)
Intercept	–3.326 (1.882)	–17.461*** (5.354)	–17.673*** (5.303)
Number of observations	210	210	210

Note: Standard errors (in parentheses) clustered at the session level. Capped donation is a transformed variable which sets to 6 all donation amounts above 6. This variable is created to allow comparison between the donation ceiling treatments and its counterparts.
**** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$*

Our experimental task was implemented immediately after a psychological questionnaire conducted by colleagues from the psychology department. This questionnaire consisted of a series of quiz-style questions, such as: *"What do you think is the maximum speed of a goat (in km/h)?"* or *"What do you think is the average temperature in Antarctica (in °C)?"* The purpose was not to evaluate the correctness of participants' answers, but to examine how an initial message could influence responses via anchoring effects.

To this end, the questionnaire involved a subtle experimental manipulation: participants were randomly assigned to one of three conditions: no anchor (control), anchor message (anchor), or anchor message presented as an anagram that participants had to decipher (anagram). The donation question was placed at the very end of the entire session, and participants were unaware that this was the main focus of our study, which we believe is a strength in our experimental protocol.

While we have no theoretical reason to expect that the anchoring manipulation would influence donation behavior, we conducted a robustness check to confirm this empirically. We replicated the analyses from Appendix 2, adding a set of dummy variables indicating which anchoring condition each participant was exposed to. Our results remain stable and unaffected by this additional control. Estimates are reported in table A3.