Accepted
European Journal of Political Economy

An experiment on donations, personal stories, and bad luck

Ronen Bar-El[a], Limor Hatsor[b], and Avichai Snir[c,*]

Abstract

We conducted two fundraising experiments to study the effects (1) of compassion towards the beneficiary, and (2) of giving participants an opportunity to attribute small donations to luck. We find that exposing the participants to a plea to help the beneficiary increases the average donation. Giving participants an opportunity to attribute small donations to luck decreases the average donation. We find that in our setting, the latter effect dominates.

Last revision: February 23, 2023

Keywords: Charity, Donations, Experiment, Fundraising, Expressive Behavior, lottery

JEL classification: C91, D64, D91, L31

[*] Corresponding author

[a] Ronen Bar-El, Department of Economic and Management, The Open University of Israel, Ra'anana, Israel. Email: ronenba@openu.ac.il.

[b] Limor Hatsor, Department of Management, Jerusalem College of Technology, Jerusalem, Israel and Department of Economics, The College of Management Rishon-Lezion, Rishon-Lezion, Israel. Email: Limor.Hatsor@gmail.com.

[c]Avichai Snir, Department of Economics, Bar-Ilan University, Ramat-Gan, Israel. Email: snirav@biu.ac.il.

We thank the Open University of Israel for financing this research. We are grateful to the editor, Artyom Jelnov, and to three anonymous referees for their comments and suggestions. We would also like to thank the participants of APET 2022 conference and the 3rd Ariel university conference on the political economy of public policy for useful discussions.

1. Introduction

People donate non-trivial shares of their income to charity (Andreoni et al., 2017; CAF, 2016, Fielding & Knowles, 2014). They are particularly likely to donate when they feel empathy, or compassion, towards the beneficiary or when they identify with the beneficiary (Andersson et al., 2017; Arbel, Bar-El, et al., 2019; Arbel, Bar-El, et al., 2019; Arbel et al., 2016; Fielding & Knowles, 2014). They are also likely to donate when they believe that the donation reflects on their self-image (Kessler, 2017), and when they are asked to donate by a solicitor (Andreoni et al., 2017; Andreoni & Rao, 2011).

People, however, also take advantage of opportunities to avoid donations. They use a back door to avoid a solicitor in a mall (Andreoni et al, 2017). They avoid recycling machines that offer the opportunity to donate (Knutsson et al., 2013). They usually do not respond to letters asking them to donate (Donkers et al., 2017; Huck et al., 2015; Huck & Rasul, 2011). They make innocuous looking mistakes when the mistakes reduce the size of a donation, but make no such mistakes when the mistakes can harm their payoffs (Exley & Kessler, 2019). They reduce their donations when they can claim that the charity organization does not perform well (Exley, 2020), or when they convince themselves that the beneficiaries are not altruistic (Di Tella et al., 2015). They also take advantage of lotteries and uncertainty to reduce the size of their donations (Andreoni & Bernheim, 2009; Dana et al., 2007; Exley, 2015), even when they set the probabilities themselves (Snir, 2014). Potential donors also employ various psychological mechanisms to reduce the cognitive dissonance evoked by ungenerous behavior (Barkan et al., 2015; Tullock, 1971).

Below, we add to the literature by using a lab experiment to study and compare (1) the effect of manipulating the donors' compassion towards the beneficiary, and (2) the effect of manipulating the ease with which the donors could "avoid the ask," i.e., make a small donation without appearing unkind (Andreoni et al, 2017).

In previous studies of donations, the focus was on varying either the level of compassion toward the beneficiary, or the ease with which the participants can "avoid the ask" without appearing unkind. Thus, although it is known that when participants feel compassion towards the beneficiary they tend to increase their donations (Bechler et al., 2015; Charness & Gneezy, 2008; Engel, 2011; Goeree et al., 2010), it is not clear whether compassion can overcome the tendency of the participants to make small donations when they can do so without appearing unkind (Dana et al., 2007; Dufwenberg & Dufwenberg, 2018; Snir, 2014).

Our results are also related to the literature on expressive behavior. Hillman (2010) suggests that participants view experiments as an opportunity to earn expressive utiltiy at low costs. He argues that participants share money with strangers in dictator type experiments, because they gain expressive utility from depicting themselves as altruistic, while giving up small sums.

In our setting, participants can gain more expressive utility than in a dictator game, since they share a small sum with a charity instead of an annonymous person. Our results are therefore informative about the conditions under which participants increase their pecuniary utility rather than their expressive utility (Grossman & van der Weele, 2017).

We employ a 2×2 design. The first factor is the level of compassion, which we manipulated by letting the participants in half of the treatments read the personal story of a beneficiary and a plea to help him. The second factor is the ease with which participants could avoid the ask. We manipulated it by asking the participants in half of the treatments to determine the size of their donations by tossing dice, thus giving them an opportunity to attribute a decision to donate a small sum to an external factor, luck.

In real life participants usually do not have an explicit opportunity to attribute their decision to "luck." Yet, in real life scenarios, participants often have opportunities to attribute a decision to donate (or not to donate) to external factors that play a similar role to the one played by luck in our experiment. For example, when a beggar asks for a coin, a person might claim, without checking, that she has no change, or that she has already given money to another beggar, thus attributing her decision not to donate to the beggar's bad luck. In Andreoni et al. (2017) a solicitor stood next to one of the exits of a large store and asked for donations. Many shoppers left through the other door, thereby avoiding the ask. It is possible that some of these shoppers avoided the ask because they decided that it would be easier to go out through the other door, thus attributing the decision not to donate to their location in the store, another manifestation of luck. We therefore believe that attributing a decision to "luck," as we do in the experiment, can be informative about real life behavior.

In summary, our experimental design allows us to compare the effect of manipulating the donors' compassion towards the beneficiary with the effect of giving the donors an opportunity to attribute small donations to an external factor. Comparing these two effects is important because one mechanism that charities employ to encourage donations is giving the donors information about the beneficiaries (Homer, 2021).

In addition, because our data comes from a laboratory experiment, we can control for socio-demographic factors such as age, gender, marital status, religiosity, that are hard to collect in other settings. Further, a large share of our participants are Open University students. Consequently, 50% of the participants are in their prime working lives, and almost 60% are employed, improving the external validity of the results (Bjørnskov et al., 2014).

We find that although the donors in our experiment enjoyed complete anonymity, they donated, on average, 55.8% of their endowment. This is almost twice the average share of donations in dictator games: 28.4% (Engel, 2011).

We also find that letting the donors read a plea to help the beneficiary tilts the distribution of donations to the right. Enabling participants to use a lottery to determine the size of their donation, thus giving them an opportunity to attribute a small donation to "luck," tilts the distribution of donations to the left. However, when participants read a plea to help the beneficiary and are also asked to use a lottery to determine the size of their donation, the distribution of donation is still tilted to the left relative to the baseline treatment. Thus, although reading a plea to help the beneficiary has a positive effect on the size of donations, we find that in our setting, the effect of attributing the decision to luck is the dominating factor.

As a robustness test, we conducted a second experiment. In the second experiment, participants were only offered the opportunity to toss dice, rather than asked to toss them. We find that in the second experiment, participants in all treatments donated more than in the first experiment. Nevertheless, we still find that participants that tossed dice donated less than particiapnts in the baseline treatment, that participants that read a plea to help the beneficiary donated more than participants in the baseline treatment, and that the effect of tossing dice is stronger than the effect of reading a plea to help the beneficiary.

The rest of the paper is organized as follows. In Section 2, we describe the experimental design. In Section 3, we present and discuss the empirical results. We conclude in Section 4 by discussing expressive behavior, offering possible explanations for the absence of gender and religiosity effects, and discussing several caveats.

2. Experimental design

We recruited participants by sending online invitations to students, asking them to participate in an experiment on donations that would take up to 30 minutes. The invitations were sent to students at Bar-Ilan University, College of Management at Rishon-Lezion,

Jerusalem College of Technology, Netanya Academic College, and the Open University of Israel.

We conducted 18 sessions in the second week of January 2021. Each participant took part in one session only.

Due to the Covid-19 pandemic, participation was via Zoom. That is, participants took part in the experiment from their homes. The participants were not asked to open their cameras or microphones. Over 95% of the participants opened neither. Therefore, participants could feel confident that neither the experimenters nor the other participants could observe their actions. In addition, because we recruited participants from several institutions, most participants were unacquainted with each other, minimizing reputation concerns (Cohn et al., 2014; Abeler et al., 2014). To further mitigate reputation concerns, we gave each participant an ID number at the beginning of each session that appeared on her/his zoom screens. All communication with the participants was conducted using the ID numbers.

At the beginning of a session, we sent the participants a link to the instructions. Then, an experimenter read the instructions aloud.

Each participant received an endowment of 50 NIS,[1] and was asked to donate 0, 10, 20, 30, 40, or 50 NIS to *Lehosheet-Yad*,[2] a charity that finances expensive treatments to children with cancer and supports their families. At the end of the experiment, each participant was paid the difference between 50 NIS and the sum s/he donated. Participants were also paid a 10 NIS show-up fee.

After reading the instructions, we conducted a short quiz to ensure that the participants understand the instructions. We then reviewed the answers to the quiz and asked the participants to make their donations.

We employed a 2×2 factorial design. The first factor was the information that the participants had about the beneficiaries. In half of the sessions, participants received general information about the charity. Participants in the other sessions received information about a child that the charity supports. The second factor was whether participants could attribute small donations to luck: in half of the sessions, participants made their donations directly. In the other

[1] Approximately $15.72. The exchange rate at the time of the experiment was 3.18 NIS for $1.
[2] "*Lehosheet Yad*" ("Reaching out," in English): https://l-yad.org/en/, accessed August 5, 2022.

sessions, participants were offered the possibility to toss dice in private and determine their donations by reporting the outcome.

We, therefore, had four treatments. In the baseline *not personal–no lottery* treatment, we showed the participants the homepage of the *Lehosheet-Yad* charity. The home page contains information about the charity's goal: Assisting children with cancer and their families. After the participants looked at the homepage, we asked them to make their donations.

In the *personal–no lottery* treatment, instead of showing the participants the homepage of the charity, we showed them a photo of a child supported by the charity and a plea to help him.[3] The plea for help explains the child's medical condition and the situation of his parents, expresses his hope for a better future, and ends in a request for help. The participants were told that the money that they donate will be transferred to the child's account at the charity. The participants were then asked to make their donations.

In the *not personal–lottery* treatment, as in the baseline *not personal–no lottery* treatment, we showed the participants the homepage of the *Lehosheet-Yad* foundation. We then asked them to take any die, toss it and report the outcome.[4] Following Fischbacher and Follmi-Heusi (2013), we informed the participants that we would transfer a donation to the charity according to the reported outcomes, as follows: 10 NIS if they reported 1, 20 NIS if they reported 2, 30 NIS if they reported 3, 40 NIS if they reported 4, 50 NIS if they reported 5, and 0 NIS if they reported 6.

We made it clear to the participants that we are only interested in the outcome that they report, and that we have no way of knowing whether they tossed a die or whether they made their decision by using a different mechanism. We explicitly mentioned that their donations and payoffs are set according to the outcomes that they report, and that we would take their reports at face value.

In the *personal-lottery* treatment, we gave the participants information about a child supported by the charity, as in the *personal–no lottery* treatment. We then asked them to toss a die and report the outcome, as in the *not personal–lottery* treatment.

[3] We took the information about the child from the *Lehoseet-Yad* internet site. https://l-yad.org/en/projects/fighting-for-little-itais-life/, accessed August 5, 2022.

[4] We referred participants that did not have a die to an internet site offering a virtual die: www.youtube.com/watch?v=9L-VhUmir-A , accessed August 5, 2022.

On average, participants' take-home payoff, including the show-up fee, was 32.08 NIS. Total donations were 12,650 NIS, which we transferred to the *Lehosheet-Yad* charity.[5]

3. Statistical analysis

3.1. A framework of expressive generosity

Hillman (2010) uses the term "expressive generosity" to describe acts of generosity that are motivated solely by own expressive utility and not by altruism or caring about the consequences of giving to others. In other words, a person is expressively generous when s/he donates a small sum because s/he derives utility from expressing her/his generosity and not from aiding the beneficiary.

In our setting, expressive generosity is likely to play a role in motivating donations. First, each donation in our setting can be seen as a public good; A donation of 50 NIS is unlikely to have a meaningful effect on a sick child's health. A rational participant would therefore donate a small sum. Second, we informed the participants that if they send us a message, either by e-mail or by WhatsApp, we would send them a receipt for the money donated. None of the participants asked for it.

It therefore seems likely that a main motivation for donation in our setting is expressive generosity. That is, participants viewed the experiment as an opportunity to make low-cost actions intended to depict them as generous (Hillman, 2010). In addition, a participant that do not donate, especially in the no lottery treatments, sends a self-signal depicting her as selfish, which can harm her self-image (Grossman & van der Weele, 2017).

In the lottery treatment, however, the participants received an opportunity to attribute their decision to "luck." Attributing the decision to luck can reduce the risk to self-image. Indeed, Grossman & van der Weele (2017) find that participants that make an ungenerous decision under uncertainty are exculpated, even when they could resolve the uncertainty at no cost. We, therefore, make the following predictions about the decisions that the participants would make in each of the four treatments.

The *not personal–no lottery* treatment is our baseline treatment. We use it to measure the propensity of participants to donate to charity. In the *personal–no lottery* treatment, participants

[5] We made two separate transfers. We transferred 5,780 NIS to the charity's account, and 6,870 NIS to the child's account at the charity.

receive a plea to help a beneficiary before deciding about the size of their donation. This should increase the expressive utility from a donation, since it makes the donation more personal. Consistent with papers studying the effect of feeling compassion and empathy on the size of donations (Fielding and Knowles, 2014; Arbel et al. 2016; Andersson et al., 2017), we expect that participants in this treatment would increase their donation relative to the baseline *not personal–no lottery* treatment. Therefore, relative to the *not personal–no lottery* treatment, the distribution of the donations in the *personal–no lottery* treatment should be tilted to the right.

In the *not personal–lottery* treatment, participants received only general information about the charity and were asked to determine their donation by reporting the outcome of a die toss. The participants tossed the die in private, and they therefore knew that they enjoy full anonymity. We have also made it clear to the participants that we are only interested in the reported outcome, and that we take the reports at face value.

It is likely, therefore, that at least some participants used the die toss as a wiggle room (Dana et al., 2007) allowing them to make a self-interested choice while attributing the outcome to "luck" (Grossman & van der Weele, 2017). Thus, tossing a die could reduce the loss of expressive utility from a selfish decision, allowing the participants to increase their pecuniary utility. We, therefore, expect that relative to the baseline *not personal–no lottery* treatment, the distribution of the donations would be tilted to the left.

In the *personal–lottery* treatment, participants received the beneficiary's plea for help and were asked to determine the size of their donation by tossing a die. Thus, participants could have used the die as a wiggle room, but they were also given information designed to enhance their compassion towards the beneficiary. In this treatment, therefore, the size of donations might increase or decrease relative to the baseline treatment, depending on the relative size of these opposing effects.

3.2. Summary statistics

The first column of Table 1 presents the descriptive statistics of the 453 participants. The average age of the participants is about 27, 56% are women, 24% are married, and 47% volunteered in the 12 months prior to the experiment. 59% of the participants are employed, 74% of the participants donated to charity in the year prior to the experiment and 51% have or had a close acquaintance with a person who has, or had, a severe illness, 32% define themselves

as religious or ultra-Orthodox, 35% study economics, and 51% define their economic situation as good or very good.[6]

In Table 2, we report the average donations by treatment group. The smallest average donation is in the *not personal–lottery* treatment, 20.08 NIS. The largest average donation is in the *personal–no lottery* treatment, 36.91 NIS. The average donations in the *personal–lottery* and the *not personal–no lottery* treatments are 25.55 NIS and 29.74 NIS, respectively. Thus, the difference between the treatments with the smallest and largest average donations is 16.83 NIS, 83.8% of the average donation in the treatment with the lowest average donation.

The differences column in Table 2 reports the differences between the average donations in the *lottery* and the *no lottery* treatments. We find that the possibility to determine the donation by tossing a die reduced the average donation by 9.66 NIS in the *not-personal* treatments and by 11.36 NIS in the *personal* treatments. Wilcoxon rank-sum tests find that both differences are statistically significant ($z > 3.92$, $p < 0.01$, in both cases). The differences row reports the differences between the average donations in the *not personal* and in the *personal* treatments. We find that exposing participants to a plea to help the beneficiary increases the average donation by 7.17 NIS in the *no lottery* treatments and by 5.47 NIS in the *lottery* treatments. According to Wilcoxon rank-sum tests, these differences are also statistically significant ($z > 2.14$, $p < 0.05$, in both cases).

These results suggest a significant willingness to donate. On average, participants in the baseline *not personal–no lottery* donated 59.5% of their endowment. The results also suggest that both exposing the participants to a plea to help the beneficiary and asking them to toss a die had significant effects on the size of donations: Relative to the baseline treatment, exposing the participants to a plea to help the beneficiary increased donations by 7.17 NIS. Asking them to toss a die, thus giving them an opportunity to attribute small donations to luck, reduced donations by 9.66 NIS. In the *personal–lottery* treatment, in which participants received the beneficiary's plea for help and were asked to toss a die, the average donation is lower by 4.19 NIS ($p < 0.06$) than in the baseline treatment (*not personal–no lottery*). Thus, it seems that in our settings, the effect of tossing a die was stronger than the effect of receiving a plea to help the beneficiary.

[6] In Appendix C we present the summary statistics for each treatment separately. The only statistically significant difference between the four groups is that participants in the *not personal–lottery* treatment are more likely to have children than participants in the other treatments. All other attributes have similar distributions across the four treatments.

3.3. The distributions of the donations

Figure 1 depicts the distributions of donations in each of the four treatments. Focusing on the distribution of the donations in the baseline *not personal–no lottery* treatment, we note three features: first, the shares of participants that donated 0, 10, 20, and 30 NIS are similar: 13.16%–15.79%. A Pearson chi-square test cannot reject the hypothesis that for these values, the distribution of the donations is uniform ($\chi^2 = 0.30,\ p < 0.96$). Second, the share of participants that donated 40 NIS, 1.75%, is significantly lower than the shares of participants that donated any of the other sums. The χ^2-test values for comparing the proportion of the participants that donated 40 NIS with the proportions of the participants that donated each of the other sums are all greater than 11.82 ($p < 0.01$). Third, the share of participants that donated 50 NIS, 40.35%, is more than 2.5 times larger than the share of participants that donated any other sum. These differences are also statistically significant ($\chi^2 > 16.97$, $p < 0.01$, in all cases).

These results imply that in the baseline treatment, participants had a strong propensity to donate. Only 13.16% of the participants donated zero, and, as summarized in Table 3, 57.02% of the participants donated more than 50% of their endowment (30, 40, or 50 NIS). This is significantly more than the share of the participants that donated less than 50% (i.e., took more than 50% to themselves by donating 0, 10 or 20 NIS. $\chi^2 = 3.95,\ p < 0.05$). Furthermore, only two participants donated 40 NIS, compared to the 46 that donated 50 NIS, suggesting that participants that decided to donate a large sum preferred donating their entire endowment over donating 4/5 of it.

The propensity to donate is even stronger in the *personal-no lottery* treatment. When participants received a plea to help the beneficiary, only 1 out of 110 participants donated 0. This is significantly less than the share of participants that donated 0 in the baseline *not personal–no lottery* treatment, 15 out of 114 ($\chi^2 = 12.67,\ p < 0.01$). The participants in the *personal–no lottery* treatment were also more likely to donate 50 NIS than participants in the *not personal–no lottery* treatment. 57 out of 110 donated 50 NIS in the *personal–no lottery* treatment, 11.47 percentage points (*ppt*) more than in the *not personal–no lottery* treatment ($\chi^2 = 2.96,\ p < 0.09$).

The higher propensity to donate in the *personal-no lottery* treatment can also be seen in the share of participants that donated more than 50% of their endowment. According to Table 3, 70.91% of the participants in the *personal–no lottery* treatment donated more than they took to

themselves. This is 13.89 ppt more than the corresponding figure in the *not personal–no lottery* treatment ($\chi^2 = 4.68,\ p < 0.05$). Thus, the evidence suggests that giving participants to read a plea to help the beneficiary increases donations.

Next, we study the distribution of donations in the *not personal–lottery treatment*, in which the participants were only given general information about the charity and were asked to determine their donation by reporting the outcome of a die toss. Consistent with Fischbacher and Follmi-Heusi (2013), we find that a Pearson chi-square test rejects the null hypothesis of a uniform distribution ($\chi^2 = 11.84,\ p < 0.04$). In other words, a significant share of the participants did not determine the size of their donation according to the outcome of a die toss.

In particular, we find that the share of participants that donated 0 NIS, 24.37%, is significantly greater than 1/6 ($\chi^2 = 5.08,\ p < 0.03$), the expected share under the null hypothesis that participants follow the outcome of the dice tosses. The share of participants that donated 40 NIS, 8.40%, is significantly smaller than 1/6 ($\chi^2 = 5.85,\ p < 0.02$).

Consequently, the distribution of the donations in the *not personal–lottery* treatment is tilted to the left relative to the distribution in the baseline *not personal–no lottery* treatment. This is most evident in the share of participants that donated 0 NIS, 24.37%, which is 11.21 ppt higher than in the *not personal–no lottery* treatment ($\chi^2 = 4.78,\ p < 0.03$). In addition, the share of participants that donated 10, 20, 30, or 40 NIS in the *not personal–lottery* treatment is higher than in the *not personal–no lottery* treatment ($\chi^2 = 6.43,\ p < 0.02$). The share of participants that donated 50 NIS in the *not personal–lottery* treatment, 12.61%, on the other hand, is only 31.25% of the share in the *not personal–no lottery* treatment ($\chi^2 = 23.19,\ p < 0.01$).

Thus, offering the participants the possibility to determine their donation by reporting the outcome of a die toss results in a significant decline in the size of donations. Only 36.13% of the participants in the *not personal–lottery* treatment donated more than they took to themselves, compared to 57.02% in the *not personal–no lottery* treatment ($\chi^2 = 10.21,\ p < 0.01$) and to 70.91% in the *personal–no lottery* treatment ($\chi^2 = 27.74,\ p < 0.01$).

Finally, in the *personal–lottery* treatment, where we gave participants to read a plea to help the beneficiary and asked them to determine their donation by reporting the outcome of a die toss, the distribution of the donations has a U shape with peaks at donations of 0 NIS and 50 NIS. Accordingly, the distribution is again different than uniform. In particular, the share of participants that donated 30 NIS, 7.27%, is significantly lower than 1/6 ($\chi^2 = 6.99,\ p <$

0.01). The share of participants that donated 50 NIS, 23.64%, is significantly higher than 1/6 ($\chi^2 = 3.85,\ p < 0.05$).

It therefore seems that in the *personal-lottery* treatment, the participants were divided between those that took advantage of the opportunity to attribute their decision to luck and donated less than 25, the expected donation under uniform distribution, and those that preferred earning expressive utility and donated more than 25.

Comparing the donations in the *personal-lottery* treatment to the other treatments, we find that the share of participants that donated 0 NIS, 20.91%, is 22.98 times the share in the *personal–no lottery* treatment ($\chi^2 = 22.61,\ p < 0.01$) and 85.80% of the share in the *not personal–lottery* treatment ($\chi^2 = 0.39,\ p > 0.53$). The share of participants that donated 50 NIS, 23.64%, is 45.62% of the share in the *personal–no lottery* treatment ($\chi^2 = 18.59,\ p < 0.01$) and 87.47% higher than in the *not personal–lottery* treatment ($\chi^2 = 4.73,\ p < 0.04$). Thus, the share of participants that donated 0 NIS is more similar to the share in the *not personal–lottery* treatment than to the share in the *personal–no lottery* treatment. The share of participants that donated 50 NIS is also more similar to the share in the *not personal–lottery* than to the share in the *personal–no lottery* treatments.

Further, the share of participants in the *personal–lottery* that donated more than 50% of their endowment, 47.27%, is between the shares in the *personal–no lottery* treatment, 70.91%, and in the *not personal–lottery* treatment, 36.13%. The difference between the shares in the *personal–lottery* treatment and in the *personal–no lottery* treatment is statistically significant ($\chi^2 = 12.71,\ p < 0.01$). The difference between the shares in the *personal–lottery* treatment and in the *not personal–lottery* treatment is only marginally significant ($\chi^2 = 2.92,\ p < 0.10$).

Thus, we find that when participants read a plea to help the beneficiary and are asked to determine their donation by tossing a die, their donation is affected by both these factors. However, it seems that the effect of tossing dice is stronger, as the distribution is more similar to the distribution in the *not personal–lottery* treatment than to the distribution in the *personal–no lottery* treatment.

3.4. Stochastic dominance

Figure 2 depicts the cumulative distributions of the donations in each of the four treatments. It illustrates that the distributions can be ordered in terms of stochastic dominance. The *personal–no lottery* treatment exhibits first order stochastic dominance (*FSD*) over the other

three distributions. The *not personal–no lottery* treatment exhibits FSD over the *personal–lottery* and the *not personal–lottery* treatments. The *personal–lottery* treatment exhibits FSD over the *not personal–lottery* treatment.

To formally test the existence of FSD, we use the Kolmogorov-Smirnov (*K-S*) test (Klecan et al., 1991). Table 4 gives the K-S statistics. In the table, the row treatments exhibit first order stochastic dominance over the column treatments. We find that all the values in the table are statistically significant.

The order of the FSDs suggests that asking participants to toss a die has a larger effect on the willingness of the participants to donate than giving them to read a plea to help the beneficiary. Indeed, the distributions of the donations in both the *personal–lottery* and the *not personal–lottery* treatments exhibit FSD over the distributions of the donations in both the *not personal–no lottery* and the *personal–no lottery* treatments. Therefore, even after reading a plea to help the beneficiary, participants that were asked to toss a die donated smaller sums than participants that were only given general information about the charity and made their donations directly.

This being said, the effect of reading the beneficiary's plea for help is also significant, which is reflected by the FSD of the distribution in the *personal–no lottery* treatment over the distribution in the *not personal–no lottery* treatment, and the FSD of the distribution in the *personal–lottery* treatment over the distribution in the *not personal–lottery* treatment. Thus, while giving participants an opportunity to attribute their decision to luck reduces the size of their donations, letting them read the beneficiary's plea for help increases their donations. The increase in donations, however, does not fully offset the effect of giving the participants an opportunity to attribute their decisions to luck.

3.5. Regression analysis

To shed further light on the effects of letting participants read the beneficiary's plea for help and of letting them determine their donation by reporting the outcome of a die toss, we estimate a multinomial logistic regression. The multinomial logistic regression has the advantage of succinctly summarizing the effects of the independent variables on the probability that a participant would make any of the possible donations. We therefore estimate:

$$ln\left(\frac{Pr(Y_i = k)}{Pr(Y_i = 50)}\right) = \beta_k \cdot X_i$$

for each $k \in \{0,10,20,30,40\}$, where we choose a donation of 50 NIS as the pivot outcome. β_k is a vector of coeffcieints, and X_i is a vector of independent variabels. $Pr(Y_i = x)$ is the probability that Y_i is equal to x. We cluster the standard errors at the session level.

Panel 1 of Table 5 presents the results of a regression in which the only independent variables are *tossing dice*, which equals 1 if the participant took part in a treatment in which s/he was asked to toss a die and 0 otherwise, and the *beneficiary's plea*, which equals 1 if the participant took part in a treatment in which s/he read a plea to help the beneficiary and 0 otherwise. We cluster the standard errors by sessions.

The regression coefficients in the table indicate the effect that the independent variables have on the probability of each of the outcomes. The $\beta_{tossing\ dice} = -\beta_{Beneficiary's\ plea}$ row displays the χ^2 statistic for testing the hypothesis that the coefficient of *tossing dice* is equal to the negative of the coefficient of the *beneficiary's plea*. In other words, this column tests whether the effect of reading a plea to help the beneficiary cancels out the effect of being asked to report the outcome of a die toss.

We find that the coefficients of *tossing dice* are positive and statistically significant for donations of 0, 10, 20, and 40 NIS. The coefficient is positive and marginally significant for donations of 30 NIS. This implies that asking participants to report the outcome of a die toss increases the probability of small donations, whereas the probability of a donation of 50 NIS (the pivot outcome) decreases.

The coefficients of the *beneficiary's plea* are negative and statistically significant for donations of 0 and 10 NIS. They are negative and not statistically significant for donations of 20 and 30 NIS, and positive and not statistically significant for donations of 40 NIS. Therefore, in treatments in which participants read the beneficiary's plea for help, they are less likely to make small donations, and, therefore, are more likely to donate 50 NIS.

We also find that the effects of reading a plea to help the beneficiary do not cancel out those of reporting the results of a die toss for 0 NIS ($\chi^2 = 2.98, p < 0.09$), 20 NIS ($\chi^2 = 3.66, p < 0.06$), and for 40 NIS ($\chi^2 = 75.28, p < 0.01$). These results indicate that even after reading a plea to help the beneficiary, participants in the *personal–lottery* still make more 0, 20 and 40 NIS donations than participants in the baseline treatment (*not personal–no lottery*). It follows that participants in the baseline treatment are more likely to make donations of 50 NIS. Consequently, the distribution of donations in the *not personal–no lottery* treatment exhibits

FSD over the distribution of donations in the *personal–lottery* treatment, as discussed in Section 3.4.

In panel 2, to check whether the results are affected by the participants' socio-demographic characteristics, we add the following controls: *Age*, the age of the participants, in years. *Woman*, a dummy that equals 1 if a participant is a woman and 0 otherwise. *Married*, a dummy that equals 1 if a participant is married and 0 otherwise. *Children*, a dummy that equals 1 if a participant has children and 0 otherwise. *Volunteered in the past 12 months*, a dummy that equals 1 if a participant volunteered in the 12 months prior to the experiment and 0 otherwise. *Donated in the past 12 months*, a dummy that equals 1 if a participant donated to charity in the 12 months prior to the experiment and 0 otherwise. *Acquaintance with severe illness*, a dummy that equals 1 if a participant has (or had) a close acquaintance with someone with a severe illness and 0 otherwise. *Employment*, a dummy that equals 1 if a participant has either a full or part-time job and 0 otherwise. *Religious*, a dummy that equals 1 if a participant defines herself/himself as either religious or ultra-Orthodox and 0 otherwise. *Economics student*, a dummy that equals 1 if a participant studies economics and 0 otherwise. *Good economic situation*, a dummy that equals 1 if a participant reported that his/her economic situation is either good or very good.

We find that the only socio-demographic variables that have systematic effects on the outcomes are age and good economic situation. Older participants are less likely to donate small sums. Participants that have a good economic situation are also less likely to donate small sums. Thus, in our settings, participants that are older and participants that perceive themselves as well off are more likely than other participants to donate their full endowment, 50 NIS.

More important, the main results remain unchanged: Participants that read the beneficiary's plea for help tended to make larger donations, while participants that were asked to determine their donation by reporting the outcome of a die toss made smaller donations. We also find evidence that the latter effect is stronger than the former.

We conclude that our main results are unaffected by controlling for the participants' characteristics. In our setting, participants donate less when they have an opportunity to do so without appearing unkind, donate more when they read a plea to help the beneficiary, and the former effect is stronger than the latter.

3.6. Aversion to lies vs. avoiding the ask

The average donations in the *not personal–no lottery* and in the *personal–no lottery* treatments were 29.74 NIS and 36.91 NIS, respectively. Therefore, an alternative explanation to the finding that the no lottery treatments exhibit FSD over the lottery treatments is that many participants adhered to the dice outcomes (Abeler et al., 2019). If this was the case, we would expect that the average donation would be 25 NIS, significantly below the average donations in the no lottery treatments.

We believe that this was not the case. First, because the distribution of the donations in both lottery treatments is not uniform. The χ^2 statistics for testing the null hypothesis of uniform distributions are 10.98 ($p < 0.06$) and 11.84 ($p < 0.04$) for the *personal–lottery* and for the *not personal–lottery* treatments, respectively.

Second, in addition to the socio-demographic questions, we asked the participants in the lottery treatments two questions about the dice outcomes. The first question was "how close was the die's outcome to the donation you would have made in the absence of a die toss?" The participants could respond that the outcome was identical to the donation s/he would have chosen, 10 NIS away from the donation s/he would have chosen, or more than 10 NIS away from the donation s/he would have chosen. The second question was "how close was the outcome that you reported to the outcome of the die toss?" The participants could respond that they reported the die toss outcome, reported a sum 10 NIS away from the die toss outcome or reported a sum more than 10 NIS away from the die toss outcome.

We find that 19.7% of the participants reported that the dice outcomes were the same as their donations in the absence of a die toss, 30.1% reported that the outcomes were up to 10 NIS away from their donations in the absence of a die toss and 50.2% reported that the outcomes were more than 10 NIS away from their donations in the absence of a die toss.

Table 6 describes the distribution of the participants' choices. The rows of the table show whether the outcome of a dice toss was the same as the donation that a participant would have made in the absence of a die toss, 10 NIS away from the donation s/he would have made in the absence of a die toss, or more than 10 NIS away from the donation s/he would have made in the absence of a die toss.

The columns describe the share of the participants that chose to donate the same as the outcome of the dice toss, up to 10 NIS away from the outcome of the dice toss, or more than 10 NIS away from the outcome of the dice toss. The figures in each row sum up to 100%.

We find that the participants' choices strongly depend on the distances of the outcomes of the dice tosses from their preferred donations in the absence of a die toss. Those that had an outcome that was the same as the donation they would have made in the absence of a die toss, made their donation according to the die toss. When the distance between the outcome of a die toss and the donation that they would have made in the absence of a die toss was 10 NIS, 62.3% of the participants made their donation according to the die toss, and 37.7% made a donation that was 10 NIS away from the outcome of the die toss.

When the outcome of a die toss was more than 10 NIS away from the donation that the participant would have made in the absence of a die toss, only 9.6% of the participants made their donations according to the die toss. 34.8% made a donation that was 10 NIS away from the outcome of the die toss, and the majority, 55.6%, made a donation that was more than 10 NIS away from the outcome of the die toss.

It therefore seems that the participants donated in accordance with the outcome of the dice tosses when the outcomes were similar to the donations that they would have made in the absence of die tosses. When the outcomes were more than 10 NIS away from the donations they would have made in the absence of a die toss, 90.4% of the participants made donations that were different than the outcome of the die toss.

We conclude that most of the participants did not perceive the dice outcomes as restrictive. Rather, the participants stuck by the outcomes of the dice tosses when they were convenient to them, and deviated when the dice tosses were inconvenient.

3.7. Robustness check: Lying aversion vs. avoiding the ask

The findings of Section 3.6 are suggestive, but they do not rule out the possibility that our results are driven, at least partly, by lying aversion (Abeler et al., 2014). It is possible, for example, that our results are driven by a mixture of participants that use the dice as an "excuse" to avoid the ask, and participants that have a preference for telling the truth (Abeler et al., 2019).

As a robustness check, we therefore conducted a second round of the experiment. We conducted this robustness experiment on the third week of December 2022. For the robustness

experiment, we modified the instructions in two ways. First, the medical condition of the child that was the beneficiary of the donations in the original experiment has improved in the time between the experiments, and he and his family no longer require financial support. We therefore collected money on behalf of another child.

Second, we changed the wording of the two lottery treatments. Instead of asking the participants to toss a die in private and then report the outcome, we told the participants that: "If you would like, you can determine your donation by tossing a die." During the experiment we emphasized that we do not observe the participants' actions,[7] and that we are only interested in their reports. Therefore, in this experiment we made sure that the participants would not feel compelled to use the dice.

We had 4 sessions, with a total of 197 participants, which we recruited at Bar-Ilan University and the Open University of Israel.[8] Column 2 of Table 1 describes the summary statistics.[9] We find that the average donation in this sample, 33.91 NIS, is higher than in the original experiment, 27.92 NIS. We suspect that this difference is driven by differences between students of Bar-Ilan University and of the Open University, and students of the other three institutions from which we recruited participants in the original experiment. In particular, the Open University's students have greater tendency to hold full time jobs compared to other students, while Bar-Ilan University students are likely to have more communal values than students of other institutions.[10] In addition, the main experiment was conducted during the Covid-19 lockdowns while the robustness experiment was conducted after the lockdowns. The robustness experiment was conducted, therefore, during a period of a stronger labor market, higher growth rate and more certainty.

However, our main concern is the differences between treatments. Table 7, similar to Table 2, provides information on the average donations in each of the four treatments. We find the same pattern as in the main experiment. When we offered participants to toss a die, the average donation in the *not personal–lottery* treatment was smaller by 9.55 NIS than the average donation in the *not personal–no lottery* treatment. In the *personal–lottery* treatment, the

[7] As in the original experiment, participation was via zoom. Only two of the participants kept their cameras on throughout the experiment.
[8] The number of participants in the robustness experiment is smaller than in the main experiment because of budget constraints.
[9] In Appendix C we present the summary statistics for each treatment separately.
[10] Bar-Ilan University was created as a religious university. It defines itself as a university that "strives to improve science, the *Israeli society*, the *Jewish community*, and *the world at large*." https://www.biu.ac.il/en/node/403, accessed February 15, 2023. Our emphasis.

average donation was smaller by 10.64 NIS than in the *personal–no lottery* treatment. Both differences are statistically significant (Wilcoxon rank sum-tests, $z > 2.32,\ p < 0.05$, in both cases).

Exposing participants to a plea to help the beneficiary leads to an increase in the average donation. The average donation in the *personal–no lottery* treatment is 6.24 NIS higher than in the *not personal–no lottery* treatment, although this difference is not statistically significant (Wilcoxon rank sum-test, $z = 1.22,\ p > 0.22$). In the *personal–lottery* treatment, the average donation is 5.15 NIS higher than in the *not personal–lottery* treatment (Wilcoxon rank sum-test, $z = 1.79,\ p < 0.10$).[11]

Figure 3 depicts the distribution of the donations in the four treatments. We find that in the baseline, *not personal–no lottery* treatment, 54.0% of the participants donated 50 NIS, and 10.0% donated 0. In the *personal–no lottery* treatment, in which we exposed the participants to a plea to help the beneficiary, we find that the share of 50 NIS donations is 69.4%, 14.4% ppt higher than in the baseline treatment, and the share of 0 NIS donation is 0. The difference in the shares of 50 NIS donations is marginally statistically significant (Wilcoxon rank sum-test, $z = 1.56,\ p < 0.08$), and the difference in the share of 0 NIS donations is statistically significant (Wilcoxon rank sum-test, $z = 2.26,\ p < 0.03$).

In the *not personal–lottery* treatment, the share of 50 NIS donations is 35.4%, 18.6 ppt lower than in the baseline treatment (Wilcoxon rank sum-test, $z = 1.84,\ p < 0.07$). The share of 0 NIS donations is 22.9%, 12.9% ppt higher than in the baseline treatment (Wilcoxon rank sum-test, $z = 1.72,\ p < 0.09$).

Finally, in the *personal–lottery* treatment, the shares of 50 NIS, 38.0%, and 0 NIS donations, 12.0%, are in between their corresponding shares in the *personal–no lottery and not personal–lottery* treatments.[12]

In summary, the results of the robustness experiment are consistent with those of the main experiment.

[11] In Appendix D, we show that the differences in the average donations that we report in Table 2 (first round of the experiment) are not statistically significantly different than the differences reported in Table 7 (second round of the experiment).

[12] The distributions in both lottery treatments are not uniform. The χ^2 statistics for uniform distribution are 18.5 and 17.2 for the *not personal–lottery* treatment and for the *personal–lottery* treatment, respectively. It therefore seems that. as we expected, a large share of the participants did not determine the size of the donations by tossing dice.

4. Conclusions

We used a lab experiment with a 2×2 design to study two factors that affect the willingness to donate to charity: (a) feeling compassion towards the beneficiary and (b) The ability of the donors to attribute small donations to luck.

We find that in the baseline treatment of our main experiment, participants donated 59.5% of their endowment, suggesting a significant willingness to donate. Giving participants to read a plea to help the beneficiary, thus increasing the compassion they feel towards the beneficiary, tilts the distribution of donation to the right. Giving the participants an opportunity to attribute small donations to luck, tilts the distribution of donations to the left. Also, we find that in our setting, the latter effect dominates the former.

In the robustness experiment, the average donation in the baseline treatment is even higher, 71.6%. All the other patterns that we find in the main experiment, however, remain unchanged. Participants donate more when they read a plea to help the beneficiary, donate less when they have an opportunity to role dice, and the latter effect dominates.

Our findings, therefore, suggest that exposing participants to emotionally loaded information in the form of a personal plea for help, effectively encourages donations in environments where the participants can reduce donations without appearing unkind. However, many participants still wriggle out of donations even after being exposed to such information. Further, our results suggest that an opportunity to attribute a small donation to luck can have a stronger effect than exposing the participants to a personal plea for help.

Our results add to the findings of Snir (2014), which asks participants to choose the probability with which they would share a sum of money with another participant. Snir (2014) finds that a majority of the participants allocates a small probability to sharing, thus giving themselves a large probability of earning the full sum. He concludes that participants believe that they act fairly if they assign any positive probability to sharing.

In Snir (2014), however, the participants had to accept the lottery's outcomes. In the current experiment, we find that when participants were offered to use a lottery, they reduced their donations even when they did not follow the lottery's outcome. Indeed, we find that merely telling participants that they could use a die, lead to a lower average donation. Thus, it seems that for a large share of participants, an invitation to use a lottery can obfuscate the self-signal generated by an ungenerous behavior (Grossman, 2015).

A curious result is that women and religious participants did not donate more than other participants. However, a number of experiments on contribution to public good find that there are no statistically significantly differences between the sums contributed by men compared to women (Croson & Gneezy, 2009). Therefore, our result is not surprising. It also turns out that religious people do not always donate more. Andreoni et al., (2016), for example, find that religious people donate more, but Yen & Zampelli (2014) find that religious people are less charitable than others.

In addition, when we debriefed participants after the experiment, several religious participants noted that they did not donate because they intended to donate the money to other charities. It is also possible that some participants were insulted by being requested to donate, since they might have interpreted the request as an insinuation that they do not donate enough. Some participants may have also mistrusted our intentions to donate on their behalf, although we found no evidence for this when we debriefed the participants.

To the extent that such beliefs and attitudes existed among the participants and affected their donations, they might have been correlated with religiosity and/or gender. However, our conclusions should remain unchanged even if religious (or other) participants were affected by such external concerns, since the distribution of participants to treatments was random. See footnote 7.

Another possible source of difference between our results and results obtained in other experiments is that 50% of the participants in our experiment are in their prime working lives (25 and above), and almost 60% of them are employed. Thus, most of the participants in our sample have job market experience, improving the external validity of the results (Bjørnskov et al., 2014).

Before concluding, four caveats are in order. First, we chose a charity that has a strong appeal. We did it because we wanted to test if an invitation to use a lottery would reduce donations in a situation in which a donation is unambiguously connected with positive expressive utility. However, an outcome of the charity's strong appeal is that the average donation in the baseline treatment, 29.74 NIS, is larger than half of the endowment. Therefore, it is possible that the reduction in the size of donations in the lottery treatments is partly an outcome of a technicality: If participants in the baseline treatment set a high bar, it is unlikely that participants in the other treatments would pass that bar. Future studies could test this by using charities for which the average donation in the baseline treatment is lower.

Second, we implemented the mechanism for “avoiding the ask” by inviting participants to toss dice. Future research could implement different mechanisms.

Third, our participants are not a representative sample of the population. We believe that our sample is somewhat more representative than most student samples, because we drew our participants from five different academic institutions. In addition, Open University students tend to be older than students of other institutions. They also tend to have more experience in the labor market than other students. This being said, we believe that future work could test the robustness of our results by using samples drawn from other populations.

Fourth, we find that the lottery had a stronger effect on donations than a personal story of a sick child. This result holds also when the participants have a close acquaintance with a severely ill person. I.e., when the participants should be highly sympathetic to the child’s plight. We find the same result also in our robustness experiment, in which we used information about a different child. Nevertheless, it is possible that in a different setting, perhaps one in which the participants feel particularly close to the beneficiary, the personal story would have a greater effect on donations than an opportunity to use a lottery. Future work can shed light on this issue.

References:

Abeler, J., Becker, A., & Falk, A. (2014). Representative evidence on lying costs. *Journal of Public Economics*, *113*, 96–104. https://doi.org/10.1016/j.jpubeco.2014.01.005

Abeler, J., Nosenzo, D., & Raymond, C. (2019). Preferences for Truth-Telling. *Econometrica*, *87*(4), 1115–1153. https://doi.org/10.3982/ecta14673

Andersson, O., Miettinen, T., Hytönen, K., Johannesson, M., & Stephan, U. (2017). Subliminal influence on generosity. *Experimental Economics*, *20*(3), 531–555. https://doi.org/10.1007/s10683-016-9498-8

Andreoni, J., & Bernheim, D. B. (2009). Social image and the 50–50 norm: A theoretical and experimental analysis of audience effects. *Econometrica*, *77*(5), 1607–1636.

Andreoni, J., Payne, A.A., Smith, J., & Karp, D. (2016). Diversity and donations: The effect of religious and ethnic diversity on charitable giving. *Journal of Economic Behavior & Organization* 128, 47–58.

Andreoni, J., & Rao, J. M. (2011). The power of asking: How communication affects selfishness, empathy, and altruism. *Journal of Public Economics*, *95*(7–8), 513–520.

Andreoni, J., Rao, J. M., & Trachtman, H. (2017). Avoiding the ask: A field experiment on altruism, empathy, and charitable giving. *Journal of Political Economy*, *125*(3), 625–653. https://doi.org/10.1086/691703

Arbel, Y., Bar-El, R., Schwarz, M. E., & Tobol, Y. (2019). To what so people contribute? Ongoing operations vs. sustainable supplies. *Journal of Behavioral and Experimental Economics*, *80*, 177–183. https://doi.org/10.1016/j.socec.2019.02.002

Arbel, Y., Bar-El, R., Schwarz, M. E., & Tobol, Y. (2019). Giving at the close: Experimental evidence on cooperation in contributing to a public good. *Journal of Public Economic Theory*, *21*(6), 1179–1199. https://doi.org/10.1111/jpet.12409

Arbel, Y., Bar-El, R., & Tobol, Y. (2016). Fundraising to a real-life public good – evidence from the laboratory. *Journal of Behavioral and Experimental Economics*, *65*, 27–37.

Barkan, R., Ayal, S., & Ariely, D. (2015). Ethical dissonance, justifications, and moral behavior. *Current Opinion in Psychology*, *6*, 157–161. https://doi.org/10.1016/j.copsyc.2015.08.001

Bechler, C., Green, L., & Myerson, J. (2015). Proportion offered in the Dictator and Ultimatum Games decreases with amount and social distance. *Behavioural Processes*, *115*, 149–155.

Bjørnskov, C., Bogetić, Z., Hillman, A.L., Popović, M. (2014). Trust and identity in a small, post-socialist, post-crisis society. World Bank Working Paper #WPS6828.

Charness, G., & Gneezy, U. (2008). What's in a name? Anonymity and social distance in dictator and ultimatum games. *Journal of Economic Behavior and Organization*, *68*(1), 29–35.

Cohn, A., Fehr, E., & Marechal, M. A. (2014). Business culture and dishonesty in the banking industry. *Nature*, *516*(729), 86–89. https://doi.org/10.1038/nature13977

Croson, R., & Gneezy, U. (2009), Gender Differences in Preferences. *Journal of Economic Literature*, 472, 448–474.

Dana, J., Weber, R. A., & Kuang, J. X. (2007). Exploiting moral wiggle room: Experiments demonstrating an illusory preference for fairness. *Economic Theory*, *33*(1), 67–80. https://doi.org/10.1007/s00199-006-0153-z

Di Tella, R., Perez-truglia, R., Babino, A., & Sigman, M. (2015). Conveniently upset: Avoiding altruism by distorting beliefs about others' altruism. *American Economic Review*, *105*(11), 3416–3442.

Donkers, B., van Diepen, M., & Franses, P. H. (2017). Do charities get more when they ask more often? Evidence from a unique field experiment. *Journal of Behavioral and Experimental Economics*, *66*, 58–65. https://doi.org/10.1016/j.socec.2016.05.006

Dufwenberg, M., & Dufwenberg, M. A. (2018). Lies in disguise – A theoretical analysis of cheating. *Journal of Economic Theory*, *175*, 248–264. https://doi.org/10.1016/j.jet.2018.01.013

Engel, C. (2011). Dictator games: A meta study. *Experimental Economics*, *14*(4), 583–610.

Exley, C. L. (2015). Excusing selfishness in charitable giving: The role of risk. *The Review of Economic Studies*, *83*(2), 587–628.

Exley, C. L. (2020). Using charity performance metrics as an excuse not to give. *Management Science*, *66*(2), 553–563. https://doi.org/10.1287/mnsc.2018.3268

Exley, C. L., & Kessler, J. B. (2019). *Motitvated Errors*. NBER Working Paper #w26595.

Fielding, D., & Knowles, S. (2014). Can you spare some change for charity? Experimental evidence on verbal cues and loose change effects in a Dictator Game. *Experimental Economics*, *18*(4), 718–730. https://doi.org/10.1007/s10683-014-9424-x

Fischbacher, U., & Follmi-Heusi, F. (2013). Lies in disguise — An experimental study. *Journal of the European Economic Association*, *11*(June), 525–547. https://doi.org/10.1111/jeea.12014

Goeree, J. K., Mcconnell, M. A., Mitchell, T., Tromp, T., & Yariv, L. (2010). The 1/d Law of Giving. *American Economic Journal: Microeconomics*, *2*(1), 183–203.

Grossman, Z. (2015). Self-signaling and social-signaling in giving. *Journal of Economic Behavior and Organization*, *117*, 26–39. https://doi.org/10.1016/j.jebo.2015.05.008

Grossman, Z., & van der Weele, J. J. (2017). Self-image and willful ignorance in social decisions. *Journal of the European Economic Association*, *15*(1), 173–217. https://doi.org/10.1093/jeea/jvw001

Hillman, A. L. (2010). Expressive behavior in economics and politics. *European Journal of Political Economy*, *26*(4), 403–418. https://doi.org/10.1016/j.ejpoleco.2010.06.004

Homer, P. M. (2021). When sadness and hope work to motivate charitable giving. *Journal of Business Research*, *133*, 420–431. https://doi.org/10.1016/j.jbusres.2021.05.018

Huck, S., & Rasul, I. (2011). Matched fundraising: Evidence from a natural field experiment. *Journal of Public Economics*, *95*(5–6), 351–362.

Huck, S., Rasul, I., & Shephard, A. (2015). Comparing charitable fundraising schemes: Evidence from a natural field experiment and a structural model. *American Economic Journal: Economic Policy*, *7*(2), 326–369.

Kessler, J. B. (2017). Announcements of support and public good provision. *American Economic Review*, *107*(12), 3760–3787. https://doi.org/10.1257/aer.20130711

Klecan, L., McFadden, R., & McFadden, D. (1991), "A robust test for stochastic dominance," Working Paper.

Knutsson, M., Martinsson, P., & Wollbrant, C. (2013). Do people avoid opportunities to donate? A natural field experiment on recycling and charitable giving. *Journal of Economic Behavior and Organization*, *93*, 71–77. https://doi.org/10.1016/j.jebo.2013.07.015

Snir, A. (2014). When choosing to be almost certain of winning can be better than choosing to win with certainty. *European Journal of Political Economy*, *36*, 135–146.

Tullock, G. (1971). The charity of the uncharitable. *Economic Inquiry*, *9*(4), 379–392.

Yen, S.T., & Zampelli, E.M. (2014). What drives charitable donations of time and money? The Roles of Political Ideology, Religiosity, and Involvement. *Journal of Behavioral and Experimental Economics*, 50, 58–67.

Tables

Table 1: Descriptive statistics

	Main experiment	Robustness experiment
% Of participants in the not personal–no lottery treatment	24.57	25.38
% Of participants in the personal–no lottery treatment	26.08	24.87
% Of participants in the not personal–lottery treatment	25.65	24.37
% Of participants in the personal–lottery treatment	23.71	25.38
Average contribution (NIS)	27.92 (18.509)	33.91 (18.639)
Age (years)	26.67 (7.296)	26.27 (7.073)
% Women	55.85	62.94
% Married	23.62	21.32
% Of participants having children	17.88	16.29
% Volunteered in the past 12 months	47.46	45.68
% Contributed to charity in past 12 months	74.17	71.57
% Having close acquaintance with a severely ill individual	51.43	49.24
% Employed full time or part time	59.38	61.42
% Religious	31.79	31.98
% Economics students	34.88	81.73
% Good economic situation	50.99	43.65
Observations	453	197

Notes: The First round column describes the summary statistics of the participants of the main experiment, which took part in the 2nd week of January 2021. The Second round column describes the summary statistics of the participants of the robustness experiment, which took part in the 3rd week of December 2022. Standard deviations are written in parentheses.

Table 2: Average donation by treatment

Treatment	No lottery	Lottery	Differences
Not personal	29.74	20.08	-9.66***
Personal	36.91	25.55	-11.36***
Differences	7.17***	5.47**	

Notes: The average donations by treatment. The differences column/row presents the differences between the average donations in the corresponding cells. The significance levels are calculated according to the Wilcoxon rank-sum test. Data from the main experiment. **- p<5%, and *** - p<1%.

Table 3: Proportion of subjects who contributed 0-20 vs. the proportion of subjects who contributed 30-50

Treatment	(A) The proportion of participants who donated 0–20	(B) The proportion of participants who donated 30–50	(C) Difference: (A)-(B)
Not personal–No lottery	42.98%	57.02%	-14.04%**
Personal–No lottery	29.09%	70.91%	-41.82%***
Not personal–Lottery	63.87%	36.13%	27.74%***
Personal–Lottery	52.73%	47.27%	5.46%

Notes: Stars display the significance of the differences between columns A and B according to Pearson's chi-square statistics. Data from the main experiment. **- p<5%, and *** - p<1%.

Table 4: Testing for first order stochastic dominance

	Not personal–No lottery	Personal–Lottery	Not personal–Lottery
Personal–No lottery	0.20**	0.28***	0.39***
Not personal–No lottery		0.17*	0.28***
Personal–Lottery			0.28***

Notes: The table reports the results of K-S tests for first order stochastic dominance. The rows indicate the treatments that exhibit first order stochastic dominance over the column treatments. Data from the main experiment. * - p<10%, **- p<5%, and *** - p<1%.

Table 5. Regression analysis

	(1)					(2)				
	0 NIS	10 NIS	20 NIS	30 NIS	40 NIS	0 NIS	10 NIS	20 NIS	30 NIS	40 NIS
Tossing dice	2.13***	1.31***	1.05***	0.70*	2.30***	2.15***	1.41***	1.05***	0.69*	2.33***
	(0.391)	(0.310)	(0.339)	(0.426)	(0.385)	(0.400)	(0.254)	(0.272)	(0.389)	(0.388)
Beneficiary's plea	−0.97**	−0.90***	−0.26	−0.70	0.286	−1.21***	−1.09	−0.45*	−0.85**	0.19
	(0.449)	(0.282)	(0.333)	(0.438)	(0.262)	(0.419)	(0.263)	(0.259)	(0.406)	(0.293)
Age						−0.08**	−0.02	−0.04*	−0.02	−0.04
						(0.037)	(0.022)	(0.24)	(0.028)	(0.031)
Woman						−0.25	0.43	−0.10	0.29	0.25
						(0.251)	(0.378)	(0.323)	(0.309)	(0.336)
Married						0.14	0.65	0.01	−0.38	−0.23
						(0.591)	(0.682)	(0.466)	(0.433)	(0.648)
Children						0.11	−0.82	0.08	−0.05	0.61
						(0.597)	(0.870)	(0.586)	(0.721)	(0.681)
Volunteered 12 months						0.09	0.24	−0.25	−0.59	−0.29
						(0.400)	(0.278)	(0.317)	(0.410)	(0.552)
Donated 12 months						−0.39	−0.60	−0.12	0.40	−0.45
						(0.469)	(0.430)	(0.398)	(0.553)	(0.439)
Acquaintance with severe illness						0.14	0.28	0.358	0.55	0.95**
						(0.332)	(0.336)	(0.371)	(0.382)	(0.454)
Employment						−0.47	−0.31	−0.07	0.11	−0.05
						(0.334)	(0.397)	(0.307)	(0.260)	(0.539)
Religious						0.30	0.21	0.45	0.51	0.27
						(0.396)	(0.445)	(0.395)	(0.369)	(0.560)
Economics student						−0.20	0.01	−0.31	−0.16	−0.02
						(0.495)	(0.356)	(0.285)	(0.344)	(0.313)
Good economic situation						−0.53	−0.45	−0.63**	−0.41	−0.58*
						(0.363)	(0.334)	(0.275)	(0.268)	(0.353)
Constant	−1.43***	−0.93***	−0.86***	−0.800***	−2.86***	1.53	−0.05	0.75	−0.62	−1.85**
	(0.299)	(0.325)	(0.267)	(0.280)	(0.290)	(1.210)	(0.757)	(0.819)	(1.039)	(0.840)
$\beta_{tossing\ dice} = -\beta_{Beneficiary's\ plea}$	2.98*	0.65	3.66*	0.00	75.28***	2.78*	0.50	3.15*	0.14	51.28***
$Pseudo\ R^2$			0.05					0.09		
Observations			453					453		

Notes: Results of multi-logistic regressions. The dependent variable is the sums donated by the participants (0 NIS, 10 NIS, 20 NIS, 30 NIS, 40 NIS), with the pivot group being 50 NIS. Tossing dice is a dummy that equals 1 if the participants were asked to toss a die and 0 otherwise. Beneficiary's plea is a dummy that equals 1 if the participant read a plea to help the beneficiary before donating. Age is the participants age, in years. Woman is a dummy that equals 1 if the participant is a woman and 0 otherwise. Married is a dummy that equals 1 if the participant is married and 0 otherwise. Children is a dummy that equals 1 if the participant has children and 0 otherwise. Volunteered 12 months is a dummy that equals 1 if the participant has volunteered in the 12 months prior to the experiment and 0 otherwise. Donated 12 months is a dummy that equals 1 if the participant donated in the 12 months prior to the experiment and 0 otherwise. Acquaintance with severe illness is a dummy that equals 1 if the participant has or had a close acquaintance with a person who has, or had, a severe illness. Religious is a dummy that equals 1 if the participant defined himself/herself as either religious or ultra-Orthodox. Economics student is a dummy that equals 1 if the participant studies economics. Good economic situation is a dummy that equals 1 if the participant defines his/her economic situation as either good or very good. $\beta_{tossing\ dice} = -\beta_{Beneficiary's\ plea}$ gives the χ^2 statistic for testing the hypothesis that the coefficient of tossing dice is equal to minus the coefficient of beneficiary's plea. Robust standard errors, clustered at the session level, are reported in parentheses. Data from the main experiment. * - p<10%, **- p<5%, and *** - p<1%.

Table 6. The distance between participants' donations and the dice outcomes

Dice outcomes	Participants' choices		
	Same as dice outcome	10 NIS away	More than 10 NIS away
Same	100.0%	0.0%	0.0%
10 NIS away	62.3%	37.7%	0.0%
More than 10 NIS away	9.6%	34.8%	55.6%

Notes: The columns of the table describe the percentage of the participants that chose their donations exactly the same as the die toss outcome, 10 NIS away from the die toss outcome, or more than 10 NIS away from the die toss outcome. The rows show whether the die outcome was exactly the same as the donation that the participants would have chosen in the absence of a die toss, 10 NIS away from the donation that the participants would have chosen in the absence of a die toss, or more than 10 NIS away from the donation that the participants would have chosen in the absence of a die toss. The figures in each row sum up to 100.0%. Data from the main experiment.

.

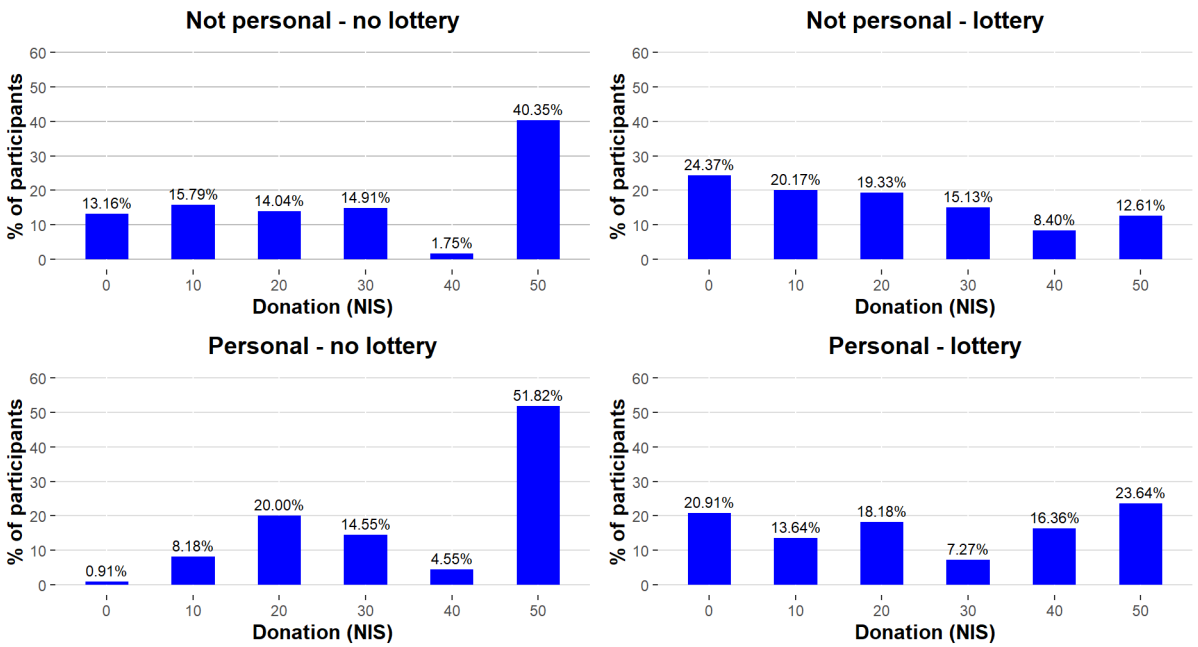
Table 7: Average donation by treatment, robustness experiment (robustness experiment)

Treatment	**No lottery**	**Lottery**	**Differences**
Not personal	35.80	26.25	9.55**
Personal	42.04	31.40	10.64**
Differences	6.24	5.15*	

Notes: The average donations by treatment. The differences column/row presents the differences between the average donations in the corresponding cells. The significance levels are calculated according to the Wilcoxon rank-sum test. Data from the robustness experiment, which was conducted in December 2022. **- p<5%, and *** - p<1%.

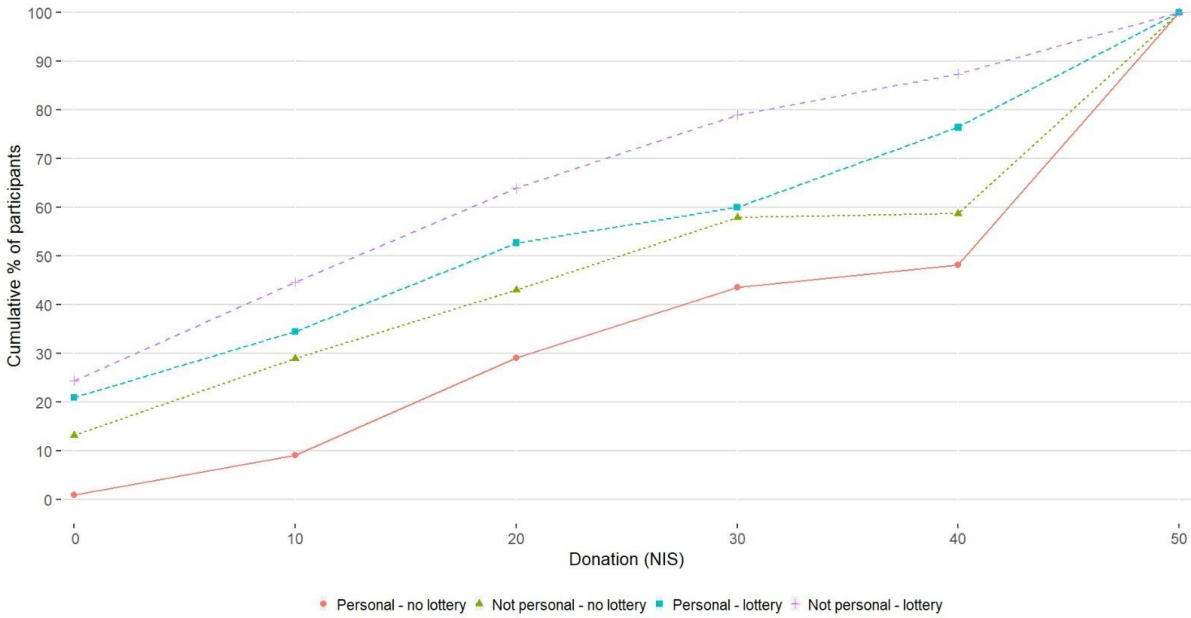
Figures

Figure 1: The distribution of donations by treatment



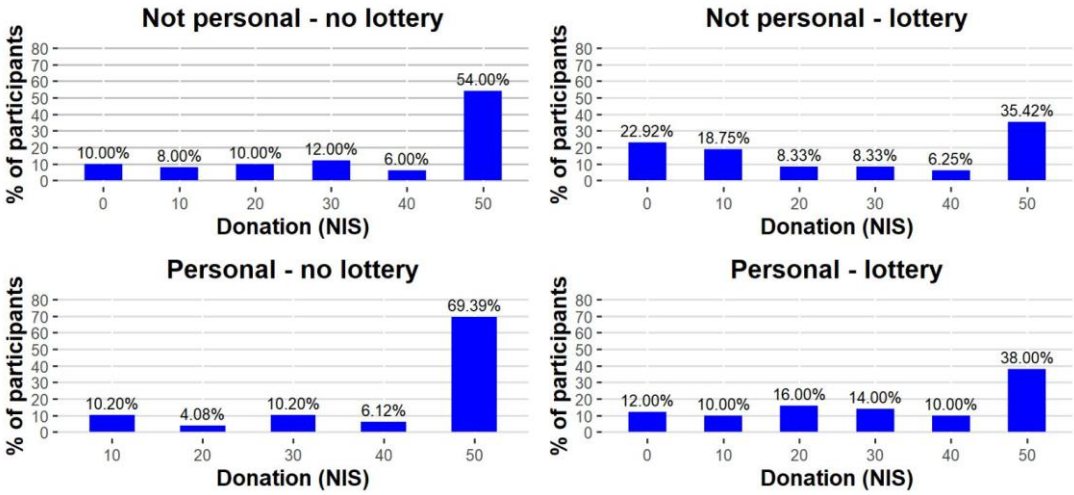
Notes: The figure depict the distribution of the sums contributed in each of the four treatments. Data from the main experiment.

Figure 2: Cumulative distributions by treatment



Notes: The cumulative distribution of the donations in each of the four treatments. Main experiment.

Figure 3: The distribution of donations by treatment, robustness experiment



Notes: The figure depict the distribution of the sums contributed in each of the four treatments. Data from the robustness experiment.