

Behavioral Economics

# DONATE FOR A DONUT

Group 12

Athulya Thattumparambil Anilkumar	2027127
Matylda Trocinska	2027094
Philip Unverzagt	2030728
Carlos Alberto Marín Hernández	2029102

Tilburg University

## **Executive summary**

In this study we test if non-monetary incentives affect the behaviour of people when donating for charity. We base our study on a field experiment conducted on campus at Tilburg University and involving three groups; control, unconditional and conditional gifts with 30 subjects each. The money was collected for a regional charity “Bont voor Dieren” and donuts were offered as gifts. We find strong statistical evidence that giving any kind of gift (conditional or unconditional) increases the frequency and the conditional amount donated.

### **1. Introduction**

Incentives and their ability to affect human's behaviour have long been a subject of interest for economists. The standard model overlooked the impact of social incentives and assumed that due to the egoistic nature of individuals, only extrinsic incentives matter. However, these results do not hold in practice as numerous experiments have shown.

A classic application of the above mechanisms are charitable donations which can be explained by motives such as altruism, social norms, and social image. Donors can be classified into various categories within these motives. A purely altruistic person donates due to their care for the recipient. Other donors exhibit altruism that is impure, where they only feel good about giving when their own donation is concerned. Social norms play a role such that donors donate to conform to what others give or reciprocate the gifts of what the charity offers. Lastly, donors attempt to signal their benevolence when donating, which can imply the absence of donations when the action is unobserved.

In addition to the motives that can explain charitable giving, people also show evidence of reciprocal behaviour. The desire to reward kind and punish unkind behaviour can be triggered to elicit more donations. Gifts can vary in nature – unconditional ones are provided regardless of whether person contributed or not, whereas conditional ones are only given to the donors. Our focus is to examine this mechanism and demonstrate the effectiveness of social incentives outside the laboratory, since most research on reciprocity was not in natural setting. Conducting a field experiment increases direct external validity with results that reflect the “real situation” of many charity organisations. At the same time, a field experiment retains the random assignment of an experimental set-up.

Falk's results (2007) suggest that unconditional gifts are effective in increasing donations as reciprocity caused from 17% (case of small gifts) to even 75% (large ones) increase in contribution. Conditional gifts can have more equivocal implications. Newman and Shen's study from 2012 suggested caution as small conditional gifts can have a negative effect on donations due to the “crowding out effect” wherein material rewards undermine altruism driving donations.

Gneezy (2012) compares the impact of noncontingent and contingent incentives and found that with small gifts, the former ones increase donations, while conditional ones do the opposite. That is in line with Newman and Shen's findings from this year. However, Gneezy discovered that after increasing the size of gift, conditional gifts reach higher response rate than unconditional ones.

The collected data confirm the effectiveness of gifts for increasing donations in both treatments. Our two main results are that conditional gifts have a slightly greater response rate (portion of people donating) and average amount donated, compared to unconditional treatment. However, that difference is not statistically significant. One important limitation of Gneezy's study (2012) is the lack of demographic variables that could potentially influence the selection of responding subjects. Therefore, we collected data about personal

characteristics of subjects – their gender (male/female) and nationality (Dutch/international). We did not find any statistically significant differences driven by these variables. Our results add to the discussion on social preferences affecting behaviour in the field and how reciprocity mechanism of gifts can be used in practice, such as charities trying to incentivise donations.

## 2. Approach

We selected a Dutch charity called *Bont Voor Dieren*, an animal rights agency that is dedicated to the rights and protection of fur-bearing animals. We made this choice considering the broad appeal of animal charities. Moreover, we assumed that a local charity is more accessible to the subjects. We prepared displays of our charity choice by designing flyers with the charity's logo and some images of animals for the subjects<sup>1</sup>.

We conducted three experiments. The first was a control group where we only asked for donations without gifts. There were two treatments: providing an unconditional gift and asking for donations, and providing a conditional gift with donations. The selected gifts were assorted donuts that could be chosen freely. We expected donuts to have a high appeal to the students (a gift of quite high value) and a low cost of purchasing them in local chain store. The experiment was run over three days: between November 19<sup>th</sup> and the 22<sup>nd</sup> on Tilburg University campus. We controlled for the time of the experiment and the donation collector, all the experiments were conducted starting at 3 pm in the afternoon. The sample size for each experiment is 30 people consisting primarily of students at the university campus. Therefore, the samples in each group are comparable.

We collected three types of data: (1) the gender of the donor, (2) a dummy variable whether the subject was Dutch or international, and (3) dummy variable for donation. For simplicity, we did not record the amount donated and focused on the average amount donated per person in each scenario.

In all experiments, the collector had a similar script that mentioned the charity's name, their cause and a request for donations. We took care not to mention we were performing an experiment and collected the data discreetly. There were subtle differences in the unconditional gift case, where we first offered the free donut and then mentioned we are also collecting donations for the charity. In the conditional gift case, we asked if people would like a donut and told them if they decide to donate any amount, they could take a donut. If the subjects required further information about the charity the collector provided it. If the person could not donate at that moment but was interested in the charity (or wanted to donate using their debit card) we gave all the information regarding social media and website, but we did not count those as current donations.

There are some factors in our design that we could not account for and may influence our results. For budget reasons, the advertisement for the charity during the fundraising was limited. This may not be representative of how real charities operate and was potentially not enough to convince the subjects to donate. Additionally, our own performance as collectors may not be representative of real charities. Our experiment took place outside during cold weather and some subjects were hesitant to take out their wallet to provide a donation. We took care that we approached people randomly to minimise any bias when selecting people to donate. In any case these factors were consistent across the three experiments, so we believe this should not account for differences between the three groups.

---

<sup>1</sup> See appendix for example (Figure A-1).

### 3. Results

For the control group, just 10 percent of subjects in the sample provided a donation. The primary reason why subjects did not donate was the claimed unavailability of cash or change. The percentage of donations increased to 47 percent in the unconditional gift approach and to 57 percent for the conditional one. Table 1 summarizes the demographic distribution of each experiment, suggesting that overall it was balanced across the experiments.

*Table 1: Demographic Distribution*

Origin	Control		Unconditional		Conditional	
	Female	Male	Female	Male	Female	Male
Dutch	9	8	11	5	3	8
International	9	4	1	13	12	7
<b>Total</b>	<b>18</b>	<b>12</b>	<b>12</b>	<b>18</b>	<b>15</b>	<b>15</b>

*Source: own calculations.*

There are also differences in the conditional amount donated or the average donation of all people who donated. In the control group, the average amount donated was just 37 euro cents. For the unconditional gift and conditional gift cases, the average amount donated was nearly the same with 1.12 euros and 1.15 euros respectively (see figure 1). The total amount donated in all experiments was 36.37 euros, which was transferred to the charity via their website<sup>2</sup>.

A mean comparison test shows a strong statistical difference between the donation frequency in the control group and the treatment group that received a gift (conditional and unconditional). Even though there is a difference of 10% between the conditional and unconditional gift groups, there is no statistical difference in the frequency of donations<sup>3</sup>. We find no statistical evidence for differences in the frequency of donations between women and men in general, as well as between international and Dutch students.

The same results hold for the conditional amount donated. There is a significant statistical difference in means between the control and treatment group. Yet there is no statistical difference in the conditional amount donated between the conditional and unconditional gift groups. We cannot find any statistical evidence for differences in the donation amount between women and men in general, as well as between international and Dutch students.

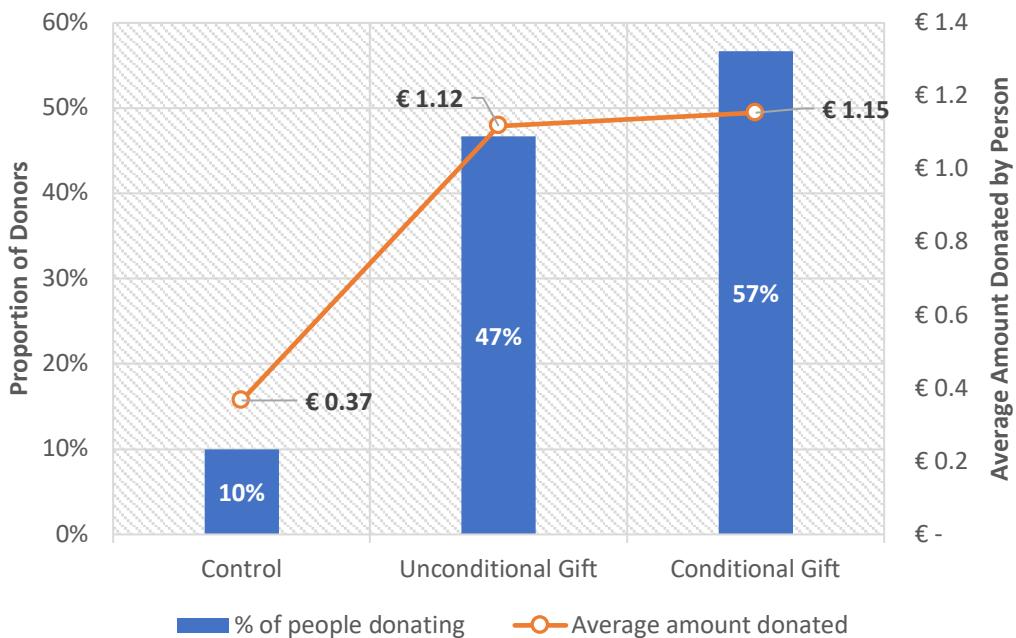
In the unconditional case, the donations may have been due social norms to reciprocate gifts or social image signaling. A larger amount of total donations in the conditional case can also be explained by subjects wanting to maintain their social image after being offered a gift by donating. We noticed that in both treatment cases, when subjects approached us a group it was more likely that all provided a donation. This suggests that social norm motives for donating are higher when subjects directly observe others donating and are more likely to donate themselves.

---

<sup>2</sup> We donated 40 euros. See appendix for transaction confirmation (Figure A-2).

<sup>3</sup> See appendix with mean test results (Table A-1).

Figure 1: Experiment Results



Source: own calculations.

#### 4. Conclusion

The results suggest that there is an increase in the frequency of donations as well as in the average amount donated when there are conditional or unconditional gifts compared to the control without gifts. There is no statistical evidence for a difference between the unconditional and conditional gift approach in donation frequency and conditional amount donated. There is also no statistical evidence of differences between genders or the origin of donors in the donation frequency and conditional amount donated. It is important to consider that the experiment was done primarily with students at university, so the results are only representative to that setting. Additionally, the relatively low sample size in each experiment implies there is a large confidence interval.

#### 5. Recommendation

Our results indicate that gifts in general are very effective in generating more donations. There is no significant difference between conditional or unconditional gifts, measured by the frequency of donations and the conditional amount donated.

In addition to the results above, we can also perform a cost-benefit analysis of collecting donations with conditional and unconditional gifts. Firstly, for the unconditional gift case the overall cost was 10.53 euros and the amount donated was 15.65. The costs include napkins and only the donuts that were given away in the experiment. Therefore, the net income was 5.12, representing nearly 33% of the amount donated in the unconditional case. Secondly, for the conditional gift case the overall cost was 5.97 euros and the amount donated was 19.62. Therefore, the net income was 13.65, representing approximately 70% of the amount donated in the conditional case.

This means that we can recommend the conditional gift approach on the basis that it significantly increases the donation frequency, conditional amount donated, and is the more cost-effective method.

## References

- Cartwright, E. (2011). *Behavioral Economics*. New York: Routledge.
- Falk, A. (2007). Gift exchange in the field. *Econometrica*, 75(5), 1501-1511
- Newman, G. E., & Shen, Y. J. (2012). The counterintuitive effects of thank-you gifts on charitable giving. *Journal of economic psychology*, 33(5), 973-983.
- Gneezy, U., & Rey-Biel, P. (2014). On the relative efficiency of performance pay and noncontingent incentives. *Journal of the European Economic Association*, 12(1), 62-72.

## Appendix

Figure A-1: Flyers Example

Design 1:



Design 2:



Source: Bont Voor Dieren Charity. <https://www.bontvoordieren.nl>.

Figure A-2: Donation

DONATIE VOLTOOID

Hartelijk dank voor je donatie!



Met jouw donatie gaan wij ons inzetten om de bontkragen uit het straatbeeld te krijgen. Als je jouw adresgegevens hebt ingevuld word je automatisch op de hoogte gehouden via het Bontbericht, dat vier keer per jaar wordt verstuurd.  
Heb je aangegeven dat je onze nieuwsbrief wilt ontvangen? Dan vind je deze elke maand in jouw inbox.

Dagelijks op de hoogte blijven van onder andere onze acties en campagnes? Volg ons dan via onze social media-kanalen!



*Table A-1: Mean Test Results Frequency of Donations*

Group	Control Group and Unconditional Grift	Control Group and Conditional Grift	Control Unconditional and Conditional Grift	Differences between Dutch and International	Differences between male and female
Mean Group 1	0.1	0.1	0.4666	0.4642	0.5178
Mean Group 2	0.4666	0.5666	0.5666	0.5882	0.4705
Statistics	T = -3.3919 (0.0013)	T = -4.3383 (0.0003)	T = -0.7658 (0.4469)	T = -1.1360 (0.2590)	T = -1.1360 (0.6679)

*Source: own calculations.*