Maja Adena
Steffen Huck

A field experiment on crowd-funding for a club good

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Affiliation of the authors:

Maja Adena, WZB (maja.adena@wzb.eu)

Steffen Huck, WZB and University College London (steffen.huck@wzb.eu)
Abstract

**A field experiment on crowdfunding for a club good**

While increasingly popular in many domains crowdfunding remains largely underresearched and little is known about the best way to encourage participation. In a field experiment we vary suggested amounts and test different wordings for a campaign to finance a club good—an institute's summer party with free food, drinks, and music. We find that higher suggestions shift the median and the mode of gifts from €5 to €10 at a similar response rate. We also find evidence in favor of a “donation” frame that generates higher income than a “contribution” frame.

*Keywords:* Crowdfunding, field experiment.

*JEL classifications:* C93, D64, D12.

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1 Introduction

Crowdfunding has become a popular tool to raise money for projects and attracted investments of $5.1 billion in 2013 alone.¹ Successfully funded projects include movies, video games, software, and electronic appliances but also charitable projects, scientific research for rare genetic diseases, or museum projects. One of the most successful projects so far has been the video game “Star Citizen” which surpassed $117 million in contributions in July 2016.² But there are also many campaigns for small projects; notably for the arts and for local purposes.

In this paper, we focus on the ask strategy used in a local crowdfunding campaign. We implemented a crowdfunding campaign to finance an institute’s yearly summer party with free food, drinks, and music. The party normally attracts more than 150 participants. In previous years, a “donation box” had been placed in a prominent location during the party but it frequently led to a shortfall of money. This time, around 20 days in advance, a crowdfunding campaign was announced in personalized emails. The campaign offered a multitude of incentives: rewards like vouchers for the participation in tournaments and games, bonus payments for early gifts, as well as numerous reminders. The experimental variation included two different suggestions regarding the amount of the gift and a variation in wording: “donation” versus “contribution.”

Concerning the suggested amount, we implemented non-binding suggestions of €10 and €20. Although some evidence on the role of suggestions is available from the literature on charitable giving, the overall picture is inconclusive (see literature section). Moreover, there is little know about the effect of suggestions when different amounts also go hand in hand with different rewards. In many ways, there appears to be less room for suggestion effects in crowdfunding.

There is, of course, vast evidence on the effect of framing on the economic behavior of agents even when the fundamentals do not change (see, e.g. Andreoni 1995). We implemented a very small manipulation in the wording of our emails: “donation” versus “contribution.” While

² See https://robertsspaceindustries.com/funding-goals (retrieved on 9 July 2016).
“donation” has a clear meaning that alludes to charitable giving, “contribution” has multiple meanings including some that are only loosely related to fundraising. In Appendix A, we present word association maps that show different meanings and their connections. The act of “donating” is more self-oriented while “contributing” invokes a notion of joint participation. The more unique meaning and the connotation with voluntary charitable giving of the word “donation” could possibly be more successful at stimulating warm glow while “contribution” might be connected to a less voluntary and less individual act.

2 Literature

Our paper contributes to the growing but still very young literature on crowdfunding. A general overview on the economics of the crowdfunding market is provided in Agrawal et al. (2014) and Strausz (2015) provides a formal model. Most of the existing studies on crowdfunding make use of observational data (e.g. Meer 2014, Argo et al. 2016). While those are usually based on extremely rich data, the question of whether the observed correlations can be interpreted as causal relationships is not always obvious. The number of field experiments on crowdfunding is still small. In one such field experiment, Burtch et al. (2015) study the effects of privacy and find that reducing access to information controls induces a net increase in fund-raising.

Studies related to our paper involved email communication that aimed at increasing participation in crowdfunding and similar projects. In a series of field experiments by Ling et al. (2005), emails were sent to members of the online community Movie-Lens asking them to rate movies. There were different versions of the messages that varied the goal setting and information on relative performance; these generated unequal response rates. Interestingly, the rating activities of the members rose in immediate response to the email messages but faded quickly. In another field experiment, Chen et al. (forthcoming) studied lending teams on Kiva who receive emails summarizing daily forum messages. Compared to the control, they find that lenders make significantly more loans when exposed to a goal-setting and coordination message. Chen and Konstan (2015) present a survey of methods and papers that involve online field experiments.

Crowdfunding shares some similarities with pay-what-you-want schemes (PWYW) in which, in exchange for a product or service, customers set their own price. The main difference is,
however, that crowdfunding usually is applied at the development stage and PWYW at the production stage or when a product is already available. Schmidt et al. (2015) present theoretical and experimental evidence that PWYW can be an attractive marketing strategy to price discriminate between fair-minded and selfish customers, to fully penetrate a market without giving away the product for free, and to undercut competitors that use posted prices.

Our paper also contributes to the literature on fundraising. Specifically, we add to the literature on suggestions in charitable giving. In a field experiment, Adena et al. (2014) found that non-binding donation suggestions of €100 generated higher revenue for a charity than no suggestions and €200 suggestions, and that they significantly changed the distribution of gifts. Edwards and List (2014) compared no suggestions to a $20 suggestion (and some unusual amounts). The authors found that more people give if a suggestion is offered and they tend to give exactly the suggested amount. Adena and Huck (2016) and Reiley and Samek (2015) compared higher and lower donation grids (a menu of donation amounts to choose from) and found detrimental effects of higher grids. In a large online experiment, Altmann et al. (2014) varied default donations. Although, they found a difference in distribution, there was no overall revenue effect. Summing up, the literature is inconclusive on how to design suggestions optimally.

Second, we add to the literature on framing in charitable giving. In related work, Grau and Folse (2007) found a difference between positive and negative framing in donations that are tied to the purchase of a product.

Although there are many similarities between crowdfunding and charitable giving, an important difference is the nature of the (club) good for which the money is collected. Traditional beneficiaries of charitable giving are other people. Crowdfunding, on the other hand, often emphasizes the funder’s benefits like receiving the product once it is produced. While traditional charitable giving does typically not involve gifts for donors, crowdfunding campaigns usually offer different rewards for different contributions. In the context of charitable giving, rewards have been studied by, among others, Falk (2007) who found that gifts handed out with the ask increase response rates.
3 Experimental setup

We manipulated emails that were sent to employees, guests, and affiliated researchers of a research institute asking them to take part in a crowdfunding campaign for the institute’s annual summer party. Almost 550 emails were sent out 20 days before the party. A 2x2 design involved one treatment pair with two different suggestions regarding the gift amounts and one pair with a variation in wording. The email recipients were asked to contribute {donate} money or pledge a buffet contribution {donation} for the party. We implemented a multitude of incentives, including various rewards staggered by levels of contributions like vouchers for participation in tournaments and games. Moreover, we offered bonus payments for early gifts and numerous reminders. It was also announced that any surplus money would be donated to a refugee project (see Appendix C for details of the mailing).

In the “donation” treatment, the word “donation” appears 19 times in the first email, once in the first (short) reminder, twice in the second reminder, and four times in the third reminder, whereas the word “contribution” is never used. Each time the email was sent, all the previous email communications were appended such that with the third reminder the total word count of “donation” was 26. The “contribution” treatment involved the same number of uses of the word “contribution” and no use of “donation”.

The suggestion was introduced in the first email with the following sentence: “If the average monetary contribution is €20 <€10>, we need 100 <200> participants in the campaign to cover the expected costs.” The same sentence was repeated in the last reminder.

We implemented blocked randomization. The available individual characteristics are based on membership in email lists such as “female,” “postdocs”, “PhD students”, different departments, or different administration mailing lists etc. Some of the characteristics were corrected by hand. All variables used for the randomization and mean comparisons between different treatments can be seen in Appendix A. Due to our use of blocked randomization and the relatively high response rate that we expected, we assumed enough power to detect treatment differences.

By choosing personalized emails, we aimed at reducing spillovers between treatments. We cannot rule out that recipients talked about the party with each other. But since the differences between the emails were rather subtle, they should probably have gone unnoticed. First, the
words “donation” and “contribution” are substitutes, and the use of both words in this context is natural. Second, the suggestions were designed in such a way as to sum up to a total and identical threshold of €2000—probably a more interesting issue than the suggestion itself. If there was some awareness about treatment differences, for which we do not have any evidence, then our results would constitute the lower bound of the true treatment effects.

The total money collected was updated daily on the institute’s intranet and communicated via reminders over the course of the campaign.

4 Results

The campaign achieved a total of 127 contributions³ (either monetary, buffet or both) implying a response rate of 23%. The average donation was €12 and the median €10. Figure 1 below presents the number of gifts by day, and suggests the importance of reminders, since most donations came in shortly after the reminders were sent out. Most gifts were exactly equal to the amounts specified in the reward scheme (€5, €10, €20, €30, €100 and one buffet contribution worth €10) but there were also a few other amounts. There were four donations larger than €30 including two €100 donations. Overall, the campaign was successful in collecting enough money to cover the costs, though it fell short of the announced monetary threshold of €2000 if buffet donations are not counted. The final sum was €1506 in donations plus a €395 bonus (each donation given within the first week received a match of €5 from an anonymous donor). In total, the number of buffet pledges was 34. In the subsequent analysis we do not monetize buffet donations but rather present separate results for shares of buffet contributions. However, in Appendix B, we present an alternative approach in which we assign the implicit value of €10 to a buffet contribution.

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³ Not counting the contributions from people involved in the design of the experiment.
Suggestions of €10 and €20

Table 1 presents the results by different suggestion levels. While the response rate was almost identical in both treatments, the average positive donation increased by €1.75 or 16% when the higher amount was suggested. The median increased from €5 in the €10-suggestion treatment to €10 in the €20-suggestion treatment. A Mann-Whitney test confirms a difference in distributions. Since the shares of individuals that contributed to the buffet were similar between treatments, we do not see any substitution between monetary and non-monetary donations. Figure 2 presents the distribution of different gift categories by the suggested level (€10 and €20). There is a visible shift in the distribution towards larger amounts with higher suggestions. Moreover, the mode increases from €5 with lower suggestions to €10 with higher suggestions. Table 2 confirms the impression from Figure 2. The giving frequency of €5 is higher with lower suggestions and this difference is statistically significant. The giving frequencies of €10 as well as €15 and over are higher with higher suggestions, with only the first difference being statistically significant.
Although the overall monetary return is higher with higher suggestions, it is so only by 12% and this difference is not statistically significant.

Table 1: Results of suggestions

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Number of subjects</th>
<th>Number of monetary gifts</th>
<th>Monetary return per mail</th>
<th>Average positive donation</th>
<th>Minimum Median Maximum</th>
<th>Share monetary gift</th>
<th>Share buffet</th>
<th>Overall response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) €10</td>
<td>272</td>
<td>61</td>
<td>2.5</td>
<td>11.148</td>
<td>5</td>
<td>0.235</td>
<td>0.066</td>
<td>0.243</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.472)</td>
<td>(1.699)</td>
<td>100</td>
<td>(0.026)</td>
<td>(0.015)</td>
<td>(0.026)</td>
</tr>
<tr>
<td>(2) €20</td>
<td>273</td>
<td>59</td>
<td>2.788</td>
<td>12.898</td>
<td>5</td>
<td>0.237</td>
<td>0.059</td>
<td>0.234</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.508)</td>
<td>(1.833)</td>
<td>100</td>
<td>(0.026)</td>
<td>(0.014)</td>
<td>(0.026)</td>
</tr>
</tbody>
</table>

T-test p-value (1)=(2) 0.679 0.485 0.901 0.716 0.822

Mann-Whitney test p-value 0.086

Note: standard error in parenthesis

Table 2: Test of differences in distribution among treatments

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Number of subjects</th>
<th>Frequency of giving</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>€5</td>
</tr>
<tr>
<td>(1) €10</td>
<td>61</td>
<td>0.508</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.065)</td>
</tr>
<tr>
<td>(2) €20</td>
<td>59</td>
<td>0.305</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.060</td>
</tr>
<tr>
<td>t-test p-value (1)=(2)</td>
<td>0.023</td>
<td>0.097</td>
</tr>
</tbody>
</table>

Note: standard error in parenthesis, conditional on giving money.
Donations versus Contributions

Tables 3 and 4, and Figure 3 present the results from the framing treatments. The use of the word “donation” instead of “contribution” resulted in a slightly higher response rate (by 14%, non-significant), much higher average positive donation (by 48% or €4.57), and much higher overall return (by 69% or €1.36). The second and third differences are statistically significant and mainly come from the upper part of the distribution, which can be seen from Table 4. The share of gifts of €15 and over is twice as big in the “donation” treatment as compared to the “contribution” treatment (significant at the 10% level). Altogether, with the “donation” framing, higher gifts are more common and their value is higher.
Table 3: Results of different wording

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Number of subjects</th>
<th>Number of monetary gifts</th>
<th>Monetary return per mail</th>
<th>Average positive donation</th>
<th>Minimum</th>
<th>Median</th>
<th>Maximum</th>
<th>Share monetary gift</th>
<th>Share buffet</th>
<th>Overall response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>contribution</td>
<td>273</td>
<td>56</td>
<td>1.963</td>
<td>9.571</td>
<td>5</td>
<td>0.220</td>
<td>0.059</td>
<td>0.223</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.279)</td>
<td>(0.744)</td>
<td>10</td>
<td>(0.025)</td>
<td>(0.014)</td>
<td>(0.025)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2)</td>
<td>donation</td>
<td>272</td>
<td>64</td>
<td>3.327</td>
<td>14.14</td>
<td>5</td>
<td>0.246</td>
<td>0.066</td>
<td>0.254</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.634)</td>
<td>(2.218)</td>
<td>10</td>
<td>(0.026)</td>
<td>(0.015)</td>
<td>(0.026)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

T-test p-value (1)=(2) 0.049 0.067 0.465 0.716 0.409
Mann-Whitney test p-value 0.344

Note: standard error in parenthesis

Figure 3: Number of donations in different categories by wording

Note: there was one donation of €6 and one of €25.
Table 4: Test of differences in distribution among treatments

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Number of subjects</th>
<th>Frequency of giving</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>€5</td>
<td>€10</td>
<td>€15 and more</td>
<td></td>
</tr>
<tr>
<td>(3) contribution</td>
<td>56</td>
<td>0.411</td>
<td>0.411</td>
<td>0.161</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.066)</td>
<td>(0.066)</td>
<td>(0.050)</td>
<td></td>
</tr>
<tr>
<td>(4) donation</td>
<td>64</td>
<td>0.406</td>
<td>0.297</td>
<td>0.297</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.062)</td>
<td>(0.058)</td>
<td>(0.058)</td>
<td></td>
</tr>
<tr>
<td>t-test p-value (1) = (2)</td>
<td>0.961</td>
<td>0.195</td>
<td>0.080</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: standard error in parenthesis, conditional on giving money.

Individual characteristics

Finally, we explore the available information on personal characteristics. However, one must be cautious with the interpretation, since the individual characteristics are likely related to the actual attendance of the summer party and this, in turn, with the participation in the crowdfunding campaign.

In Table 5, we present the results from simple regressions including individual characteristic dummies. Column I looks at the monetary return per email by presenting the results from an OLS regression with contributions (including zeros) as the dependent variable. Column II shows the effect of individual characteristics on positive donations only (OLS regression). Column III analyses the response rate by presenting the marginal effects from a probit regression. When looking at the dummies professor, postdoc, PhD student, student RA, and administrative staff, note that the reference group is the remainder including current guests, alumni or affiliated researchers not on the institute’s payroll. First, we see that the response rate of postdocs, PhD students, and administrative staff is significantly higher. In terms of positive donations, those given by professors clearly stand out (an increase by €30). The combined result—the return—is significantly higher from professors and administrative staff.
In Appendix A, we present separate and more detailed comparisons between the group of academics and the administrative staff, subgroups of the academics only, and between male and female email recipients that confirm the above results. We also test for heterogeneous treatment effects and find that females respond more often when the “donation” framing is used and that the administrative staff members are less responsive to higher suggestions.

Table 5: Individual characteristics

<table>
<thead>
<tr>
<th></th>
<th>Monetary return</th>
<th>Average positive gift</th>
<th>Overall response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OLS</td>
<td>OLS</td>
<td>Probit m.e.</td>
</tr>
<tr>
<td>“donation”</td>
<td>1.402**</td>
<td>4.265*</td>
<td>0.030</td>
</tr>
<tr>
<td></td>
<td>(0.680)</td>
<td>(2.273)</td>
<td>(0.036)</td>
</tr>
<tr>
<td>€20 suggestion</td>
<td>0.189</td>
<td>1.604</td>
<td>-0.013</td>
</tr>
<tr>
<td></td>
<td>(0.680)</td>
<td>(2.258)</td>
<td>(0.036)</td>
</tr>
<tr>
<td>female</td>
<td>0.229</td>
<td>-2.576</td>
<td>0.039</td>
</tr>
<tr>
<td></td>
<td>(0.701)</td>
<td>(2.337)</td>
<td>(0.037)</td>
</tr>
<tr>
<td>professor</td>
<td>6.394***</td>
<td>30.731***</td>
<td>0.023</td>
</tr>
<tr>
<td></td>
<td>(1.664)</td>
<td>(5.890)</td>
<td>(0.090)</td>
</tr>
<tr>
<td>postdoc</td>
<td>1.327</td>
<td>-2.405</td>
<td>0.148***</td>
</tr>
<tr>
<td></td>
<td>(1.107)</td>
<td>(3.498)</td>
<td>(0.055)</td>
</tr>
<tr>
<td>PhD student</td>
<td>0.528</td>
<td>-3.239</td>
<td>0.114**</td>
</tr>
<tr>
<td></td>
<td>(0.989)</td>
<td>(3.151)</td>
<td>(0.051)</td>
</tr>
<tr>
<td>student RA</td>
<td>-1.424</td>
<td>-5.887</td>
<td>-0.092</td>
</tr>
<tr>
<td></td>
<td>(1.070)</td>
<td>(4.984)</td>
<td>(0.064)</td>
</tr>
<tr>
<td>administrative staff</td>
<td>1.815*</td>
<td>1.111</td>
<td>0.154***</td>
</tr>
<tr>
<td></td>
<td>(0.968)</td>
<td>(2.926)</td>
<td>(0.048)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.929</td>
<td>10.293***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.851)</td>
<td>(3.140)</td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>544</td>
<td>119</td>
<td>544</td>
</tr>
<tr>
<td>$R^2$ / Pseudo $R^2$</td>
<td>0.050</td>
<td>0.280</td>
<td>0.044</td>
</tr>
</tbody>
</table>

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$
5 Conclusions

In this paper, we present results from a field experiment on crowdfunding for a club good. We varied the message within the crowdfunding campaign in order to test what works best to increase participation.

We find evidence in favor of higher non-binding suggestions similar to those observed in Adena et al. (2014) and Edwards and List (2014). Higher suggestions of €20 changed the distribution of gifts generating more €10 donations and fewer €5 donations, changing both the median and the mode, and increased the overall return, although not significantly. The results differ from experiments on donation grids in Adena and Huck (2016) and Reiley and Samek (2015) who found detrimental effects of higher grids. A potential explanation for these differences may be that suggestions are softer than grids and that higher contributions also go hand in hand with greater rewards in a typical crowdfunding campaign.

Concerning the wording, we found that the “donation” frame attracted more and higher donations than the “contribution” treatment. We suppose that “donation” is more effective in stimulating warm-glow giving. Given that both our manipulations are relatively small and their effects surprisingly big, we expect that there is much potential for improving the effectiveness of crowdfunding campaigns through systematic experimentation.

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Appendix A

Randomization

Figure A1: The results of randomization by different treatment groups

Note: 95% CIs. Nawi- PhD students, RA- student research assistants, SPI-V are different academic groups. Last row presents different administrative divisions.
The associations with the words “contribution” and “donation” (source: http://www.snappywords.com/)
Table A1: Academics versus administration

<table>
<thead>
<tr>
<th>Group</th>
<th>Number of subjects</th>
<th>Number of monetary gifts</th>
<th>Overall return per mail</th>
<th>Average positive donation</th>
<th>Minimum</th>
<th>Median</th>
<th>Maximum</th>
<th>Share monetary gift</th>
<th>Share buffet</th>
<th>Overall response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) academics</td>
<td>325</td>
<td>64</td>
<td>2.354</td>
<td>11.953</td>
<td>5</td>
<td>10</td>
<td>100</td>
<td>0.2</td>
<td>0.046</td>
<td>0.203</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.429)</td>
<td></td>
<td></td>
<td></td>
<td>(0.022)</td>
<td>(0.012)</td>
<td>(0.022)</td>
</tr>
<tr>
<td>(2) administration</td>
<td>118</td>
<td>36</td>
<td>3.686</td>
<td>12.083</td>
<td>5</td>
<td>10</td>
<td>100</td>
<td>0.331</td>
<td>0.085</td>
<td>0.339</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(.958)</td>
<td></td>
<td></td>
<td></td>
<td>(.043)</td>
<td>(.026)</td>
<td>(.044)</td>
</tr>
</tbody>
</table>

T-test p-value (1)=(2) 0.147 0.966 0.004 0.120 0.003

Mann-Whitney test p-value 0.869

Note: standard error in parenthesis

Figure A2: Academic level

Note: 95% Cis
### Table A2: Gender

<table>
<thead>
<tr>
<th>Group</th>
<th>Number of subjects</th>
<th>Number of monetary gifts</th>
<th>Overall return per mail</th>
<th>Average positive donation</th>
<th>Minimum</th>
<th>Share monetary gift</th>
<th>Median</th>
<th>Maximum</th>
<th>Share buffet</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Overall response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>(3)</td>
<td>male</td>
<td>269</td>
<td>54</td>
<td>2.494</td>
<td>12.426</td>
<td>5</td>
<td>0.204</td>
<td>0.048</td>
<td>0.212</td>
<td>(0.485)</td>
<td>(1.899)</td>
<td></td>
</tr>
<tr>
<td>(4)</td>
<td>female</td>
<td>276</td>
<td>66</td>
<td>2.790</td>
<td>11.667</td>
<td>5</td>
<td>0.261</td>
<td>0.076</td>
<td>0.264</td>
<td>(0.496)</td>
<td>(1.660)</td>
<td></td>
</tr>
</tbody>
</table>

T-test p-value

(1)=(2)

Mann-Whitney test p-value

0.292

**Note:** standard error in parenthesis

**Heterogenous treatment effects**

### Table A3: Interaction with gender

<table>
<thead>
<tr>
<th>Monetary return</th>
<th>Average positive gift</th>
<th>Overall response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OLS</td>
<td>OLS</td>
</tr>
<tr>
<td>“donation”</td>
<td>0.683</td>
<td>6.283*</td>
</tr>
<tr>
<td></td>
<td>(0.985)</td>
<td>(3.725)</td>
</tr>
<tr>
<td>€20 suggestion</td>
<td>-0.720</td>
<td>-2.252</td>
</tr>
<tr>
<td></td>
<td>(0.985)</td>
<td>(3.712)</td>
</tr>
<tr>
<td>female</td>
<td>-1.362</td>
<td>-3.586</td>
</tr>
<tr>
<td></td>
<td>(1.197)</td>
<td>(4.313)</td>
</tr>
<tr>
<td>Female*“donation”</td>
<td>1.337</td>
<td>-2.698</td>
</tr>
<tr>
<td></td>
<td>(1.384)</td>
<td>(5.057)</td>
</tr>
<tr>
<td>Female*€20 suggestion</td>
<td>1.969</td>
<td>6.918</td>
</tr>
<tr>
<td></td>
<td>(1.384)</td>
<td>(4.996)</td>
</tr>
<tr>
<td>Constant</td>
<td>2.513***</td>
<td>10.676***</td>
</tr>
<tr>
<td></td>
<td>(0.850)</td>
<td>(2.954)</td>
</tr>
</tbody>
</table>

Observations 545 120 545

$R^2$ /Pseudo $R^2$ 0.013 0.052 0.013

Standard errors in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$
Table A4: Interaction with administrative staff

<table>
<thead>
<tr>
<th></th>
<th>Monetary return</th>
<th>Average positive gift</th>
<th>Overall response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OLS</td>
<td>OLS</td>
<td>Probit m.e.</td>
</tr>
<tr>
<td>“donation”</td>
<td>1.256</td>
<td>4.830</td>
<td>0.017</td>
</tr>
<tr>
<td></td>
<td>(0.776)</td>
<td>(3.000)</td>
<td>(0.042)</td>
</tr>
<tr>
<td>€20 suggestion</td>
<td>1.074</td>
<td>3.630</td>
<td>0.011</td>
</tr>
<tr>
<td></td>
<td>(0.776)</td>
<td>(3.000)</td>
<td>(0.042)</td>
</tr>
<tr>
<td>Administrative staff</td>
<td>3.086**</td>
<td>3.576</td>
<td>0.137*</td>
</tr>
<tr>
<td></td>
<td>(1.461)</td>
<td>(4.574)</td>
<td>(0.072)</td>
</tr>
<tr>
<td>Administrative staff *“donation”</td>
<td>0.787</td>
<td>0.047</td>
<td>0.062</td>
</tr>
<tr>
<td></td>
<td>(1.666)</td>
<td>(5.508)</td>
<td>(0.084)</td>
</tr>
<tr>
<td>Administrative staff*€20 suggestion</td>
<td>-4.116**</td>
<td>-7.735</td>
<td>-0.099</td>
</tr>
<tr>
<td></td>
<td>(1.668)</td>
<td>(5.583)</td>
<td>(0.083)</td>
</tr>
<tr>
<td>Constant</td>
<td>1.160*</td>
<td>7.395***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.667)</td>
<td>(2.671)</td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>544</td>
<td>119</td>
<td>544</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.024</td>
<td>0.049</td>
<td></td>
</tr>
<tr>
<td>Pseudo $R^2$</td>
<td></td>
<td></td>
<td>0.018</td>
</tr>
</tbody>
</table>

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$
Appendix B

Tables B1-B4 repeat the analysis from the main text, Tables 1-4, however, monetizing buffet contributions, i.e. assigning a value of €10 to each buffet contribution. This value was implied by the design of rewards. In Tables B1 and B3 the last 4 columns are skipped since the overall response rate is presented in the main table and the other columns are not relevant. Overall, the results presented here confirm the picture discussed in the main text.

### Table B1: Results of suggestions

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Number of subjects</th>
<th>Number of gifts</th>
<th>Return per mail</th>
<th>Average positive donation</th>
</tr>
</thead>
<tbody>
<tr>
<td>(3) €10</td>
<td>272</td>
<td>66</td>
<td>3.162</td>
<td>13.030</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.515)</td>
<td>(1.605)</td>
</tr>
<tr>
<td>(4) €20</td>
<td>273</td>
<td>64</td>
<td>3.374</td>
<td>14.391</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.539)</td>
<td>(1.686)</td>
</tr>
</tbody>
</table>

T-test p-value
(1)=(2) 0.776 0.560
Mann-Whitney test p-value 0.261

Note: standard error in parenthesis

### Table B2: Test of differences in distribution among treatments

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Number of subjects</th>
<th>Frequency of giving</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>€5</td>
</tr>
<tr>
<td>(3) €10</td>
<td>66</td>
<td>0.364</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.060)</td>
</tr>
<tr>
<td>(4) €20</td>
<td>64</td>
<td>0.219</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.052)</td>
</tr>
</tbody>
</table>

t-test p-value (1)=(2) 0.070 0.212 0.751

Note: standard error in parenthesis, conditional on giving money.
Table B3: Results of different wording

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Number of subjects</th>
<th>Number of gifts</th>
<th>Return per mail</th>
<th>Average positive donation</th>
</tr>
</thead>
<tbody>
<tr>
<td>(5) contribution</td>
<td>273</td>
<td>61</td>
<td>2.549</td>
<td>11.410</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.345)</td>
<td>(0.858)</td>
</tr>
<tr>
<td>(6) donation</td>
<td>272</td>
<td>69</td>
<td>3.989</td>
<td>15.725</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.659)</td>
<td>(2.026)</td>
</tr>
</tbody>
</table>

T-test p-value (1)=(2): 0.053 0.063
Mann-Whitney test p-value: 0.167

Note: standard error in parenthesis

Table B4: Test of differences in distribution among treatments

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Number of subjects</th>
<th>Frequency of giving</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>€5</td>
</tr>
<tr>
<td>(7) contribution</td>
<td>61</td>
<td>0.311</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.060)</td>
</tr>
<tr>
<td>(8) donation</td>
<td>69</td>
<td>0.275</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.054)</td>
</tr>
</tbody>
</table>

t-test p-value (1)=(2): 0.654 0.222 0.077

Note: standard error in parenthesis, conditional on giving money.
Appendix C

First email (Different versions are marked with curly and angle brackets)

Dear XXX-ers and friends,

This year our WZB summer party follows the motto

**There is such a thing like a free lunch.**

The party will take place on Tuesday, the 5\textsuperscript{th} of July, beginning at 4pm. And so this time we do not want to install a cash box on the day, **however we do need your contributions \{donations\} to a crowdfunding campaign now.** Below you will find more information.

The XXX group is planning a party with:

\[\textbf{Food & Drinks}]\: We are planning a BBQ with organic sausages that come from appropriately treated animals as well as the usual assortment of alcoholic and non-alcoholic beverages. In addition, there will be the well renowned WZB potluck buffet of salads and cakes.

\[\textbf{Special Entertainment}]\: We are planning several (team) games and hands-on experiments, music, as well as a small campfire. Childcare and fun activities for children will be organized as usual by the Family Service. As usual, please send the information regarding the number of children for whom you need child care, and their respective ages to: yyy @yy.yy by June 24, 2016.

In order to ensure that it will be a wonderful party, we are now starting a

\\\\
\textbf{Crowdfunding Campaign}\\

Contribute \{Donate\} to our summer party, please!

For our summer party, we need your support with the food and drinks. You can do this through in-kind or money contributions, or preferably both! So, please, prepare salads and bake cakes for the 5\textsuperscript{th} of July, and please also open your wallet (now)!

For each contribution \{donation\} there is a **Thank You**, staggered as follows:

\[\textbf{from € 5}]\:\
o 1 pass for all games and competitions (for example, Kicker, Kubb, Ping Pong)

\[\textbf{from € 10 or 1 buffet contribution \{donation\}]\:\
o 1 pass for all games and competitions (for example, Kicker, Kubb, Ping Pong)
o Participation in a decision experiment with the possibility of winning 50 Euros or Participation at a “tasting station” with the possibility of winning 50 Euros
**[from € 20 or € 10 +1 buffet contribution {donation}]:**
- 1 pass for all games and game competitions (for example, Kicker, Kubb, Ping Pong)
- Participation in a decision experiment with the possibility of winning 50 Euros
- Participation at a “tasting station” with the possibility of winning another 50 Euros

**[from € 30 or € 20 +1 buffet contribution {donation}]:**
- 1 pass for all games and game competitions (for example, Kicker, Kubb, Ping Pong)
- Participation in a decision experiment with the possibility of winning 50 Euros
- Participation at a “tasting station” with the possibility of winning another 50 Euros
- We will play 5 songs of your choice

**[over 100 € or 90 € +1 buffet contribution {donation}]:**
- 1 pass for all games and game competitions (for example, Kicker, Kubb, Ping Pong)
- Participation in a decision experiment with the possibility of winning 50 Euros
- Participation at a “tasting station” with the possibility of winning another 50 Euros
- We will play 5 songs of your choice
- A copy of the book "Fleisch und Farbe" (unique limited edition book, comprising only 100 individually numbered prints).

For every contribution {donation} made before 22.06.2016, an anonymous sponsor will make a **bonus contribution {donation} of € 5** on your behalf. (However, these 5 euros are not included in the calculation of your “Thank You” Coupon.)

If the average monetary contribution {donation} is **20 € <10€>,**
we need **100<200>** participants in the campaign
to cover the expected costs.*

The current status of contributions {donation} will be documented daily on the Intranet at XXX (right column, updated each afternoon at 5 o'clock, Friday at 3).

Your generous monetary contributions {donation} (or willingness to contribute {donation} to the buffet) can be confidentially made to xxxx (room xxx, between 9am-12 and 1pm - 5pm ). *(Those who cannot make the contribution {donation} in person may contact xxxx [at: xxx.xxx@xxx.xx] for the account details in order to do an online bank transfer) **

**[Your contribution {donation} does even more!]:** Your contribution {donation} doesn’t only support the summer party as a public good. If we receive more contributions {donation} than required for financing the party, then the surplus will be used for an additional worthy project, e.g. to support the Women’s Bike Project, facilitated by the AG Refugees.

We look forward to your active participation in the crowdfunding campaign, and also to a great party,

The XXX
The revenues will also be used to cover various minor costs, such as the purchase of bread, rolls, paper plates and cutlery as well as the music organization.

We will not announce any individual contribution information and guarantee confidentiality.

First reminder
Dear XXX-ers and friends,

Maybe you have overlooked our email last week starting a crowdfunding campaign for this year's summer party (see below). We really believe that a party is much nicer without cash boxes so we hope you will join the crowd and help fund the party.

Remember that if you contribute this week until Wednesday it will generate a match from an anonymous benefactor of five additional euros.

All best
The XXParty Team

P.S. Crowdfunding barometer can be seen at xxx ! Take a look!

Second reminder
Re: Last match day (XXX summer party 2016)

Dear XXX-ers and friends,

while our crowdfunding campaign for the summer party will continue until end of June, TODAY is the last day where every contribution that we get will be matched by an additional 5 € from an anonymous benefactor.

Until yesterday we collected inspiring 495€ (+185€ Boni) + 16 buffet pledges.
   Many thanks to all contributors donors so far!
   However, we are far away from the threshold we aim at
   (Needless to say, it won’t even cover the drinks).
   Therefore, we need you to
   join the crowd now!

To clarify all open questions, let us explain the purpose and working of this campaign once more:
**Everything** what was traditionally organized and more: food (including vegetarian burgers and organic sausages), drinks (alcoholic and non-alcoholic), as well as music **WILL BE FREE** on the day. In addition, there will be the well renowned WZB potluck buffet of salads and cakes (also FREE).

The rewards offered within the crowdfunding campaign are made only possible by the additional efforts of our department, are by no means standard, and should serve as additional motivation for the participation in the crowdfunding campaign.

Follow the progress of the campaign at www.xxx.xx

All best
The XX Party Team

****************************************************************************

**Third reminder**

Last call: summer party crowdfunding and program

Dear XXX-ers and friends,

Less than a week is left till our amazing XXX summer party 2016 which takes place on Tuesday, **5th of July, starting at 4 p.m.** Since we don’t have a huge external sponsor this year, we need to rely on your participation in the **crowdfunding campaign** to finance the party!

Until yesterday we collected inspiring 980€ (+395€ Boni) + 25 buffet pledges.
Many thanks to all contributors {donors} so far!
However, **we are still missing the threshold** we aim at.

**Two days left for contributions {donations}!**
Therefore, we need you to **join the crowd now!**
(contributions {donations} are collected till the end of June by XXX,
Room xxx, 9-12 a.m. and 1-5 p.m)

Remember: If the average monetary contribution {donation} is **20 €<10€>**,
we **need 100<200> participants** in the campaign
to cover the expected costs.

**Last call**: please send the information regarding the number of children you would like to sign in for the **XXX Kinderfest** (organized by Familienservice child care animators), and their respective ages **TODAY** to: yyyy.y@yyyy.yyy.

Preliminary program:
From 4:00 p.m **Barbeque** (including veggie and vegan options), **drinks**, and **potluck buffet**

From 4:00 p.m **XXX Kinderfest** fun activities for children.

4:00-5:30 p.m. **Tasting experiment** (Provided you are eligible, you may participate at any time while open. It won't take long, and you have the chance of winning 50 Euros.)

From 4:00 p.m **Tournaments** (in order to take part in Kicker (Foosball) or Table Tennis (Ping Pong) tournament you must sign up (alone or in pairs) till Friday 2 July with ZZZ.zz@zzz.zz You will be assigned the staring time. Kubb will be open for spontaneous teams.)

5:00 p.m Experiment 2 (Those who are eligible will get a separate E-Mail with instructions. It is necessary to be on time since the experiment takes place simultaneously for all participants. You must also bring either your smart phone, tablet or laptop with an internet connection with you. There is a chance to win 40 or 10 Euros.)

5:30 p.m We play your songs

6:00 p.m. The results and winners of the experiments will be announced

6:30-8:00 p.m. We are pleased to announce that XXX and his band **XXX** ([www.xxx.xx](http://www.xxx.xx)) will play at our party

6:30 p.m **Long drinks** stand will be opened

Follow the progress of the crowdfunding campaign at www.xx.xx

All best

The XX Party Team
Discussion Papers of the Research Area Markets and Choice 2016

Research Unit: **Market Behavior**

**David Danz, Steffen Huck, Philippe Jehiel**
Public statistics and private experience:
Varying feedback information in a take-or-pass game

**Jana Friedrichsen**
Signals sell: Designing a product line when consumers have social image concerns

**Uri Gneezy, Silvia Saccardo, Roel van Veldhuizen**
Bribery: Greed versus reciprocity

**Inácio Bó, C.-Philipp Heller**
Strategic schools under the Boston mechanism revisited

**Manuela Angelucci, Silvia Prina, Heather Royer, Anya Samek**
When incentives backfire: Spillover effects in food choice

Research Unit: **Economics of Change**

**Armin Falk, Nora Szech**
Pleasures of skill and moral conduct

**Thomas Deckers, Armin Falk, Fabian Kosse, Nora Szech**
Homo moralis: Personal characteristics, institutions, and moral decision-making

**Jenny Simon, Justian Mattias Valasek**
The political economy of multilateral aid funds

**Vittorio Bassi, Steffen Huck, Imran Rasul**
A note on charitable giving by corporates and aristocrats: Evidence from a field experiment

**Ludwig Ensthaler, Steffen Huck, Johannes Leutgeb**
Games played through agents in the laboratory – A test of Prat & Rustichini's model

**Maja Adena, Steffen Huck**
Online fundraising, self-deception, and the long-term impact of ask avoidance

**Aniol Llorente–Saguer, Roman M. Sheremeta, Nora Szech**
Designing contests between heterogeneous contestants: An experimental study of tie-breaks and bid-caps in all-pay auctions

**Maja Adena, Steffen Huck**
A field experiment on crowdfunding for a club good

All discussion papers are downloadable:
Research Professorship: Market Design: Theory and Pragmatics

Kevin McLaughlin, Daniel Friedman  
Online ad auctions: An experiment  
SP II 2016-501

Yongfeng Zhang, Qi Zhao, Yi Zhang, Daniel Friedman, Min Zhang, Yiqun Liu, Shaoping Ma  
Economic recommendation with surplus maximization  
SP II 2016-502

Qi Zhao, Yongfeng Zhang, Yi Zhang, Daniel Friedman  
Recommendation based on multi-product utility maximization  
SP II 2016-503

All discussion papers are downloadable:  