
Gratitude in Fundraising: Do 'Thank You in Advance' and Handwritten Thank-You Notes Impact Fundraising Success?

Maja Adena (WZ Berlin, TU Berlin)

Steffen Huck (WZB, University College London)

Levent Neyse (WZB Berlin, DIW Berlin)

Discussion Paper No. 547

October 07, 2025

Gratitude in fundraising:

Do 'thank you in advance' and handwritten thank-you notes impact fundraising success?

Maja Adena¹, Steffen Huck^{1,2}, Levent Neyse^{1,3}

¹ WZB, Berlin

² University College London

³ DIW, Berlin

*The replication material for the study is available at <https://doi.org/10.7802/2907>.

Abstract

While almost all charities rely on a set of donor appreciation strategies, their effectiveness for the success of fundraising campaigns is underresearched. Through two preregistered field studies conducted in collaboration with a leading German opera house (N=10,000), we explore the significance of expressing gratitude and examine two different approaches to doing so. Our first study investigates the impact of a "thank you in advance" statement in fundraising letters, a common strategy among fundraisers. In the second study, we explore the effectiveness of handwritten thank-you postcards versus printed postcards, shedding light on the roles of personalization and handwriting in donor appeals. Our findings challenge conventional wisdom, revealing that neither "thank you in advance" nor handwritten thank-you notes significantly affect donor contributions.

1. Introduction

There has been a significant rise in research focusing on charitable giving in the past decades. Notably, field experiments have gained prominence as a methodological approach, following the pioneering work by Karlan and List (2007) on donation matching. Field experiments have enabled researchers to combine fundamental inquiries into the nature of giving with practical, direct applications in collaboration with charitable organizations. These collaborations have been instrumental in refining fundraising strategies, leading to more effective and targeted approaches employed by many charitable organizations. Our study contributes to this evolving landscape by addressing a relatively underexplored aspect of fundraising: the impact of donor appreciation strategies, specifically examining the effectiveness of different forms of acknowledgment in donor communications.

Through two field experiments conducted in collaboration with one of Germany's leading opera houses we investigate how saying "thank you" impacts efficient and sustainable fundraising. The first experiment investigates whether thanking in advance in solicitation letters affects donation decisions, the second investigates the role of handwritten versus printed thank-you postcards in communications with past donors.

While there is a fairly large body of literature on expressions of gratitude in psychology,¹ the number of studies that examine the role of gratitude for giving behavior is rather small. Andreoni and Serra-Garcia (2021) show that thank-you notes that follow pledges to donate reduce the rate of renegeing. In contrast, Samek and Longfield (2023), who examine whether thank-you calls after a donation affect the propensity to give again, only find a null result. Bruttel *et al.* (2022) document an adverse effect of expressions of gratitude in the context of a dictator game in the laboratory where recipients can send a message to the dictator before the dictator decides: those who thank in advance receive less than those who do not. The negative impact of thanking in advance could be due to the perception that the message sender has an unconditional expectation that their request will be fulfilled, which may cause recipients to feel coerced. Dwyer (2015) shows that gratitude expressions may not only increase compliance, but can also backfire.

There is also some inconclusive literature on thank-you gifts. Falk (2007) documents that the frequency of donations increased by 17% percent with a small gift and by 75% with a large gift. In Eckel et al. (2016) donors are twice as likely to give when they receive an unconditional, high-quality gift. In contrast, Chao (2017) found a reduction of giving probability through a thank-you gift. The inconclusiveness in the literature can partly be attributed to differences in gift-giving strategies. In Chao (2017), individuals received a thank-you gift only if they made a donation, whereas in other studies, gifts were given unconditionally.

There is some evidence on the effects of thank-you messages on recurring donations. Moussaoui et al. (2019) demonstrate that sending thank-you text messages to blood donors increases donor return rates in a way that is statistically significant, but the overall effect is rather small. Fosgaard et al. (2020) show that informing blood donors per text message about the use of their donation increased subsequent donations. As all their text messages also included a thank-you statement, it

¹ See, for example, Algoe and Zhaoyang (2016) for relationship enhancing expressions of gratitude, Rind and Bordia (1995) for tipping, and Panagopoulos (2011) for voting.

is not possible to disentangle the effects of feedback information and the gratitude expression. In an earlier study, Gemelli et al. (2017), also showed that text messages about blood donation use increased recurring donations. However, their texts did not include any thank-you notes.

Like Andreoni and Serra-Garcia (2021) and Samek and Longfield (2023), our first experiment studies donor behavior in the context of an actual fundraising campaign carried out by a charitable organization. In addition, it shares with Bruttel *et al.* (2022) the feature that it focuses on an anticipatory expression of gratitude, a “thank you in advance” phrase in a solicitation letter. We have two competing hypotheses regarding its impact on donations. Both are related to the observation that the phrase increases the pressure that the organization exerts on the potential donor. If this pressure operates like social or peer pressure, which has been shown to increase giving (see, for example, DellaVigna *et al.* 2012 or Meer 2011), the phrase should be effective. If, in contrast, it is perceived as a threat to freedom of choice, it might stimulate an adverse reaction (“reactance” in the terminology of Brehm and Brehm 1981) and thus turn out to be counterproductive. This reaction could seriously impede the success of fundraising efforts, as shown by Adena and Huck (2022) – trying to push donors into higher giving categories might create backlash – and by Adena and Huck (2020) and Adena and Huck (2023) – who examine adverse customer reactions to facilitated-giving campaigns.

In our second study, we investigate the effectiveness of handwriting in expressions of gratitude.² Clark & Kaminski (1988), for example, find a large positive effect of handwritten letters on survey participation. Garner (2005) finds that handwritten post-it notes significantly increase the likelihood of participation in surveys. He suggests that handwritten requests are perceived as a request for a personal favor. In contrast, Moss & Worthen (1991) find that typed salutations were more effective than handwritten salutations for survey participation. Despite this small set of marketing studies, we are not aware of any study that examines handwriting in the context of charitable giving. We study the role of handwriting for notes that say thank you to previous donors and ask for a new donation. In contrast to the ambiguous predictions for the first experiment, we have a clear one-sided hypothesis for this second experiment. Handwritten thank-you notes should be more effective than printed notes simply because they signal more effort and appreciation that should, through the channel of reciprocity, enhance giving (see, Dufwenberg and Kirchsteiger

² Please note that all our handwritten cards were individually written by hand and not copy-printed.

2004 and Falk and Fischbacher 2006 for theories of reciprocity and Fehr and Gächter 2000 for a review of the early experimental literature on reciprocity).

2. Methods

2.1. Data Collection and Treatments

We conducted two natural field experiments in conjunction with a large opera house in Germany.³ The opera house regularly engages in charitable activities in areas such as arts education through two affiliated arts education foundations based in the region.

Based on anonymized customer and donor data provided by the opera house, we selected individuals to receive variants of letters based on our treatments. The opera house ensured that no individuals or couples in the selected sample of recipients received more than one fundraising letter. The opera house subcontracted a company to print and send fundraising letters in May, 2023. The letter was similar to the previous letters that the opera house had used to raise funds but included a slight variation. The additional thank-you card was not distributed in the past. Table 1 summarizes our experimental treatments. The exact formulation of the letters and cards is presented in Appendix A4.

The top panel of Table 1 presents our “Thank you in advance” study, which involved two treatments. While the baseline letter did not include the phrases “*Thank you in advance*” or “*Thank you for your support*,” the treatment group received a letter that concluded with these expressions. To maintain the context of support, the letter specifically included “*Thank you for your support*” to prevent alternative interpretations, such as merely thanking the recipient for reading the letter. The opera house sent 8,800 letters to examine the impact of thanking in advance. The bottom panel of Table 1 presents our personalization study, which also involved two treatments. In addition to the fundraising letter (Thank-you-in-advance version as used in the previous campaigns), a separate group of donors received a postcard that had either a printed or a handwritten message thanking them for their past donations. In total, 1,132 past donors received these cards to test the effectiveness of handwritten notes. All 569 cards were individually handwritten, and not copy-printed. We explicitly decided to use a pen that required some pressure and left deeper marks on

³ In a natural field experiment, participants face a naturally occurring choice problem and are typically unaware of the fact that the decision environment has been designed by an experimenter.

the paper. Additionally, we specifically asked for the writing not to be perfect, meaning that all letters should not have the same shape and the lines should not always be exactly horizontal. We are quite sure that, at least upon closer inspection, it was evident to the recipients that the handwriting was not a serial copy. An example of the handwriting can be found in Appendix A4, Table A8.

We obtained ethical approval from WZB Berlin (2023/02/195) for both of the studies. We wrote the pre-analysis plan before receiving the data and registered it at Open Science Framework (<https://osf.io/vsjw6>).⁴⁵

2.2. Sample and Randomization

The gross sample was based on anonymized customer database that we received from the opera house. It included individual customers who had bought tickets in the last 18 months prior to our studies or donated to one of the past fundraising campaigns (2015-2018, 2022). We combined these data with the data from the customer database that we received in the previous joint study campaigns.⁶ These data include information related to ticket purchases and individual characteristics alongside past donation behavior.

Given that there is substantial heterogeneity in the sample with respect to the amount spent on tickets, frequency of visiting the opera house, and the amounts donated, imbalances in the randomization procedure can hinder inference. Hence, we made sure to achieve a good *ex-ante* balance between the treatment groups. In addition, given that charitable giving is a low-frequency behavior, we selected the individuals who were most likely to respond to the campaign in order to ensure maximum power. Based on our previous experience with the opera house, we anticipated that the highest response rate would come from past donors (warm list), followed by loyal Opera

⁴ Note that we had also preregistered a third study where we had planned to test the role of a post-campaign thank-you postcard on donations of a future campaign with the participants in the current study. Given the lower response rate than expected in the current campaign that affects power of this study and given the evidence-based change in our prior regarding potential effects down to zero, we decided to drop this follow-up study. Other than this, we strictly follow the analysis plan.

⁵ Note that we anonymized the name of the opera house, which also required anonymizing the pre-registration documents and exchanging them accordingly.

⁶ The matching procedure based on customer registration number inevitably causes some information to be lost over time as some donors got themselves re-registered to the opera house. Due to anonymity, we cannot improve the matching procedure. It had an impact on the selection of individuals into study 1 (for a subsample of individuals one of the selection criteria was the length of the relationship) and implies that control variables relating to opera tickets purchasing behavior are measured with some error. It does not have any direct effect on the inference.

customers, and then by Opera customers holding academic titles⁷ (Adena & Huck, 2022). Consequently, we predominantly selected these customers for the pool of letter recipients. In contrast, the response rate from customers with high spending on opera tickets was typically much lower than that of the other groups. Even though the amounts donated by them were generally higher, the resulting return per letter was lower, so we placed less emphasis on ticket spending when selecting letter recipients. Appendix A1 presents the power calculations. Detailed explanation of the sampling and balancing procedures can be found in Appendix A2. The overall budget of the campaign allowed for sending 10,000 letters. Because 1,200 past donors were pre-allocated to Study 2, Study 1 comprised 8,800 letters.

Table 1: Designs of the two studies

Study 1: Thank you in advance			
Treatments	Description	N	Text (translation from German)
Baseline	All participants receive an identical letter but for an additional thank-you statement in the treatment group.	8,667 customers who did not donate in the past	<i>"We hope for your active support!"</i>
Thank you in advance			<i>"We hope for your active support and thank you already now! Thank you very much for your support!"</i>
Study 2: Handwritten versus printed cards			
Treatments	Description	N	Text (translation from German)
Printed	All participants received a letter and a postcard. The treatments differ by whether the text on the back side of the postcard is handwritten or printed.	1,132 past donors	<i>"Thank you very much for your donation in the past. We would be very pleased if you would continue to support [opera house name] Education!"</i>
Handwritten			<i>"Thank you very much for your donation in the past. We would be very pleased if you would continue to support [opera house name] Education!"</i>

Note: Visuals of all materials and letters can be found in the Appendix A4.

⁷ Academic degrees can only be taken into account if stated (truthfully or not). However, a standard (online) form in Germany contains an open space for title. This is often used to enter any title including academic degrees.

2.3.Primary Hypotheses

Study 1: Thank you in advance

Given that the charities commonly use the phrase “Thank you in advance,” and there is evidence of a positive impact of thanking on helping and donations (see the literature review above), we hypothesize that this phrase increases charitable giving on both the extensive and intensive margins.

H1a: *Including a “Thank you in advance” phrase in a donation letter increases the number of donations.*

H1b: *Including a “Thank you in advance” phrase in a donation letter increases the donation amounts.*

Although our hypotheses are directional, we also acknowledge the potential for opposing effects.⁸ The thank-you phrase may increase pressure on potential donors. If this pressure resembles social or peer pressure, it could boost donations, as noted by DellaVigna et al. (2012) and Meer (2011). Conversely, if seen as a threat to freedom of choice, it may trigger "reactance" (Brehm and Brehm 1981), leading to counterproductive outcomes. Such reactions could hinder fundraising efforts, as demonstrated by Adena and Huck (2022) and by Adena and Huck (2023).

Study 2: Handwritten versus printed cards

As the literature on personalization of fundraising letters is thin, the directions of our hypotheses are based on the literature suggesting that personalization of invitation letters to surveys increases participation (see the literature review above). We expect that more involved personalization and, hence, effort displayed by a fundraiser increases charitable giving.

H2: *A handwritten thank-you note generates higher donations than a printed note.*

3. Results

In our statistical analyses, we strictly follow our pre-analysis plan, which specifies all variables and the entire analysis. As prespecified in the pre-analysis plan, we excluded those individuals whose letters were not delivered due to relocation or death (213 in total).

⁸ Since these hypotheses are preregistered as directional, we refrain from deviating from our analysis plan. We thank the anonymous referee for noting this.

Figure A1 in the Appendix presents the correlation matrix for the variables used in the analysis separately for Study 1 and Study 2.

3.1. Primary Hypotheses Tests

Given the randomization procedure, for the tests of our hypotheses, we use a chi-square test (for the extensive margin) and a Mann-Whitney-U-Test (MWU; for the extensive and combined margins). Table 2 presents the non-parametric analyses. The top panel presents the results of Study 1 and the bottom panel presents the results of Study 2. Given that charitable giving is a low-frequency high-variance behavior, we might lack precision in both tests, especially when analyzing the combined margin that is characterized by a large proportion of zero donations such that an MWU test lacks power in such a context. Therefore, we also run simple OLS regressions with robust (Huber-White) standard errors. We consider significance thresholds of $p < 0.05^*$ and $p < 0.01^{**}$ throughout the study.

Following the literature on charitable giving, we study extensive, intensive, and the combined margin of responses. That is, we look at the probability to donate, the value of the donation (excluding zeros), and the return per letter (donation value including zeros). The latter two variables have highly skewed distributions. In line with the literature and our pre-analysis plan, we take the log of the donation value (excluding zeros) when studying the intensive margin. We take the log of the donation value plus one (including zeros) when studying the total effect.

We run OLS regressions for all three dependent variables. For each dependent variable, we run two regressions: one without control variables and one including controls for blocks of randomization alongside all characteristics used in the process of the randomization. This all adds up to six models for each of the two studies in the regression table.

Our models without control variables involve only a binary variable that defines treatment variations. Following regressions without control variables, we include independent variables in our models as they were used in the randomization. Table A2 in the Appendix explains all the independent variables used in the regression analyses in both studies. Table 3 presents regression results.

Table 2: Non-Parametric Analyses

	Number of letters	Number of donations	Response rate	Average positive donation in €	Revenue per letter in €	Total volume of donations in €
Study 1: Thank you in advance						
Baseline	4,324	71	0.016	110.99 (19.201)	1.82 (0.380)	7,880
Thank you in advance	4,343	79	0.018	79.76 (9.530)	1.45 (0.236)	6,301
<i>p-value (MWU)</i>				0.964	0.528	
<i>p-value (χ^2)</i>			0.527			
Study 2: Handwritten versus printed cards						
Printed	563	105	0.187	114.19 (28.190)	21.30 (5.563)	11,990
Handwritten	569	110	0.193	86.50 (9.741)	16.72 (2.361)	9,515
<i>p-value (MWU)</i>				0.376	0.692	
<i>p-value (χ^2)</i>			0.770			

Note: Standard errors in parentheses

In Study 1, the response rate was 1.6% in the baseline treatment and 1.8% in the treatment with the “thank you in advance” phrase. Neither the chi-square test nor a parametric regression with or without control variables show any significant differences. In Table 3, we also include the 95% confidence intervals (in square brackets), which show that, if there is any difference, it is very close to zero. This shows that the zero estimates are not due to a power problem but are precisely estimated.

The average positive donation was €111 in the baseline and €80 in the treatment with a thank you in advance. Neither the MWU test in Table 2 nor parametric regressions in Table 3 show statistical differences between treatments.

The revenue per letter was €1.82 in the baseline and €1.45 in the thank you in advance treatment. However, we do not find any significant differences – neither using non-parametric, nor parametric tests. The zero effect in Table 3 is quite precisely estimated.

In Study 2, among past donors, the response rate was much higher, with 18.7% in the printed version and slightly higher with 19.3% in the handwritten version of the card. The differences are again not significant and the zero effect is quite precisely estimated, as can be seen in Table 3.

Table 3: Regression results

	Study 1: Thanks in advance			Study 2: Handwritten versus printed cards		
	Donor dummy (2023)	Donation amount, log of (2023)	Donation revenue, log of (2023)	Donor dummy (2023)	Donation amount, log of (2023)	Donation revenue, log of (2023)
Panel A: Without control variables						
Thanks in advance	0.002 (0.003) [-0.004, 0.007]	-0.067 (0.168) [-0.400, 0.266]	0.006 (0.012) [-0.017, 0.029]			
Handwritten postcard				0.007 (0.023) [-0.039, 0.053]	0.072 (0.136) [-0.195, 0.339]	0.040 (0.096) [-0.149, 0.230]
Constant	0.016** (0.002)	4.030** (0.133)	0.067** (0.008)	0.187** (0.016)	3.927** (0.102)	0.738** (0.068)
Observations	8667	150	8667	1132	215	1132
R^2	0.000	0.001	0.000	0.000	0.001	0.000
Panel B: With control variables						
Thanks in advance	0.002 (0.003) [-0.004, 0.008]	-0.122 (0.161) [-0.440, 0.196]	0.007 (0.012) [-0.017, 0.030]			
Handwritten postcard				0.006 (0.024) [-0.041, 0.053]	-0.145 (0.232) [-0.625, 0.336]	0.032 (0.098) [-0.161, 0.225]
Block of randomization fixed effects	yes	no ^a	yes	yes	yes	yes
Individual characteristics	yes	yes	yes	yes	yes	yes
Observations	8,667	150	8,667	1,132	215	1,132
R^2	0.509	0.165	0.513	0.579	0.981	0.580

Notes: Robust standard errors in parentheses; 95% confidence intervals in brackets; * $p < 0.05$, ** $p < 0.01$; ^a— 150 donors belong to 148 randomization blocks such that we cannot add block of randomization FE.

The average positive donations are similar in Study 2. The average donation was €114 with the printed card, and €87 with the handwritten card. Again, the differences are not significant. The revenue per letter was €21 in the printed card treatment and €17 in the handwritten card treatment, which is again not significant.

We present some additional robustness checks in the Appendix — heterogeneity with respect to previous experience with solicitation letters (Table A6, only study 1) and to gender (Table A7). We did not find any evidence of heterogenous treatment effects.

4. Conclusion and Discussion

In a preregistered, large-scale field experiment, we show that neither thanking in advance in solicitation letters, nor sending handwritten thank-you postcards, matter for the success of a fundraising campaign. Importantly, our zero results are quite precisely estimated, removing any concerns related to power.

While we draw our conclusions from the specific context of our study, we do not think that our results are necessarily only limited to the specific context of opera giving in Germany. Indeed, our study is in line with the null effects of thanking donors on subsequent giving by Samek and Longfield (2023) in the context of radio donations and the US. Of course, applications to non-Western cultures might be limited and more research in this context is needed. Several studies indeed show that there are cultural differences in thanking and interpretation of politeness norms (e.g. Park et al., 2012; Ohashi, 2003).

Despite limited direct evidence on gratitude in fundraising, models of social preferences imply gratitude, especially in reciprocal actions. Dufwenberg and Kirchsteiger (2004) alongside Falk and Fischbacher (2006) show that individuals are more inclined to reciprocate when they perceive substantial effort, deliberate intent, or personal investment from another party. In this regard, the null result in Study 2—where handwritten cards did not correlate with increased donations—is counterintuitive. Handwritten notes, which intrinsically demand greater effort and convey a higher degree of personal attention compared to printed cards, could have been construed by donors as indicative of commitment. Therefore, reciprocity-based theoretical frameworks would predict that such a demonstrative act of effort would elicit a correspondingly enhanced donation response. The psychology literature on emotions similarly highlights the importance of gratitude in social networks (Algoe et al., 2020).

The null result in our second study may be explained by the fact that although the cards were handwritten, they were not perceived as personal because they were sent by an institution rather than by a genuine peer. Evidence regarding differences between human-human and human-computer interactions can support this view (see, for example, Nass & Moon, 2000; Sanfey, 2003; Engel, 2011). Similarly, Algoe et al. (2016) show that personalization should extend beyond merely expressing gratitude and include personal praise—for example, saying “you are so generous.” In light of the null results of our study, we caution fundraisers regarding the allocation

of their limited resources to personalization of solicitation letters. Rather than fine-tuning conventional solicitation letters, investing in adaptation to technological advancements, such as artificial intelligence (AI), might yield higher returns in the near future. For example, Namkoong et al. (2023) show that AI chatbots' gratitude expressions increased people's willingness to donate, especially when the AI provided a human identity cue. Future studies can further investigate the role of AI in fundraising campaigns in relation to human-AI interactions and other means of personalization and expressions of gratitude.

5. Acknowledgements

We thank Jonathan Meer for valuable comments, Katharina Dorn, Lenna Simmat, and Marius Werz for research support. We thank the opera house for making this project possible. Maja Adena and Levent Neyse acknowledge the financial support of the German Research Foundation (DFG) through project CRC TRR 190 Rationality and Competition (project number 280092119). Maja Adena acknowledges the financial support of the Leibniz Association through projects P146/2022 and K595/2024 and of the German Research Foundation (DFG) through project 518302089. Levent Neyse acknowledges the financial support of the Leibniz Association through projects SAW Lab Square, SAW10868 and K523/2023. The replication material for the study is available at <https://doi.org/10.7802/2907>.

6. AI Use Statement

We used AI-based tools (i.e., ChatGPT by OpenAI) solely for language editing and grammar correction after completing the writing of this manuscript. No AI system was used for generating content, conducting analysis, or drawing conclusions.

7. References

- Adena, M., & Huck, S. (2020). Online Fundraising, Self-Image, and the Long-Term Impact of Ask Avoidance. *Management Science*, 66(2), 722-743. <https://doi.org/10.1287/mnsc.2018.3232>
- Adena, M., & Huck, S. (2022). Personalized fundraising: A field experiment on threshold matching of donations. *Journal of Economic Behavior & Organization*, 200, 1–20. <https://doi.org/10.1016/j.jebo.2022.05.003>
- Adena, M., & Huck, S. (2023). How Does Facilitated Giving Affect Sales? A Field Experiment, mimeo.
- Algoe, S. B., Kurtz, L. E., & Hilaire, N. M. (2016). Putting the “you” in “thank you” examining other-praising behavior as the active relational ingredient in expressed gratitude. *Social Psychological and Personality Science*, 7(7), 658-666.
- Algoe, S. B., & Zhaoyang, R. (2016). Positive psychology in context: Effects of expressing gratitude in ongoing relationships depend on perceptions of enactor responsiveness. *The Journal of Positive Psychology*, 11(4), 399–415. <https://doi.org/10.1080/17439760-2015-1117131>
- Algoe, S. B., Dwyer, P. C., Young, A., & Oveis, C. (2020). A new perspective on the social functions of emotions: Gratitude and the witnessing effect. *Journal of Personality and Social Psychology*, 119(1), 40.
- Andreoni, J., & Serra-Garcia, M. (2021). The Pledging Puzzle: How Can Revocable Promises Increase Charitable Giving? *Management Science*, 67(10), 6198–6210. <https://doi.org/10.1287/mnsc.2020.3811>
- Brehm, S. S., & Brehm, J. W. (1981). *Psychological Reactance: A Theory of Freedom and Control*. Academic Press.
- Bruttel, L., Nithammer, J., & Stolley, F. (2022). “Thanks in advance” – The negative effect of a polite phrase on compliance with a request. *German Economic Review*, 23(1), 61–78. <https://doi.org/10.1515/ger-2021-0020>
- Chao, M. (2017). Demotivating incentives and motivation crowding out in charitable giving. *Proceedings of the National Academy of Sciences*, 114(28), 7301-7306. <https://doi.org/10.1073/pnas.1616921114>
- Chaudhuri, A., & Gangadharan, L. (2007). An Experimental Analysis of Trust and Trustworthiness. *Southern Economic Journal*, 73(4), 959–985. <https://doi.org/10.1002/j.2325-8012.2007.tb00813.x>
- Clark, G. L., & Kaminski, P. F. (1988). How to Get More for Your Money in Mail Surveys. *Journal of Business & Industrial Marketing*, 3(1), 17–23. <https://doi.org/10.1108/eb006047>
- Croson, R., & Gneezy, U. (2009). Gender Differences in Preferences. *Journal of Economic Literature*, 47(2), 448–474. <https://doi.org/10.1257/jel.47.2.448>
- DellaVigna, S., List, J. A., & Malmendier, U. (2012). Testing for Altruism and Social Pressure in Charitable Giving. *The Quarterly Journal of Economics*, 127(1), 1–56. <https://doi.org/10.1093/qje/qjr050>
- Dufwenberg, M., & Kirchsteiger, G. (2004). A theory of sequential reciprocity. *Games and Economic Behavior*, 47(2), 268-298. <https://doi.org/10.1016/j.geb.2003.06.003>

- Dittrich, M. (2015). Gender differences in trust and reciprocity: evidence from a large-scale experiment with heterogeneous subjects. *Applied Economics*, 47(36), 3825–3838. <https://doi.org/10.1080/00036846.2015.1019036>
- Dwyer, P. C. (2015). *Gratitude as persuasion: Understanding when and why gratitude expressions facilitate and inhibit compliance* (Doctoral dissertation, University of Minnesota).
- Eckel, C. C., Herberich, D. H., & Meer, J. (2016). It's not the thought that counts: A field experiment on gift exchange and giving at a public university (No. w22867). National Bureau of Economic Research. <https://doi.org/10.3386/w22867>
- Engel, C. (2011). Dictator games: A meta study. *Experimental Economics*, 14, 583–610.
- Falk, A. (2007). Gift exchange in the field. *Econometrica*, 75(5), 1501–1511. <https://doi.org/10.1111/j.1468-0262.2007.00800.x>
- Falk, A., & Fischbacher, U. (2006). A theory of reciprocity. *Games and Economic Behavior*, 54(2), 293–315. <https://doi.org/10.1016/j.geb.2005.03.001>
- Fehr, E., & Gächter, S. (2000). Fairness and Retaliation: The Economics of Reciprocity. *Journal of Economic Perspectives*, 14(3), 159–182. <https://doi.org/10.1257/jep.14.3.159>
- Fosgaard, T., Hansen, L., Jacobsen, C., Sørensen, E., Romose, M., & Ullum, H. (2020). Can text messages save lives? A field experiment on blood donor motivation. *Transfusion*, 60(3), 460–465. <https://doi.org/10.1111/trf.15633>
- Garner, R. (2005). Post-It® Note Persuasion: A Sticky Influence. *Journal of Consumer Psychology*, 15(3), 230–237. https://doi.org/10.1207/s15327663jcp1503_8
- Gemelli, C. N., Carver, A., Garn, A., Wright, S. T., & Davison, T. E. (2018). Evaluation of the impact of a personalized postdonation short messaging service on the retention of whole blood donors. *Transfusion*, 58(3), 701–709. <https://doi.org/10.1111/trf.14463>
- Karlan, D., & List, J. A. (2007). Does price matter in charitable giving? Evidence from a large-scale natural field experiment. *American Economic Review*, 97(5), 1774–1793. <https://doi.org/10.1257/aer.97.5.1774>
- Meer, J. (2011). Brother, can you spare a dime? Peer pressure in charitable solicitation. *Journal of Public Economics*, 95(7–8), 926–941. <https://doi.org/10.1016/j.jpubeco.2010.11.026>
- Moss, V. D., & Worthen, B. R. (1991). Do Personalization and Postage Make a Difference on Response Rates to Surveys of Professional Populations? *Psychological Reports*, 68(2), 692–694. <https://doi.org/10.2466/pr0.1991.68.2.692>
- Moussaoui, L. S., Herren-Vichet, J., Baldelli, S., Waldvogel, S., & Desrichard, O. (2019). Examining if sending text messages to thank blood donors for saving lives is a “great idea”? Evidence from a randomized field experiment. *Journal of Nonprofit and Public Sector Marketing*, 31(5), 486–506. <https://doi.org/10.1080/10495142.2018.1526753>
- Namkoong, M., Park, G., Park, Y., & Lee, S. (2023). Effect of Gratitude Expression of AI Chatbot on Willingness to Donate. *International Journal of Human–Computer Interaction*, 1–12. <https://doi.org/10.1080/10447318.2023.2259719>
- Nass, C., & Moon, Y. (2000). Machines and mindlessness: Social responses to computers. *Journal of Social Issues*, 56(1), 81–103.

- Ohashi, J. (2006) Japanese culture specific face and politeness orientation: A pragmatic investigation of yoroshiku onegaishimasu. *Multilingua*, vol. 22, no. 3, 2003, pp. 257-274. <https://doi.org/10.1515/mult.2003.013>
- Panagopoulos, C. (2011). Thank You for Voting: Gratitude Expression and Voter Mobilization. *The Journal of Politics*, 73(3), 707–717. <https://doi.org/10.1017/S0022381611000405>
- Park, H. S., & Lee, H. E. (2012). Cultural differences in “thank you”. *Journal of Language and Social Psychology*, 31(2), 138-156. <https://doi.org/10.1177/0261927X12438536>
- Rind, B., & Bordia, P. (1995). Effect of Server’s “Thank You” and Personalization on Restaurant Tipping1. *Journal of Applied Social Psychology*, 25(9), 745–751. <https://doi.org/10.1111/j.1559-1816.1995.tb01772.x>
- Samek, A., & Longfield, C. (2023). Do Thank-You Calls Increase Charitable Giving? Expert Forecasts and Field Experimental Evidence. *American Economic Journal: Applied Economics*, 15(2), 103–124. <https://doi.org/10.1257/app.20210068>
- Sanfey, A. G., Rilling, J. K., Aronson, J. A., Nystrom, L. E., & Cohen, J. D. (2003). The neural basis of economic decision-making in the ultimatum game. *Science*, 300(5626), 1755-1758.

Appendix

A1. Power calculations

Table A1: Power Calculation based on assumed baseline response rate

		Extensive margin		Intensive margin				Combined margin			
Study	Total sample size	Assumed baseline response rate	Minimum detectable effect (p.p)	Assumed average baseline log donation	St. Dev.	Number donors	Minimum detectable effect	Sample	Log revenue control	St. Dev.	Minimum detectable effect
1	8,800	0.024	0.010	4	1	200	0.4	8,800	0.1	0.64	0.038
2	1,200	0.34	0.065	4	1	400	0.28	1,200	1.36	1.9	0.31

Notes: All calculations assume alpha=0.05 and power 0.8. Stata commands extensive margin: power twoproportions 0.024, n(8800) power(0.8) and power twoproportions 0.34, n(1200) power(0.8), intensive margin: power twomeans 4, sd(1) n(200) power(0.8) and power twomeans 4, sd(1) n(400) power(0.8), combined margin: power twomeans 0.1, sd(0.64) n(8800) power(0.8) and power twomeans 1.36, sd(1.9) n(1200) power(0.8) Study 1: Thank you in advance; Study 2: Handwritten versus printed cards. Note that the numbers for study 2, extensive and intensive margin deviate from PAP. We thank anonymous referee for spotting mistake in those numbers.

A2. Variables, Sampling, and Balancing

Table A2: Independent Variables

Variable	Explanation	Study 1-2	Robustness Tests
<i>Indicator variables for randomization blocks</i>	Created in the process of randomization.	1,2	
<i>Other Donations</i>	Value of other donation (ticket donation during the COVID-19 pandemic or unsolicited online donation) per donations act.	1	
<i>Customer years</i>	Number of years that the donor is registered with the opera house.	1,2	
<i>Avg ticket spending</i>	The average ticket spending per year.	1,2	
<i>Academic</i>	A binary variable that equals 1 if the donor registered using a Dr. or professor title degree.	1,2	
<i>Female</i>	A binary variable defining the gender of the participant.	1,2	
<i>City</i>	A binary variable that equals to 1 if the donor resides in the city where the opera house is located.	1,2	
<i>Dummy at least one fundraising letter in the past</i>	A binary variable that equals to 1 if the participants received a fundraising letter in the past.	1	

<i>Interaction variable: T x (female dummy)</i>	An interaction variable for treatment and female dummy.	1,2	+
<i>Donation2XPlus</i>	A binary variable that equals 1 if the donor donated at least twice before (either in one of the fundraising campaigns or other type of donation).	2	
<i>Average past donation</i>	Value of past donation per donation act in the fundraising campaign.	2	
<i>Donor 2022</i>	A binary variable that equals to 1 if the donor donated in 2022.	2	
<i>Interaction variable: T x (received a fundraising letter in the past dummy)</i>	An interaction variable for treatment and a dummy =1 if received a fundraising letter in the past.	1	+
<i>Interaction variable: T x (number of fundraising letters received in the past)</i>	An interaction variable for treatment and a number of fundraising letters received in the past.	1	+

Notes: Study 1: Thank you in advance; Study 2: Handwritten versus printed cards.

Study 1: Thank you in advance. The sample consists of 8,800 individuals from two different subsamples: Subsample A involves all individuals who have either donated the value of their tickets after the performances were cancelled due to Covid pandemic lockdown or donated in another way to the opera house excluding donations in campaigns similar to this one.⁹ This sample consists of around 2,800 individuals. Subsample B involves around 6000 individuals selected from remaining individuals in the database, who are likely to donate the highest amounts at the highest probability. To be selected, they either (i) were required to be a customer for at least four years of ticket data available to us and bought tickets in one of the last two years (there were appx. 2,400 individuals fulfilling this criteria) or (ii) have registered in the database indicating an academic title (Dr. or Prof.) and have spent at least €41.90 per ticket¹⁰ and bought tickets in one of the last two years (appx. 3600 individuals fulfilling this criteria). The reason for this selection resulted from a test in the campaign the year before that yielded best return per customer in the (i) group followed by the academic status with pure indication of spending per ticket yielding worst results.

The A and B samples were separately assigned to treatments as follows.

⁹ For the first study, we excluded individuals who donated to one or more of the previous similar campaigns for children projects by the Opera House as those individuals are part of Study 2.

¹⁰ This cutoff resulted because we sorted individuals in the ascending number with respect to the average amount spent on tickets and selected 3,600 individuals with the highest spending.

In group A, individuals were sorted according to the following variables: quartile of the donation value per donation act, having donated at least twice dummy, the number of years in the customer database, academic status dummy, female dummy, city dummy defining whether the participant resides in the city where the opera house is located, average donation level, and average spending per ticket.

In group B group, customers were sorted according to following variables: The number of years in the customer database, academic status dummy, quartiles of spending per ticket, female dummy, living in the opera house city dummy, spending per ticket.

The sorted individuals in both groups were numbered and a random number was generated for each individual separately. In each consecutive pair, the treatment condition was assigned to the individual with the higher random number while the other individual was assigned to the control group. Table A3 and A4 confirm good balancing on observables for groups A and B; that is, there is no t-test p-value significant at conventional levels.

Table A3: Study 1: Thank you in advance, Group A balancing

	No Thanks	No Thanks	No Thanks	Thanks	Thanks	Thanks	T-test p-value
	Mean	Std-error	N	Mean	Std-error	N	
Donation 2xplus	0.106	0.008	1,321	0.106	0.008	1,334	0.981
Donation	0.026	0.019	1,321	0.000	0.000	1,334	0.162
Other donations	69.788	4.819	1,321	66.697	4.679	1,334	0.645
Customer years	2.093	0.057	1,321	2.098	0.057	1,334	0.950
Avg ticket spending	39.982	1.059	1,321	39.067	1.048	1,334	0.539
Academic	0.127	0.009	1,321	0.125	0.009	1,334	0.877
Female	0.535	0.014	1,321	0.534	0.014	1,334	0.970
City	0.364	0.013	1,321	0.387	0.013	1,334	0.228
Previous letter number	1.063	0.032	1,321	1.089	0.032	1,334	0.560
Previous letter dummy	0.634	0.013	1,321	0.633	0.013	1,334	0.992

Table A4: Study 1: Thank you in advance, Group B balancing

	No Thanks	No Thanks	No Thanks	Thanks	Thanks	Thanks	T-test p-value
	Mean	Std-error	N	Mean	Std-error	N	
Donation	0.000	0.000	3,003	0.003	0.003	3,009	0.317
Other donations	0.000	0.000	3,003	0.000	0.000	3,009	
Customer years	2.636	0.033	3,003	2.625	0.033	3,009	0.810

Avg ticket spending	77.586	0.820	3,003	77.528	0.790	3,009	0.959
Academic	0.660	0.009	3,003	0.663	0.009	3,009	0.806
Female	0.485	0.009	3,003	0.484	0.009	3,009	0.961
City	0.364	0.009	3,003	0.361	0.009	3,009	0.847
Ticket number	18.855	0.810	3,003	17.541	0.515	3,009	0.171
Previous letter number	0.941	0.023	3,003	0.946	0.023	3,009	0.878
Previous letter dummy	0.444	0.009	3,003	0.445	0.009	3,009	0.910

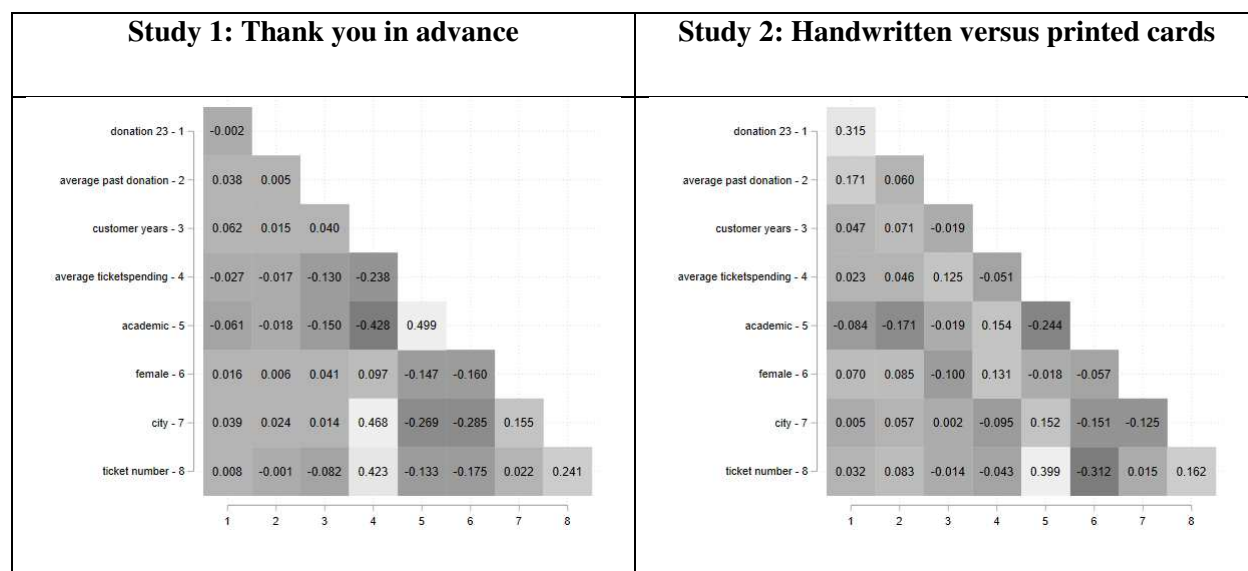
Study 2: Handwritten versus printed cards. Handwritten and printed “Thank you for your past engagement” cards were sent to the sample of previous donors. Previous donation campaigns for the Opera House Education project took place at the end of November between 2015 and 2018 (in the last campaign only past donors were asked),¹¹ and in April 2022. The donor database contained around 1200 donors who were randomized into two groups: printed versus handwritten extra postcards. More specifically, the past donors were sorted according to following variables: A binary variable equal to one if the donor donated in the last campaign (2022), quartiles of donation values in the last campaign, a binary variable defining those who made two or more donations in the past, length of customer relationship based on the available data of 8 years, academic title dummy, female dummy, living in the opera house city dummy, average donation value, and average ticket value. Next, within each consecutive pair, one of the individuals was assigned to the handwritten cards group and the other to the printed cards group. Table A5 shows that the randomization achieved good balance on observed characteristics.

Table A5: Study 2: Handwritten versus printed cards, past donors balancing

	Printed			Handwritten			T-test p-value
	Mean	Std-error	N	Mean	Std-error	N	
Donor 2022	0.361	0.020	563	0.355	0.020	569	0.845
Donation 2xplus	0.261	0.019	563	0.257	0.018	569	0.863
Avg past donation	59.830	4.346	563	64.243	6.391	569	0.568
Customer years	2.616	0.066	563	2.657	0.066	569	0.661
Avg ticket spending	57.977	1.597	563	57.592	1.692	569	0.869
Academic	0.176	0.016	563	0.195	0.017	569	0.406
Female	0.488	0.021	563	0.497	0.021	569	0.765
City	0.439	0.021	563	0.473	0.021	569	0.251

¹¹ At the end of November 2018, the opera house repeated the fundraising on a much smaller group. Only past donors (conditional on having donated in at least two of the three previous campaigns in 2015-2017) were asked to donate (332 individuals).

Figure A1: Correlation matrix



A3. Robustness Tests

Previous experience with solicitation letters

Our first robustness test relates to previous experience with solicitation letters. As all previous campaigns included a “thank you in advance” statement, we wish to test whether having experience with previous letters interact with our treatment variation. In particular, we wish to further investigate whether receiving a similar letter in any of the previous campaigns or the number of such letters might affect donation behavior.

In the sample of Study 1, 50% of individuals received a fundraising letter from the opera house in the past and self-selected to not donate to this type of campaign. While 25% received such a letter once in the past, 8% received it twice, 11% thrice, and 6% four times. The decision not to donate in the past in response to the fundraising letter could suggest that those individuals experienced reactance in the past (alternatively they just did not value the project enough to donate). This could indicate that a letter without a “thank you in advance” statement could be more effective in this group. On the other hand, given that these individuals were used to receiving a letter with thank you in advance phrase, they could potentially react more negatively to lack of such a statement. As we have no priors, we did not prespecify any hypothesis for this test. We present the results in Appendix Table A6. More specifically, our OLS regressions now include the interaction between the treatment and a dummy if an individual received a fundraising letter in the past (Columns I and

II). As an alternative to this we replace this dummy with the number of solicitation letters that the individuals received in the past (Columns III and IV). Given the small number of donations resulting in the current campaign, the intensive margin is omitted (no estimation is possible).

We do not find any significant interaction effects and, if there are any effects, they are very small—the confidence intervals lie close around zero.

The test is omitted for study 2 as all previous donors received a letter in the past and the number of letters is endogenous—once a customer donated, they receive fundraising letters in all subsequent campaigns.

Table A6: Robustness Test 1: Receiving a fundraising letter in the past in Study 1: Thank you in advance

	Donor dummy (2023)	Donation revenue, log of (2023)	Donor dummy (2023)	Donation revenue, log of (2023)
Thanks in advance	0.006 (0.004) [-0.001, 0.013]	0.027 (0.016) [-0.005, 0.058]	0.004 (0.003) [-0.003, 0.010]	0.016 (0.015) [-0.012, 0.045]
At least one fundraising letter in the past dummy	-0.011 (0.006) [-0.023, 0.002]	-0.036 (0.026) [-0.086, 0.015]		
Thanks in advance x previous letter dummy	-0.008 (0.007) [-0.021, 0.006]	-0.040 (0.028) [-0.094, 0.015]		
Thanks in advance x previous letter number			-0.002 (0.003) [-0.008, 0.004]	-0.009 (0.012) [-0.032, 0.013]
Number of fundraising letters in the past			-0.004 (0.003) [-0.010, 0.003]	-0.012 (0.013) [-0.038, 0.014]
Block of randomization fixed effects	yes	yes	yes	yes
Individual characteristics	yes	yes	yes	yes
Observations	8,667	8,667	8,667	8,667
R^2	0.510	0.513	0.510	0.513

Notes: Standard errors in parentheses; 95% confidence intervals in brackets; * $p < 0.05$, ** $p < 0.01$; no estimation possible for positive donation value due to collinearity.

Gender

In our second set of robustness tests, we test heterogeneity with respect to gender (both Study 1 and Study 2). For this, in the regressions we include interaction between the treatment and female dummies. We have no priors regarding these treatment differences: while, in laboratory studies, females seem to have expressed higher reciprocity (see Croson & Gneezy, 2009 for a review), those results are not confirmed in other studies (Chaudhuri & Gangadharan, 2007) or outside of the laboratory (Dittrich, 2015). The results are presented in Table A7. We do not find any heterogeneity with respect to gender (nor any direct effects of gender).

Table A7: Robustness Test 2: Gender

	Donor dummy (2023)	Donation amount, log of (2023)	Donation revenue, log of (2023)	Donor dummy (2023)	Donation amount, log of (2023)	Donation revenue, log of (2023)
	Study 1: Thank you in advance		Study 2: Handwritten versus printed cards			
Thanks in advance	-0.001 (0.024) [-0.084, 0.011]		-0.002 (0.087) [-0.305, 0.038]			
Female (2014 to 2023)	-0.018 (0.000) [-0.000, 0.000]		-0.088 (0.000) [-0.000, 0.000]	0.016 (0.069) [-0.119, 0.152]	-0.306 (0.492) [-1.326, 0.715]	-0.064 (0.282) [-0.617, 0.491]
Thanks in advance x female dummy	0.005 (0.006) [-0.006, 0.017]		0.017 (0.024) [-0.031, 0.064]			
Handwritten postcard				0.035 (0.033) [-0.030, 0.101]	-0.258 (0.362) [-1.008, 0.492]	0.110 (0.144) [-0.173, 0.392]
Handwritten postcard x female dummy				-0.060 (0.051) [-0.160, 0.040]	0.275 (0.588) [-0.944, 1.495]	-0.159 (0.211) [-0.574, 0.255]
Block of randomization fixed effects	yes		yes	yes	yes	yes
Individual characteristics	yes		yes	yes	yes	yes
Observations	8,667		8,667	1,132	215	1,132
R^2	0.509		0.513	0.580	0.982	0.580

Notes: Standard errors in parentheses; 95% confidence intervals in brackets; * $p < 0.05$, ** $p < 0.01$; no estimation possible in the second column due to collinearity/small sample.

Further heterogeneity

We preregistered only two heterogeneity tests—by gender and receiving a fundraising letter in the past (only study 1)—we found no heterogeneous effects. Ex-post, we also examined whether any interaction terms between treatment dummies and the characteristics used for balancing turn significant (not preregistered, not presented here). Out of many regressions, we found only one significant interaction coefficient, which suggests that, conditional on being a donor, individuals with a higher average value of tickets (2018 to 2023) reacted more adversely to the "thanks in advance" treatment. However, since only this one interaction coefficient (which was not preregistered) is significant at $p < 0.01$, it is unlikely that the heterogeneous effects in our population that are canceling each other out are a likely explanation for our null results.

A4: Details of the materials

Letter: The additional “Thank you in Advance” in the treatment version of the letter in square brackets and shaded grey.

Dear Ms. XY,

Children are the bearers of hope for the future. That is why it is important to us to strengthen the social and emotional skills and cooperation of future generations. Music as a cultural asset has been proven to play a key role in teaching such skills. However, many schools are no longer able to offer continuous music lessons - this is where the [opera house name] Education workers come in with the "[project 1 name]" project.

Hundreds of children in [city name] and the surrounding area have already been reached with the various kindergarten and classroom performances of the "[project 2 name]" project.

With the complementary project "[project 3 name]," we are now bringing the orchestra to elementary school and kindergartens!

The focus here is on children's concerts, small orchestral formats and instrument lessons. These are performed by three to seven musicians from the [name] Academy of the [federal state name] State Orchestra and designed and moderated by the music theater educators from [opera house name] Education.

Through participatory elements and active involvement, communicative and creative potentials are encouraged in a playful way.

Help us with this! With your donation, you will make a decisive contribution to strengthening social responsibility and to the positive personal, social and societal development of the next generation. Let's make classrooms and daycare centers resound together!

Your donation counts twice! We are pleased to announce that the [name] Foundation is supporting our campaign by matching every donation up to a maximum of EUR 25,000. In addition, a donor who wishes to remain anonymous has been won over. His contribution of EUR 6,000 will cover the overhead costs, so that every donation will directly benefit the project and thus the children.

We hope for your active support [and thank you already now!]

Thank you very much for your support!]

With kind regards

Intendant

Postcard

Table A8: Study 2: Personalization of “Thank you for your past engagement”

Treatments	Identical in both treatments	Text
Printed		Wir danken Ihnen sehr für Ihre Spende in der Vergangenheit. Es würde uns sehr freuen, wenn Sie die [REDACTED] weiter unterstützen!
Handwritten		<i>Wir danken Ihnen sehr für Ihre Spende in der Vergangenheit. Es würde uns sehr freuen, wenn Sie die [REDACTED] weiter unterstützen!</i>

Image A1: Study 2 Postcard

