The multidimensional effects of a small gift: Evidence from a natural field experiment

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Abstract

Using a large natural field experiment, we demonstrate that a small unconditional gift (pen) more than doubled both small (survey) and large (blood donation) responses. We find no evidence that the opportunity for a small response crowded out the larger response; asking participants to also complete a survey directionally increased donations.

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1. Introduction

Since Fehr et al.'s (1993) early laboratory examination of reciprocity, there has been tremendous interest in reciprocal behavior with hundreds of laboratory demonstrations (e.g., responder behavior in Ultimatum Games, trustee behavior in Trust Games and employee behavior in Gift Exchanges). While debate continues on the presence and extent of reciprocity in labor markets in the field (e.g., Gneezy and List 2006), more recent fieldwork demonstrates that gifts can increase responses to organizational requests. Gneezy and Rey-Biel (2012) show that even a very small gift ($1.00) roughly doubled survey responses from 8% to 15% among a retail outlet's recent customers.

This paper examines whether a disproportionately small gift (a pen) can not only (1) motivate a similar small response (survey), but also whether the same gift can (2) motivate a much more substantive response (a blood donation) as well as (3) motivate both responses simultaneously.[1] We also examine whether the availability of the small response will crowd out the motivation to perform the major response; with multiple responses available, people who would like to reciprocate may substitute away from the major blood donation response to the easier survey response. On the other hand, the two activities might be complements in which responding to one request increases the marginal utility to respond to the other request.[2]

2. Methods

We test the effect of offering a small unconditional gift on survey and donation responses using a large natural field experiment with the Australian Red Cross Blood Service (the Blood Service). From over 500,000 lapsed donors (those who have not donated in more than two years), the Blood Service created a population of potential participants who were 22 to 55 years old, were eligible to donate, have O or A blood type, have donated successfully at least once and had last attempted to donate between 28 and 44 months prior to our mail out date. We received a sample of 42,222 from the resulting population meeting all the criteria, and then we randomly selected 6,048 donors (based on power calculations assuming historical donations rates of lapsed donors, 90% power and alpha = 0.05). We balanced the sample to have an equal number of men and women and an equal number in three past-attendance categories (once, two or three times, four or more times). We then randomly assigned each participant, again balancing for gender and past attendance, to one of four mail conditions: (1) No survey and no gift (n=1,008); (2) No survey and gift (n=2,016); (3) survey and no gift (n=1,008); and (4) survey and gift (n=2,016).[3] We further randomly assigned one-third of the mailings from each condition to occur on three consecutive Mondays.

[1] Compared to our survey that takes 5 to 8 minutes to complete, a donation takes over an hour of time at a center, requires getting to and from the center and involves a degree of discomfort. Thus a donation is a much larger response than completing a survey.
[2] Moreover, the small request may operate similarly to the Foot-in-the-Door (FITD) technique (Burger, 1999) in which people are first asked for a small response (e.g., sign a petition) and then subsequently asked for a large response (e.g., donate money). The FITD technique presumes that social pressure can be enough to motivate the initial small response, which in turn makes donors psychologically closer to the organization, thus increasing the value of the larger response.
[3] We later divided each of the two gift conditions in half for two call conditions. We do not use call responses as discussed below.

The cover letter for each of the four conditions, the survey and a picture of the gift are included in the supplemental material. The gift was a specially designed pen branded with the Australian Red Cross Blood Service logo. The cover letter in all conditions used the identical introduction and request to donate blood. The letters with the surveys added the following sentences, "We invite you to complete our survey of blood knowledge. Your responses will help us to assess the general knowledge of blood and blood product donations to help us better improve the blood supply. Please return the completed survey in the enclosed reply paid envelope in the next two weeks." The letters with the gift pen added the following sentences, "To remind you of the ongoing need for blood, we have enclosed a specially designed pen for you from the Blood Service. We hope that you enjoy using it." The supplemental material (Table S1) shows that the four conditions were balanced across every observable characteristic.

3. Results

We examine three dependent variables: survey response (i.e., completing and mailing the survey back to the Blood Service), attendance (i.e., physically presenting to donate at a Blood Service donation center) and the joint survey response and attendance (i.e., returning the survey and presenting to donate). We examine responses during the three weeks immediately after each mail out date to allow for sufficient time for donors to respond. The survey request also specified a 2-week time frame.[4]

Figure 1 shows the average treatment effects and 95% confidence intervals. When the gift was included in the mail out, survey returns increased by 5.8 percentage points (from 2.8% to 8.6%); attendance increased by 0.9 percentage points (from 0.5% to 1.4%); and the joint response of attendance and survey return increased by 0.23 percentage points (from 0.05% to 0.28%).[5]

Table 1 shows the results from regressions that estimate the effect of the gift on survey response (Columns 1 and 2), attendance (Columns 3-6) and the joint survey response and attendance (Columns 7-8). The odd and even numbered columns show estimates without and with controls, respectively. The control variables include our experimental design variable (week of mailing), demographics (e.g. gender and age) and past attendance history. The first row indicates the baseline response rates without the gift. We estimate a probit model for each column and report the marginal effect of the parameter estimates and robust standard errors. Thus, the estimated dummy variable for the gift measures its marginal impact. Dividing this estimate by the baseline (no gift) response rate gives the relative increase in the response to the gift.

The results indicate that the gift significantly ($p<.001$) increased the survey responses by 5.8 and 5.2 percentage points without and with controls (Columns 1 and 2 respectively) or by an approximately 180% relative increase (5.2%/2.8%). Columns 3 and 4 show that the gift also significantly ($p<.001$) increased attendance by 0.90 and 0.78 percentage points without and with

[4] After the first three weeks the Blood Service began calling all of the participants to invite them to donate. The calls dramatically increased attendance from an average of 1% without calls to over 10% when contacted by phone. The call effect thus essentially swamped our ability to detect any longer term responses due to the mail out. Moreover, the Blood Service is not allowed to contact anyone who donated in the past 12 weeks, had become deferred or who had an appointment in place. Thus, analyses of the gift effects after the calls began would also suffer from selection effects.

[5] 85% of surveys returned were 100% completed (all 52 questions) and only one survey returned had more than one missing value.

controls, or by a 160% (0.78%/0.5%) relative increase. Columns 5 and 6 show that the effect of the gift on attendance does not change when controlling for whether a survey was included. Further, Columns 5 and 6 show that the presence of the survey directionally increased attendance by 0.24 and 0.23 percentage points although these increases do not reach significance. This result indicates there is no evidence that asking for a small response caused participants to substitute away from the larger attendance response. However, we cannot confirm whether the survey and attendance requests were complements since the increase is not significant.[6] Columns 7 and 8 show that the gift also significantly increased the joint survey response and attendance by 0.23 percentage points, a more than 400% (0.23%/0.05%) relative increase.

4. Discussion

We find significant increases in both a major response to a small gift (survey and attendance responses each increased by over 150%) and a multidimensional response (joint survey return and attendance increased by over 400%). We also find no evidence of a crowd out effect in which the availability of a small response negatively affected the large response.

A potential additional explanation for our results is that the gift served as a reminder for both completing the survey and making an appointment to donate. This explanation suggests the gift effect would occur only later when donors without the gift would forget while those with the gift would remember about the survey and donation invitations. We thus re-examined the results limiting responses to the first week in which donors would have had to take action almost immediately to return the survey and to attend an appointment.[7] The supplemental material (Table S2) shows qualitatively identical results to Table 1 when examining behavior during the first week (gifts increased the survey response by 190% (3.2%/1.7%) and attendance by 190% (0.19%/0.1%)), suggesting the reminder explanation is not critical.[8]

Finally, we examined whether the gift may have caused donors to be more likely to make an appointment but subsequently not show up, suggesting the immediate effects of the gift wear off. However, we find no support for this behavior in the data; in contrast, we find that 88% (38/43) and 75% (6/8) of donors kept their appointment in the Gift and No gift conditions, respectively. We are cautious to draw any firm conclusions, however, since we do not observe donors who make an appointment but then subsequently cancel or change the date beyond our time interval.

The current results suggest that charitable organizations can use a small gift to induce a major volunteer activity and that an additional request for a small response will not crowd out the major response and may even encourage it.[9] Future work should examine whether a small gift can influence broader requests that could exhibit complementarity or substitution. For instance, it

[6] We also examined whether including the gift had a different effect on attendance depending on whether the survey was included by adding the interaction term gift-by-survey to the models estimated in Columns 5 and 6. The interaction term is not significant ($p>.20$), indicating the gift effect was unaffected by the presence of the survey.

[7] We allowed 2 weeks for the survey due to mail and handling delays before returned surveys could be time-stamped.

[8] Another alternative explanation is that a costly action by the Blood Service (mailing a gift pen) signals a greater current need for blood. However, our letters stressed 'an ongoing need for blood,' instead of appealing for a specific shortage. Also there were no advertised blood shortages during April-May 2012 when we conducted our study. Moreover, the dramatic increase in survey return rates cannot be explained by a perceived need for blood and can only be explained by reciprocity.

[9] See List 2011 for a general review on charitable donation markets.

would be valuable to know whether a small gift can not only increase survey and blood donations, but also simultaneously increase monetary donations (potential substitutes) or get gift recipients to ask friends and family to also make a donation (potential complements). It would also be interesting to explore the effects of the nature of the gift. For instance, we included the Blood Service logo on the pen in part because we anticipated that it would enhance the value to donors by providing either greater identification with the Blood Service or as a means to signal to others their pro-sociality.[10] Additionally, one could examine whether similar effects would occur with either non-donors or regular donors; those who are more or less identified with the Blood Service might be more or less responsive to the gift. While the evidence provided in the current study indicates that a small gift may be an extremely powerful tool, it may only scratch the surface of the potential for gift exchange.

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[10] We also included the logo for practical reasons; the Blood Service's standard procedure is to brand all items.

Figure 1: Mean Survey and Attendance Responses
(Error bars represent +/- one standard error)

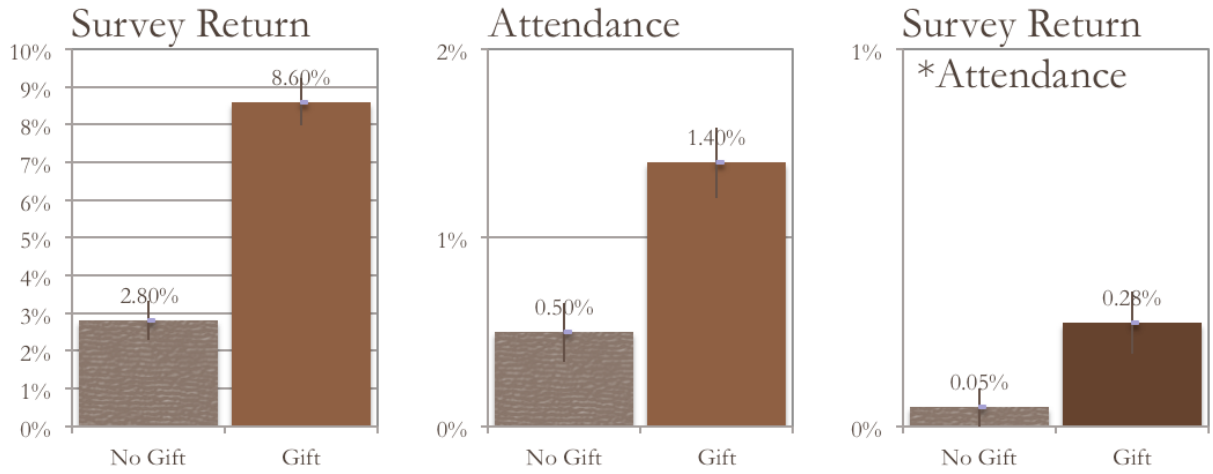

Table 1: Gift Effect on Survey and Attendance
Marginal Effects from Probit Estimates (with robust standard errors)

	Survey		**Attendance**				**Survey & Attendance**	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Baseline:	2.8%	2.8%	0.5%	0.5%	0.5%	0.5%	0.05%	0.05%
Regression Estimates:								
Gift Dummy	5.80%*** (0.82%)	5.22%*** (0.75%)	0.90%*** (0.24%)	0.78%*** (0.22%)	0.89%*** (0.24%)	0.78%*** (0.22%)	0.23%** (0.10%)	0.17%** (0.08%)
Survey Dummy					0.24% (0.25%)	0.23% (0.22%)		
Log-likelihood	-714.0	-679.5	-357.5	-344.7	-357.1	-344.2	-84.4	-74.6
N	2,999	2,999	5,992	5,992	5,992	5,992	5,992	4,689†
Controls^	No	Yes	No	Yes	No	Yes	No	Yes

Significance tests: * p<.10; ** p<.05; *** p<.01
Controls include: Week of Call, Number of Past Attendance, Whether Deferred last time, Donor State, Whether in Metro area, Blood type, Age and Gender.
† Observations who were deferred last time and observations from the three states: ACT, QLD and WA were dropped due to these values predicting the outcome perfectly.