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Transaction costs, the opportunity cost of time and procrastination in charitable giving

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ABSTRACT

We conduct a laboratory experiment to study whether giving people more time to donate to charity reduces donations. People may intend to donate, but because of the transaction costs of doing so, postpone making the payment until they are less busy, and having postponed making the donation once, keep postponing. We conjecture that transaction costs will have a greater effect on donations if the solicitation is received when the opportunity cost of time is high. We find evidence of a transaction cost reducing donations, with the size of this effect depending on the opportunity cost of time, but no statistically significant evidence that giving people more time to donate increases procrastination and thus reduces donations.

> "Many things never get done not because someone has chosen not to do them, but because the person has chosen not to do them *now*."
> [(Tversky and Shafir 1992, p. 361, italics in original)]

1. Introduction

Do some people intend to give money to charity, but simply never get around to doing so? For example, someone may read an email asking for a donation and is inclined to donate, but as she is busy preparing for a meeting decides to wait until after the meeting to donate via the charity's website. It is then possible that having delayed making the donation once, she will do so again, and procrastinates until the opportunity to donate has passed, or she has forgotten about it (e.g., Akerlof, 1991; O'Donoghue and Rabin, 1999; Shu and Gneezy, 2010).

The inefficiency associated with people not getting around to completing a task that is beneficial to them has been documented in a number of contexts (e.g., joining a retirement savings scheme, claiming rebates, redeeming vouchers), which all involve a transaction cost. Giving to charity, especially in response to solicitations received by mail or email, also typically involves a transaction cost; examples include writing out a check and posting it or visiting the charity's website and entering credit card details. We argue that the presence of even a small transaction cost might have implications for the likelihood of procrastination, depending on the opportunity cost of time when the opportunity to take an action first arises. In the case of charitable giving this means analyzing if people are more likely to donate if they are not busy when they first receive the solicitation. This has important policy implications as finding ways to reduce transaction costs, and minimizing the potential for procrastination, could increase donations.

Building on the existing literature on procrastination, we incorporate the interaction between transaction costs and the opportunity cost of time (at the time of solicitation) in the following way. We conjecture that procrastination is likely to exist in the presence of transaction costs when two other conditions are satisfied simultaneously: (1) making a donation does not have to be made on the spot but can be postponed until later (which is usually the case with requests sent

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out by mail or email) and (2) the opportunity cost of donors' time at the moment they receive the solicitation is high relative to the magnitude of transaction costs. The intuition is that if someone could transfer money to a charity without this taking up any time and effort, there would be less reason to postpone the actual donation, once the decision to donate has been made. However, if potential donors are approached when they are busy, even a small transaction cost may be enough to prevent them from donating immediately. Having postponed donating once, they may do so again until the opportunity to donate has passed. A straightforward corollary is that if potential donors are approached when they are not busy, they might choose to make a donation right away even if it involves a transaction cost. Finally, if there is no option to postpone the decision (e.g., as in street collections) there is no scope for procrastination.

A number of studies have tested for the presence of procrastination by varying the deadline by which people need to perform a task (e.g., redeem a voucher for a café or claim a rebate). From the perspective of the optimal stopping theory (see Chow et al., 1971), a longer deadline would likely increase response rates as giving people more time to complete a task increases the probability of finding a time to donate when the transaction costs, interacted with the opportunity cost of time, are expected to be lower than under a shorter deadline. However, the studies with variable deadline lengths typically find that response rates are higher for shorter deadlines, providing evidence that procrastination is a common phenomenon in these contexts (Janakiraman and Ordóñez, 2012; Shu and Gneezy, 2010; Tversky and Shafir, 1992). In contrast, in two charitable giving field experiments, one requiring the donors to send a text message with the other requiring them to enter credit card details on the charity's website, Damgaard and Gravert (2014) find no evidence of a deadline effect. None of these studies analyze the role of transaction costs or the opportunity cost of time.

Charitable giving differs from redeeming vouchers or claiming rebates in that utility is derived from the consumption of others, or the warm glow of giving, not from increasing the donor's own consumption. Whereas most models of procrastination assume people must undertake an activity by a specified deadline, in the charitable giving case there is no compulsion to donate, so people who intend to donate may forget to do so. Although this is also the case in contexts like redeeming vouchers, it is likely that the proportion of people choosing to donate will be lower than the proportion of people redeeming vouchers. Furthermore, there is evidence that some people suffer disutility from being asked to donate (e.g., Dana et al., 2006; DellaVigna et al., 2012). Therefore, it may well be that the effects of deadline length on charitable giving are not the same as for redeeming vouchers and claiming rebates. For example, if people 'conveniently' forget to donate then procrastination is more likely in the charitable giving case. Alternatively, if people are less likely to 'find' the time to donate than they are to claim a rebate, this would partly mitigate the negative relationship between deadline length and response rates, making procrastination less likely.

We nest our experimental manipulations in the Dictator Game with a charity as the recipient. First implemented by Eckel and Grossman (1996), there now exists a large body of literature which uses Dictator Games to analyze giving to charity. However, in all of these studies subjects decide while in the laboratory whether to donate and then make any payment immediately. Hence, there is no possibility for procrastination, as the payment cannot be delayed. There are also no transaction costs, as participants who choose not to donate do not get to leave the lab any earlier than those who do donate. However, in everyday life, giving money to charity nearly always involves a transaction cost. Outside the lab there is also the possibility of procrastination, as making the payment can often be put off to another time.

Testing our conjectures requires a design that controls for both the presence of transaction costs and the magnitude of the opportunity cost of time when the solicitation is first received. In our baseline subjects wishing to donate place their donation in a box located immediately outside the lab. For the treatments we introduce a transaction cost by having subjects, who wish to donate, walk to another location on campus to place their donation in a secure donation box. To control for the opportunity cost of time at the moment of solicitation we develop a novel procedure that allows us to vary whether (i) subjects can donate immediately after the experimental session, but when they had expected to still be in the laboratory taking part in the experiment (i.e., the experimental session finished earlier than advertised), which serves as a proxy for a low opportunity cost of time, or (ii) whether the donation cannot be made until the following day, which rules out donating when we know the opportunity cost of time is low. If procrastination exists in the context of charitable giving, giving people more time to donate will reduce donations because with longer deadlines people tend to procrastinate more and are more likely to forget to donate. To test whether longer deadlines lead to lower donations, we vary the amount of time the subjects have available to donate. More specifically, in our first treatment subjects have one hour to donate and in our second treatment they have 25 hours to donate. In both these treatments donations can be made as soon as they leave the lab, when the opportunity cost of time is low. In treatments three and four donations cannot be made until the following day, ruling out the option of donating when the opportunity cost of time is known to be low. In treatment three subjects wishing to donate can do so on the next day, whereas in treatment four they have an additional six days to donate. For reasons discussed in Section 3, we conduct these treatments across two separate studies, performed three months apart. We do not incorporate reminders in our experiments, as charities are unlikely to make frequent use of reminders in everyday life.

To sum up, our main contribution to the literature stems from analyzing the effect of the opportunity cost of time when the opportunity to undertake a task first arises. In the context of charitable donations this is at the time of solicitation. We also analyze whether deadline length affects charitable donations which has practical implications for charities designing their campaigns. Our method for controlling for the opportunity cost of time in lab experiments could also be applied to a number of other research questions in the lab.

2. Literature review

Our experimental design allows us to isolate the effect of transaction costs on charitable giving in the lab. Two studies explore the effect of transaction costs in the context of charitable giving in the field: Huck and Rasul (2010) and Meer and Rigbi (2013). However, these studies are unable to control for the opportunity cost of time at the moment of solicitation. Huck and Rasul conduct two experiments. In the first they assume that subjects who did not respond to an initial postal request to donate, but did respond to a reminder, responded to the reminder because it triggered a new draw from the same distribution of transaction costs (e.g., perhaps they were not as busy when the reminder letter arrived). There were a significant number of responses to the reminder letter, which Huck and Rasul argue implies the presence of transaction costs. The idea that people face different transaction costs at different times is consistent with our contention that when people are asked to make a donation they will sometimes have time to do so immediately, and sometimes will not. If they do not have time now, and postpone making the donation, it is possible they will never get around to donating. In Huck and Rasul's second experiment a solicitation letter is sent out for a separate fund raiser. Different treatments provide different payment options (a bank transfer versus a pre-filled bank transfer form or paying by credit card over the phone). When the transaction costs of donating were lower, the response rate was higher, but mean donations were not significantly different.

Meer and Rigbi (2013), in a randomized natural experiment, analyze transaction costs in the context of whether people donating money to entrepreneurs in developing countries, through the Kiva online