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A warm glow in the after life?
The determinants of charitable bequests

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June 2014

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Abstract

Using a unique field experiment we show that prompts to leave money to charity during the will-making process substantially increase the probability of making a bequest. Asking if the donor wants to leave money to charity doubles the proportion making a bequest; adding emotional and social cues trebles it. The responses are strongest among childless people. We compare the effects of the prompts to the effect of an estates tax. Our results suggest that both economic and non-pecuniary incentives similarly affect whether people leave money to charity, but are less effective where people have strong preferences for other bequests.

Key words charitable giving; charitable bequests; prompts; social norms

JEL Classification: D64, H24, H41

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Using a unique field experiment we show that prompts to leave money to charity during the will-making process substantially increase the probability of making a bequest. Asking if the donor wants to leave money to charity doubles the proportion making a bequest; adding emotional and social cues trebles it. The responses are strongest among childless people. We compare the effects of the prompts to the effect of an estates tax. Our results suggest that both economic and non-pecuniary incentives similarly affect whether people leave money to charity, but are less effective where people have strong preferences for other bequests.

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1. Introduction

Donations through bequests are a major part of charitable income. In the US, legacies account for nearly 8 per cent of voluntary contributions, while in the UK, the figure is even higher at around 20 per cent. In spite of their importance, however, charitable bequests have received relatively little attention, compared to other forms of charitable giving. The existing literature on charitable bequests is primarily concerned with the effect of wealth and estate taxation (Auten and Joulfaian, 1996; Joulfaian, 2000; Bajika et al, 2003), treating legacy giving as a standard economic decision. By contrast, Andreoni and Payne (2014) highlight new approaches in economics which consider giving as a social exchange and as a response to empathic, moral or cultural urges. Recent empirical studies on the determinants of charitable giving focus on the effect of a number of non-economic factors, including social pressure (della Vigna et al, 2012; Andreoni et al, 2011) social norms (Frey and Meier, 2004; Shang and Croson, 2009; Smith et al, 2014), personal solicitations (Meer and Rosen, 2011; Scharf and Smith, 2014) and the degree of publicity (Soetevent, 2009; Alpizar et al, 2011) and recognition (Karlan and McConnell, 2014). Our contribution in this paper is to extend these new approaches to legacy giving and to consider the effectiveness of non-pecuniary strategies in influencing whether people make a charitable bequest. We also directly compare the effects of non-pecuniary strategies with those of traditional economic incentives, namely the effect of estate taxation.

We report the results of a unique field experiment involving customers to a call centre who phone to arrange a will. We randomly assign the will-writers (lawyers) to two treatments that prompt the callers to leave money to charity. We first test a "weak ask" where callers are simply asked whether they have thought about leaving money to charity. We show that even this simple prompt has a sizeable, positive effect, leading to a near-doubling of the proportion leaving money to charity. We also test a "strong ask" in which the lawyer additionally suggests that leaving money is a social norm and prompts the will-maker to think about a cause that they feel passionate about. This increases the power of the ask, relative to the weak ask, confirming the role of social and emotional factors in shaping the response to fundraising requests. For both treatments, we find that all of the effect on the

extensive margin is driven by people without children; there is no significant effect of either treatment on the probability of people with children making a charitable bequest. We attribute this to the fact that people with children have relatively stronger preferences for other bequests.

We compare the effects of non-pecuniary factors with the effect of an economic incentive, namely estates tax, which we estimate using a regression discontinuity design, exploiting the single £325,000 inheritance tax threshold in the UK. We find striking parallels between our estimated tax-price effect and the effect of the ask treatments on the proportion who make a charitable bequest. The tax-price effect is similar in magnitude to the strong ask; we also find that the tax-price effect is driven solely by people without children. Taken together, our results show that non-pecuniary strategies, although comparatively cheap and easy to implement, can be as effective as a sizeable tax incentive in increasing the proportion of people leaving money to charity. However, both types of incentive have their limits, with no effect on the probability of making a charitable bequest for a sizeable number of people who have strong preferences for leaving their money to their children rather than to charity.

Our paper contributes to a number of existing literatures. First, we provide new evidence on the effect of estates tax on charitable bequests for a sample of people who are making a will, complementing previous studies that use estates data. Auten and Joulfaian (1996), Joulfaian (2000) and Bakija (2003) use estates data to estimate price elasticities of legacy giving of between -1.7 and -2.5. We focus on the extensive margin, but also find a substantial response. Our approach broadens the scope of the analysis beyond the relatively wealthy populations captured by estates data. It also avoids any concern about the potential endogeneity of terminal wealth because of deathbed estate planning (Kopczuk, 2007) and the fact that those who intend to leave sizeable charitable bequests may be less concerned to reduce their wealth below the tax threshold. Finally, our approach allows us to learn directly about underlying preferences for leaving money to charity, which may be useful to charities; outcomes in estates data may also be affected by the non-random selection process of dying.

The existing literature on charitable bequests has not directly considered the effect of non-pecuniary factors. Auten and Joulfaian (1996) find no significant impact of child income on charitable bequests, indicating that parents have a strong preference to leave their assets to their children. Wilhelm (1996) also finds that the allocation of bequests across children is not sensitive to their relative incomes, pointing to strong norms about the fairness of bequests.

This paper extends analysis of non-pecuniary factors to consider their impact on charitable bequests. Related to our study, a number of papers have looked at other forms of charitable giving and have plausibly demonstrated that being asked increases the likelihood of donating (Yoruk, 2009; Meer and Rosen, 2011). In explaining why an ask is effective, Andreoni and Rao (2011) show that asking can heighten empathy, Meer (2011) and Scharf and Smith (2014) emphasize personal connections between the fundraiser and donor, while Andreoni et al (2011) and Della Vigna et al (2012) demonstrate that individuals will actively take steps to avoid an ask, which they attribute to a desire to avoid negative feelings. A number of other non-pecuniary factors have also been shown to be important in relation to regular charitable giving, including social norms (Frey and Meier, 2004; Shang and Croson, 2009; Smith et al, 2014), an emotional connection to charity recipients (Small and Loewenstein, 2003, Grant et al, 2007) as well as the donor's emotional state (Lerner, Small and Loewenstein, 2004; Zak et al 2007). Ours is the first paper to look at these factors in relation to charitable bequests. We are also able to directly compare the effects of non-pecuniary factors to the effect of standard economic incentives, namely tax incentives (Ferraro and Price, 2013). We would argue that bequests make a good setting to study motivations for giving because the amounts of money are large relative to regular charitable donations – the typical legacy gift in our sample is just over £6,000. Understanding what might increase the number of people who make a charitable bequest is also of practical value to the sector.

The structure of the rest of this paper is as follows. The next section discusses the potential effects of estates tax and non-pecuniary factors. Section 3 presents the design of our study and our sample. Section 4 summarizes the main results, while section 5 concludes.

2. Framework

Following previous literature (Joulfaian, 2000) we think of legacy giving as a problem of how to allocate terminal wealth,[2] ignoring the possible trade-off between giving while alive and giving at death. Watson (1984) presents a life-cycle model in which donors choose between spending, donations, bequests and charitable bequests, showing that the share of terminal wealth allocated to charitable bequests depends only on the estate tax and that a change in the estate tax will have no substitution effects over the life cycle.

Consumers are assumed to derive utility from the amount of money they leave to charity (CB) and other bequests (B). This assumes pure "warm glow" giving (Andreoni, 1990) in which the total amount of public good provided does not enter the utility function. Consumers allocate their net terminal wealth (W) between the two types of bequest; bequests to charity are not subject to estate tax (e). For simplicity, we ignore any non-linearity in the estate tax.

$$U = U(B, CB) \text{ subject to } B + (1 - e)CB = W; \quad (B \geq 0; CB \geq 0) \qquad (1)$$

yielding the first order condition: $\frac{U_{CB}}{U_B} = (1 - e)$.

From this model, both charitable and other bequests will increase in total wealth, while a higher estate tax increases charitable bequests relative to other bequests. In both cases, however, charitable bequests will be less responsive where people have lower preferences for leaving money to charity, relative to making other bequests.

How might non-pecuniary factors affect charitable bequests? One possibility is that asking people if they have thought about leaving money to charity has a salience effect, reminding people that they can allocate some of their terminal wealth to a

[2] In our experiment, the people calling the call centre are making a will several years/ decades before their death and are therefore making decisions about how to allocate their expected terminal wealth, which will be unknown in many cases. Some of the uncertainty can be resolved by making a so-called residuary gift as a share of the total estate or the remaining estate after other specific gifts have been made, rather than a specific gift. Atkinson, Backus and Micklewright (2009) estimate that nearly 40% of all gifts are residuary, rather than pecuniary, i.e. gifts of an established amount of money.

charitable bequest. There are reasons for thinking that donors may be receptive to this opportunity in the context of making a will since charitable bequests offer a form of negative state relief (Batson, 2011) – i.e. a way of offsetting any negative feelings that may be associated with thinking of dying.

The ask itself could introduce an additional moral payoff to making a charitable bequest (List and Levitt, 2007; Ferraro and Price, 2013) by heightening empathy (with the person making the ask and/or with the charitable cause) or by generating feelings of guilt about not giving. This seems less relevant in the case of the weak ask. The lawyer is an independent third party who, simply by asking if the person has thought about leaving money to charity, is unlikely to induce the same emotional response as a charity fundraiser or a fundraiser who is personally connected to the donor. In the case of the strong ask, it is much clearer that the lawyer might change the perceived moral payoff to making a charitable bequest. By suggesting that many people make such a bequest, the lawyer might increase the moral cost of deviating from the perceived social norm. At the same time the lawyer also heightens the (positive) emotion associated with making a charitable bequest by prompting the will-maker to think about a cause that they feel passionate about. Changing the perceived moral payoff will affect whether or not people choose to make a bequest; again we expect that the response will depend on preferences for leaving money to charity, relative to making other bequests

3. The set up

3.1. Sample

The experiment was conducted in a call centre run by the Co-Operative Legal Services (CLS), a large national legal firm. The firm is relatively small in the will writing market, writing around 3,000 wills per year out of an estimated annual total of 1.8 million (Legal Services Consumer Panel, 2011). Table 1 (panel a) presents summary statistics on the customers in our sample. The median age is 58 and

median wealth is £234,500;[3] this is younger and less wealthy than would be a sample drawn from estates tax data (the threshold for UK inheritance tax is £325,000). In terms of asset values, it is more broadly comparable with the sample of all estates that go through probate, which includes most of estates with any wealth (Atkinson et al, 2009). Median wealth in Atkinson et al's sample is £146,000, mean wealth is £221,000; these are lower than average wealth levels in our sample, but apply to an older age group.

The proportion making any charitable bequest among the baseline group in our sample (i.e. those facing no treatments) is 5.9%. This is lower than the proportion reported by Atkinson et al (2009) in their probate sample (16%). The amounts left to charity are more similar. Atkinson et al (2009) only have information on specific amounts rather than residuals. In their data, the median specific bequest is £3,000, compared to £1,500 in our sample.

3.2. Experiment Design

The experiment was conducted over the phone. Customers wishing to write a will call the firm. In the initial call they are asked a series of questions to ascertain roughly their needs (do they have children or elderly relatives, what is the size of the estate, etc.). Charity is not mentioned during this call. At the end of this first call, a second call is booked if the customer wishes to continue, at which point customers are randomly assigned to a lawyer who writes the will by asking questions following a script.

Between the first and second call, participants are sent a pack of information by CLS. This pack confirms the time and date of their call, the lawyer to whom they have been assigned, and the contact details of the customer. It also contains information about legal aspects of writing a will, and a guide of things to consider (including making a donation to charity). At the arranged time of the second call, the assigned

[3] Note that information on wealth is captured at the time of will-writing and is entered manually by the lawyers. Where ranges of values are given, the lower value is used in all cases (so £150,000-200,000 would be coded as 150,000). For reasons of confidentiality, there is no information on any bequests other than those made to charitable causes. Wealth is not recorded for all wills; the extent to which it is recorded varies significantly across lawyers. In our regression analysis we control both for lawyer fixed effects and missing wealth information. We also test the sensitivity of our results to excluding lawyers with high levels of missing wealth information.

lawyer calls the customer and takes him/her through the will-writing process. This process is governed by a script, which lawyers progress through in order. Amounts to be left to different individuals, causes, etc, and their conditions, are entered into a database which populates the relevant sections of the will. Our treatments are introduced during this second call, after the customer has been asked about bequests to family and friends.

Our data consist of 2,670 wills written over the period 1st January 2012 – 15th January 2013 by nine different lawyers. Our control group (baseline) is all the wills written by the nine lawyers over the period 1st January 2012 to 14th September 2012. In the baseline condition, no charitable ask was made. Customers were asked if there were any non-financial contingencies they would like to consider (such as how or where they would like their remains deposited/disposed of).

The two treatments were randomly allocated at the lawyer level during the period 15th September 2012 –15th January 2013. Table 1 summarizes the distribution of the wills across the nine lawyers and the three different conditions (baseline, weak ask, strong ask).

The precise nature of the treatments was as follows:

<u>Treatment 1: Weak ask</u>

All participants in this treatment group were asked whether they would like to donate money to charity in their will. The script instructed the lawyers to say:

"Now that you've looked after your family and friends, I'd like to talk you about charity. Would you like to leave a charitable gift in your will?"

<u>Treatment 2: Strong ask</u>

Participants in this treatment were also asked whether they would like to make a donation to charity in their will. However, the wording of the ask was changed to contain both a weak social norm message, suggesting that leaving a gift is common, and an emotive prompt asking the respondent to think about charitable causes that they are passionate about, so that the script read:

"Now that you've looked after your family and friends, I'd like to talk to you about charity. Many of our customers like to leave a gift to charity in their will. Are there any charitable causes that you're passionate about?"

In both of the treatment conditions the lawyer was instructed to move to the next section of the script (non-financial contingencies) if customers interrupted to indicate that they did not want to give a gift to charity.

Adherence to the script was monitored by CLS over the course of the trial by means of a 5% sample of calls recorded for quality purposes. In all cases of the weak ask, those who had the opportunity to do so (i.e. all those who were not interrupted), adhered to the control script. In the strong ask treatment, adherence was 100% for the line "are there any charitable causes you're passionate about" section of the script, but in three cases the "many of our customers like to leave a gift to charity in their will" section was omitted. Feedback from lawyers suggest that this was driven by a belief that the word "many" could be misinterpreted by customers as "most".

3.3. Balance tests

Randomization into the two treatments was done at the lawyer level. We therefore expect our sample to be balanced across all the customers of lawyers allocated to the weak ask and all the customers of lawyers allocated to the strong ask. Panel a. of Table 2 shows this to be the case.

By contrast, the baseline sample is not randomly chosen, but consists of all wills written at an earlier time (1st January 2012 to 14th September 2012). Panel b. of Table 2 shows that there are significant differences in the characteristics of customers in the baseline group compared to customers in the two treatment groups. This reflects changes in the composition of customers over time; we control for these characteristics in our analysis. Our estimates of the effects of the weak ask and the strong ask relative to the baseline will not be biased so long as the conditional probability of making a charitable bequest is the same across baseline and treatment groups. Panel b. of Table 2 also shows that there are no significant differences in the characteristics of customers who receive the weak ask treatment compared to the strong ask treatment.

4. Results

4.1 Leaving a bequest

To explore the effect of the ask treatments on the probability of making a charitable bequest, we estimate the following linear probability model:

$$D_{ij} = \alpha + \beta_1 T1_{ij} + \beta_2 T2_{ij} + \gamma X_i + \varphi_j + u_{ij} \qquad (2)$$

where D_{ij} is a binary indicator for whether individual i allocated to lawyer j makes a charitable bequest, T1 and T2 are the two treatments (weak ask and strong ask) and X is a vector of characteristics including wealth, age, whether or not the individual has children and is married. φ_j is a set of lawyer fixed effects.

Table 3 reports the results for a number of specifications. In column (1) we focus on giving among the baseline sample of people who are not asked whether they want to leave money to charity. The unprompted giving rate is 5.9%. Unlike previous studies, we find no effect of wealth on the probability of leaving a bequest.

The probability of making a charitable bequest is significantly different among the two treatment groups compared to baseline. Looking at the results in column (4) which include a full set of controls, including lawyer fixed effects, the weak ask increases legacy giving by 5.4 percentage points, i.e. nearly doubling the level compared to the baseline period. The effect of the strong ask is greater than this, increasing legacy giving by 11.4 percentage points (i.e. taking it to three times the level in the baseline sample).

Column (5) estimates treatment effects separately for those with and without children. We split the sample since the response to prompts to leave money to charity is likely to depend on people's preferences for other bequests. Our results support this. Already at baseline, the probability of legacy giving is significantly higher among childless people (6.7% compared to 4.5%). As shown in Figure 1, the gap widens in both the treatment groups as the effect of both the weak ask and the strong ask is driven almost entirely by childless people. We find no significant effects of either prompt among people with children. By contrast, both the weak ask and the strong ask have sizeable positive effects on the probability of making a charitable bequest among childless people. The weak ask increases the probability of a

bequest by 16 percentage points; the effect of the strong ask is significantly greater at 31 percentage points. This is a huge effect – a more than sixfold increase in the proportion leaving a bequest to charity.

4.2 Comparison with tax-price effect

How does the effect of prompts to leave a charitable bequest compare with the effect of standard economic incentives, namely estates taxation? In the UK, inheritance tax is payable at 40 per cent on the value of estates over £325,000. We exploit this threshold to obtain an estimate of the tax-price effect using a regression discontinuity (RD) design.

There are a number of factors which may limit our ability to identify a clean tax-price effect with our data. First, among our sample of will-makers, we observe current wealth rather than wealth at death, which is the determinant of actual estate tax liability.[4] Second, married couples can bequeath wealth tax-free to their spouses and pass on their inheritance tax allowance but we have no information on whether wealth is measured at the individual or household level. Our identification strategy is therefore a "fuzzy" RD design, since not all individuals just below the threshold will be exempt from inheritance tax and not individuals just above the threshold will be liable. In spite of these potential issues which would tend to dampen our estimates, we find a significant tax-price effect on the probability of leaving a charitable bequest.

We follow a standard regression discontinuity design and estimate an equation of the following form:

$$D_{ij} = \alpha + \beta I(W_i \geq 325{,}000) + \gamma f(W_i) + \varphi_j + u_{ij} \qquad (3)$$

As before, D_{ij} is a binary indicator if individual i allocated to lawyer j makes a charitable bequest. I is an indicator equal to one if the individual reports wealth above the inheritance tax threshold. In different specifications (not reported here) we allow wealth flexibly to affect the probability of making a bequest but higher-order terms are insignificant within the relatively narrow windows that we look at;

[4] Note that our ideal data would be expected wealth at death and that estates data may also be problematic since death is unexpected for many people.

here we show results with no controls for wealth and including a linear wealth term. We estimate equation (2) on samples drawn from differing windows around the inheritance tax threshold ($\pm$£20,000; $\pm$£30,000; $\pm$£40,000; $\pm$£50,000).

The identifying assumption in our regression discontinuity design is that participants with wealth just below/ above the £325,000 threshold are identical apart from the inheritance tax. Panel a of Table 4 reports p-values for tests of equality of key characteristics for those on either side of the threshold, confirming that this is the case. Figure 2, panel a confirms that the distribution is continuous through the threshold, i.e. there is no evidence of any "bunching" in the distribution just below the threshold.

Figure 2, panel b provides preliminary graphic evidence of the effect of estates tax, indicating a discrete change in the probability of making a charitable bequest at the threshold. Regression results, reported in Table 4, confirm this. We find a positive effect of tax eligibility (people above the threshold are more likely to leave money to charity), which is statistically significant in most specifications. The magnitude of the estimated effect varies between 0.080 – 0.198 depending on the exact specification (size of window and whether we control for wealth). This range includes the estimated effect of the strong ask. Given that we focus on the extensive margin, our findings are not directly comparable with the US studies, but they are consistent in finding a strong response to estates taxation.

Given the issues with using current wealth data, it may seem surprising that we estimate a significant estate-tax effect. One explanation is likely to be the salience of the tax threshold in the UK, particularly around the time of the experiment because of proposals to increase the threshold/ abolish the tax altogether. Our results also suggest that individuals put weight on current wealth levels when thinking about their future inheritance tax liabilities; consistent with this we do not find a stronger estate-tax price effect when we focus on older households. As a further robustness check, we report results using a placebo estates tax threshold which is £50,000 lower than the actual one (i.e. £275,000) and £50,000 higher (i.e. £375,000). These results are also reported in Table 4. We find no significant effects associated with either of

these thresholds, strengthening the plausibility of our results using the true threshold.

Finally, we test whether the tax-price effect differs across people with and without children. As with the effect of the weak and strong asks, we find that the tax-price effect is driven mainly by people without children. Although the estimated tax-price effect is positive among people with children, it is not statistically significant. By contrast, we find sizeable and statistically significant effects among people without children with the magnitude of the estimated effect between 0.216 – 0.404, a range that includes the effect of the strong ask. As before, our interpretation is that people with children have relatively stronger preferences for other bequests, making it harder to induce a response among this group.

4.3 Effect on amounts given

Finally, we consider whether the treatments had an effect on how much people donated. Information on the size of bequests is unfortunately not available from the baseline period; we therefore focus on the effect of the strong ask relative to the weak ask.

The effect on bequest size is likely to vary by whether or not people were already planning to leave money to charity. Those already intending to make a charitable bequest are likely to give more; this follows directly from our simple framework in section 2. However, the marginal donors who are induced to make a bequest may leave smaller amounts. We cannot directly observe people's prior intentions, but we can exploit the fact that there is no response on the extensive margin among people without children (implying the average amount is likely to increase) and an increase in the probability of giving among people without children (implying a potentially ambiguous effect on the average amount). Below we present evidence consistent with this – an increase in amounts given among people with children and no effect on amounts given by people without children.

Looking at amounts donated is complicated by the fact that there are two types of gift – a pecuniary gift (i.e. a specific amount of money left to charity) and a residuary gift (i.e. a percentage share of the total estate or of the residual estate once all other

bequests have been taken care of). In our sample, 252 people report that they will give to charity in the two treatments. 73 make a specific donation and 121 a residuary gift, of which 116 include a percentage of the residuary estate. Information on amounts is missing in 67 cases. For residuary gifts we estimate the amounts as the specified percentage of the person's current wealth (where the bequest is a share of the total estate) and the specified percentage of half the current wealth value (where the bequest is a share of the residuary estate). We test the sensitivity of our results to this assumption. The value of specific gifts (mean = £26,053, median = £2,000) is less than the value of residuary gifts (mean = £112,369, median = £37,250). This is in line with previous studies (Atkinson et al, 2009).

Figure 1 (b) illustrates effect of the strong ask on amounts given. In the weak ask, people with children give (significantly) less than those without; the gap narrows and becomes insignificant in the strong ask treatment because the amount given by people with children increases significantly. This is confirmed in regression analysis (results shown in Table 5). We show that the findings are not driven by our assumptions about residuary gifts. The findings are robust to reducing the percentage of the residuary estate going to charity to 25%; they also hold when we look just at specific gifts where donors report a monetary amount and also when we look directly at the proportion of the (residuary) estate being left to charity.

Although there is no increase in the proportion of people with children leaving money to charity, the results on the amount given show that the strong ask has a positive effect on the amount they donate. Among those without children, any increase in the amount donated is offset by the effect of the marginal donors who are induced to give by the prompt treatments and who tend to give less. These two appear to balance out and there is no overall significant effect on amounts given for this group.

5. Discussion

This is the first field experiment to explore the effect of non-pecuniary fundraising mechanisms on charitable bequests. It sheds light on the determinants of an important component of overall donations; it also provides an opportunity to test

such fundraising mechanisms in a context where people are donating sizeable amounts to charity.

We find that just a simple prompt during the will-making process has a sizeable effect on the probability of making a charitable bequest. We attribute the effect to salience since the fact that a lawyer makes the ask means it is free from the emotive factors that would be associated with a solicitation from a fundraiser. Adding social/ emotional factors strengthens the effect of the prompt in line with the findings of previous studies on fundraising.

A striking feature of our findings is that this kind of simple behavioural "nudge" can boost legacy giving to a similar degree as the UK estates tax, at a much lower cost. However, both non-pecuniary factors and the standard economic incentive appear to be much less effective at increasing the proportion of people with children who make a charitable bequest. This is perhaps not surprising since the opportunity cost of leaving money to charity is much lower for this group. Those with children who are not leaving money to charity have strong preferences for leaving money to their heirs, making them much less responsive to inducements to make a charitable bequest.

References

Alpizar, F., Carlsson, F. and Johansson-Stenman, O. (2008) “Anonymity, reciprocity, and conformity: Evidence from voluntary contributions to a national park in Costa Rica” *Journal of Public Economics,* 92 (5–6) pp 1047–1060

Andreoni, J. (1990) “Impure altruism and donations to public goods: a theory of warm-glow giving” E*conomic Journal* 464-477.

Andreoni, J. and Payne, A. (2014) *Charitable Giving* in Alan Auerbach, Raj Chetty, Martin Feldstein and Emmanuel Saez (eds) Handbook of Public Economics, Elsevier: North Holland

Andreoni, J. and Rao, J. (2011) "The power of asking: How communication affects selfishness, empathy, and altruism." *Journal of Public Economics* 95 (7) pp. 513-520

Andreoni, J., Rao, J. and Trachtman, H. (2011) *Avoiding the ask: a field experiment on altruism, empathy, and charitable giving*. National Bureau of Economic Research working paper 17648.

Atkinson, A., Backus, P. and Micklewright, J. (2009). *Charitable Bequests And Wealth At Death In Great Britain*, University of Southampton Working Paper A09/03

Auten, G. and Joulfaian, D. (1996). "Charitable contributions and intergenerational transfers." *Journal of Public Economics* 59 (1) pp 55-68

Bakija, J., Gale, W. and Slemrod, H. (2003), “Charitable bequests and taxes on inheritances and estates: Aggregate evidence from across states and time”, *American Economic Review, Papers and Proceedings*, vol 93: 366-370

DellaVigna, S., List, J. and Malmendier, U. (2012) "Testing for altruism and social pressure in charitable giving." *The Quarterly Journal of Economics* 127(1) pp1-56

Ferraro, P. and Price, M. (2013) “Using non-pecuniary strategies to influence behaviour: Evidence from a large-scale field experiment” Review of Economics and Statistics, 95 (1), 65–73

Frey, B. S. and Meier, S. (2004). “Social Comparisons and Pro-social Behavior: Testing "Conditional Cooperation" in a Field Experiment” *The American Economic Review* 94 (5), 1717-1722

Grant, A. M., Campbell, E. M., Chen, G., Cottone, K., Lapedis, D., & Lee, K. (2007). Impact and the art of motivation maintenance: The effects of contact with beneficiaries on persistence behavior. *Organizational Behavior and Human Decision Processes*, *103*(1), 53-67.

Joulfaian, D (2000) ‘Estate taxes and charitable bequests by the wealthy’, *National Tax Journal*, vol 53: 743-763.

Legal Services Consumer Panel (2011). “Regulating Will Writing” online [file:///C:/Users/msanders/Dropbox/legacies/ConsumerPanel_WillwritingReport_Final.pdf] accessed on 03/03/2014

Lerner, Small, D and Loewenstein, G (2004). "Heart strings and purse strings carryover effects of emotions on economic decisions." *Psychological Science* 15, no. 5 pp337-341.

Levitt, S. and List, J. (2007) “What do laboratory preferences about social preferences reveal about the real world?”, Journal of Economic Perspectives, 21, 153–174.

Karlan, D. and McConnell, M. (2014) “Hey look at me! The effects of giving circles”, *Journal of Economic Behaviour and Organisation* (forthcoming)
Kopczuk, W. (2007) "Bequest and tax planning: Evidence from estate tax returns." *The Quarterly Journal of Economics* 122, no. 4 (2007): 1801-1854.
Meer, J. "Brother, can you spare a dime? Peer pressure in charitable solicitation." *Journal of Public Economics* 95, no. 7 (2011): 926-941.
Meer, J. and Rosen, H. S. (2011). The ABCs of charitable solicitation. *Journal of Public Economics*, *95*(5), 363-371.
Scharf, K. and Smith, S. (2014) *Relational Warm Glow and Giving in Social Groups*, CMPO Working Paper
Shang, J. and Croson, R. (2009) “A field experiment in charitable contribution: The impact of social information on the voluntary provision of public goods” *Economic Journal*, *119* (540), 1422-1439.
Small, D. and Loewenstein, G. (2003). "Helping a victim or helping the victim: Altruism and identifiability." *Journal of Risk and Uncertainty* 26, no.1 pp5-16.
Smith, S., Windmeijer, F. and Wright, E. (2014). “Peer effects in charitable giving: Evidence from the (running) field”, *Economic Journal* (forthcoming)
Soetevent, A (2005). “Anonymity in Giving in a Natural Context - a Field Experiment in 30 Churches” Journal of Public Economics Vol.89(11-12) pp.2301-232
Watson H (1984) ‘A note on the effects of taxation on charitable giving over the life cycle and beyond’, *Quarterly Journal of Economics*, 99: 639-47.
Wilhelm, M. (1996) Bequest Behavior and the Effect of Heirs' Earnings: Testing the Altruistic Model of Bequests, American Economic Review
Yörük, B. K. (2009). “How responsive are charitable donors to requests to give?”.*Journal of Public Economics*, *93*(9), 1111-1117.
Zak, P., Stanton A, and Ahmadi, S. "Oxytocin increases generosity in humans." *PLoS One* 2, no. 11 (2007): e1128

Table 1: Sample characteristics and balance tests

1a. Sample characteristics

	Mean	10%	50%	90%
Age	57.9	37	59	77
Married	.551			
Kids	.724			
Assets	£430,182	£42,500	£234,500	£563,000
Charitable bequest (0/1)	.056			
Size of bequest (specific)	£7,216	£150	£1,250	£15,000
Size of bequest (all)	£53,048	£2,000	£12,000	£132,500

Notes to table: Number of obs = 2,670. All characteristics refer to full sample except charitable bequest (baseline only) and size of bequest (not recorded at baseline)

1b. Balance tests (p-values)

	Bequest (0/1)	Age	Married	Kids	Assets
a. Comparison of characteristics across lawyers allocated to T1, T2					
Test: T1 = T2	0.253	0.191	.977	.976	.757
a. Comparison of characteristics across customers (baseline, T1, T2)					
Test: Baseline = T1,T2		.000	.002	.000	.279
Test: T1 = T2		.226	.104	.182	.147

Notes to table: C*omparison across lawyers* compares means across the lawyers assigned to the two treatments, for all their customers in both baseline and treatment periods. *Comparisons across conditions* compares means across customers depending on their actual treatment – baseline period, weak ask and strong ask.

Table 1: Distribution of observations

		Share of observations, by condition		
Lawyer/ treatment	N	Baseline	Weak ask	Strong ask
1. Strong	639	.527	.000	.473
2. Weak	416	.151	.849	.000
3. Strong	279	.082	.000	.918
4. Weak	1156	.711	.289	.000
5. Weak	6	.833	.167	.000
6. Weak	234	.051	.949	.000
7. Strong	329	.827	.000	.173
8. Weak	279	.100	.900	.000
9. Strong	332	.153	.000	.846
	2670	902	872	896

Table 3: Treatment effects – probability of making a bequest

Dependent variable = Charitable bequest (0/1)

	(1)	(2)	(3)	(4)	(5)
Weak ask (T1)		0.062**	0.032	0.054*	
		(0.010)	*(0.021)*	*(0.032)*	
Strong ask (T2)		0.109**	0.091**	0.112**	
		(0.019)	*(0.018)*	*(0.025)*	
T1_nokids					0.161**
					(0.036)
T1_kids					0.004
					(0.029)
T2_nokids					0.308**
					(0.024)
T2_kids					0.031
					(0.025)
Ln assets	-0.007			0.005	0.005
	(0.011)			*(0.004)*	*(0.004)*
Miss_assets (0/1)	-0.085			0.002	0.013
	(0.118)			*(0.049)*	*(0.049)*
Married (0/1)	-0.017			-0.046**	-0.046**
	(0.011)			*(0.010)*	*(0.011)*
Kids (0/1)	-0.021*			-0.160**	-0.024
	(0.010)			*(0.019)*	*(0.013)*
Age	-0.005			0.029**	0.029**
	(0.020)			(0.012)	(0.012)
Age^2	-0.000			-0.005**	-0.005*
	(0.005)			(0.002)	(0.003)
Lawyer effects			Y	Y	Y
p-values					
T1 = T2		.059	.062	.191	
T1_K = T1_NK					.015
T1_NK = T2_NK					.000
T1_K = T2_K					.498
T2_NK =T2_K					.000
N	902	2670	2670	2670	2670

Notes to table: Column (1) reports results only for the baseline period. Columns (2) – (5) report results for the full sample. Standard errors, clustered at the lawyer level, are reported in brackets. *p<0.10 **p<0.05

Table 4: Tax-price effects – probability of making a bequest (RDD results)

a. Balancing tests

	Window around threshold			
	± £20,000	± £30,000	± £40,000	± £50,000
Mean Give (0/1)				
Below	.068	.083	.080	.103
Above	.196	.180	.165	.171
p-values				
Give (0/1)	.068	.062	.055	.108
Age	.502	.295	.282	.264
Children	.196	.648	.230	.182
Married	.503	.673	.858	.987

b. Fixed effects regression results: Give (0/1)

B1. True threshold (£325,000)

	± £20,000		± £30,000		± £40,000		± £50,000	
IHT	0.145*	0.186	0.097*	0.233*	0.080*	0.227*	0.062	0.198**
	(0.063)	(0.223)	(0.056)	(0.129)	(0.037)	(0.108)	(0.040)	(0.084)
Assets/10k		-0.021		-0.043		-0.038		-0.029
		(0.089)		(0.038)		(0.022)		(0.016)
N	100		173		220		267	

B2. Placebo 1: Threshold = £375,000

	± £20,000		± £30,000		± £40,000		± £50,000	
IHT	0.042	0.043	0.024	0.057	-0.024	0.091	-0.024	0.045
	(0.061)	(0.120)	(0.041)	(0.101)	(0.040)	(0.083)	(0.040)	(0.062)
Assets/10k		-0.000		-0.011		-0.029		-0.014
		(0.035)		(0.026)		(0.018)		(0.009)
N	130		238		321		398	

B3.Placebo 2: Threshold = £275,000

	± £20,000		± £30,000		± £40,000		± £50,000	
IHT	-0.026	-0.185	0.006	-0.149	0.008	-0.089	0.005	-0.050
	(0.073)	(0.175)	(0.045)	(0.141)	(0.054)	(0.101)	(0.038)	(0.077)
Assets/10k		0.092		0.045		0.024		0.011
		(0.076)		(0.046)		(0.031)		(0.016)
N	59		134		167		210	

B4. True threshold (£325,000)

	± £20,000		± £30,000		± £40,000		± £50,000	
IHT_nokids	0.344**	0.347	0.287**	0.404**	0.277**	0.413**	0.216**	0.346**
	(0.090)	(0.220)	(0.065)	(0.140)	(0.044)	(0.118)	(0.046)	(0.086)
IHT_kids	0.071	0.073	0.024	0.146	0.003	0.143	0.001	0.134
	(0.067)	(0.242)	(0.059)	(0.126)	(0.039)	(0.110)	(0.045)	(0.086)
Assets/10k		-0.001		-0.038		-0.035		-0.028
		(0.094)		(0.038)		(0.022)		(0.016)
p-value								
I_NK=I_K	.027	.033	.000	.000	.000	.000	.000	.000
N	100		173		220		267	

Notes to table: All regressions include lawyer fixed effects. Standard errors, clustered at the lawyer level, are reported in brackets. *p<0.10 **p<0.05

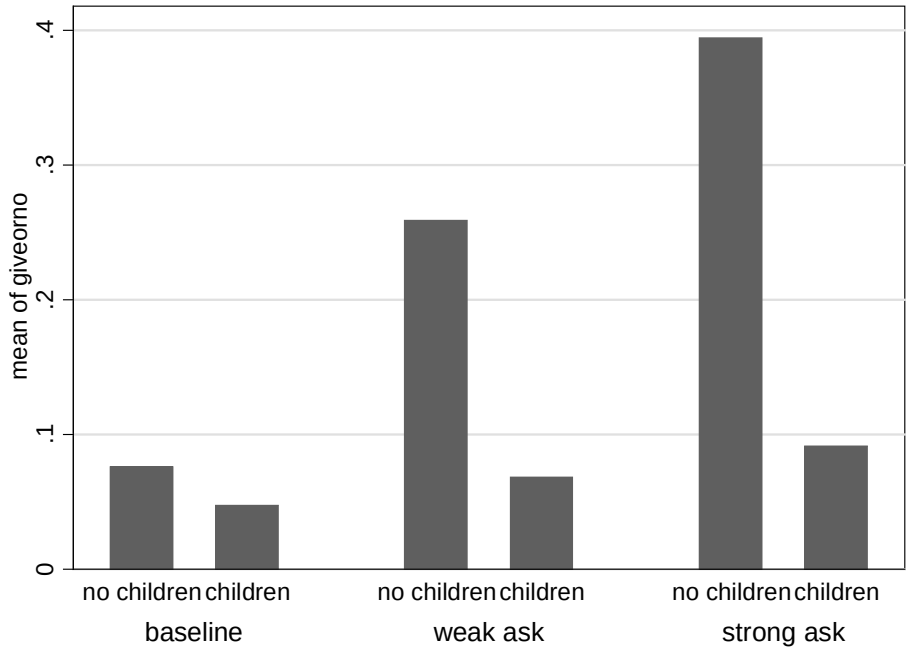
Table 5: Treatment effects – amount given

	(1) Ln amount All bequests Resid = 50%	(2) Ln amount All bequests Resid = 50%	(3) Ln amount All bequests Resid = 25%	(4) Ln amount Specific only	(5) Dep var = % residuary
Strong ask (T2)	0.604**				
	(0.219)				
T2_ Nokid		-0.007	-0.152	0.228	0.040
		(0.279)	(0.284)	(0.631)	(0.077)
T2_Kid		1.408**	1.152**	0.960*	0.302**
		(0.479)	(0.480)	(0.489)	(0.101)
Ln assets	0.724**	0.723**	0.744**	0.991**	-0.072**
	(0.065)	(0.067)	(0.066)	(0.182)	(0.024)
Married (0/1)	-0.229	-0.266	-0.232	-1.209	0.017
	(0.226)	(0.212)	(0.203)	(0.665)	(0.037)
Kids (0/1)	-0.799	-1.655**	-1.544**	-0.959	-0.267**
	(0.480)	(0.446)	(0.439)	(0.914)	(0.046)
Age	0.721**	0.721**	0.620**	0.511	0.128
	(0.218)	(0.213)	(0.181)	(0.308)	(0.068)
Age^2	-0.180**	-0.190**	-0.159**	-0.143**	-0.011
	(0.060)	(0.062)	(0.055)	(0.058)	(0.020)
_cons	0.216	0.695	0.130	-3.699	1.207**
	(0.810)	(0.952)	(0.903)	(2.738)	(0.337)
p-values					
T2_NK = T2_K		.071	.064	.500	.044
N	151	151	151	60	98

Notes to table: Standard errors are reported in brackets. *p<0.10 **p<0.05. The value of the bequest includes both the value of specific gifts and an estimated value of residual gifts (made either as a % of the total estate or as a percentage of the residuary estate). Columns 1 and 2 assume that the residuary estate is 50% of current wealth value. Column 3 assumes that the residuary estate is 25% of current wealth value. Column 4 considers only gifts for which there is a specified £ value. Column 5 considers only residual gifts; the dependent variable is the percentage.

Figure 1: Variation in treatment effects, by children

a. Proportion making a charitable bequest



b. Amount given

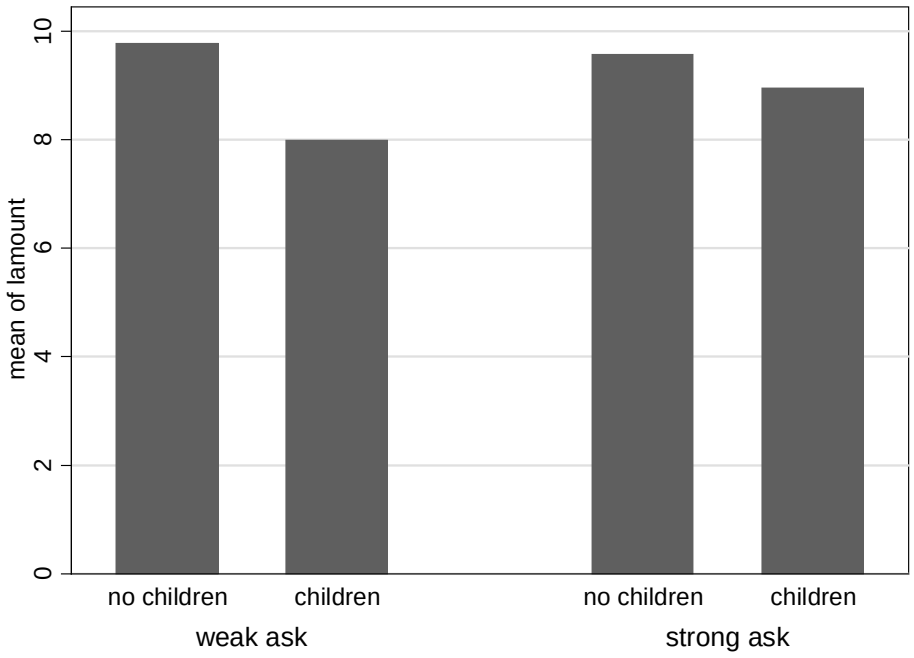
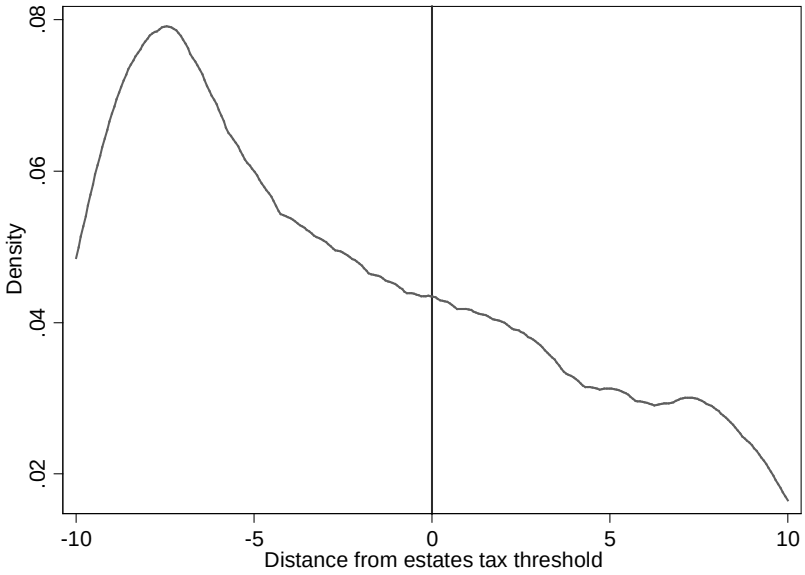
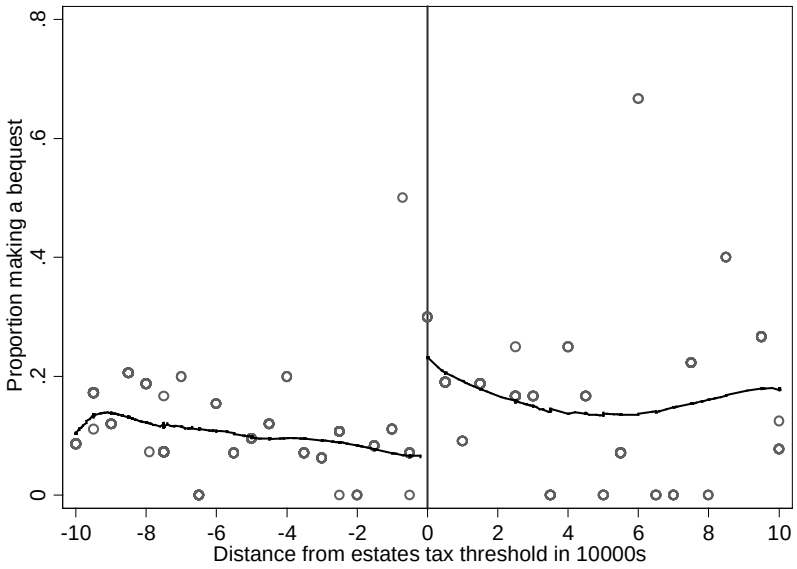


Figure 2: Tax-price effects

a. Kernel density



b. Proportion making a charitable bequest



Notes to table: Panel a shows the underlying density, illustrating the absence of any bunching at the inheritance tax threshold. In panel b. the circles represent the mean proportion making a charitable bequest, by £5,000 bands. The sold black lines are smoothed, non-parametric estimators.