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Charitable giving when altruism and similarity are linked ☆

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ABSTRACT

This paper presents a model in which anonymous charitable donations are rationalized by two human tendencies drawn from the psychology literature. The first is people's disproportionate disposition to help those they agree with while the second is the dependence of peoples' self-esteem on the extent to which they perceive that others agree with them. Government spending crowds out the charity that ensues from these forces only modestly. Moreover, people's donations tend to rise when others donate. In some equilibria of the model, poor people give little because they expect donations to come mainly from richer individuals. In others, donations by poor individuals constitute a large fraction of donations and this raises the incentive for poor people to donate. The model provides interpretations for episodes in which the number of charities rises while total donations are stagnant.

1. Introduction

This paper presents a model that is directed at rationalizing several aspects of charitable giving. First, individuals do not appear to reduce their contributions to a charity significantly when they learn that the government or other individuals have increased the funds that they devote to the charity's beneficiaries. Indeed, there are instances in which people increase their contributions when they hear that others have contributed more. Second, there are often several distinct charities that contribute to the same beneficiaries. For example, there were hundreds of U.S. charities devoted to fighting breast cancer in 2011.[1] Third, a rise in the number of charities, of the sort that took place recently in the U.S., is not systematically associated with an increase in the contributions relative to income. Lastly, the extent to which individuals contribute to charity differs greatly across countries.

These observations can be rationalized by supposing that people have social preferences with the properties assumed in Rotemberg (2009). These preferences are based on two human tendencies detected in the empirical psychology literature. The first is that people are happier when they learn that there is more agreement with their point of view. The second is that they have warmer feelings towards, and are more willing to help, individuals whom they perceive as sharing their beliefs or, more generally, individuals who are more similar to themselves. Rotemberg (2009) captures these properties in a utility function and shows that, in combination, they can explain why people vote.

Charitable contributions are similar to voting in that they allow people to signal what they like. People who think a particular charitable cause is worthwhile can signal this attitude to others by contributing, just like voting for a candidate can signal the belief that a candidate is suitable for office. The parallel is in some ways even closer in the sense that both charitable contributions and voting involve the expression of beliefs about the best way to distribute resources to others. In the current context, it leads people who believe in a charitable cause to gain (vicarious) utility from contributing to this cause because they would expect the happiness of other believers to rise when they learn that there are more people like them. While I speak of altruists in the model as having these positive emotions, the model can just as easily be interpreted as one where they seek to avoid the guilt they anticipate having if they contribute less. The model can be valid even if, subjectively, people feel they are contributing to avoid violating a norm.[2]

Consistent with Andreoni (1990), whose model also rationalizes the observation that government contributions "crowd-out" private donations only modestly, my results hinge on the supposition that

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[1] A search on Guidestar.com led to the display of 600 charities with the expression "breast cancer" in their name, though some of these were regional chapters of large national charities. In addition, Guidestar lists numerous charities with the words "pink" or "mammogram" in their name whose exclusive aim is to fight breast cancer.

[2] One advantage of modeling individuals as altruists is that the "norm" that they try to live up to is derived endogenously in the model rather than having to be postulated exogenously.

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individual utility does not depend only on the public good that is provided by the charity. The extra utility of giving (or "warm glow" to use Andreoni's (1990) phrase) is modeled explicitly as depending on the utility received by others, however.[3] The size of this particular benefit from contributions depends on an individual's assessment of the number of people who agree with him. If an individual perceives this number to be larger, he expects more people to gain from learning that an additional person agrees with him, and his own vicarious benefits from donating rise. This fits broadly with the empirical evidence suggesting that, all else equal, people are more likely to contribute to a cause if they expect the cause to have many other supporters.

An important conceptual difference between voting and charitable contributions is that the former decision is binary while the latter is not. Indeed, one would expect richer individuals to contribute more to charity. If preferences do not vary by income, the standard public goods model of Bergstrom et al. (1986) predicts this only too well. It predicts that all contributors have the same marginal utility (and level) of private consumption, and that they contribute the rest of their income to charity. Thus, the fraction of income contributed to charity should rise with income. List (2011) shows that, in the U.S., the fraction of income contributed by low-income donors is actually higher than that of high-income donors, though low-income individuals are less likely to give.

In my model, higher income individuals have a related reason to contribute more, namely that their income makes them willing to pay a higher price to signal that there is an additional altruist around. A more novel implication is that the contributions of poorer individuals tend to be subject to multiple equilibria. Equilibria where poor individuals do not contribute can coexist with equilibria in which their donations are substantial. The intuition for this multiplicity is the following: when only rich people contribute, people expect all individual donations to be high so the amount by which donations must rise to signal that there is an additional altruist is high as well. This tends to deter contributions from poorer individuals. By contrast, if the bulk of contributions is made by poorer individuals, the typical contribution is small. The rise in donations needed to signal that there is an additional (poor) altruist can then be low enough that making contributions is worthwhile for poorer individuals. This can lead rich donors to contribute more as well.

One attractive aspect of this multiplicity of equilibria is that it may help explain why the fraction of contributors to charity varies greatly across countries. According to a recent Gallup survey, 73% of individuals in the United Kingdom donated money to a charitable organization while only 31% of individuals in France did so.[4] This variability may well be due to sources other than multiple equilibria, though it is worth noting that it is unlikely to be due exclusively to France having a more extensive welfare state. Contributions are widespread in many countries with generous public welfare provisions. In the Netherlands, for example, 77% of individuals contributed to charity according to the same Gallup poll.

This paper is far from the first to suggest that gifts and charitable contributions are related to signaling. Moreover, existing signaling models can explain some of the regularities I have described above. However, the important signaling papers of Glazer and Konrad (1996), Bénabou and Tirole (2006) and Ellingsen and Johannesson (2011) suppose that the individual is signaling in a way that makes his own contributions visible. In practice, many donors are publicly identified, and this is particularly true when their donations are large.[5] My emphasis, by contrast, is on contributions whose total is visible to others but whose constituent individual contributions are not. Examples of such anonymous contributions include those made *via* SMS messages. After the Haiti earthquake of 2010, several organizations set up organization-specific phone numbers such that dialers to these numbers that texted "HAITI" would transfer a fixed sum (most commonly $10) from their account to the organization in question. The funds raised in this manner were not insignificant. The American Red Cross apparently raised $31 million through this scheme.[6]

Individuals may be able to remember their own contributions, so they may be signaling to their future selves as in Bénabou and Tirole (2006). What remains unclear is the kind of "genuine generosity" that people want to signal, to themselves or to others, that they possess. This is not trivial because it is not obvious why people would think that contributing would help them signal that they are altruistic if true altruists would not rationally contribute. The model in this paper is an attempt at answering this question.

Because it would be attractive to model genuine generosity in a manner that is consistent with people's behavior and attitudes in other domains, I focus on the two psychological forces mentioned at the start.[7] The first is people's tendency to be more helpful to people that are similar to them. There are two types of evidence for this. First, there is the cross-sectional positive correlation between people's similarity and their proximity in social networks,[8] and thus their tendency to help one other. Second, a variety of experiments have sought to vary subjects' helpfulness by changing the extent to which subjects perceive the target of their helping as similar to themselves.[9]

My analysis is also based on the idea that people's utility increases when they think that others agree with them or, in the terminology of Gailliot and Baumeister (2007), when they view others as validating their worldview. Gailliot and Baumeister (2007) provide cross-sectional evidence consistent with this: people's self-esteem appears positively correlated with the extent to which they say that others agree with them.[10] There is also some experimental evidence showing that attempts at changing people's perception of how much others agree with them affect their reported self-esteem.[11]

Pool et al. (1998) show that the extent to which the opinions held by a group affects an individual's self-esteem depends on the nature of the group, with people caring more about groups that are more similar to themselves. By the same token, individuals' helpfulness appears to depend on similarity along a wide variety of dimensions.[12] The extent to which a group of donors cares about another should thus depend on the similarity of the second to the first. As a result, dissimilar groups may wish to donate to charities that raise funds only from people similar to themselves. This may help explain the proliferation of charities raising funds for similar causes. This tendency is particularly pronounced in disasters.[13]

The model predicts that charitable organizations that are differentiated by donor group can only arise if people care less about people

[3] Andreoni (1990) refers to the warm glow as an "egoistic" force, in part to contrast this with the altruism implicit in charitable contributions. In my formalization, there is no particular reason to view one of the forces that leads to charity to be more oriented towards the ego than the other.

[4] See Charities Aid foundation (2010).

[5] According to signaling models this visibility is desired to the donors, who thereby gain the esteem from others. My model suggests an alternative possibility, namely that charities desire this visibility so they can use visible donations to obtain contributions from others.

[6] See Preston and Wallace (2010).

[7] Earlier evidence for these tendencies is discussed in Rotemberg (2009).

[8] See McPherson et al. (2001) for a survey.

[9] See, for example, Stürmer et al. (2006) and Valdesolo and DeSteno (2011). While not involving helping *per se*, the experiments in Walton et al. (2012) are notable because a very minimal manipulation of similarity (being mentioned as belonging to a "group") leads to increased effort in a task that fits with the group's name.

[10] People do not give identical responses when they are asked how satisfied they are with themselves and when they are asked how satisfied they are with life as a whole, where the latter is more often used as a stand-in for happiness. Still the two responses are highly correlated. Indeed, Diener and Diener (1995) show that life satisfaction is more correlated with this measure of self-esteem than with the other measures of domain-specific satisfaction they consider.

[11] See, in particular, the studies in Pool et al. (1998) and Kenworthy and Miller (2001).

[12] See Byrne (1961) for a discussion.

[13] In the case of the Haiti earthquake, for example, an organization of Christian media companies called *National Religious Broadcasters* raised SMS funds though a phone number of their own.