Street-Level Charity:
Beggars, Donors, and Welfare Policies
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Abstract

Begging in a phenomenon that has largely been ignored by scholars of the welfare state. This is surprising because the presence of beggars in a society tends to be interpreted as the welfare state's failure to adequately provide for its citizens. This paper examines the conditions under which we expect donors to actually give money to beggars at the street level. In particular, it offers a systematic theoretical framework for analyzing interactions between beggars and potential donors. We develop a game theoretic model where potential donors and beggars interact with one another in the context of a broader political environment. The contribution of our approach is twofold. First, it offers equilibria results on the strategic considerations that motivate begging practices. Second, it explains how social welfare policies at the macro-level can indirectly shape the parameters that structure these street-level equilibria.

Keywords: begging, welfare state, charity, signaling games

Introduction

Beggars represent a moral challenge for our societies. To give or not to give money to beggars [1] has become a dilemma of almost Shakespearean proportions. It represents a daily and fundamental ethical question not only for the citizens and governments of developing countries, but also for those of the developed world (Jordan, 1999; Lynch, 2005). Indeed, it is easy to find people asking for money from passers-by in wealthy countries such as the United Kingdom, Australia, the United States, Canada and even in extended welfare states like Norway and Finland. However, the characteristics of this activity vary enormously across countries. Despite seeming similarities between begging populations in Quito, London, Beijing, New Delhi and Oslo, we require divergent explanations for each case. Intuitively, it is not the same to evaluate begging in a less developed country – where begging may constitute an individual's only viable survival strategy – as it is to study beggars in a context where begging could be connected with mafia practices or drug and alcohol abuse (Swanson, 2007a,b; Kennedy and Fitzpatrick, 2001).

A remarkable aspect of this phenomenon is that the topic of begging has received more attention as a hot-button issue for public debate and media discussion than as a matter of public or social policy research, where discussion has been comparatively limited (Lynch, 2005; Dean and Gale, 1999). While historians, ethnographers, human geographers, criminologists and legal scholars have studied issues related to begging, scholars of public policy generally have not. This is a curious fact, considering that the persistence of this practice – at least in the Western World – may be construed as an indictment of the failures of social policy and welfare systems in general (Dean, 1999, p. 1). Some have even argued that the growth of street begging represents a return to ancient common practices supposedly eradicated by today's welfare states (Adler, Bromley and Rosie, 2000, p. 209).

The presence of beggars leads us to think about the performance and scope of our distributive and redistributive institutions. Furthermore, it forces us to revise complex normative questions related to our sense of altruism, beneficence and social justice. Numerous questions are raised by this phenomenon: Should we give money to beggars and

do we have a duty to assist them? Furthermore, under what strategic conditions would we actually expect potential donors to give money to beggars and are these conditions at all impacted by social welfare policies?

In this paper, we attempt to shed some light on this second question by examining the strategic decisions and evaluations that an altruistic donor may make when she is solicited by a beggar in the street. We first define the relevant concepts in greater detail and explain why the act of begging is a phenomenon distinct from other concepts (such as homelessness) with which it is typically conflated. We next describe and explain the strategic structure of begging by drawing heavily on Russell Hardin's model of beneficence as a starting point (Hardin, 1990). We argue that what is needed is an alternative way to understand the strategic interactions between beggars and potential donors that allows *both* actors to make strategic decisions. We then utilize a simple formal model of interaction between a single beggar and a potential donor in an asymmetric information environment. We provide a substantive interpretation of the findings we derive from the model and discuss them concretely in the context of different welfare policies a government might pursue in an effort to reduce the frequency of begging. We find that, in addition to the direct impacts these policies might have on the frequency of begging, there are also indirect impacts on this frequency via shifts in potential street-level donors' strategic understanding of the underlying problem. We conclude by discussing possible extensions of the model as well as future potential research efforts.

Some Conceptual Precisions

To adequately understand the implications of begging we need to define it as precisely as possible. Most frequently, empirical data on begging emerges from literatures primarily oriented toward the study of homelessness, extreme poverty, indigence, social exclusion, rough sleeping, street drinking, unlicensed street trading and street children. As Johnsen and Fitzpatrick note, in the United Kingdom there is overwhelming evidence that the activity of begging is closely associated with alcohol and drug abuse and that the great

majority of those involved are 'homeless' (Johnsen and Fitzpatrick, 2010, p. 1). In other cases, this kind of interrelation is not so clear and may even be non-existent. For instance, in cities like Quito, the majority of young women and children who beg are mainly rural migrants who have access to some type of stable domicile. For many of them, begging constitutes the only viable way to improve their material conditions (Swanson, 2007a, p. 717). Thus, although in some countries people who beg are likely to be homeless, there are exceptions to this tendency. Begging may be associated with a variety of other phenomena, but it also needs to be addressed and analysed as a singular economic activity and as a means of subsistence (Dean and Gale, 1999, p. 14).

The fact that begging has been studied as a by-product of other phenomena suggests at least three analytical problems. First, it is difficult to find a definition of begging that adequately represents the full range of solicitous activities we see around the world. Although its basic concept seems clear – the act of asking for money, food, or shelter from the passer-by – there are other activities that are not so obvious, but which we might want to categorize as begging as well. The problem manifests itself in activities such as washing cars or selling small items (gum, postal cards, flowers, etc.) that, even though they imply a service, could be described as a camouflaged form of begging. In these instances, this close resemblance of begging activity to 'labor' activity provides additional complications. The concept becomes even more difficult to define if we consider those begging activities that are organized by groups or mafias (Adriaenssens and Hendrickx, 2011).

Second, a direct consequence of these definitional problems is the lack of quantitative data on both the activity of begging as well as beggars as individuals. Concrete data on the number of beggars by country does not exist, which precludes comparisons and cross-country research. Without this kind of information, it is hard to seriously examine the causes and patterns of this phenomenon around the world. There does exist a great number of studies that offer relevant data about begging in different cities, but – as many social welfare policies are determined at the national level – we run the risk of committing an ecological fallacy when it comes to analyzing begging empirically. [2]

Third, a drawback to conflating begging with other phenomena is that policy initiatives aimed at helping the homeless, street children and so on, are often assumed to be a sufficient response to the needs of beggars (Kennedy and Fitzpatrick, 2001, p. 2002). In some cases, a policy prescription that focuses on homelessness can be a valuable way to improve the living conditions of beggars; in other cases, this is not so. When we cannot separate begging from other activities, we have to bear in mind that such policies are only effective under certain circumstances and within certain contexts.

We follow Adriaenssens and Hendrickx (2011) and Lee and Farrell (2003) and define begging as a public request for money, food, or other goods with little or nothing of value given in return to the potential donor. In other words, it implies a solicitation of a voluntary unilateral gift in a public place (Lynch, 2005; Dean, 1999). [3] To this end, begging is distinct from other informal street activities. Consider the fact that begging involves an interaction between the soliciting individual and a passer-by and this implies a great deal of risk for the beggar. Pedestrians frequently feel intimidated when approached by beggars and firms can claim that begging is bad for business, resulting in arrest or other legal action (Collins and Blomley, 2003; Blomley, 2007; Fitzpatrick and Kennedy, 2001). This dynamic carries an additional degree of risk for the beggar which is unmatched in other street activities such as busking. Thus, the singular nature of the relationship between beggars and passers-by requires that it be treated as a distinctive phenomenon. We now evaluate this phenomenon as a strategic game, paying close attention to how the state can shape the environment in which interactions between beggars and donors occur.

Modeling the Strategic Structure of Begging

We take as our point of departure the fact that a donor's assessment of whether to give money to a beggar – however well-intentioned – is an inherently difficult one. [4] It is challenging to assess, for example, the tradeoff between the good that one's money can affect in an immediate capacity on the street versus the good that one's money can affect as one of many contributions to an institutionalized, state-sponsored welfare program. It

is also difficult to assess, in many cases, the veracity of a beggar's claim of dire need; in fact, donors' worries about their money being spent on less justifiable things like alcohol or drugs are often substantial enough to keep them from donating at all. Such concerns about undermining state efforts to curb poverty or giving money to the 'wrong' people can curb an altruist's willingness to give money to beggars when approached in the street.

Russell Hardin has explored this issue in some detail. As he argues, there are reasons for thinking that despite one's benevolence or will to do good, it might be better to abstain from giving money to beggars. On one hand, it can be argued that begging is a problem that should be handled by the state rather than by individuals. On the other hand, however, it can be argued that even the state is fundamentally unable to affect a massive change in the number of beggars. This could happen, Hardin suggests, because the act of giving money to beggars creates a particular structure of incentives that can exacerbate the underlying problem. Hardin argues that the interaction between beggars and potential donors can be modeled strategically as a pure conflict situation. That is because one party suffers a loss in order for another to enjoy a gain (Hardin, 1990, p. 90). Put another way, the situation is similar to a pure conflict model because the beggar benefits if and only if the donor suffers a cost in comparison to the status quo before the donor encounters a beggar's need.

However, the strategic structure of beneficence described by Hardin has some important problems. The most apparent difficulty is that in Hardin's model only one player (the donor) can act strategically. Thus, Hardin's model does not capture the active role that a beggar may play in the course of behaving strategically to improve his chances of receiving more money (or at least maximizing the probability that he will receive some donation at all). Nevertheless, we believe that we might model a noncooperative interaction between the donor and the beggar in the following way. Assume first that the donor possesses some level of altruistic motivation, however small, to help beggars who are immediately in need, but is reluctant to donate to a beggar who might spend the money in capacities unrelated to the relief of the immediate need. In the course of their interactions, then, it

is up to the beggar to take steps to successfully solicit a donation from a potential donor who is marginally – but not universally – predisposed to providing assistance. [5]

As Hardin rightly points out, the donor can justifiably harbor reasons for not giving money directly to beggars, or, at least, not giving money to *specific types* of beggars. Thus, even an altruist takes the time to evaluate whether or not to donate to a particular beggar. On what grounds can she make this kind of evaluation? In some environments, the donor believes that all beggars are in dire need of assistance because she feels that the state's redistributive institutions cannot deal with the urgency of any beggar's needs. In many cases, though, specific beggars' needs are readily apparent. A physical injury, for example, or visible malnutrition might serve as support for the veracity and urgency of their claims for help (Adler, 1999, p. 171). But note that an evaluation of the urgency of a beggar's needs can also be based upon behavior in addition to circumstance. In many cases, the beggar's ability to transmit or communicate the parameters of his needs to a donor undoubtedly plays an important part in this evaluation. A famous and extreme example of this behavior comes from Tullock (1971), who discusses his firsthand experiences with beggars in China who had mutilated themselves in an effort to appear more needy to potential donors (p. 634-5). In this case, the beggar engages in a larger "amount of resource expenditure to improve [his] receipts" (Tullock, 1971, p. 635).

Because a potential donor cannot perfectly assess the needs of an unfamiliar person when approached in the street, the strategic interaction between any single pairing of a beggar and a potential donor can be modeled as a game of asymmetric information. There are two types of beggars $t = \{needy, \sim needy\}$ in our model. With the former type we indicate an individual in dire need who does not misrepresent himself in the course of soliciting donations. Typically – but not invariably – a *needy* beggar is unable to engage in alternative economic activities. With the latter type, we indicate an individual who, while economically downtrodden, intends to misrepresent himself in an effort to gain the benefits that an altruistic donor might be willing to bestow on a *needy* type of beggar. [6] This is an individual for whom other types of economic activity might be possible.

The distinction between *needy* and $\sim needy$ types of beggars draws on a long line of sociological scholarship that focuses on sorting beggars into "genuine" or "fraudulent" categories. As Erskine and McIntosh (1999) discuss, examples of this line of inquiry can be found as early as 1528 with Martin Luther's identification of 28 types of beggars in his *The Book of Vagabonds and Beggars* and in 1627 with the publication of an Italian monk's taxonomy of 33 types of beggars. For the purposes of the present exercise, many of these types are superfluous, but we would argue that the broader conceptual project of distinguishing between types is important: there are both theoretical and empirical reasons for distinguishing between *needy* beggars who are bereft of any alternatives and $\sim needy$ beggars who opt out of alternative economic activities in favor of begging. Erskine and McIntosh (1999) claim that contemporary attitudes toward begging are highly influenced by the judgments of passers-by about whether or not the encounter is a genuine one. Based on interviews with these passers-by, they suggest that whether a beggar is seen to be genuine or not dramatically impacts the potential donor's decision to respond to the beggar's request. As another empirical example, Adler, Bromley and Rosie (2000) examine public attitudes toward beggars in the United Kingdom and find that, among other things, a narrow majority believe that most beggars truly need help. However, donors are divided over the extent to which it is possible to distinguish when a beggar is genuinely needy from when he is not (Adler, Bromley and Rosie, 2000, p. 215).

These categories do not suggest that non-needy beggars have no needs; rather, that some beggars engage in subterfuge in the solicitation of donations while others do not. While an altruistic person might be willing to donate to a truly *needy* beggar, she might have reservations about doing so to a beggar she perceives to be disingenuous. Because of this, we model the strategic interaction as a signaling game where a potential donor is (strictly speaking) faced with two information sets at which she chooses whether to give money or not (one information set for the *needy* type and another for the $\sim needy$ type). However, we argue that it is never in a truly needy beggar's interest to present himself as being not needy; thus, we present a simplified version of the game. The beggar 'moves'

8

first in the game, but only beggars of the $\sim$ *needy* type consciously make a decision: the *needy* beggar simply presents himself to the potential donor as being in need while the $\sim$ *needy* beggar decides whether or not to misrepresent himself. The problem for the donor is this: when she is approached by someone appearing in dire need, it is unclear which type of beggar she is actually dealing with. Because she has beliefs about an underlying distribution of beggar types at this information set, the appropriate type of solution concept is that of perfect Bayesian equilibrium, where the donor has both specific actions and beliefs about the type of beggar she is interacting with. We represent this game graphically below before explaining it in greater detail.

Where:

- **p** is the *proportion* of beggars in the population that are truly needy (or, put differently, the probability that a donor is matched with a truly needy beggar);

- **M** is a beggar's decision to either *misrepresent* himself or not;

- **D** is a donor's decision to either *donate* or not:

- α**e** is the proportion (α) of the donor's financial endowment (e) that constitutes a *donation* with α bounded, of course, by 0 and 1;

- **a** is a measure of *altruism* that can range from 0 (indicating a perfect egoist) to e (indicating a perfect altruist);

- **c**$(1/p)$ is the nonnegative *cost* to the beggar of type $\sim$ *needy* of misrepresenting himself as a truly needy beggar; note that c is always multiplied by the inverse of p which, we argue, captures an important dynamic that we will expand upon below.
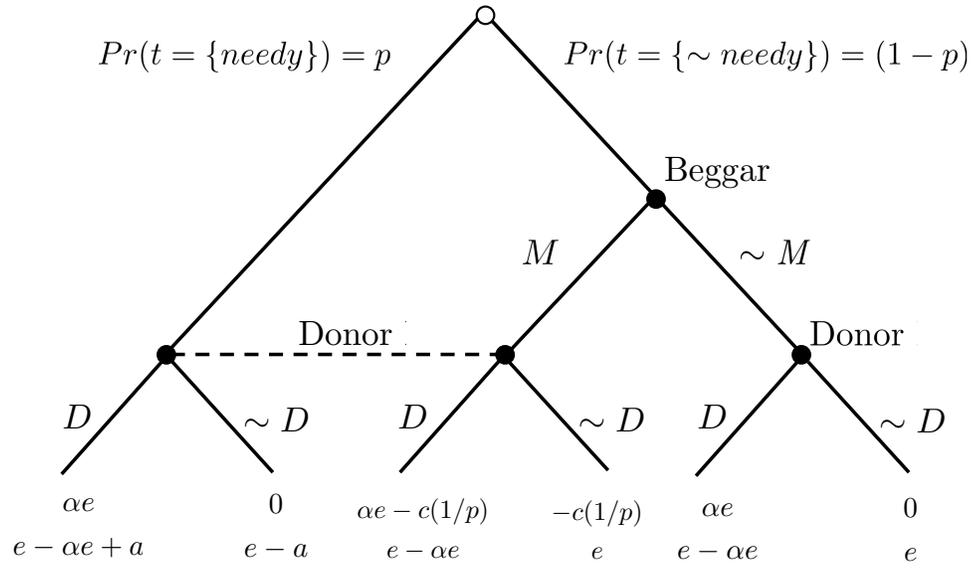
Figure 1: The Strategic Interaction Between Beggars and Potential Donors

NEED TO SWITCH OUT THESE GRAPHICAL COMMANDS BEFORE SUBMITTING

This is, admittedly, an overly simplified modeling of the problem, but the setup has some interesting aspects and, we believe, is productively flexible. For example, it allows for the possibility of beggars playing the game against potential donors with varying incomes, varying potential donation amounts, and varying levels of altruism. [7] Importantly, the parameter a models altruist considerations into the strategic interaction. [8] For example, when a is set to zero, the donor's information set is irrelevant: a perfect egoist never donates regardless of the type of beggar she believes she is interacting with. It is only when we assign a some nonzero value that the altruistic potential donor begins to evaluate the beggar's type. We include a, then, both as a benefit for correctly giving money to a beggar in actual need and also as a commensurate punishment for failing to assist a truly needy beggar when given the opportunity. There is no such similar punishment for giving money to the 'wrong' type of beggar; although a donor would prefer not to give money to this type of beggar, she has only lost the cost of the donation rather than the cost plus the loss of a because she was never actually given an opportunity to place the money in the hands of the 'right' type of beggar.

We begin solving the model via backward induction: what are the conditions on p, αe, and a that would induce a potential donor to play D rather than $\sim D$? [9] In this case, we are looking for values that satisfy the following inequality:

$$
\begin{aligned}
Eu_{Donor}(Give|Needy) &\geq Eu_{Donor}(\sim Give|Needy) \\
p[e - \alpha e + a] + (1-p)[e - \alpha e] &\geq p[e - a] + (1-p)[e] \\
p \geq \frac{\alpha e}{2a} \quad \text{or} \quad a &\geq \frac{\alpha e}{2p}
\end{aligned}
$$

Before moving forward, we give a brief substantive interpretation of the two inequalities. The first tells us that as a potential donor's level of altruism increases, the probability of encountering a truly needy beggar becomes less important in her expected utility calculation. Indeed, in the event that small donations carry immense altruistic benefit for the donor (we arbitrarily set the donation at \$10 and the level of altruistic benefit at

30), then the donor is willing to donate even in an environment where she is incredibly unlikely to encounter a beggar of the truly needy type (for these values, in this example, the donor is willing to play D when p is as low as 0.2). However, there is an important lower bound on the requisite level of altruism: the a benefit must be at least half as large as the αe donation. Otherwise, *there is no value of p* for which the donor is willing to donate. The second inequality tells us a very similar story, namely that as p declines, a must become quite large to substantiate a best-response strategy of playing D.

Still working backward, the donor's decision at her second decision node (after the history $\sim M$) is much more straightforward. For all values of p, not donating is always better than donating. This is because either, (1) it is always easier to continue walking down the street than to seek out a beggar who has not asked you for anything and give him some of your money, or (2) it is always in the donor's self interest to decline to give money to a beggar who explicitly makes the case that he could easily be working a job (or engaging in some other economic activity) rather than begging. But what of the $\sim needy$ beggar's decision to potentially misrepresent himself in the course of soliciting a donation? If a donor is willing to donate under the right conditions, what cost of misrepresentation is sufficient to discourage a beggar from misrepresenting himself?

In many ways, our modeling of the cost of misrepresentation for $\sim needy$ beggars is the crux of our story. We assume that there is some cost to telling a lie; put differently, in an environment where some proportion of beggars are visibly malnourished or noticeably ill, it cannot be an easy task to convince a donor that one – a beggar of the $\sim needy$ type – is more deserving of the money than one's truly needy competitors. The cost of misrepresentation in this scenario might be, for example, to become very aggressive in soliciting donations (thereby running the risk of arrest) or to inflict a visible injury upon oneself (thereby incurring long-run costs). As studies of begging behavior have argued, lying about such basic needs for a beggar of the $\sim needy$ type is far from costless. Indeed, while it might be tempting to cast a non-needy beggar's choice of disingenuous begging over some other economic activity as "cheap talk" (in the sense that these solicitations

are unmediated, non-binding forms of communication), there are, we believe, three good reasons to reject this temptation.

First, begging is an extremely hazardous activity. As Dean (1999) points out, there is ample evidence that "people who beg risk violence and predation, not only from passers-by, but from others who get their living on the street" (p. 6). For example, interviews with beggars conducted in England and Scotland reveal that they are commonly the targets of violence while begging (Dean and Melrose, 1999, p. 88). Second, the social stigma associate with begging suggest that individuals who beg assume a non-trivial psychological cost (Wardhaugh and Jones, 1999, p. 104). The reason for this is that begging is commonly characterized as a "deviant activity engaged in by the stigmatized poor that carries significant costs and is disapproved of by a majority of citizens" (Lee and Farrell, 2003, p. 300). Finally, it is trivially true that begging is not a costless activity in places where it constitutes a criminal offense that is likely to be punished.

Additionally, we argue that there is a clear negative relationship between p and c and we substantiate this claim through two hypothetical illustrations. First, consider a country where the state has made little provision for the poor and homeless. In this situation, p is high because there are so few state-sponsored relief services offered to beggars that most beggars can *a priori* be assumed to be existing in dire need. When a beggar, regardless of his type, approaches a donor and implores her for money on the grounds of having no access to other avenues of support, it is a likely story. Contrast this with a much different scenario: a country that has erected massive state-sponsored relief programs aimed at assisting the poor by providing food, medical, and housing assistance. In so doing, they have provided for many of the needs of the type of beggar that we would describe as *needy*. Fewer and fewer beggars of this type walk the streets as the state provides for more of their needs; accordingly, p shrinks dramatically. In this situation, when a potential donor is approached by a beggar asking for money and justifying his solicitation on the grounds of having no access to other avenues of support, it is a very difficult case to make. The cost of misrepresenting oneself is high. Thus, we have modeled

c as being inversely related to the proportion of *needy* beggars in the population. [10]

Solving for the constraints on c that prompt the $\sim$ *needy* beggar to play either M or $\sim M$ is simple. We have already established that the donor will play $\sim D$ if the beggar of type $\sim$ *needy* chooses not to misrepresent himself. In this case, the beggar's payoff is 0. If the donor chooses not to make a donation whenever she is presented with a 'needy' signal, it is never in the beggar's best interest to misrepresent himself (because c is nonnegative and $-c(1/p) < 0$ always). If, however, the beggar anticipates that the potential donor will give money when confronted with a 'needy' signal, then it pays for him to misrepresent himself when:

$$
\begin{aligned}
Eu_{Beggar}(M) &\geq Eu_{Beggar}(\sim M) \\
\alpha e - c(1/p) &\geq 0 \\
c &\leq p\alpha e
\end{aligned}
$$

In addition to the obviously intuitive result that, as the size of the donation increases, the beggar is willing to incur higher costs, we also see that (because p is bounded by 0 and 1) that as p increases, misrepresentation becomes more palatable regardless of the cost.

Taking all of this together, then, there are clearly a number of pure and mixed-strategy equilibria to the model. For substantively interesting reasons, we focus mainly on one equilibrium of the pooling variety and another of the separating variety (both in pure strategies). In the first (pooling) equilibrium, p is comparatively large (specifically, $p > \alpha e/2a$), the misrepresentation cost is comparatively low (specifically, $c < p\alpha e$), the donor chooses to donate upon seeing a beggar of the apparently *needy* type (believing that she is giving to a *needy* beggar with probability p), the donor chooses to not donate when confronted with a $\sim$ *needy* beggar, and the $\sim$ *needy* beggar chooses to misrepresent himself. [11] There is one separating equilibrium in pure strategies. This occurs when $c > p\alpha e$ and the beggar of type $\sim$ *needy* chooses to play M, thereby prompting the donor to decide to donate upon receiving the *needy* signal (believing that she is donating to a

needy beggar with probability equal to one). [12]

These equilibrium statements are still sufficiently abstract, however, that they remain a bit difficult to interpret substantively. In what follows, we select some representative and plausible values for these many variables and depict sets of equilibria outcomes graphically to lend greater interpretability to the model's results. Figures 2 and 3 below depict the best choice correspondences for each of the two players. In the first figure, for instance, we have graphed the functions $a = \alpha e / 2p$ for the donor and $c = p\alpha e$ for the beggar holding αe constant at 10 units of currency. Both a and c are graphed along the same metric on the y-axis (a on the left side and c on the right) while the probability p that a given beggar is of the *needy* type is graphed along the x-axis. In Figure 2, these functions are graphed again holding the size of the potential donation constant at 25 units of currency.

Consider the first figure. Here, for values of a above the black line, the donor prefers to donate at any value of p. As p shrinks, however, the benefit derived from the donor's sense of altruism must grow incredibly large (the function approaches the y-axis asymptotically as p decreases). As p increases toward 1, however, lower values of the altruism benefit can still sustain donations equal to 10 units of currency. Wherever a falls below the black line, the donor is better off keeping her money. Similarly, where c exists at a point above the gray line, it is in the $\sim needy$ beggar's best interest to not misrepresent himself; where c is lower than the gray line, the $\sim needy$ beggar's best response is to misrepresent himself as a *needy* type. In those cases where a resides on the black line or c resides on the gray, then either one or the other player can employ a mixed strategy. [13] The same explanation holds for Figure 2, except now the donation amount has been increased to 25 units of currency. As can be seen, this has a noticeable impact on the relationship between the two curves over the relevant 0 to 1 interval inhabited by p.

The relationship depicted here confirms the intuitive story. When p is very low, there are very few values for c that could incentive a $\sim needy$ type beggar to misrepresent himself (consider, for example, Figure 1 at $p = 0.2$ where c can be no higher than 2 for it to be worthwhile for the beggar to solicit at donation worth 10). Additionally, the

benefit of altruism for the donor here must be comparatively high at this juncture for the donation to even be remotely viable (again, consider $p = 0.2$ where a must be at least 25 units for a donor to relinquish a donation worth 10). As p increases, a broader range of costs can be sustained by the $\sim$ *needy* type of beggar in his pursuit of the the 10-unit donation (consider $p = 0.8$ where c can take values up to 8 while still resulting in a best response of misrepresentation). Also, as p increases, the benefit the donor derives from altruism need not be so high; the high probability of encountering a beggar of the *needy* type begins to offset the cost of the donation. These trends are exacerbated somewhat in the case where the donation amount is 25 units.
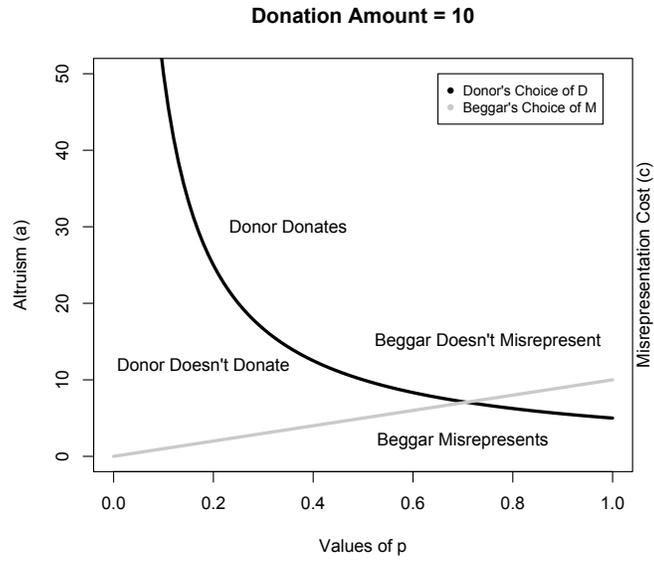
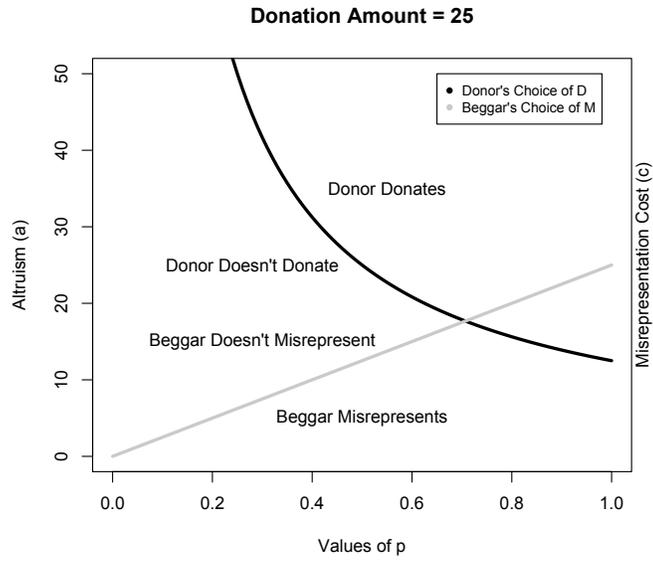Figure 2: Best Response Map Holding αe Constant at Donation Value of 10

Figure 3: Best Response Map Holding αe Constant at Donation Value of 25

While "the state" does not enter our game as a player, we can straightforwardly think about the relationship between state policies at the macro level and the individual-level parameters included in our model. To begin, as we argued above, the extent of social welfare programs should have a *direct* impact on the proportion of truly needy beggars in the society and, therefore, an *indirect* impact on the costs of a deceptive beggar's efforts at soliciting donations. Where states invest heavily in substantial welfare safety nets, most of the needs of the truly needy beggars are provided for, thereby removing these individuals from the pool of beggars that solicit donations at the street level. Other state-sponsored indirect measures can provide beggars with indispensable resources aimed at improving their living conditions. These include programs of income transference, drug and alcohol rehabilitation services, and housing and health care policies. States can also adopt institutional measures to regulate begging practices. Anti-begging laws, for example, are aimed at not only ridding the streets of aggressive beggars, but also restricting the time, place, and manner in which passive beggars can operate (Collins and Blomley, 2003, p. 41). These measures include direct actions such as 'zero tolerance' policies or laws that prohibit begging in specific areas or prohibit the solicitation of pedestrians or people in vehicles (Baker, 2009; Scott, 2003; Hopkins Burke, 2000; Lynch, 2005). All of these institutional measures can effect the size and composition of a county's begging population.

In addition to shaping a potential donor's expectations about the type of beggar she is interacting with, state policies can also shape the nature of another important parameter of our model: altruisim. State-sponsored information campaigns – either in support of or discouraging street-level donations to beggars – can have an impact on any individual donor's sense of altruism. A subset of these "public education responses" encourage potential donors to refrain from giving to beggars and, instead, to give money to "diverted giving schemes" (Scott, 2003). These diverted giving schemes have been implemented in several major cities both in developed and developing countries, but have so far met with mixed results (Johnsen and Fitzpatrick, 2010; Lynch, 2005). At its most efficient, a

diverted giving scheme encourages people to place money in strategically located charity boxes rather than in the hands or hats of beggars (Lynch, 2005), thereby reshaping the incentive structure of begging by making it a less profitable activity. Therefore, if state policies result in a low a parameter (whether through discouraging giving altogether or simply reorienting a person's altruism away from street-level charity), then very few donations will ever be meted out.

We think that the model outlines a potential paradox that should inform future research. When the state provides substantially for the poor and a potential donor is approached by a beggar, her expectation is that the beggar is not truly needy; when the state spends very little on relief efforts and a potential donor is approached by a beggar, the probability, on balance, that she is interacting with a truly needy individual is high. At the same time, it is most costly for a dishonest beggar to solicit funds in the former situation and least costly for him to do so in the latter. This paradox underscores a vitally important tradeoff that has preoccupied social scientists for years: when we increase state-sponsored relief, are we also discouraging private acts of beneficence? While a substantial literature exists on the "crowding out" of private donations resulting from high government expenditures [14], other scholars have argued that private and public giving would ideally operate in conjunction with one another. Goodin (1985), for instance, argues that the welfare state is a "morally necessary adjunct to other more individualistic responses to the problems of vulnerability and dependency in our larger community" (p. 785) and Obler (1981) has argued that "gaps in state aid can be filled, at least in part, by private efforts" (p. 17). We return to this discussion in the concluding section.

Conclusion

Scholars of economics, sociology, and politics have clearly dedicated much time to studying the complex relationship between the welfare state and non-profit, charitable activities at the macro level. This relationship also has profound implications, we have argued, for "down ticket" items such as interactions at the street level between beggars and potential

donors. In this paper, we have identified some of the mechanisms and strategic consid-
erations that structure the incentives of donor-beggar interactions. Although simplistic
in form, our model increases the complexity of preexisting models of this interaction –
such as that of Hardin (1990) – and also formalizes some important dynamics in a flex-
ible framework that allows for interesting extensions. In the model, a range of factors
contribute to the likelihood that a beggar receives money from a potential donor: the
donor's income and the size of the contribution she is willing to make, her individual
sense of altruism, the costs of misrepresentation for beggars who are not truly needy,
and the donor's overall expectations about the proportion of the begging population that
actually requires her help. Although the state and its policies do not explicitly enter the
model, we have also illustrated how governmental actions can shape the parameters of
donors and beggars in profound capacities. Specifically, various social welfare policies can
directly shape both the size and composition of a country's begging population as well
as the altruistic motivations and material resources at the disposal of potential donors.
However, additional work can improve upon the limitations of our model.

The first plausible extension of the model would incorporate more actors (such as the
government) or more choices for existing actors (such as allowing donors to give money
to nonprofit organizations rather than beggars on the street). The cost of misrepresen-
tation parameter $c(1/p)$ could also be operationalized differently to allow for steeper or
less restrictive cost punishments and – perhaps even more realistically – the non-needy
beggar's cost could be modeled endogenously to reflect the fact that different non-needy
beggars no doubt face variable (individualized) costs of misrepresenting themselves. Sim-
ilarly, the game could be played by iteratively drawing potential individual donors from
a distribution of donor characteristics (such as varying income and altruism levels). This
distribution could be lent empirical credibility for specific country case-studies by con-
structing the distribution based on actual income and survey response data.

But avenues for future research extend well beyond formal theoretical concerns. As
we have argued previously, the costs of begging are influenced by a wide range of factors,

many of which follow from legal provisions decided upon by policy-makers. For example, these policies could be inherently redistributive in nature (by, say, aiming to alleviate the needs of beggars, thereby obviating their need to beg in the first place) or inherently restrictive (by, say, prohibiting the act of begging altogether). Striking an appropriate balance between these two approaches is a difficult normative question that should interest normative theorists who study social justice. Indeed, additional normative work could address the question: if it is possible to motivate citizens to donate to beggars or to contribute to diverted giving schemes, *should* the government justifiably do so and *how* might it go about doing this?

This is a question that has also long been a concern of more empirically-minded scholars of the welfare state. While these studies have tended to examine the "crowding out" of citizen donations to institutionalized nonprofit organizations as a result of *macro-level* welfare state policies, we argue that this tradeoff could also be profitably examined at the *street level* as well. Although scholars have produced evidence from laboratory experiments and empirical studies about the different causes of charitable giving – in other words, what motivates people to transfer to charities, other households, or within their own family [15] – we know little about the variables that influence people to give to beggars, specifically. Moreover, we know little about the consequences of government interventions through redistributive policies on donors' and beggars' behavior. While some macro-level empirical evidence suggests that these street-level charitable decisions might be curtailed by the presence of governmental redistributive policies (see Brooks, 2004), there is other evidence suggesting that citizens may still donate money selectively (i.e. strategically) in the presence of supplementary social welfare policies (see the works of Konow, 2010; Obler, 1981). At any rate, due to the urgency of the many policy and normative questions surrounding the issue of begging in the current global economic climate, more theoretical and empirical work is required on this important topic. We hope that this paper has been a useful first step toward situating the street-level phenomenon of donor-beggar relations in the broader public policy research agenda.

End Notes

1. A beggar is usually defined as 'a person who publicly and regularly requests money or goods for personal use in a face-to-face manner from unfamiliar others without offering a readily identifiable or valued consumer product or service in exchange for items received' (Lankenau, 1999, p. 187-8).

2. For city-level data see Adriaenssens and Hendrickx (2011); Collins and Blomley (2003); Danczuk (2000); Fitzpatrick and Kennedy (2001); Fitzpatrick and Jones (2005); Fitzpatrick and Johnsen (2009); Lee and Farrell (2003); Lynch (2005); Swanson (2007a,b).

3. From this definition, however, it is not clear if begging can be considered an economic activity or not. Taking into account that it does not imply an evident and commensurate exchange of resources between two parties, one might easily argue that begging does not qualify as an economic activity. The counter argument is that the act of begging resembles an economic or 'market' activity because it shares many of the characteristics of commercial advertising, requests for charitable donations, and street theatre (Collins and Blomley, 2003, p. 40). For a more detailed discussion, see Smith (2005).

4. For a normative discussion, see Radford (2001) and Sypnowich (2006).

5. It is normatively uninteresting if the donor has absolutely no motivation to assist the truly needy beggar. However, there are many different motivations for charitable giving. As (Andreoni, 2006) points out, there are motivations that remain distinct from pure altruism; put differently, even if we do not derive utility from the act of giving, we may still behave as moral agents. For instance, we can think that charitable giving is not unselfish at all and that by giving money in a charitable way we are pursuing an 'enlightened self-interest', or that we may derive some utility akin to a 'warm-glow' (Andreoni, 2006, p. 1205). Nonetheless, for the sake of the argument, let us assume that the donor (independent of her motivations) wants to help a beggar under the right circumstances.

6. In some sense, this distinction between types resembles the discussion emerging from the

American politics literature on 'deserving' versus 'undeserving' poor; although we do not frame our argument in these terms, see the discussion in Katz (1990) and Arneson (1997).

7. Indeed, an interesting possibility for future analysis is to model these variables as probability distributions and explore the equilibria that emerge from iterated simulations. A more complex modeling of this interaction might make a beggar's cost of misrepresentation endogenous to the model, as not all beggars will face uniform costs.

8. We might also denote 'altruism' as 'humanitarianism' as developed by Feldman and Steenbergen (2001), which they define as the belief that people should come to the assistance of those in need. These authors also empirically find that individuals of humanitarian persuasion tend to support welfare policies aimed specifically at providing relief for the neediest in society.

9. It is worth noticing that donors interested in helping beggars may have a chance to donate money to charitable organizations rather than giving money directly to beggars. However, the important point here is that the existence of policies and institutions that promote this kind of behavior in donors (e.g. the diverted giving schemes that we will discuss later on) would be reflected in the parameters p and c. First, diverted giving schemes may affect dishonest beggars by collecting money that will be targeted on the more truly needy beggars (thereby reshaping p). Second, a policy that encourages donors to put money into a box on the street or donating to a non-profit instead of giving directly to beggars is a policy that will increase of the cost of misrepresentation (thereby reshaping c).

10. But an even harsher relationship between c and p could be assumed by calculating misrepresentation costs as, say, $-c(1/p^2)$.

11. There is no pooling equilibrium where the donor decides against donating after being presented with a *needy* type (the $\sim needy$ beggar will always deviate back to not misrepresenting himself and, in this case, $\sim D$ is no longer a best response for the donor).

12. There is no separating equilibrium where the beggar types choose the opposite actions

for obvious reasons. Lest these equilibria statements suggest that money always goes to the right person, recall that low values of a (or high values of αe) can easily result in no donations ever being made to either type of beggar.

13. In order for the donor to play a mixed strategy as a best response, the following conditions must hold: $Eu_{donor}(mixed|Needy) \geq Eu_{donor}(Give|Needy)$ and $Eu_{donor}(mixed|Needy) \geq Eu_{donor}(\sim Give|Needy)$. Letting x denote $Pr(Give|Needy)$ and solving for the constraints on p that satisfy the expected utility equations above, we are left with: $\frac{x\alpha e}{2xa} \leq p \leq \frac{-\alpha e + x\alpha e}{2xa - 2a}$ (derivations omitted). With set values for a and αe, the inequality is only true for a unique value of p (while at the same time being true for any value of x). In Figure 2, for example, $\alpha e = 10$ and choose, for example, a level of altruism at $a = 25$. The *only* value of p that supports a mixed strategy with these values is 0.2 and here the donor can mix between giving and not giving in any proportion. As noted above, the heavy black line in the figures charts the combinations of parameter values for which the donor is equally as well off mixing between strategies as he is choosing a pure strategy.

14. See, for example, Abrams and Schitz (1978); Roberts (1984); Cullis, Jones and Thanassoulas (1984); Andreoni (1993).

15. See Ribar and Wilhelm (2002); Sargeant and Woodliffe (2007); Konow (2010).

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