Reciprocity, Self-interest, and the Welfare State

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A man ought to be a friend to his friend and repay gift with gift.
People should meet smiles with smiles and lies with treachery.

The Edda, a 13th century collection of Norse epic verse.

1 Introduction

The modern welfare state is a remarkable human achievement. In the advanced economies, a substantial fraction of total income is regularly transferred from the better off to the less well off, and the governments that preside over these transfers are regularly endorsed by publics (Atkinson 1999). The modern welfare state is thus the most significant case in human history of a voluntary egalitarian redistribution of income among total strangers. What accounts for its popular support?

We suggest below that a compelling case can be made that people support the welfare state because it conforms to deeply held norms of reciprocity and conditional obligations to others. Economists have for the most part offered an alternative, empirically implausible, theory of self-regarding human motivation to explain who votes for redistribution. The most widely accepted model of the demand for redistribution in economics is the *median voter model*, which holds that each voter desires a personal wealth-maximizing level of redistribution. Under appropriate assumptions, it follows that the redistribution implemented by a government elected under a majority rule system is that preferred by the median-income voter. Because

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the distribution of income is generally skewed to the right (there are a few very rich individuals), the median voter is poorer than the mean voter and will therefore demand a positive level of redistribution.

An important implication of this model is that demand for redistribution decreases as personal income increases (Roberts 1977). But personal income is a surprisingly poor predictor of support for redistribution (Gilens 1999, Fong 2001). A large fraction of the poor oppose income redistribution and a large fraction of the rich support it. Among respondents of a nationally representative American survey (Gallup Organization 1998) who have annual household incomes of at least \$150,000 and expect their lives to improve in the next five years, 24 percent respond that the government should "redistribute wealth by heavy taxes on the rich," and 67 percent respond that the "government in Washington DC should make every possible effort to improve the social and economic position of the poor." Equally striking is the fact that among those with annual family incomes of less than \$10,000 who did not expect to be better off in five years, 32 percent report that the government should *not* redistribute wealth by heavy taxes on the rich, and 23 percent say that the poor should help themselves rather than having the government "make every possible effort to improve the…position of the poor."[1]

Thus, while self-interest is an important human motive, and income does explain some of the variance in redistributive attitudes, other motives appear to be at work. Abundant evidence from across the social sciences—much of it focusing on the United States with similar findings in smaller quantities from other countries around the world—has shown that when people blame the poor for their poverty, they support less redistribution than when they believe that the poor are poor through no fault of their own. That is, generosity toward the poor is conditional on the belief that the poor work hard (Williamson 1974, Heclo 1986, Farkas and Robinson 1996, Gilens 1999, Miller 1999). For instance, in a 1972 sample of white women in Boston the perceived work ethic of the poor was a far better predictor of support for aid to the poor than one's family income, religion, education, and a host of other demographic and social background variables (Williamson 1974). Indeed in predicting support for such aid, the addition of a single variable measuring beliefs about work motivation tripled the explanatory power of all the above background variables together. Moffitt, Ribar, and Wilhelm (1998) were among the first economists to report findings on this relationship. They used the General Social Survey, a large nationally representative data set with observations in nearly every year since 1972 to show that those who believe that people get ahead by "lucky breaks or help from others" rather than hard work prefer more spending on welfare. Fong (2001)

[1]The numbers of observations for these questions were 78 and 79 for the poor group and 294 and 281 for the rich group. Gilens (1999) makes similar observations using earlier data.

used nationally representative data from a 1998 Gallup Social Audit to show that the effects of beliefs about the causes of income on demands for redistribution are surprisingly large and cannot be explained by missing measures of self-interest.

Our interpretation of these findings is that people are willing to help the poor, but they withdraw support when they perceive that the poor may cheat or fail to cooperate by not trying hard enough to be self-sufficient and morally upstanding. Within economics, our view is most similar to the taxpayer resentment view of the demand for redistribution modeled by Besley and Coate (1992), and the effect of reciprocity sentiments on redistributive public finance by Serge Kolm (1984).[2] Our view is also consistent with interpretations by Heclo (1986) and Gilens (1999), who cite evidence that Americans support a wide array of benefits for the poor and are primarily opposed to "welfare," presumably because "welfare" refers to means-tested cash assistance, which may be perceived as a program that benefits able-bodied adults who choose to have children out of wedlock and prefer not to work. Our interpretation is also compatible with equity theory and attribution theory. According to equity theory, people should receive resources from a system that are proportional to their contributions (Walster, Walster and Berscheid 1978, Deutsch 1985, Miller 1999). Attribution theorists argue that people are less likely to help someone if they determine that the person is individually responsible for his or her outcome (Weiner 1995, Skitka and Tetlock 1993).

Economists have been skeptical of non-selfish models for several reasons. First, there could be unmeasured self-interest variables that explain the support for redistribution. In particular, those with low-mean, high-variance incomes may be more likely to think that poverty is due to bad luck and also more likely to demand redistribution out of self-interest for insurance against a low income. We soundly reject this hypothesis in Section 4.

Second, people who think that effort plays a major role in income generation may be concerned about the incentive effects of taxation or transfers rather than the 'worthiness' of recipients (Piketty 1995). We do have two pieces of evidence, however, that incentive costs cannot fully explain attitudes towards redistribution. One is that, were incentive costs of taxation the problem, those who believe that effort is important should support less government spending in general. Yet, as we show in Section 4, the belief that effort is important to getting ahead in life is negatively correlated with support for redistribution and positively correlated with support for military spending. Another is that, as we report in Section 3, subjects in a behavioral experiment on charitable giving to welfare recipients gave significantly

[2] See Moffitt (1983) for an early model of welfare stigma. See also Lindbeck, Nyberg and Weibull (1995) for related work that addresses the role of work norms in redistributive politics and treats such norms as endogenous to the provision of government transfers.

more money when they were randomly paired with a welfare recipient who said she would like to work than when randomly paired with a welfare recipient who said she would not like to work. There were no disincentive costs in this experiment, so some other interpretation is necessary.

This experimental result also addresses a third concern that economists have raised: people who do not want to give to the poor may say that the poor are lazy to justify their selfishness. This cannot explain why randomly assigned treatment conditions in the charity experiment just described had significant effects on giving to welfare recipients.

Concern about the "undeserving poor" is pronounced in the U. S., but is far from absent in Europe. In Figure 1 we show that in twelve European countries, those who say that poverty is the result of the laziness support less government redistribution and are less concerned about unemployment, poverty, and inequality than those who do not. The data are from a Eurobarometer survey conducted in 1989 (Reif and Melich 1993), representative of the population aged fifteen and over in the twelve European Union countries of that time. Of the data set's 11,819 respondents, we use the 8239 who answered all of the questions included in our analysis. Our dependent variable is the sum of responses to four questions about the importance of fighting unemployment (1) and poverty (2), the importance of reducing differences between regions within the country by helping regions that are less developed or in difficulties (3), and whether the public authorities in the country do all that they should for poor people (4). The measure increases in concern about poverty, unemployment, and inequality and the belief that the public authorities do not "do enough for poor people." For simplicity, we refer to this composite measure as "concern about poverty." Our independent variable of primary interest is the belief that poverty is caused by laziness rather than being caused by bad luck, injustice, or no reason at all, or that poverty is inevitable.[3] The other variables included in the regression are family income quartiles, sex and age. Note that item (4) in our dependent variable is explicitly country specific. Cross-country comparisons of a question like this are of little value because people in a country with a generous redistribution system may care very much about poverty but believe that their own government is doing a good job of addressing it. The other three items used to construct our dependent measure are subject to the same concern, albeit to a lesser extent. To account for the effects of unmeasured differences between countries, we use fixed effects to allow

[3]The exact wording of this questions is: "Why, in your opinion, are there people who live in need? Here are four opinions, which is the closest to yours? 1. Because they have been unlucky; 2. Because of laziness and lack of willpower; 3. Because there is much injustice in our society; 4. It is an inevitable part of modern progress; 5. None of these." Our dummy variable is one for respondents who answered "Because of laziness and lack of willpower," and zero for respondents who gave one of the other four responses.

for country differences in mean responses.

The results, presented in Figure 1, show that those who say that poverty is caused by laziness are less concerned about poverty than the rest of the respondents by 0.42 standard deviation. In contrast, family income has a very modest effect.[4] The differences in concern about poverty between the richest and poorest quartiles is less than a quarter as great as the difference between those who think that poverty is due to laziness and those who do not. The respondent's sex has a significant effect on concern about poverty independently of income and the other regressors, with men being less concerned than women.

Figure 1 about Here

We do not doubt that self-regarding motives often underpin apparently generous actions. Rather, we suggest that they do not always do so. Understanding egalitarian politics today requires a reconsideration of *Homo economicus*, the unremittingly self-regarding actor of economic theory. We do not wish to replace the textbook self-regarding actor, however, with an equally one-dimensional altruistic actor willing to make unconditional, personally costly, contributions to the less well off. Rather, we believe that *reciprocity* better explains the motivations behind support for the welfare state. By reciprocity we mean a propensity to cooperate and share with others similarly disposed, even at personal cost, and a willingness to punish those who violate cooperative and other social norms, even when punishing is personally costly and cannot be expected to entail net personal gains in the future.

Reciprocity goes considerably beyond self-interested forms of cooperation, which include market exchange and tit-for-tat behavior—what biologists call 'reciprocal altruism.' Our concept of reciprocity is closer to that of Kolm (1984,2000), who pioneered the analysis of reciprocity in economic theory, although we treat reciprocity as a characteristic of the individual rather than as a relationship among individuals, and we include both rewarding and punishing as reciprocal behaviors, whereas Kolm stresses mutual gift-giving.

As we will see, all three of our *persona*—*Homo economicus*, the reciprocator, and even the pure altruist—are represented in most groups of any size. For this reason, egalitarian policy-making, no less than the grand projects of constitutional

[4]These results do not depend on the particular sample and specification that we present. In all specifications, the effect of moving up to the next income quartile is an order of magnitude smaller than the effect of believing that poverty exists because the poor are lazy. When the question about whether or not the public authorities are doing enough for the poor was omitted from our composite measure of concern about poverty, the effect of income was not even significant, regardless of whether other demographic variables were included in the regression, while the effect of beliefs that the poor are lazy remained large and highly significant.

design, risks irrelevance if it ignores the irreducible heterogeneity of human motivations. The problem of institutional design is not, as the classical economists thought, that uniformly self-regarding individuals be induced to interact in ways producing desirable aggregate outcomes, but rather that a mix of motives—self-regarding, reciprocal, and altruistic—interact in ways that prevent the self-regarding from exploiting the generous and hence unraveling cooperation when it is beneficial.

In the next section, we explain how individually costly but socially beneficial traits such as reciprocity can evolve in competition with self-regarding traits, when it might be expected that they would be eliminated by Darwinian competition.

2 The Origins of Reciprocity

Both historical and experimental evidence suggest that support for redistribution is often based on reciprocity motives. Consider first the historical evidence. In his INJUSTICE: THE SOCIAL BASES OF OBEDIENCE AND REVOLT, Barrington Moore, Jr. (1978) sought to discern if there might be common motivational bases—"general conceptions of unfair and unjust behavior" (21)—for the moral outrage fueling struggles for justice that have recurred throughout human history. "There are grounds," he concludes from his wide-ranging investigation,

> for suspecting that the welter of moral codes may conceal a certain unity of original form...a general ground plan, a conception of what social relationships ought to be. It is a conception that by no means excludes hierarchy and authority, where exceptional qualities and defects can be the source of enormous admiration and awe. At the same time, it is one where services and favors, trust and affection, in the course of mutual exchanges, are ideally expected to find some rough balancing out. (4-5,509)

Moore termed the general ground plan he uncovered "the concept of reciprocity—or better, mutual obligation, a term that does not imply equality of burdens or obligations…" (506) In like manner James Scott (1976) analyzed agrarian revolts, identifying violations of the "norm of reciprocity" as one the essential triggers of insurrectionary motivations.

The experimental evidence reported below, as well as casual observation of everyday life, ethnographic and paleoanthropological accounts of hunter-gatherer foraging bands from the late Pleistocene to the present and historical narratives of collective struggles have combined to convince us that reciprocity is a powerful and ubiquitous motive. But we hesitate to revise *Homo economicus* by elevating the individually costly sharing and punishment of norm violators characteristic of the reciprocator to a privileged place in the repertoire of human behaviors until we have addressed an evolutionary puzzle. We are more prone to believe and to generalize from the experimental and historical evidence we introduce in this chapter if we can explain how reciprocity motives might have evolved despite the costs these motives seemingly impose on those bearing them.

Reciprocity supports the adherence to norms within groups and some of these norms—requiring work towards common ends, sharing, and monogamy for example—are beneficial to most group members (Boyd, Gintis, Bowles and Richerson 2003, Bowles and Gintis forthcoming). Where reciprocity motives embrace the individually costly enforcement of these group-beneficial norms, reciprocity may evolve because the reciprocator will be disproportionately likely to be in groups that have effective norm adherence, and hence to enjoy the group benefits of these norms. By contrast, where reciprocity motivates the individually costly enforcement of norms that on average confer little benefit on group members, or inflict group costs, of course reciprocity is unlikely to evolve.

Reciprocity thus allows groups to engage in common practices without the resort to costly and often ineffective hierarchical authority, and thereby vastly increases the repertoire of social experiments capable of diffusing through cultural and genetic competition. The relevant traits may be transmitted genetically and proliferate under the influence of natural selection, or they may be transmitted culturally through learning from elders and age mates and proliferate because successful groups tend to absorb failing groups, or to be emulated by them. We think it likely that both genetic and cultural transmission is involved. The 50-100,000 years in which anatomically modern humans lived primarily in foraging bands constitutes a sufficiently long time period, and a favorable social and physical ecology, for the evolution of the combination of norm enforcement and sharing that we term reciprocity (Gintis 2000, Bowles, Choi and Hopfensitz 2003). We survey related evolutionary models in Bowles and Gintis (2004).

3 Experimental Evidence

Behavioral experiments with human subjects provide overwhelming evidence against *Homo economicus*. Our first piece of evidence comes from the commonly observed rejection of substantial positive offers in ultimatum games. Experimental protocols differ, but the general structure of the ultimatum game is simple. Subjects are paired, one is the responder, the other the proposer. The proposer is provisionally awarded an amount ('the pie'—typically $10) to be divided between proposer and responder. The proposer offers a certain portion of the pie to the responder. If the responder accepts, the responder gets the proposed portion, and the proposer keeps the rest. If the responder rejects the offer both get nothing.[5] In experiments conducted in the United States, Slovakia, Japan, Israel, Slovenia, Germany, Russia, and Indonesia the vast majority of proposers offer between 40% and 50% of the pie, and offers lower than 30% of the pie are often rejected (Fehr and Schmidt 1999). These results have occurred in experiments with stakes as high as three months' earnings (Cameron 1995).

When asked why they offer more than one cent, proposers commonly say that they are afraid that respondents will consider low offers unfair and reject them as a way to punish proposers unwillingness to share. When respondents reject offers, they give virtually the same reasons for their actions. The proposers' actions might be explained by prudent self-interest, but the respondents' cannot. Because these behaviors occur in single-shot interactions and on the last round of multi-round interactions, they cannot be accounted for by the responder's attempt to modify subsequent behavior of the proposer. Punishment *per se* is the most likely motive. As evidence for this interpretation, we note that the rejection of positive offers is substantially less when the game is altered so that rejection does not punish the proposer (Abbink, Bolton, Sadrieh and Tang 1996). Moreover the fact that offers generated by a computer rather than another person are significantly less likely to be rejected (Blount 1995). This suggests that those rejecting low offers at a cost to themselves are reacting to violations of fairness norms rather than simply rejecting disadvantageous offers.

Punishment is triggered by responders' beliefs about the *intentions* of the proposer. This is shown clearly in an ultimatum game experiment in which the proposer has only two choices: either offer two (and hence keep eight) or make an alternative offer that varies across treatments in a way that allows the experimenters to test the effects of reciprocity and inequity aversion on rejection rates (Falk, Fehr and Fischbacher 2002). The alternative offers in four treatments are five for the proposer and five for the responder (5/5), another is eight for the proposer and two for the responder (8/2), a third is 2 for the proposer and 8 the responder (2/8), and finally, 10 for the proposer and 0 for the responder (10/0). Using the 5/5 alternative, the rejection rate of the 8/2 offer is 44.4%, significantly higher than the rejection rates in each of the other three treatments. The most plausible interpretation of these results is that choosing a low offer when a fair one was possible suggests self-regarding intentions on the part of the proposer, which the responder often chooses to punish by rejecting the offer.[6]

Our second piece of evidence comes from the simplest, but still quite revealing,

[5] See Güth, Schmittberger and Schwarz (1982), Camerer and Thaler (1995) and Roth (1995).

[6] This experiment also found that 9% of 8/2 offers were rejected when the alternative offer was 10/0, indicating that some responders reject unequal outcomes at personal cost, even when the proposer is in no sense responsible for the unequal situation.

laboratory experiment: the *dictator game*. In this game, one of two players, the 'proposer,' is given a sum of money (typically \$10), is asked to choose any part of the sum to give to the second player (the two players are mutually anonymous), and is permitted to keep the rest. *Homo economicus* gives nothing in this situation, whereas in actual experimental situations, a majority of proposers give positive amounts, typically ranging from 20% to 60% of the total (Forsythe, Horowitz, Savin and Sefton 1994).

Using dictator games, researchers have shown that people are more generous to worthy recipients and bargaining partners. For example, Eckel and Grossman (1996) found that subjects in dictator games gave roughly three times as much when the recipient was the American Red Cross than when it was an anonymous subject. More recently, Fong (2003) conducted charity games (n-donor dictator games) in which several dictators were paired with a single real-life welfare recipient. The treatment conditions were randomly assigned and differed according to whether the welfare recipient expressed strong or weak work preferences on a survey that she completed. Dictators read the welfare recipients' surveys just prior to making their offers. Dictators who were randomly assigned to welfare recipients who expressed strong work preferences gave significantly more than dictators who expressed weak work preferences. These experiments provide evidence for our view that reciprocity is a common motivation.

Additional evidence for reciprocity comes from n-player public goods experiments. The following is a common variant. Ten players are given \$1 in each of ten rounds. On each round, each player can contribute any portion of the \$1 (anonymously) to a 'common pool.' The experimenter divides the amount in the common pool by two, and gives *each* player that much money. If all ten players are cooperative, on each round each puts \$1 in the pool, the experimenter divides the \$10 in the pool by two, and gives each player \$5. After ten rounds of this, each subject has \$50. By being self-regarding, however, each player can do better as long as the others are cooperating. By keeping the \$1, the player ends up with "his" \$10, plus receives \$45 as his share of the pool, for a total of \$55. If all behave this way, however, each receives only \$10. Thus this is an 'iterated prisoner's dilemma' in which self-regarding players contribute nothing.

In fact, however, only a small fraction of players contribute nothing to the common pool. Rather, in the early stages of the game, people generally contribute half their money to the pool. In the later stages of the game, contributions decay until at the end, they are contributing very little. Proponents of the *Homo economicus* model initially suggested that the reason for decay of public contribution is that participants really do not understand the game at first, and as they begin to learn it, they begin to realize the superiority of the free-riding strategy. However, there is considerable evidence that this interpretation is incorrect. For instance, Andreoni

(1988) finds that when the whole process is repeated with the same subjects, the initial levels of cooperation are restored, but once again cooperation decays as the game progresses.

Andreoni (1995) suggests an explanation for the decay of cooperation quite suggestive of reciprocity: public-spirited contributors want to retaliate against free-riders and the only way available to them in the game is by not contributing themselves. Indeed, if players are permitted to retaliate directly against non-contributors, but at a cost to themselves, they do so (Fehr and Gächter 2000b, Fehr and Gächter 2000a, Fehr and Gächter 2002). In this situation, contributions rise in subsequent rounds to near the maximal level. Moreover punishment levels are undiminished in the final rounds, suggesting that disciplining norm violators is an end in itself and hence will be exhibited even when there is no prospect of modifying the subsequent behavior of the shirker or potential future shirkers.

Such experiments show that agents are willing to incur a cost to punish those whom they perceive to have treated them, or a group to which they belong, badly.[7] Also in everyday life, we see people consumed with the desire for revenge against those who have harmed them or their families, even where no material gain can be expected (Nisbett and Cohen 1996, Boehm 1984).

Another result that is consistent with reciprocity is that cooperating and punishing behavior are very sensitive to the situation framing the interaction. In early research on what is known as *inequality aversion*, Loewenstein, Thompson and Bazerman (1989) found that distributional preferences are sensitive to social context. They asked subjects to imagine themselves in various hypothetical situations. In one, the subject and another college student share the gains and losses from a jointly produced product. In another, the subject and a neighbor the split the profit from selling a vacant lot between their homes. In a third, the subject is a customer dividing the proceeds from an expired rebate, or the cost of repairs, with a salesperson. They found, first, that subjects care about relative payoffs even more than they care about their absolute payoffs. Second, controlling for the subjects' own payoffs, earning less than the other person had a strong negative effect on utility in all situations and relationship types. However, an effect on utility of earning *more* than the other person (referred to as advantageous inequality) was also present, and depended on the relationship and the situation. Subjects disliked advantageous inequality if the relationship was friendly. However, if the relationship was unfriendly, advantageous inequality had little effect on their satisfaction level. Interestingly, they found that subjects preferred advantageous inequality in the customer/salesperson

[7] See Ostrom, Walker and Gardner (1992) on common pool resources, Fehr, Gächter and Kirchsteiger (1997) on efficiency wages, and Fehr and Gächter (2000a) and Bowles, Carptenter and Gintis (2001) on public goods. Coleman (1988) develops the parallel point that free riding in social networks can be avoided if network members provide positive rewards for cooperating.

scenario, but disliked it in the other two scenarios (producing a product and splitting the proceeds from an empty lot).

Although there may be many additional factors contributing to the context dependence of behavior, the finding that subjects are more adverse to advantageous inequality (or, equivalently, desire higher relative payoffs for the other subject) in friendly relationships than in unfriendly relationships is fully consistent with our interpretation of reciprocity. In another example, fraternity brothers at University of California, Los Angeles were asked to rank outcomes in a prisoner's dilemma situation given that they were interacting with a fellow fraternity brother, a member of another (unnamed) fraternity, a non-fraternity student at University of California, Los Angeles, a student from the nearby rival University of Southern California and an officer from the University of California, Los Angeles Police Department. They showed a strong preference for mutual cooperation over defection against one's partner when playing with fraternity brothers, with the rankings reversing with increasing social distance—they were as willing to exploit the University of Southern California students as the University of California, Los Angeles police! (Kollock 1997).

4 Survey Evidence

These results support our interpretation of attitudinal survey results, which show that people support more government redistribution to the poor if they think that poverty is caused by bad luck rather than laziness. Our interpretation of this is that because of reciprocity, people wish to help those who try to make it on their own, but for reasons beyond their own control, cannot. People wish to punish, or withhold assistance to, those who are able but unwilling to work hard. However, there are several alternative explanations of the effect of beliefs about the worthiness of the poor that are consistent with pure self-interest. In this section, we test these alternative explanations and find that self-interest alone cannot explain the relationship between beliefs about the worthiness of the poor and support for redistribution. These results are based on Fong (2001).

We use the 1998 Gallup Poll Social Audit Survey, "Haves and Have-Nots: Perceptions of Fairness and Opportunity," a randomly selected national sample of 5001 respondents. In each test, we use the set of all individuals who responded to all of the questions used in the regression, unless noted otherwise.[8]

[8] We drop non-responses and "don't know" responses. Another option would be to include "don't know" as a valid response. However, how and why people develop well-defined preferences and beliefs is beyond the scope of this chapter. We focus on why people oppose or support income redistribution given that their beliefs and preferences are well defined.

Relative to other commonly used surveys, the Gallup survey has a large sample size for a large number of questions on inequality and distribution . The sample size permits running regressions with full controls on narrow segments of the sample, namely, high income and low income sub-samples. There is a large number of self-interest measures that include not only the usual objective socioeconomic variables, but also subjective measures of economic well-being and future expectations. These may widen the net intended to capture self-interest.

To construct our dependent variable, we added the responses to the five questions below, signing the responses so that the measure increases in support for redistribution.

1. People feel differently about how far a government should go. Here is a phrase which some people believe in and some don't. Do you think our government should or should not redistribute wealth by heavy taxes on the rich? (response categories: should, should not)

2. Some people feel that the government in Washington, DC should make every possible effort to improve the social and economic position of the poor. Others feel that the government should not make any special effort to help the poor, because they should help themselves. How do you feel about this? (response categories: government should help the poor, the poor should help themselves)

3. Which one of the following groups do you think has the greatest responsibility for helping the poor: churches, private charities, the government, the families and relatives of poor people, the poor themselves, or someone else? (response categories: groups other than the poor, the poor themselves)

4. Do you feel that the distribution of money and wealth in this country today is fair, or do you feel that the money and wealth in this country should be more evenly distributed among a larger percentage of the people? (response categories: distribution is fair, should be more evenly distributed)

5. Do you think that the fact that some people in the United States are rich and others are poor (1) represents a problem that needs to be fixed or (2) Is an acceptable part of our economic system? (response categories: problem, acceptable)

Two sets of measures of the causes of income are used in this study. The first contains two questions concerning the importance of effort and luck in causing wealth and poverty, and one question on whether or not there is plenty of opportunity to work hard and get ahead in America today. The second set is a series of questions about the importance of various factors, including race and sex, for getting ahead in life (see Appendix A for wording of the questions).

Self-interest is measured by income and other variables likely to predict current and future tax obligations and current and future reliance on social insurance or redistribution programs. In Figures 2 and 3 we control for self-interest by including in the regressions income, race, sex, education, age, and the frequency with which respondents worry about meeting family expenses.[9]

Figure 2 about Here

In Figure 2 we present results from an ordinary least squares regression that predicts support for redistribution using two sets of variables: beliefs about the causes of wealth and poverty and the measures of self-interest. To facilitate interpreting the coefficients, we have standardized the dependent variable to have a zero mean and a standard deviation of one. The interpretation is as follows: those who say that bad luck alone causes poverty are 0.50 standard deviation higher in their support for redistribution than those who think lack of effort alone causes poverty. Those who think that good luck alone causes wealth are 0.39 standard deviation higher on the support for redistribution scale than those who think effort alone causes wealth, and people who respond that there is plenty of opportunity in the United States to get ahead scored 0.42 standard deviation lower in support for redistribution than people who do not think there is plenty of opportunity.

Measures of self-interest also have significant effects in the expected direction on support for redistribution. Those who are in the highest income category (annual household income greater than $150,000) scored 0.47 standard deviation lower on support for redistribution than those in the lowest income category (income less than $10,000). Those who almost never worry about bills are significantly less supportive of redistribution than those who worry all of the time. The self-interest variables are jointly significant at the one percent level.

The effect of being white is large and highly significant, and the effect of being male is even larger. At first glance, this may appear to contradict an empirical regularity that among the socioeconomic variables, race has one of the largest and most reliable effects while sex does not. However, if we omit the beliefs variables, the magnitude of the effects of race and sex increase and become roughly equivalent in size. This is consistent with the argument, put forth by Gilens (1999), that the effect of race is mediated by beliefs about the characteristics of the poor, especially poor blacks.

If we take the view that all of the socioeconomic variables together capture self-interest, then the effect of self-interest appears considerably larger than if we simply consider the size of the coefficient on income. Using ordered probit to

[9]There are several additional questions that might capture self-interest that are excluded from the model presented here. See Fong (2001) for a discussion and analysis of these variables.

estimate similar equations, (Fong 2001) has estimated the sizes of the effects of the independent variables on the probabilities of scoring in each of the six categories of the support for redistribution scale. In an equation that controls for both beliefs about the causes of wealth and poverty and a large number of objective and subjective measures of and proxies for self-interest, the effects of being in the least privileged category (non-white, female, single, union member, part-time worker, no college education, in lowest income category, household size greater than four, and almost always worries about bills) as opposed to the most privileged are similar in size to the effects of believing that luck alone causes wealth and poverty as opposed to believing that effort alone causes wealth and poverty.

Could our results be driven by missing self-interest variables? People who believe that poverty is caused by bad luck or circumstances beyond individual control may be those who have low-mean, high-variance incomes. Such individuals may have higher expectations of needing government assistance in the future, and therefore demand more redistribution purely out of self-interest. For similar reasons, those who believe that the poor are lazy may simply be people who have higher-mean, lower-variance incomes and therefore less self-interest in redistribution. If this is true, then the effect of these beliefs on redistributive policy preferences may have nothing to do with the psychology of holding the poor accountable and blaming them for their outcomes. It would simply be the case that beliefs about the causes of income are correlated with a person's financial position which in turn determines his or her demand for redistribution.

If the beliefs about the causes of poverty and wealth operate through self-interest, then they should have no effect among people at the top and bottom of the distribution of income who expect to remain there. Those who do not expect to benefit should demand no redistribution at all, regardless of their beliefs about the causes of income, while those who expect to benefit should register the highest degree of support for redistribution regardless of their beliefs about the causes of income. To test whether this is the case, we use sub-samples of (1) individuals with incomes over $75,000 per year who expect to be better off in five years than they are today, and who worry about bills less often than "all of the time"; (2) individuals with incomes under $10,000 per year; and (3) individuals with incomes under $30,000 per year who do not expect to be better off in five years than they are today, and who worry about bills more often than "almost never."

In all of these sub-samples, a quite inclusive set of measures capturing self-interest is jointly insignificant. That is, we cannot reject the hypothesis that every single socioeconomic variable has a coefficient of zero. Yet, the beliefs about roles of luck, effort, and opportunity in generating life outcomes were jointly significant for all three sub-samples, and in most cases were individually significant in the expected directions as well.[10] Thus, among those who are poor and do not expect their lives to improve, those who believe that lack of effort causes poverty oppose redistribution. Analogously, support for redistribution is high among those securely well off respondents who believe that poverty is the result of back luck.

Figure 3 about Here

In another test of self-interest, we use questions on the respondents' views on the importance of various factors, including a person's race and sex, to getting ahead in life. Figure 3 presents an ordinary least squares regression of support for redistribution on the importance of various determinants of success, controlling for the same socioeconomic variables included in the regression presented in Figure 2. Beliefs that "willingness to take risks" and "hard work and initiative" explain "why some people get ahead and succeed in life and others do not" have highly significant negative effects on support for redistribution. Beliefs that education, people's parents, connections, good luck, dishonesty, and inherited money explain why some people get ahead have significant positive effects on support for redistribution. In addition, beliefs that a person's sex is important to getting ahead have significant positive effects on support for redistribution for men, while the effect of this belief for women is also positive but smaller and insignificant. Beliefs that a person's race is important to getting ahead in life have significant positive effects for whites, while the effect of these beliefs for blacks is positive but smaller and insignificant.

If people think that a person's race and sex are important to getting ahead in life, then effects of these beliefs on self-interested demand for redistribution should operate in opposite directions for those who expect to benefit and those who expect to lose from racial or gender discrimination.[11] In other words, whites who think race is important to getting ahead will expect to be economically advantaged and would have fewer self-interested reasons to support redistribution than whites who think that race does not matter. Similar reasoning holds for men who think a persons's sex is important to getting ahead in life.

However, using an alternative form of the same regression presented in Figure 3, we find that the effect of believing that a person's sex is important to getting ahead in life is significantly more positive for men than it is for women. This interaction effect is significant at the one-percent level (unreported). As we have seen, this is inconsistent with self-interest, because men and whites with these beliefs would expect to benefit from discrimination and hence have less likelihood of benefiting from redistributive programs.

[10] Space limitations prevent us from presenting these results here. However, the finding using ordered probit are presented in Fong (2001).

[11] We assume that people agree on which group benefits and which loses when they believe that a person's race or sex is important to getting ahead.

Concerns about the incentive effects of taxation are a final mechanism through which self-interest might cause beliefs that the poor are lazy and the rich industrious to decrease the demand for redistribution. When earned income is more sensitive to work effort, taxation may cause greater effort disincentives and reduce aggregate income. If so, then beliefs about the roles of effort, luck, and opportunity in generating income may affect the level of support for redistribution through concerns about incentive costs of redistribution (Piketty 1995). This type of incentive concern should not apply only to redistribution, but to any tax-funded expenditure, including expenditures such as national defense. According to this tax-cost hypothesis, if beliefs that income is caused by factors under individual control decrease demand for redistribution, then they should decrease demand for other kinds of tax funded expenditures, including defense spending, as well. But there is no evidence that tax cost concerns adversely affect the demand for public expenditures. Using the 1990 General Social Survey, we estimate ordered probit regressions predicting support for spending on welfare, national defense, halting the rising crime rate, and dealing with drug addiction, respectively.[12] The independent variables are beliefs that the poor are poor because of lack of effort, and five demographic variables (income, education, race, sex, and age). In the samples reported above, the belief that the lack of effort causes poverty has a highly significant negative effect on support for redistribution. However, these same beliefs have no effect on support for spending on crime or drug addiction, and they have a significant positive effect on support for spending on defense. If these beliefs simply measure tax cost concerns, then their effect on support for all of these expenditure items should have been negative.

However, even more convincing evidence on this point comes from the experiment including actual welfare recipients described above. There were no disincentive costs at all in this experiment. Yet, student subjects gave more to the welfare recipients with the stronger work commitments. These results lend strong support to previously made hypotheses about well known patterns in survey data. Heclo (1986) reports that 81% percent of survey respondents favor public funding for child care if the mother is a widow who is trying to support three children while only 15% favor public such funding when the mother has never married and is not interested in working. Heclo also reports the results of a survey in which the wording of a question about support for public redistribution was manipulated so that some subjects were asked about spending on "welfare" while others were asked about spending on "assistance for the poor," or "caring for the poor." In that experiment, 41% of respondents stated that there is too much spending on welfare and 25% stated that there is too little. By contrast, only 11% and 7% of the respondents said that there is too much spending on assistance for and caring for the poor, respectively, and 64%

[12]The sample size in these regressions ranges from 584 to 594.

and 69% said that there is too little spending on assistance for and caring for the poor, respectively. In a similar vein, Page and Shapiro (1992) report that support for social security spending has been very high and stable over time, while support for spending on welfare has been consistently low. The interpretation commonly given for findings such as these is that people are less generous to recipients who they think are not working when they could and should be, or who are otherwise considered to be in questionable moral standing (Heclo 1986, Gilens 1999). We have shown that these findings cannot be explained away by a fuller and more rigorous account of self-interest.

5 Reciprocity and the Welfare State: Unhappy Marriage?

The following generalizations sum up the relevance of the experimental, survey, and other data to the problem of designing and sustaining programs to promote economic security and eliminate poverty. First, people exhibit significant levels of generosity, even towards strangers. Second, beliefs about the causes of high and low incomes matter. Third, people contribute to public goods and cooperate to collective endeavors, and consider it unfair to free-ride on the contributions and efforts of others. Fourth, people punish free riders at substantial costs to themselves, even when they cannot reasonably expect future personal gain therefrom.

It would not be difficult to design a system of income security and economic opportunity that would tap rather than offend the motivations expressed in these four generalizations. Such a system would be generous towards the poor, rewarding those who perform socially valued work and who seek to improve their chances of engaging in such work, as well as to those who are poor through accidents not of their own making, such as illness and job displacement.

While reciprocity may support egalitarianism, it may also help explain opposition to welfare state policies in some of the advanced market economies in the past decades. Specifically, in light of the empirical regularities outlined above, we suspect the following to be true as well: egalitarian policies that reward people independent only of whether and how much they contribute to society are considered unfair and are not supported, even if the intended recipients are otherwise worthy of support, and even if the incidence of non-contribution in the target population is rather low. This would explain the opposition to many welfare measures for the poor, particularly since such measures are thought to have promoted various social pathologies. At the same time it explains the continuing support for social security and medicare in the United States, since the public perception is that the recipients are 'deserving' and the policies are thought not to support what are considered anti-social behaviors. The public goods experiments are also consistent with the notion that tax resistance by the nonwealthy may stem from their perception that the well-to-do are not paying their fair share.

A striking fact about the decline in the support for the former Aid to Families with Dependent Children, Food Stamps, and other means-tested social support programs in the United States, however, is that overwhelming majorities oppose the *status quo*, whatever their income, race, or personal history with such programs. This pattern of public sentiment, we think, can be accounted for in terms of the principle of reciprocity.

We rely mainly on two studies. The first, Farkas and Robinson (1996), analyze data collected in late 1995 by Public Agenda, a nonprofit, nonpartisan research organization. The authors conducted eight focus groups around the country, then did a national survey, involving half-hour interviews, of 1000 randomly selected Americans, plus a national oversample of 200 African-Americans. The second, political scientist Martin Gilens' *Why Americans Hate Welfare*, is an analysis and review of several polls executed during the 1990's and earlier by various news organizations.[13]

In the Public Agenda survey 63% of respondents thought the welfare system should be eliminated or "fundamentally overhauled" while another 34% thought it should be "adjusted somewhat." Only 3% approved of the system as is (p. 9). Even among respondents from households receiving welfare only 9% expressed basic approval of the system, while 42% wanted a fundamental overhaul and an additional 46% wanted some adjustments.

The cost of welfare programs cannot explain this opposition. While people generally overstate the share of the Federal budget devoted to welfare (p. 9), this cannot account for the observed opposition.[14] Farkas and Robinson note that

> By more than four to one (65% to 14%), Americans say the most upsetting thing about welfare is that "it encourages people to adopt the wrong lifestyle and values," not that "it costs too much tax money."…Of nine possible reforms presented to respondents—ranging from requiring job training to paying surprise visits to make sure recipients deserve benefits—reducing benefits ranked last in popularity (Table 4).

The cost, apparently, is not the problem. In focus groups:

[13]A third study by Weaver, Shapiro and Jacobs (1995), drawing in addition on NORC and General Social Survey data, comes to broadly similar conclusions.

[14]As a general rule non-experts vastly overstate the share of the tax revenues devoted to things of which they disapprove, whether it be foreign aid, welfare, aids research, or military expenditure—the opposition is generally the cause of the exaggeration, not *vice-versa*.

> Participants invariably dismissed arguments about the limited financial costs of welfare in almost derisive terms as irrelevant and beside the point. (p. 9,10).

Nor can the perception of fraud account for this opposition. It is true that 64% of respondents (and 66% of respondents on welfare) believe welfare fraud is a serious problem. However most do not consider it more serious than in other government programs, and only 35% of survey respondents would be more "comfortable with welfare" if fraud were eliminated (p. 11,12).

In commenting on this fact Martin Gilens (1999):1,2 observes that "Politics is often viewed, by élites at least, as a process centered on the question 'who gets what.' For ordinary Americans, however, politics is more often about 'who *deserves* what' and the welfare state is no exception." In the Public Agenda study, respondents overwhelming consider welfare to be unfair to working people and addictive to recipients. By a more than five to one margin (69% to 13% overall, and 64% to 11% for people receiving welfare), respondents say that recipients abuse the system—for instance by not looking for work—rather than actually cheating the system—e.g., by collecting multiple benefits (p. 12). Moreover, 68% think (59% of welfare recipients) that welfare is "passed on from generation to generation, creating a permanent underclass." In the same vein, 70% (71% of welfare recipients) say welfare makes it "financially better for people to stay on welfare than to get a job," 57% (62% of welfare recipients) think welfare encourages "people to be lazy" and 60% (64% of welfare recipients) say the welfare system "encourages people to have kids out of wedlock." (p. 14,15) Note that the welfare recipients and other citizens hold similar views in this respect.

That the respondents are correct in thinking that the welfare state cause these behaviors is beside the point. Whether or not, for example, welfare *causes* out of wedlock births, for example, or fosters an unwillingness to work, citizens object that the system provides financial support for those who undertake these socially disapproved behaviors. Their desire is to bear witness against the behavior and to disassociate themselves from it, whether or not their actions can change it.

Racial stereotyping and opposition to welfare are closely associated. The public agenda survey shows that whites are much more likely than African Americans to attribute negative attributes to welfare recipients, and much more likely to blame an individual's poverty on lack of effort. The survey data show, writes Gilens, that

> For most white Americans, race-based opposition to welfare is not fed by ill-will toward blacks, nor is it based on whites' desire to maintain their economic advantages over African Americans. Instead race-based opposition to welfare stems from the specific perception that, as a group, African Americans are not committed to the work ethic.

There is some evidence that people are more tolerant of redistributions within ethnic and racial categories than between. Erzo Luttmer (2001) found for a U.S. sample that individuals are more opposed to welfare if they live in neighborhoods where a higher percentage of welfare recipients is of a different race. Luttmer's findings are consistent with our reciprocity interpretation of redistributive politics, in light of the evidence that when people identify with a social group, they are more likely to blame outgroup members (holding them individually responsible) for their bad outcomes and behaviors and to give them little credit (holding factors other than the outgroup member's voluntary control responsible) for their good outcomes and behaviors Brewer and Miller (1996). However, the salience of race in Luttmer's U.S. Data may be not be as pronounced in other cultural contexts, since the characteristics that determine who are "insiders" and who are "outsiders" is culturally specific. Taking account of the *fact* that many Americans see the current welfare system as a violation of deeply held reciprocity norms does not require that policy makers adopt punitive measures and stingy budgets for the poor. Indeed the public strongly supports income support measures when asked in ways that make clear the deserving nature of the poor: a 1995 NYT/CBS poll, for instance, found that twice as many agreed as disagreed that "it is the responsibility of the government to take care of people who can't take care of themselves."

6 Conclusion

Like Petr Kropotkin (1989[1903]) a century ago, we find compelling evidence—both evolutionary and contemporary—for the force of human behavioral predispositions to act both generously and reciprocally rather than self-interestedly in many social situations. While many economists have failed to appreciate the practical importance of these predispositions in policy matters, their salience was not missed by Frederick Hayek (1978):18,20

> …[The] demand for a just distribution…is…an atavism, based on primordial emotions. And it is these widely prevalent feelings to which prophets, (and) moral philosophers…appeal by their plans for the deliberate creation of a new type of society.

If we are right, economists have misunderstood both the support for the welfare state and the revolt against welfare (where it has occurred), attributing the latter to selfishness by the electorate rather than the failure of many programs to tap powerful commitments to fairness and generosity and the fact that some programs appear to violate deeply held reciprocity norms. Egalitarians have been successful in appealing to the more elevated human motives precisely when they have shown that dominant institutions violate norms of reciprocity, and may be replaced by institutions more consistent with these norms.

To mobilize rather than offend reciprocal values, policies should recognize that there is substantial support for generosity towards the less well off as long as they have provided or tried to provide a *quid pro quo* and are in good standing. The task of politically viable egalitarian policy design might thus begin by identifying those behaviors that entitle an individual to reciprocation. Among these in the U.S. today would be saving when one's income allows and working hard and taking risks in both productive endeavors and schooling. Persistent poverty is often the result of low returns to these socially admired behaviors: low wages for hard work, a low rate of return on savings, costly access to credit for those wishing to engage in uncertain entrepreneurial activities, and educational environments so adverse as to frustrate even the most diligent student. Policies designed to raise the returns to these activities when undertaken by the less well off would garner widespread support. A second principle of reciprocity-based policy design should be to insure individuals against the vagaries of bad luck without insuring them against the consequences of their own their actions, particularly when these actions violate widely held social norms against such things as illicit drug use or child bearing in the absence of reasonable guarantees of adequate parenting.

Many traditional projects of egalitarians, such as land reform and employee ownership of their workplaces are strongly consistent with reciprocity norms, as they make people the owners not only of the fruits of their labors, but more broadly of the consequences of their actions (Bowles and Gintis (1998) and Bowles and Gintis (1999) provide overviews based on contemporary principal-agent models). The same may be said of more conventional initiatives such as improved educational opportunity and policies to support home ownership. There is good evidence, for example, that home ownership promotes active participation in local politics and a willingness to discipline personally those engaging in antisocial behaviors in the neighborhood (Sampson, Raudenbush and Earls 1997). An expansion of subsidies designed to promote employment and increase earnings among the poor, suggested by Edmund Phelps (1997), would tap powerful reciprocity motives. Similarly, social insurance programs might be reformulated along lines suggested by John Roemer (1993) to protect individuals from risks over which they have no control, while not indemnifying people against the results of their own choices, other than providing a minimal floor to living standards. In this manner, for example, families could be protected against regional fluctuations in home values—the main form of wealth for most people—as Robert Shiller (1993) has shown. Other forms of insurance could partially protect workers from shifts in demand for their services induced by global economic changes.

An egalitarian society can be built on the basis of these and other policies consistent with reciprocity, along with a guarantee of an acceptable minimal living standard consistent with the widely documented motives of basic needs generosity. But if we are correct, economic analysis will be an inadequate guide to policy making in the area unless it revises its foundational assumptions concerning human motivation.

7 Appendix A

Plenty of Opportunity in the US: Some people say that there's not much opportunity in America today that the average person doesn't have much chance to really get ahead. Others say there's plenty of opportunity and anyone who works hard can go as far as they want. Which one comes closer to the way you feel about this? (1) Not much opportunity (2) Plenty of opportunity

Causes of poverty: Just in your opinion, which is more often to blame if a person is poor—lack of effort on his or her part, or circumstances beyond his or her control? (1) Lack of effort (2) Both (3) Luck or circumstances beyond his/her control.

Causes of wealth: Just in your opinion, which is more often to blame if a person is rich—strong effort on his or her part, or circumstances beyond his or her control? (1) Strong effort (2) Both (3) Luck or circumstances beyond his/her control.

Determinants of Success: I am going to read several reasons why some people get ahead and succeed in life and others do not. Using a one-to-five scale, where "1" means not at all important and "5" means extremely important, please tell me how important it is as a reason for a person's success. You can choose any number from one to five.
A: How important is willingness to take risks
B: How important is money inherited from families
C: How important is hard work and initiative
D: How important is ability or talent that a person is born with
E: How important is dishonesty and willingness to take what they can get
F: How important is good luck, being in the right place at the right time
G: How important is parents and the family environment they grow up in
H: How important is physical appearance and good looks
I: How important is [sic] connections and knowing the right people
J: How important is being a member of a particular race or ethnic group
K: How important is getting the right education or training
L: How important is a person's gender, that is whether they are male or female.

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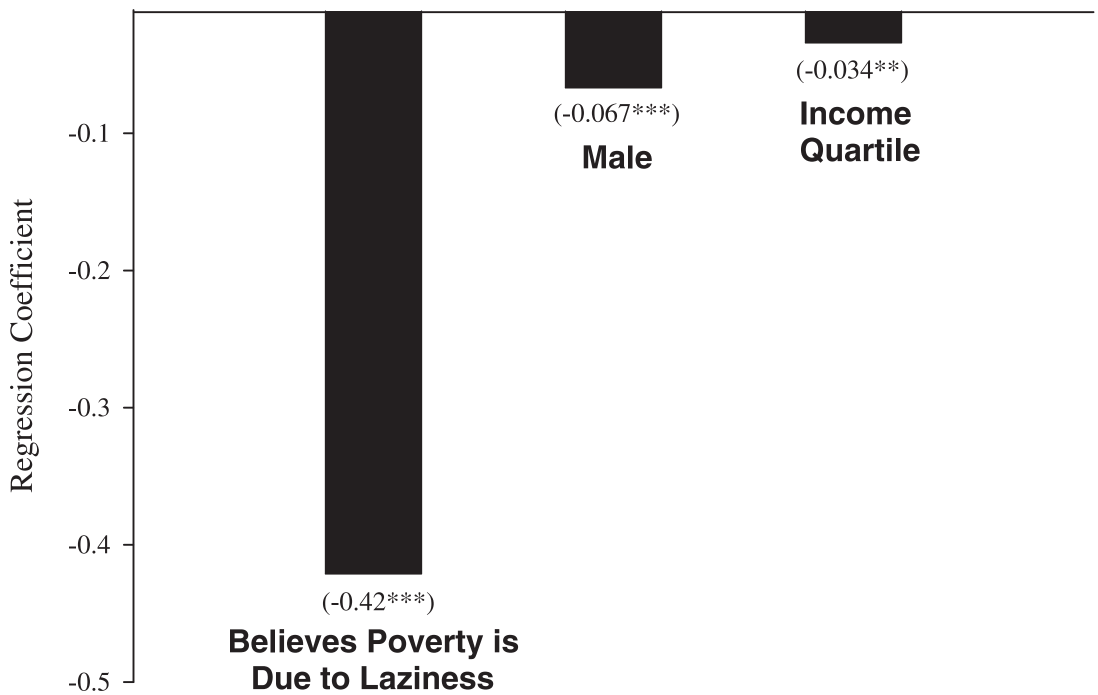

Figure 1: Explaining concern about poverty using data from twelve European countries.

Note: Bars represent ordinary least squares coefficients (value of the estimated coefficient is in parentheses) predicting concern about poverty. The dependent variable is standardized so that the estimated coefficient represents the effect of the variable indicated on concern about poverty measured in standard deviation units. The equation also includes: age and country dummy variables. Significance levels are based on robust standard errors that allow for clustered errors within countries. This regression uses sample weights, although the results are not sensitive to them. There are 8239 observations, $R^2 = 0.161$. *** Significant at the 1% level. ** Significant at the 5% level.

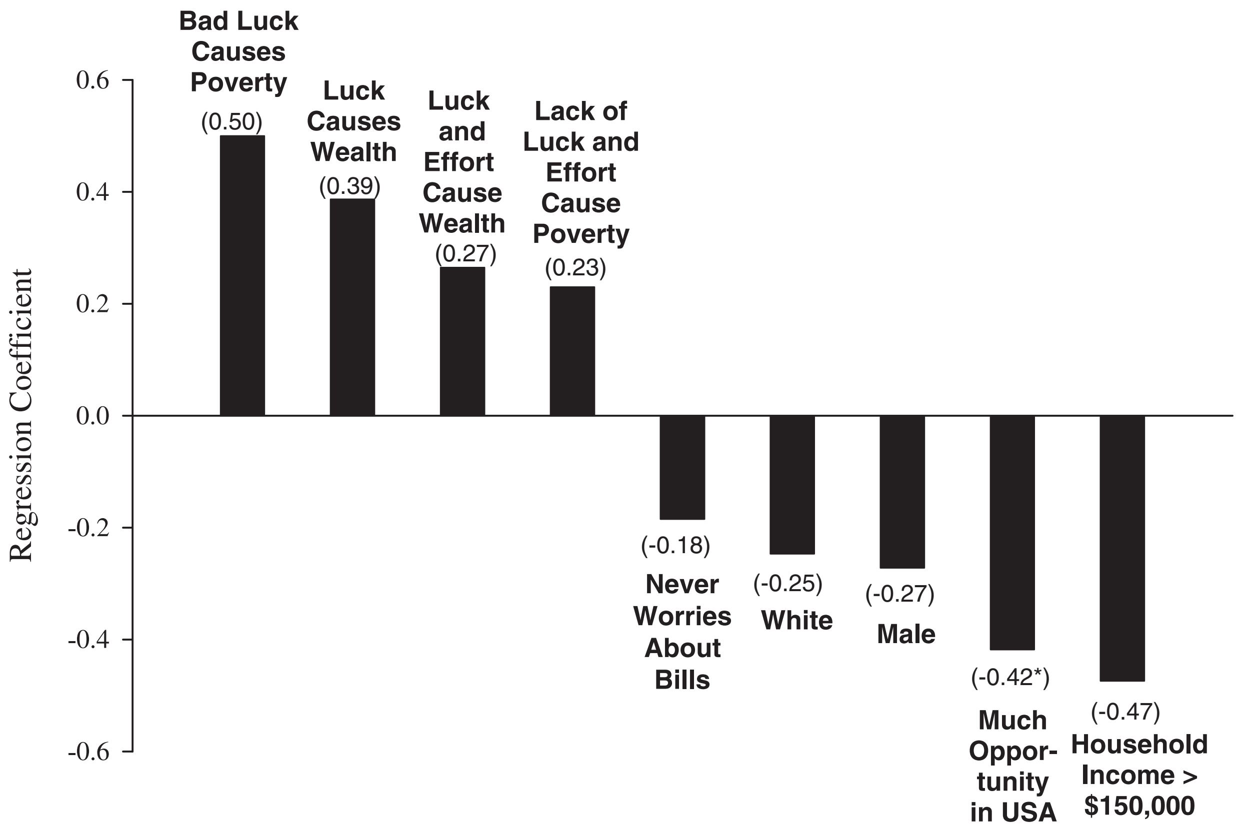

Figure 2: Determinants of the Support for Redistribution
Note: Bars represent ordinary least squares coefficients (value of the estimated coefficient is in parentheses) predicting support for redistribution. The dependent variable is standardized so that the estimated coefficient represents the effect of the variable indicated on concern about poverty measured in standard deviation units. The equation also includes: seven additional income dummies, age, a dummy for attended college, and dummies for "worries about bills most of the time," "worries about bills some of the time." The omitted category for household income is less than \$10,000 per year. The omitted categories for causes of poverty and wealth are "lack of effort" and "strong effort" respectively. To simplify the presentation of race effects, we use the sample of white and black respondents only. Omitted category for " worries about bills " is " all of the time ." There are 3417 observations. $R^2 = 0.260$. This regression uses sample weights, although the results are not sensitive to them. We use robust standard errors. All coefficients are significant at the 1% level.

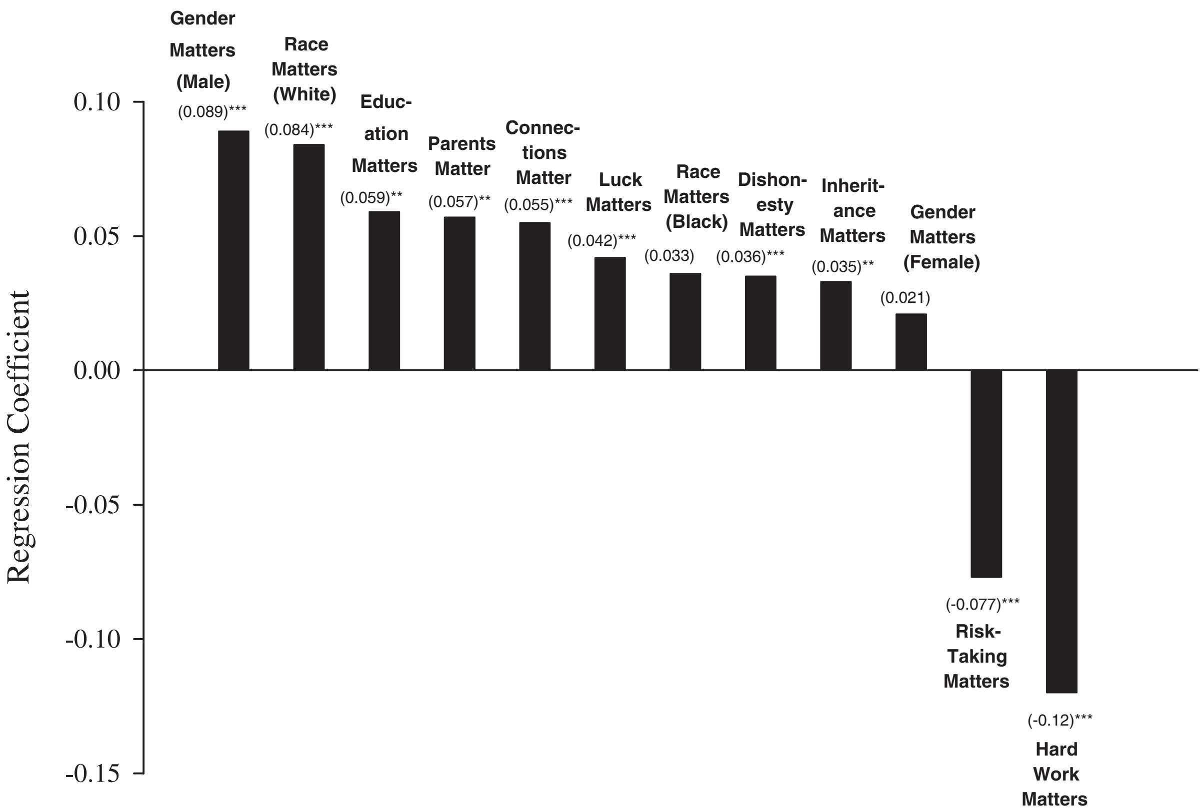

Figure 3: Effects on the Support for Redistribution of Beliefs about the Importance of Various Factors in Getting Ahead in Life.
Notes: Bars represent ordinary least squares coefficients (value of the estimated coefficient is in parentheses) predicting support for redistribution. The dependent variable is standardized. Independent variables are the respondent's belief in the importance of the factor shown to getting ahead in life (see Appendix for exact wording). The coefficients are the estimated effects of a one point increase in the response scale for a given belief on standard deviations of support for redistribution. Regressions also include all of the self-interest measures included in Figure 2, $R^2 = 0.184$. The number of observations was 3437. This regression uses sample weights, although the results were not sensitive to them. ***Significant at the 1% level. **Significant at the 5% level.