Social preferences, self-interest, and the demand for redistribution

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Abstract

Preferences for redistribution may be influenced by values and beliefs about distributive justice as well as by self-interest. People may prefer more redistribution to the poor if they believe that poverty is caused by circumstances beyond individual control. Therefore, beliefs about the causes of income may affect demand for redistribution. Alternatively, the effect of these beliefs on redistributive preferences may be spurious if they are correlated with income, and self-interest is not properly controlled for. They may also measure incentive cost concerns. Using social survey data, I find that self-interest cannot explain the effect of these beliefs on redistributive preferences. © 2001 Elsevier Science B.V. All rights reserved.

1. Introduction

The reasons why citizens of democratic countries support or oppose redistribution to strangers remain poorly understood, despite much research on the public sector and welfare states. Paul Romer (1994) has observed that social security in

the US was designed and implemented as a program of entitlements to those who have contributed their earnings rather than as a program that would provide broader coverage and hence redistribution to those who had not contributed. According to Romer the designers and subsequent defenders of social security understood that a program of entitlements would inspire more vigorous public support than the alternative.

Why might voters defend entitlement programs more vigorously than other kinds of programs? One possible explanation is that social security is a social insurance program that appeals primarily to self-interested desires on the part of a broad range of citizens. A self-interested demand for social insurance can arise where private provision is prevented by market failures that result from asymmetric information (Sinn, 1995; Barr, 1992). Tying entitlements to contributions may simply be a method of controlling potential costs due to moral hazard. Voters might desire social insurance, but only if certain measures are in place to prevent people from working less after they become insured.

On the other hand, the appeal of a program of entitlements may have to do with preferences that are other-regarding and not necessarily outcome oriented. These are often referred to as social preferences. Romer (1994) argues that if people feel entitled to a benefit, they may feel angry if they do not receive it. Such anger might be expected if people care deeply that their opinions about what they deserve are realized, but a financially self-interested rational actor should not recognize the difference between an entitlement and a handout. Following many others, I will argue that individuals may also care deeply that other people get what they deserve. Many scholars have argued that people may hold the principle of justice known as equity, according to which the rewards or incomes that people receive should be in proportion to the contributions they make (Walster et al., 1978; Deutsch, 1985).

Reciprocity may produce related concerns (Bowles and Gintis, 2000). Wealthy people may desire a society in which members who are well-off support those in need, provided that others would do the same for them if necessary. Such reciprocity might require that those in need are predisposed to work hard; a willing tax payer might well withdraw his or her support for redistribution if recipients are thought to be voluntarily capitalizing on tax payer generosity.[1] Other motivations such as altruism, either to kin or non-kin, may explain support for redistribution.[2]

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[1]There is a large body of literature citing evidence that reciprocity is a strong human motive that governs the allocation of resources according to how recipients have behaved or intended to behave in the past. Most of this literature concerns reciprocity in bargaining or strategic interactions among small numbers of people, but Bowles and Gintis (2000) argue that a generalized form of reciprocity applies to large scale redistribution.

[2]There is a long tradition of modeling public redistribution with interpersonal preferences including altruism, concerns about relative income and more recently, concerns about the characteristics of recipients. For recent applications, see Luttmer (1998), Moffitt et al. (1998) and Moffitt (1999).

A third possibility is that respondents may support redistribution to prevent crime or other forms of social unrest (Piven and Cloward, 1971).

There is strong evidence that financial self-interest is an insufficient explanation for redistributive attitudes. First, means-tested programs which benefit a relatively small range of people have proven politically viable, albeit at lower levels of political and fiscal support. Second, social survey data suggest high levels of support for certain redistributive programs, even among the rich. Surveying a variety of American public opinion data sources, Gilens (1999) reports that roughly fifty and sixty per cent of respondents express support for increases in government spending on Medicaid and child care for poor children respectively. In contrast, less than 10% of respondents express support for decreases in government spending on these programs. Further evidence – from the 1998 Gallup Poll Social Audit (Gallup, 1998) – is that there is substantial support for redistribution among those who are unlikely to benefit from it. Among respondents who have annual household incomes of at least $150,000 and expect to be upwardly mobile in the next five years, a sizeable fraction respond in favor of reducing inequality or helping the poor. In this group, 24% respond that the government should 'redistribute wealth by heavy taxes on the rich,' and 67% respond that the 'government in Washington DC should make every possible effort to improve the social and economic position of the poor' (see Appendix A). Equally striking is the fact that among those with annual family incomes of less than $10,000, 35% report that the government should *not* redistributive wealth by heavy taxes on the rich, and 21% say that the poor should help themselves rather than having the government 'make every possible effort to improve the ... position of the poor.'

A number of authors have argued, both theoretically and empirically, that redistributive preferences may be determined by beliefs about the extent to which individuals do or do not have voluntary control over their earnings, and beliefs about the prevalence of opportunity to get ahead (Kluegel and Smith, 1986; Piketty, 1995; Gilens, 1999).[3] These beliefs about the causes of poverty and wealth are usually arranged according to beliefs about self-versus exogenous-determination of outcomes. Those who believe in self-determination believe that outcomes are determined by factors that are within individual control, such as a willingness to work hard. Those who believe in exogenous-determination place more importance on factors beyond individual control, such as luck or lack of opportunity.

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[3]Standard median voter models of both altruistic and purely self-interested demand for public redistribution are easily extended to accommodate this finding. See, for instance, Luttmer (1998). A second argument for extending models of simple altruism, from the literature on charitable giving, is that they fail empirical tests of Ricardian equivalence. That is, if altruism is simply an argument in the donor's utility function for the incomes of the recipients or the total contribution to a public good, then government transfers should completely crowd out private giving to the poor. Sugden (1982) provides evidence that this is not the case. Andreoni (1989) provides a model of warm-glow altruism in which individuals also care about the size of their contribution to recipients or a public good.

Many authors across the social sciences have interpreted the effect of self- and exogenous-determination beliefs on redistributive attitudes as reflecting reciprocity (Bowles and Gintis, 2000) or the principle of equity (Kluegel and Smith, 1986).[4] In both cases, the interpretation is that people are willing to support the poor conditional on them having industrious traits or intentions.[5] However, it is possible that the effect of self- and exogenous-determination beliefs is consistent with financial self-interest. People who believe in exogenous-determination 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. For similar reasons, those who believe in self-determination may simply be people who have higher-mean, lower-variance incomes and therefore less self-interest in redistribution.[6]

This paper tests various long-standing hypotheses about why people support or oppose redistribution, but the primary focus is on the role of beliefs about self- and exogenous-determination on reported redistributive policy preferences. If the beliefs about self- and exogenous-determination operate through self-interest, then they should have no effect among people who do not expect to gain financially from redistribution. I will first test whether this is the case using a sub-sample of individuals with high incomes who expect to be upwardly mobile in the next five years. In this sub-sample, a large set of self-interest measures is jointly in-significant, according to a likelihood ratio test. I test whether or not beliefs about self- and exogenous-determination are significant in this sub-sample. I then conduct an analogous test on the sub-sample of people with annual family incomes of less than $10,000. The self-interest variables are jointly insignificant in this sub-sample. I test whether or not beliefs about self- and exogenous-determination are jointly significant at the one percent level.

I also test whether beliefs about the prevalence of poverty affect attitudes about redistribution. If self-interest fully explains demand for redistribution, then those who have no self-interest in redistribution should be opposed to it regardless of their beliefs about the prevalence of poverty. If these beliefs do have a significant effect in a high-income, upwardly mobile sub-sample, then an alternative explanation is necessary.

In my fourth test of self-interest, I use questions on the importance of various factors – including a person's race and gender – to getting ahead in life. If people think that a person's race and gender are important to getting ahead in life, then

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[4] See Miller (1992) for a survey of empirical research on distributive justice.

[5] There is evidence from experimental bargaining games that people may care directly about intentions (see, for instance, Blount, 1995), but the role of beliefs about intentions in redistributive politics is unknown.

[6] Another way in which beliefs about self- and exogenous-determination might operate through self-interest is if they represent concerns about incentive costs of taxation and redistribution. I find evidence against this argument using the US General Social Survey. I discuss the argument and the evidence against it in the conclusion.

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.[7]

2. Data

I 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. There are 3626 individuals who report being in the labor force. In each test, I use the set of all individuals in the labor force who responded to all of the questions used in the regression, unless noted otherwise.[8] Several tests employ a sample of 2738 or high-income subsets of this sample.

The Gallup Poll Social Audit has a large sample size for a large number of questions on inequality and distribution relative to other commonly used surveys. 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 which may widen the net intended to capture self-interest.

The wording of selected questions used in this study is provided in Appendix A. The dependent variable is a summative scale of five questions on whether or not inequality should be reduced, either by the government, by heavy taxation of the rich, or in general. Questions about the fairness of the distribution of income and wealth that do not specifically ask about reducing inequality or helping the poor are available but not used in order to reduce the chances of measuring unrelated concepts.

Two sets of measures of beliefs about self- and exogenous-determination of incomes 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 gender – for getting ahead in life (see Appendix A).

Self-interest is measured with the standard objective socioeconomic controls: race, gender, income, education, marital status, age, employment status, union

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

[8] I 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 paper. I focus on why people oppose or support income redistribution given that their beliefs and preferences are well defined.

status, occupation, and household size.[9] In addition to these, I use subjective measures of economic well-being, namely the frequency with which respondents worry about meeting family expenses, and a measure of future mobility.[10] All of these variables may affect redistributive preferences through expected future government receipts.

To measure the respondents' beliefs about the prevalence of poverty, I use a question about whether or not the respondent thinks that America is a society of 'haves' and 'have-nots.' Strictly speaking, this is a measure of beliefs about the prevalence of inequality as well as poverty, but it is the best measure in data set.

3. Empirical approach

I begin with an ordered probit estimate of a basic equation predicting support for redistribution with beliefs about self- and exogenous-determination and the self-interest measures. I use the full sample of 2738 individuals who responded to all of the questions included in the model.

Let $R^* = X_B \beta_B + X_S \beta_S + \epsilon$ be the latent regression where R^* is an unmeasured level of support for redistribution, X_B is a matrix of variables on beliefs about self- and exogenous-determination, X_S is a matrix of self-interest measures, and β_B and β_S are vectors of coefficients. The actual measure of support for redistribution has six ordered categories, $i = 1–6$. The probabilities of each response category are:

$$
\begin{aligned}
\Pr(R = 1) &= \Pr(X_B \beta_B + X_S \beta_S \leq k_1) \\
\Pr(R = i) &= \Pr(k_{i-1} < X_B \beta_B + X_S \beta_S \leq k_i) \quad \text{for } R = 2, \ldots, 5 \\
\Pr(R = 6) &= \Pr(k_5 < X_B \beta_B + X_S \beta_S)
\end{aligned} \tag{1}
$$

where $k_1, k_2, \ldots k_5$ are the cutpoints and $\epsilon \sim N(0, 1)$ is the error term.

I use the likelihood ratio test to test for the joint significance of each subset of coefficients. That is, I test:

$$
\begin{aligned}
H_0 &: R^* = X_B \beta_B + \epsilon \\
H_A &: R^* = X_B \beta_B + X_S \beta_S + \epsilon
\end{aligned} \tag{H1}
$$

$$
\begin{aligned}
H_0 &: R^* = X_S \beta_S + \epsilon \\
H_A &: R^* = X_B \beta_B + X_S \beta_S + \epsilon
\end{aligned} \tag{H2}
$$

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[9]Some of these variables, especially union membership, are not direct measures of financial self-interest, but correlate with income, and are intended as proxies for self-interest.

[10]There are several additional questions that might capture self-interest that I exclude from the model. Using a likelihood ratio test, I fail to reject the hypothesis that the coefficients of these additional variables are all zero (at the 10% significance level) in an ordered probit regression like that presented in Table 2 below. This test may be interpreted as a test for missing variables. After dropping these variables from the analysis, the sample size increases by over 400 observations, allowing me to increase the income cutoff for the high-income sample.

I present the marginal effects of selected variables from the model.[11] The marginal effect on category i of R for a dummy variable D is $\Pr[R = i]$ evaluated at $D = 1$ and the mean of the remaining regressors minus $\Pr[R = i]$ evaluated at $D = 0$ and the mean of the remaining regressors.[12]

Next, using the same specification, I use sub-samples of individuals who are so well-off and secure about their futures that self-interest measures are jointly insignificant, according to the likelihood ratio test of (H1). The results I present are from a sub-sample of 333 individuals who have annual family incomes of $75,000 or more, expect to their lives to improve in the next five years, and worry about their bills less often than 'all of the time.'[13] I then conduct (H2) using the likelihood ratio test. If we reject the null hypothesis in (H2), but do not reject the null hypothesis in (H1), then some explanation other than financial self-interest is needed.

I repeat these tests on the low-income sample. The only difference is that I include individuals who are not in the labor force in order to have a sufficiently large sample. In order to do this, I drop occupation from the equation, because the non-response rate among people who are not in the labor force is high for this question. The sample contains 176 individuals with incomes under $10,000 per year who worry about bills more often than 'almost never.'

I test whether or not beliefs about the extent of poverty have a significant effect on support for redistribution in the high-income sample described above. If self-interest explains demand for redistribution, then individuals who cannot plausibly expect to benefit from redistribution should be opposed to it regardless of their beliefs about the extent of poverty. Another reason for using the high income sub-sample is that beliefs about whether or not the US is a society of haves and have-nots are correlated with the self-interest measures. A measure of perceptions of poverty may simply serve as a proxy for self-interest if it is highly correlated with the individual's own expected income and the expected financial benefits of social insurance.

In a different specification, I conduct a test of the self-interest hypotheses using

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[11]Note that in ordered probit, the effect of coefficients is to shift the probability distribution of R^* and R. The sign of the coefficient will be the same as the effect on the highest categories of the dependent variable and opposite of the effect on the lowest category. The direction of the marginal effects on the remaining values of the dependent variable cannot be inferred from the coefficient alone.

[12]The predicted probabilities of the categories of R are calculated as follows:

$$\text{Prob}(R = 1) = \Phi(k_1 - \boldsymbol{XB})$$
$$\text{Prob}(R = i) = \Phi(k_i - \boldsymbol{XB}) - \Phi(k_{i-1} - \boldsymbol{XB}), \text{ for } i = 2, \dots, 5$$
$$\text{Prob}(R = 6) = 1 - \Phi(k_5 - \boldsymbol{XB}),$$

where Φ is the cumulative standard normal.

[13]The results are not sensitive to the sample choice. The beliefs variables are jointly significant in every high-income sample that I tried, including one of individuals who reported annual family incomes of $100,000 or more and expected their lives to improve in the next 5 years.

measures of the importance of a person's race and gender to getting ahead in life. These beliefs may have two effects among purely financially self-interested people. First, if people think men benefit when gender is important to getting ahead, then men who hold this belief should have lower expectations of benefiting from redistribution, and women who hold this belief should have higher expectations of benefiting. This effect should increase support for redistribution in women who think that gender is important to getting ahead, and decrease support in self-interested men who think gender is important to getting ahead. This reasoning also applies to race and beliefs that a person's race is important to getting ahead. That is, the interaction term between the belief that gender is important to getting ahead in life and a dummy variable for male should be significant and negative if people are purely self-interested, and analogously for race and beliefs about the effect of race on getting ahead.

4. Results

Selected summary statistics for the full sample of 2738 individuals are presented in Table 1. A large majority (83%) of the respondents believe that there is plenty of opportunity to work hard and get ahead in America today. Forty seven percent of the respondents report that lack of effort is to blame for poverty, while 57% believe that effort is responsible if a person is rich. (See Table A2 for question wording.) A majority of the respondents report support for redistribution on four of the five questions used to construct the dependent variable (see Appendix A). Thirty-eight percent of the respondents respond that America is a society of haves and have-nots. Compared to the full sample, the high-income, upwardly mobile sub-sample has stronger average beliefs in self-determination, and has a higher percentage of people who are white, male, college educated, non-union, and married. Fewer people in this group worry about bills all of the time, and more of them have a full-time job.

In column 1 of Table 2 I present results from the basic ordered probit regression of support for redistribution on beliefs about self- and exogenous-determination and the measures of self-interest. The coefficients on beliefs about self- and exogenous-determination all have the expected signs. Those who believe that wealth and poverty are caused by external circumstances and those who believe that both external circumstances and effort level are important show more support for redistribution than those who believe that effort level alone determines whether a person is rich or poor. The five beliefs dummy variables are both jointly and individually significant at the one percent level.

All of the significant self-interest variables have effects in the expected direction. Those with annual family incomes of $150,000 or more are significantly less supportive of redistribution than those with incomes under $10,000. Whites, men, those with some college education or more, married people, non-union

Table 1
Means and standard deviations from the full sample and the high income, upwardly mobile sub-sample of the labor force[a]

Variable	Full sample $n = 2738$	Income $\geq 75{,}000$ upwardly mobile and worries about bills less often than 'All of the time' $N = 333$
Support for redistribution (scale 1–6)	−2.945 (1.481)	−3.387 (1.522)
US is a society of haves and have-nots	0.380[b] (0.486)	0.373[c] (0.484)
Luck and effort cause poverty	0.122 (0.327)	0.117 (0.322)
Bad Luck causes poverty	0.405 (0.491)	0.381 (0.486)
Luck and effort cause wealth	0.099 (0.299)	0.093 (0.291)
Good Luck causes wealth	0.336 (0.472)	0.225 (0.418)
Plenty of Opportunity in US	0.828 (0.377)	0.916 (0.278)
$10{,}000 \leq Y < 15{,}000$	0.037 (0.189)	
$15{,}000 \leq Y < 20{,}000$	0.059 (0.236)	
$20{,}000 \leq Y < 30{,}000$	0.148 (0.355)	
$30{,}000 \leq Y < 50{,}000$	0.299 (0.458)	
$50{,}000 \leq Y < 75{,}000$	0.225 (0.418)	
$75{,}000 \leq Y < 100{,}000$	0.103 (0.304)	0.547 (0.499)
$100{,}000 \leq Y < 150{,}000$	0.059 (0.236)	0.276 (0.448)
$150{,}000 \leq Y$	0.034 (0.182)	0.177 (0.382)
Some college or more	0.617 (0.486)	0.835 (0.372)
White	0.798 (0.402)	0.835 (0.372)
Male	0.509 (0.500)	0.535 (0.500)
Age	39.229 (12.576)	41.081 (10.604)
Employed part-time	0.176 (0.381)	0.111 (0.315)
Unemployed	0.020 (0.140)	0.006 (0.077)
Married	0.554 (0.497)	0.727 (0.446)
Not a union member	0.878 (0.327)	0.898 (0.303)
Worries about bills		
Most of the time	0.123 (0.329)	0.048 (0.214)
Some of the time	0.473 (0.499)	0.417 (0.494)
Almost never	0.322 (0.467)	0.535 (0.500)
	$n = 2760$	$N = 333$
Why people get ahead (scale 1–5)		
Willingness to take risks	3.988 (0.901)	4.123 (0.784)
Inherited money	3.207 (1.279)	3.162 (1.211)
Hard work and initiative	4.661 (0.658)	4.706 (0.594)
Inborn ability and talent	3.679 (1.017)	3.667 (0.969)
Dishonesty	2.290 (1.412)	2.024[d] (1.243)
Good luck	3.216 (1.205)	3.180 (1.134)
Parents and family	4.449 (0.860)	4.477 (0.743)
Good looks	3.375 (1.118)	3.210 (1.011)
Connections	3.922 (1.014)	3.865 (0.923)
Race	2.825 (1.294)	2.817 (1.197)
Educ	4.586 (0.687)	4.520 (0.697)
Gender	2.861 (1.262)	2.763 (1.183)

[a] Note: All variables are dummy variables except 'support for redistribution' and 'why people get ahead.'
[b] $N = 2719$.
[c] $N = 332$.
[d] $N = 331$.

Table 2
Ordered probit analysis of support for redistribution[a]

Independent variable	Full Sample $N=2738$	Income ≥ 75,000 upwardly mobile and worries about bills less often than 'All of the time' $N=333$	Income ≥ 75,000 upwardly mobile and worries about bills less often than 'All of the time' $N=332$
	Coefficients (standard errors)	Coefficients (standard errors)	Coefficients (standard errors)
US is a society of haves and have-nots			0.436*** (0.133)
Luck and effort cause poverty	0.213*** (0.074)	−0.030 (0.225)	0.014 (0.226)
Bad luck causes poverty	0.619*** (0.047)	0.868*** (0.144)	0.830*** (0.146)
Luck and effort cause wealth	0.341*** (0.080)	0.463* (0.259)	0.422 (0.260)
Good luck causes wealth	0.444*** (0.047)	0.341** (0.152)	0.264* (0.155)
Plenty of Opportunity in US	−0.535*** (0.059)	−0.953*** (0.245)	−0.904*** (0.246)
$10,000 \leq Y < 15,000$	−0.222 (0.156)		
$15,000 \leq Y < 20,000$	0.006 (0.143)		
$20,000 \leq Y < 30,000$	−0.146 (0.129)		
$30,000 \leq Y < 50,000$	−0.059 (0.125)		
$50,000 \leq Y < 75,000$	−0.186 (0.129)		
$75,000 \leq Y < 100,000$	−0.143 (0.141)	0.175 (0.168)	0.228 (0.169)
$100,000 \leq Y < 150,000$	−0.135 (0.151)	0.057 (0.182)	0.084 (0.183)
$150,000 \leq Y$	−0.338** (0.167)		
Some college or more	−0.230*** (0.047)	−0.360* (0.163)	−0.374** (0.164)
White	−0.240*** (0.053)	−0.354* (0.168)	−0.367** (0.168)
Male	−0.304*** (0.045)	−0.231** (0.125)	−0.188 (0.126)
Age	0.010 (0.009)	−0.004 (0.038)	−0.003 (0.038)
Age^2	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Employed part-time	0.088 (0.059)	0.082 (0.202)	0.128 (0.203)
Unemployed	−0.021 (0.151)	−0.178 (0.900)	−0.300 (0.890)
Married	−0.083* (0.045)	−0.161 (0.148)	−0.079 (0.150)
Not a union member	−0.219*** (0.064)	−0.002 (0.201)	−0.011 (0.202)
Worries about bills			
Most of the time	−0.048 (0.093)		
Some of the time	−0.138* (0.080)	−0.044 (0.283)	−0.023 (0.284)
Almost never	−0.251*** (0.085)	−0.104 (0.282)	−0.018 (0.126)
Pseudo R^2	0.092	0.110	0.120
Likelihood Ratio Test that all self-interest coefficients=0	Chi2(26)=221.94 Pr>chi2=0.000	Chi2(19)=25.05 Pr>chi2=0.159	Chi2(19)=24.32 Pr>chi2=0.184
Likelihood Ratio Test that all self-determination beliefs coefficients=0	Chi2(5)=505.97 Pr>chi2=0.000	Chi2(5)=79.07 Pr>chi2=0.000	Chi2(5)=65.34 Pr>chi2=0.000

[a] Note: Equations also include seven occupation dummies, and a dummy for household size greater than 4. Omitted category for the 'Worries about bills' is 'All of the time.' The sample sizes in columns 2 and 3 differ because of an additional missing observation in the question about whether or not the US is a society of haves and have-nots.

* Significant at the 10% level.
** Significant at the 5% level.
*** Significant at the 1% level.

Table 3
Selected marginal effects of regressors in Table 2, column 1[a]

	P[support=1]	P[support=2]	P[support=3]	P[support=4]	P[support=5]	P[support=6]
Lack of effort causes poverty	0.054	0.146	0.223	0.258	0.219	0.099
Bad luck causes poverty	0.013	0.059	0.136	0.233	0.306	0.252
Change	**−0.041**	**−0.087**	**−0.087**	**−0.025**	**0.087**	**0.153**
Strong effort causes wealth	0.045	0.131	0.212	0.26	0.236	0.116
Good luck causes wealth	0.016	0.068	0.148	0.242	0.299	0.227
Change	**−0.029**	**−0.063**	**−0.064**	**−0.018**	**0.063**	**0.111**
Not much opportunity in US	0.010	0.05	0.121	0.222	0.313	0.285
Plenty of opportunity in US	0.037	0.116	0.2	0.26	0.252	0.135
Change	**0.027**	**0.066**	**0.079**	**0.038**	**−0.061**	**−0.150**
Non-white	0.019	0.076	0.159	0.248	0.292	0.206
White	0.033	0.109	0.194	0.26	0.259	0.149
Change	**0.014**	**0.033**	**0.035**	**0.012**	**−0.033**	**−0.057**
Female	0.021	0.081	0.164	0.25	0.288	0.196
Male	0.042	0.125	0.208	0.261	0.242	0.123
Change	**0.021**	**0.044**	**0.044**	**0.011**	**−0.046**	**−0.073**
No college	0.022	0.083	0.166	0.251	0.286	0.192
Some college or more	0.036	0.116	0.199	0.26	0.252	0.136
Change	**0.014**	**0.033**	**0.033**	**0.009**	**−0.034**	**−0.056**
Income<10,000	0.023	0.085	0.169	0.252	0.284	0.187
Income≥150,000	0.048	0.136	0.216	0.26	0.23	0.110
Change	**0.025**	**0.051**	**0.047**	**0.008**	**−0.054**	**−0.077**

[a] Marginal effects are in bold type in the rows labeled 'Change.' The marginal effects shown are the differences between two types of respondents (e.g., those who reported that bad luck causes poverty relative to those who reported that lack of effort causes poverty) in the probabilities of having a particular value of the dependent variable support for redistribution.

members, are all significantly less supportive of redistribution than their counter-parts. Those who worry about bills some of the time and 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.

In order to offer some interpretation of the basic regression (Column 1) in Table 2, I present selected marginal effects in Table 3. If we ignore the bold face type for a moment, then the columns of Table 3 contain the estimated probabilities that different types of people will respond with a particular value of support for redistribution. There are six categories of the dependent variable, labeled 1 for the lowest level of support for redistribution to 6 for the highest. Someone who believes that bad luck causes poverty has an estimated probability of 0.1 of reporting the lowest level of support for redistribution, and to an estimated probability of .25 of reporting the highest level of support. The marginal effects are presented in the rows labeled 'change' in bold face type. These are the differences between two types of people in the estimated response probabilities.

From this table, the magnitudes of the effects of the beliefs variables are apparent. In every column, the marginal effects of reporting that bad luck as opposed to lack of effort causes poverty are roughly two times or more in magnitude than the marginal effects of being white instead of black, male instead of female, and having some college education or more as opposed to having no college education. The marginal effects of having an income of $150,000 or more rather than an income of less than $10,000 are also smaller than the marginal effects of the self- and exogenous-determination beliefs.

In Fig. 1 I present predicted probabilities of responding in each category of support for redistribution for four extreme types of people. In this illustration, I choose the different types of people to maximize the differences in the estimated probabilities between them,[14] subject to either the beliefs variables or the self-interest variables being held at the sample mean. The first bar in each of the six categories is the predicted probability for someone with the strongest beliefs in exogenous-determination who has average values for all of the self-interest measures. This is someone who believes that bad luck causes poverty, good luck causes wealth, and that the US is not a land of opportunity, and on all of the other variables has the sample mean. The second bar in each category of support for redistribution is someone who believes that lack of effort causes poverty, strong effort causes wealth, that the US is a land of opportunity, and who has the sample average on all of the other variables. The difference in the height of these two bars is the marginal effect of being one of these types instead of the other.

The third bar in each category of support for redistribution is someone with average beliefs about self- and exogenous-determination, but who is in the lowest

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[14]The single exception is that I use the sample mean of age and age squared for all four types of people.
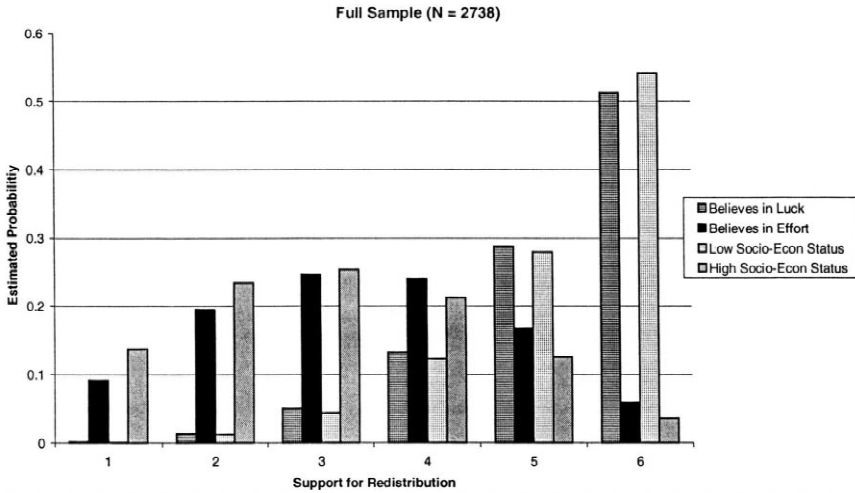
Fig. 1. Estimated probabilities for four categories of people.

socio-economic category. This person is non-white, female, single, a union member, and a part-time worker.[15] She has no college education, has an annual family income of less than $10,000, has a household size that is greater than four, and reports that she almost always worries about bills. Her occupation is calculated according to the distribution of non-management or non-finance occupations in the sample. The fourth bar in each category of the dependent variable is again someone with average beliefs about external constraints and self-determination, but who is in the highest socio-economic category. This person is white, male, married, non-union, a full-time worker in management or finance, has a household size of less than four, and almost never worries about bills. He has some college education or more, and has an annual family income of $150,000 or more. What Fig. 1 suggests is that the effect of self- and exogenous-determination beliefs is almost as large as the effect of being extremely privileged compared to being extremely underprivileged.

In column 2 of Table 2, I present ordered probit coefficients from the basic equation for a high-income, upwardly mobile sub-sample. The sub-sample in column 2 has an annual family income of $75,000 or more, expects life to improve, and worries about bills less frequently than 'all of the time.' I present results from the likelihood ratio tests of (H1) and (H2). The self-interest variables are jointly insignificant while the self- and exogenous-determination beliefs are jointly significant at the 1 percent level. The key point of this test is that in

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[15]The category 'unemployed' did not have a significantly different effect from full-time employees, so the comparison that shows the largest self-interest effect is between full-time and part-time workers.

samples that are so well-off that there is no plausible or statistical effect of self-interest on support for redistribution, beliefs about the causes of income still have a large and highly significant effect.

I find similar results (not reported) from the likelihood ratio tests of (H1) and (H2) on the sub-sample of respondents who have annual family incomes of less than $10,000 and who worry about bills more often than 'almost never.' The self-interest measures are jointly insignificant at the 10% level.[16] The beliefs in self- and exogenous-determination are jointly significant at the 1% level and have the expected signs.

In column 3 of Table 2 I add a dummy variable that equals 1 if the respondent between that America is a society of haves and have-nots. This variable has a significant positive effect on support for redistribution. To the extent that this variable measures beliefs about the prevalence of poverty, or indicates the respondent's perception of the size of the poverty problem in the United States, this result is inconsistent with self-interest. High-income, upwardly mobile individuals motivated purely by financial self-interest should not demand redistribution, and therefore the prevalence of poverty should be irrelevant to them. One possible interpretation is that the effect of beliefs about the extent of inequality in the US has something to do with the perceived need for redistribution: to maintain constant benefits, redistributive spending has to be higher if the perceived number of potential recipients is higher.

Table 4 presents a regression of support for redistribution on the importance of various determinants of success, controlling for the full set of self-interest measures. The beliefs about the importance of the various factors to getting ahead in life are all significant, except for beliefs about the importance of talent. The significant effects are in the expected directions. The insignificant effects of beliefs about the importance of talent is consistent with previous research.

The results in Table 4 are difficult to explain by self-interest. If the effect of these variables on support for redistribution operates solely through self-interest, then beliefs that race and gender determine success should result in a negative interaction term for men and whites because of their lower expected government receipts. Yet, the interaction terms show that there is no significant difference between the slope coefficients of men and women on beliefs that a person's gender is important to getting ahead. The findings on race are even stronger. The effect of believing that race is important to getting ahead in life is significantly more

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[16]The self-interest measures included in this equation are race, gender, age, age squared, the frequency with which the respondent worries about bills, a dummy for household size greater than four, a dummy for part-time workers, and a dummy for those who are not working. The not-working dummy includes the unemployed as well as people who are not in the labor force.

Table 4
Ordered probit model testing the interaction effects between race and gender and beliefs that race and gender are important to getting ahead in life[a]

Dependent variable: support for redistribution	
Independent variable	
Why people get ahead (Scale 1–5):	
Willingness to take risks	−0.091*** (0.023)
Inherited money	0.057*** (0.018)
Inborn ability and talent	−0.002 (0.021)
Dishonesty	0.043*** (0.015)
Parents and family	0.064*** (0.025)
Good looks	−0.047** (0.020)
Connections	0.064*** (0.023)
Educ	0.060* (0.032)
Hard work and initiative	−0.157*** (0.034)
Luck	0.040** (0.019)
Race	0.043 (0.032)
Race* respondent is white	0.078** (0.036)
Gender	0.061** (0.025)
Gender*respondent is male	−0.007 (0.032)
Respondent is white	−0.438*** (0.122)
Respondent is male	−0.309*** (0.103)
Pseudo R^2	0.063
$N = 2760$	

[a] Note: This specification also includes all of the objective and subjective socio-economic proxies included in the specifications of Table 2.

* Significant at the 10% level.
** Significant at the 5% level.
*** Significant at the 1% level.

positive for whites than for non-whites. This interaction effect is in the opposite direction from that predicted by self-interest.[17]

5. Conclusion

Many scholars argue that self-interest is a sufficient assumption to make in the study of redistributive politics, and some still strongly defend this position. To others, it is equally obvious that social preferences play an important role. This paper attempts to offer a few rigorous tests on the character of redistributive preferences.

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[17] The findings concerning the interactions of race and gender and beliefs about the importance of a person's race and gender to getting ahead are quite stable with respect to specification and sample size changes.

From the perspective of the self-interest model, income is a surprisingly poor predictor of redistributive beliefs. The marginal effects of having an income of $150,000 or more, compared to an income of under $10,000 are smaller than the marginal effects of each of the three measures of beliefs about the role of effort, luck, and opportunity in life outcomes. In fact, even the combined effect of a wide set of possible self-interest measures is roughly equivalent to the combined effect of the three beliefs measures. Furthermore, there is variance in the redistributive attitudes of the richest and poorest people in the sample, and this needs to be explained. In the high and low income samples, self-interest measures are jointly insignificant. In contrast, beliefs about self- and exogenous-determination are strong predictors of support for redistribution in the full, high-income, and low-income samples.

However, before we conclude that these results are evidence of reciprocity or equity concerns, let us consider another mechanism through which self- and exogenous-determination beliefs may affect demand for redistribution. Beliefs in self-determination may reflect perception of relatively high incentive effects of taxation which, in turn, may decrease demand for redistribution. In theory, when earned income is more sensitive to work effort, taxation could cause greater effort disincentives. That is, tax costs may be increasing in the income elasticity with respect to effort. If so, then beliefs about the roles of effort, luck, and opportunity in generating income may affect the level of support for redistribution (Piketty, 1995). This type of incentive concern need not apply only to self-interested demand for redistribution. Tax cost concerns can reduce demand for any tax-funded expenditure, including redistribution that arises out of self-interest, altruism, the equity principle, reciprocity, or unrelated expenditures such as national defense (Atkinson, 1999).

I use the 1990 General Social Survey to produce some evidence on this matter. I estimate ordered probit regressions predicting support for spending on welfare, national defense, halting the rising crime rate, and dealing with drug addiction, respectively (see Appendix A).[18] The independent variables are beliefs that the poor are poor because of lack of effort, and five demographic variables (income, education, race, gender, and age). Two self-determination belief dummies – lack of effort is very important, and lack of effort is somewhat important in causing poverty – have negative effects on support for redistribution (significant at the 1% level) relative to believing that lack of effort is not important. However, beliefs in self-determination have no effect on support for spending on crime or drug addiction, and they have a significant positive effect on support for spending on

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

defense. If the self-determination beliefs simply measure tax cost concerns, then their effect on support for all of these expenditure items should have been negative.[19]

The finding that self-determination beliefs have no effect on support for spending on crime or drugs relates to the question of whether or not prudential concerns about controlling social unrest explain redistributive attitudes. The GSS evidence suggests that the effect of self-determination beliefs on support for redistribution cannot be explained by the tax cost concerns of these with prudential motives. However, we can test for the direct effect of prudential concerns on support for redistribution. I estimated an ordered probit model predicting support for welfare spending. The independent variables are beliefs in self-determination, support for spending on crime, and five demographic variables (education, income, race, gender, and age).[20] I also estimated an equation that is identical except that it included support for spending on drug addiction instead of support for spending on crime.[21] Support for spending on both crime and drugs has a significant positive effect on support for spending on welfare. These effects are slightly smaller and less significant than the effect of self-determination beliefs. This can be interpreted as evidence that prudential concerns for controlling crime affect support for redistribution, along with self- and exogenous-determination beliefs, and financial self-interest. Unfortunately, the sample sizes are too small to check for robustness of this result with respect to the kinds of specification and sample changes that are presented for the Gallup data.

The effect of beliefs about the prevalence of poverty on support for redistribution may be interpreted in several ways. First, the belief about the prevalence of

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[19]There is a second type of potential incentive cost that I will call transfer incentive costs. This is the possibility that transfer payments might affect the labor market decisions of recipients (Atkinson, 1999). It is unclear why transfer incentive costs would depend on the income elasticity with respect to effort. However, it is possible to construct theoretical examples where it does, so I offer some suggestive evidence from the 1990 General Social Survey. Suppose we accept the evidence above against tax cost concerns and test whether or not self- and exogenous-determination beliefs capture the effect of transfer costs only. I use ordered probit to estimate a model that predicts support for spending on welfare, foreign aid, on 'improving the conditions of blacks,' controlling for beliefs about self- and exogenous-determination and five demographic variables (education, income, race, gender, and age). Those who think poverty is caused by lack of effort are significantly less supportive of all three types of spending. Given the 'improving the conditions' wording of the race question, the concern that spending will reduce effort and increase the caseload seems misplaced. It seems particularly unlikely that foreign aid would cause individual transfer disincentives. On the other hand, if people are simply unwilling to support the undeserving poor but will support the deserving poor, then self- and exogenous-determination beliefs could have an effect on all three of these questions.

[20]$N = 567$.

[21]$N = 568$.

poverty may be a perception of the number of potential recipients. When there are more recipients, spending must increase if benefits are to be held constant. Therefore, beliefs in greater amounts of poverty may increase demand for redistribution through altruism, reciprocity, the principle of equity, or any motivations that can explain the attitudes of the high income sample. In unreported regressions, I find that the belief about the prevalence of poverty is usually significant whether or not we control for self- and exogenous-determination beliefs, but it is not as robust to sample size and specification changes as the self- and exogenous-determination beliefs.

In short, in two data sets, and in every specification and sub-sample, self- and exogenous-determination beliefs have large and significant effects on support for redistribution. Tax cost concerns appear not to explain this effect. A more likely interpretation is that people are reciprocal or hold strong principles of equity. A strong taste for equity or reciprocity is consistent with the basic concept of insuring industrious people against bad luck, but not providing unconditional assistance to the poor if their condition is due to idleness. Nonetheless, altruism may play a role as well, because simply perceiving that there is more poverty increases support for redistribution in high-income samples.

The importance of social preferences suggests the value of a broader search for resolutions to outstanding puzzles in the political economy of welfare states and redistribution. For example, according to models based on the standard self-interest assumption, demand for redistribution, should increase the ratio of the median to mean income decreases (Meltzer and Richard, 1981) demand for redistribution should increase as the ratio of the median income to the mean income in the economy decreases. However, whether or not this is the case empirically has been a matter of some debate. Extending our understanding about what motivates support for and opposition to redistribution may guide research on this question. The effects of inequality on demand for redistribution differ from those of the standard model when social preferences are important. For instance, one possibility might be that inequality increases social distance between the rich and the poor, making the rich less sympathetic, or causing them to hold the poor more accountable for their low incomes. Another possibility is that the effects of income inequality on demand for redistribution are less important than other factors such as actual and perceived racial composition of welfare recipients (Luttmer, 1998), or design features of the redistributive programs themselves that make them more or less likely to insure poverty caused by exogenous circumstances.

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Appendix A. Dependent variables in gallup data

The measure of redistributive preferences is a summative scale of the questions below. The measure is increasing in support for redistribution, so the signs of questions 1, 2, 3, and 5 are reversed.

Table A1

Questions used in the construction of the dependent variable measuring support for redistribution[a]	
Question	Aggregate Response ($N=2738$)*
(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?	Should: 46.1% Should Not: 53.9%
(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?	Government should help the poor: 69.7% The poor should help themselves: 30.3%
(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?	Groups other than the poor: 69.8% The poor themselves: 30.2%
(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?	Distribution is fair: 33.4% Should be more evenly distributed: 66.6%
(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?	Problem: 53.3% Acceptable: 46.8%

[a] Note: Of respondents with incomes of at least $150,000 and who also expected upward mobility in the next five years, the percentage responding in favor of redistribution is 24%, 67%, 63%, 48%, and 45% for questions 1 through 5, respectively. In this sub-sample, there are 84 observations for all but the second question, which has 81 observations.

Independent variables in gallup data

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 1–5 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. First,

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 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

America is society of haves and have-nots: Some people think of American society as divided into two groups – the 'haves' and 'have-nots', while others think it's incorrect to think of America that way. Do you, yourself, think of America as divided into haves and have-nots, or don't you think of America that way? (1) Yes, think that way, (2) No, don't think that way.

Mobility: Mobility measures are constructed from the following three questions:

1. 'Think of a picture of a ladder. Suppose we say that the top of the ladder represents the best possible life for you, and the bottom represents the worst possible life for you. If the top step is '10' and the bottom step is '0', on which step of the ladder do you feel you personally stand at the present time?'

2. 'On which step would you say you stood five years ago?'
3. 'Just your best guess, on which step do you think you will stand in the future, say about five years from now?'

Past mobility is the current ladder position minus the past ladder position. Future mobility is the future ladder position minus the current ladder position.

Variables in general social survey data

'We are faced with many problems in our country, none of which can be solved easily of inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. First (READ ITEM A) . . . are we spending too much, too little, or about the right amount on (ITEM)'
   Items Used:

- Halting the rising crime rate: (1) too little, (2) about right, (3) too much
- Dealing with drug addiction: (1) too little, (2) about right, (3) too much
- Improving the conditions of blacks: (1) too little, (2) about right, (3) too much
- The military, armaments and defense: (1) too little, (2) about right, (3) too much
- Foreign aid: (1) too little, (2) about right, (3) too much
- Welfare: (1) too little, (2) about right, (3) too much

Note: 'Don't know' is coded as missing. I reverse the order of the responses so that they increase in support for spending.
   'Now I will [read] a list of reasons some people give to explain why there are poor people in this country. Please tell me whether you feel each of these is very important, somewhat important, or not important in explaining why there are poor people in this country.'

- Lack of effort by the poor themselves: (1) very important, (2) somewhat important, (3) not important
- Note: 'Don't know' is coded as missing. I reverse the order of the responses so that the measure increases in beliefs in self-determination.

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