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Deservingness, Self-Interest and the Welfare State: Why Some Care More about Deservingness than Others and Why It Matters

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Why Some Care More about Deservingness than Others and Why It Matters

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A common assumption in political economy is that voters are self-regarding maximizers of material goods, choosing their preferred level of social spending accordingly. In contrast, students of American social policy have emphasized the key role of an other-regarding motive that makes support for social transfers conditional on the perceived deservingness of recipients. The two motives often conflict as large portions of the poor (rich) find recipients undeserving (deserving). Under what conditions might one motive trump the other? I argue that material self-interest overruns perceptions of deservingness when the share of income affected by social transfers is high. Using European data, I show that low (high) income individuals are less (more) likely to be driven by considerations of deservingness. This framework has important macro-level implications: the more working-age benefits are evenly spread across income groups, the less likely considerations of deservingness will permeate public debates on welfare state reform.

Keywords: Social policy preferences, Deservingness, Self-interest, Heuristic, Welfare state reform

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Why do some people support high levels of spending on redistributive social policies while others do not? Why is aggregate support higher in some countries than others? These questions have been front and and center of the comparative study of post-industrial western democracies for more than two decades now (Esping-Andersen 1990; Rueda and Stegmueller forthcoming). The most prominent line of argument links differences in levels of support to differences in how much one benefits from a given transfer, net of costs. At the micro-level, support for redistributive policies is expected to be inversely proportional to income. At the macro-level, country-differences in popular support for social policies are tied to differences in the distribution of market income (Meltzer and Richard 1981), wealth (Acemoglu and Robinson 2005) and unemployment risk (Iversen and Soskice 2001; Rehm, Hacker and Schlesinger 2012).

Students of American social policy have developed an alternative approach where support for redistributive social policies is deeply influenced by whether the modal recipient is perceived as deserving or not (Kluegel and Smith 1986; Alesina, Glaeser and Sacerdote 2001; Fong 2001; Gilens 1999; Petersen 2012; Skitka and Tetlock 1993).[1] According to Alesina and Glaeser (2006), deservingness consideration can help explain the United States' position as a welfare state laggard compared to other Western democracies: Americans are comparatively much more likely to believe that the poor are personally responsible for their plight and thus undeserving of help.[2]

For researchers interested in explaining individual differences in social policy preferences, these two lines of argument sit uncomfortably alongside each other. Many high-income individuals find recipients deserving while many low-income individuals do not, making it hard to predict how these groups will position themselves with regards to redistributive social policies (Fong 2001; Fong, Bowles and Gintis 2006; Gilens 1999). For researchers interested in studying the dynamics of popular support for redistributive policies in Europe, the predictions of the two frameworks are in outright contradiction with each other. While material self-interest arguments predict high and stable support,[3] deservingness arguments predict a slow unraveling of support for redistributive social policies.[4]

To what extent are social policy preferences driven by other-regarding considerations of de-

servingness as opposed to self-regarding considerations of economic well-being? I answer this question in a two-step analysis. I start by proposing a stylized framework in which individuals first anchor their policy preferences in response to their beliefs about the deservingness of the modal recipient and then decide whether to adjust their preferences to better align with their material situation. When one's deservingness beliefs and one's material situation point in the same direction, no adjustment is necessary. When they do not, the extent of the adjustment will be proportional to the share of income affected by direct social transfers. The intuition is simple: if the material stakes are high and easily observable, self-interested adjustment is extensive and reliance on deservingness beliefs is low. I apply this theoretical framework to the study of attitudes toward taxes and social spending in twenty European countries.[5] Standard material self-interest models assume that high-income groups will be more likely to oppose an increase in social spending and taxes. In contrast, I argue that high-income individuals will split along the deserving/undeserving divide: high-income individuals who believe recipients to be deserving, are central to coalitions opposing retrenchment and austerity.

In a second step, I examine the implications of my argument for understanding cross-country differences in the politics of welfare state reform. The share of income affected by redistributive transfers varies not only with individual factors but also contextual factors, such as labor market conditions, the type of social transfer under consideration and policy design. I consequently expect the size of the group that relies on deservingness considerations to vary across national contexts with important consequences for the coalitions behind social policy reform. To test this claim, I examine cross-national variations in the determinants of public support for transfers to the unemployed. Respondents who believe working-age recipients to be undeserving are less willing to transfer resources to the unemployed. This, I show is less likely to be the case in countries where job market conditions and policy design spread working-age benefits more evenly across the population.

The main contribution of this paper is to develop and test a simple conceptual framework that incorporates considerations of deservingness into the dominant material self-interest tradition. I

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theoretically ground the proposed extension of the standard approach using findings from behavioral economics and evolutionary psychology. Empirically, this paper provides, to the best of my knowledge, the first systematic cross-national extension of mainly US-centric research on deservingness. Overall, I am able to explain important features of the politics of retrenchment that had previously escaped scholarly scrutiny.

1 A Theory of Deservingness and Social Policy Preferences

Workhorse models of redistribution assume that individuals are aware of how beneficial or detrimental to their material well-being a given policy is, relative to all possible alternatives. In its most common version (Romer 1975; Meltzer and Richard 1981), this framework also assumes preference symmetry: net contributors want taxes and social spending to decrease as much as net beneficiaries want them to increase. Findings in the behavioral sciences indicate systematic departures from these assumptions, with profound implications for social policy preferences.

1.1 Incomplete Information, Bounded Rationality and the "Deservingness Heuristic" (Petersen 2012)

When making a decision, individuals are constrained by the information they have, the cognitive limitations of their minds, and the time available to make the decision. They consequently rely on reasoning short-cuts aimed at "arriving at *satisfactory* solutions with *modest* amounts of computation" (Simon 1990) (my emphasis). These short-cuts, also called heuristics, can appear sub-optimal from a material self-interest perspective but are optimal with regards to the objective and the constraints individuals face. In this section, I argue that reliance on deservingness considerations when forming a social policy opinion is one such "effort-reducing method" (Shah and Oppenheimer 2008).

How do people assess desert? A deserving recipient is someone who did not intend to become a recipient and remains one for reasons outside her control. In contrast, the undeserving recipient can take – or could have taken – reasonable steps to avoid being in the position of receiving social transfers; worse she is believed to be actively choosing shirk over work (Coughlin 1980; Van Oorschot 2006). The role of deservingness considerations in shaping social policy preferences is well documented. Experimental data shows that minimal cues about deservingness suffice to impact behavior (Sniderman, Tetlock and Brody 1993; Skitka and Tetlock 1993; Petersen 2012; Fong 2007). Using the World Value Survey, Petersen et al. (2012) find that individuals who believe

poverty to be the result of lazyness are much more likely to oppose increasing spending on publicly funded programs aimed at fighting poverty (see also Alesina, Glaeser and Sacerdote (2001)).

Petersen (2012) argues that this correlation between deservingness beliefs and policy preferences is most likely the manifestation of heuristic processing (see also Fong, Bowles and Gintis (2006)). First, reliance on deservingness considerations is computationally undemanding, following the simple logic of "if deserving/undeserving then support/oppose" (see Petersen et al. (2012) for a review of the evidence in psychology research). More importantly, caring about desert is utility-enhancing because it relies on the activation of deep-rooted psychological reward mechanisms aimed at regulating mutual assistance in small-scale groups. Humans, researchers have found, enjoy helping the deserving and punishing the undeserving. The intuition is simple: the altruistic drive to share resources with the needy increases all group members' probability to secure continuous access to resources. To prevent free-riding from "opportunists inclined to take without contributing," humans have jointly evolved a sophisticated psychology of social exchange that makes altruism conditional on behavioral cues about the deliberate avoidance of productive effort (Petersen et al. 2012). Empirically, the existence of this universal cognitive tool box has been extensively documented by behavioral economists who find that individuals have a strong propensity to share resources with others similarly disposed, but a willingness to punish those who free-ride, even when punishing is personally costly (Bowles and Gintis 2011; Charness and Rabin 2002; Fischbacher, Gächter and Fehr 2001; Ostrom 1998).

While most of the research examines the deservingness heuristic in a context, the United States, where support for redistributive social policy is understood as support for transfer to the *poor*, there are good reasons to expect this heuristic to matter beyond transfers to the worse-off. People are not only contributors to charity-like transfers to the poor, they are also committed stakeholders in a set of large scale compulsory risk-pooling programs (Moene and Wallerstein 2001; Iversen and Soskice 2001). While everyone benefits from the existence of social insurance against unemployment or ill health, each as separate individuals has an incentives to extract more resources than he or she contributes (Rothstein 1998; Mau 2004). In such situation, research shows, close attention to indi-

vidual effort relative to external constraints and to cues about intentions to free-ride, as well as the willingness to reward and punish accordingly, constitute a key, often informal, coordination device aimed at avoiding depletion of the common pool resource (Fischbacher, Gächter and Fehr 2001; Gächter 2007). In other words, the psychological mechanisms that underpin the deservingness heuristic are specifically tailored to dealing with resource-sharing situations.

Reliance on perceptions of deservingness to guide opinion about social policies is consequently both computationally undemanding and "satisfying" thanks to the activation of deeply rooted behavioral mechanisms. In a low stakes, low information situation, the use of the deservingness heuristic is an optimal decision-making strategy.[6]

*The Asymmetrical Consequences of Benefit Recipiency*

To understand how self-regarding material considerations interact with considerations of deservingness, I conceive of preference formation as a two-step process. First, individuals rely on the effort-reducing deservingness heuristic and anchor their preferences following the "if deserving/undeserving then support/opposition" rationale. They then adjust their preferences in line with their economic conditions. I focus on situations where the two behavioral motives conflict, as they provide empirical leverage for testing my argument. I expect individuals who have a low level of support as an anchor – because they believe recipients to be undeserving – but can plausibly expect to benefit from redistribution, to adjust their level of support upwards in line with their material interest. Individuals who have a high level of support as an anchor – because they believe recipients to be deserving – but cannot plausibly expect to benefit from redistribution will adjust their level of support downwards.

I expect the size of this adjustment to vary with the share of income impacted by redistributive social programs. In other words, the higher the material stakes, the more extensive self-interested adjustment is. The progressive design of the welfare state and the unequal distribution of economic risk and wealth mean that the material stakes will be higher for the poor (individuals with low-mean, high-variance income) than for the rich (individuals with high-mean, low-variance income).

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In Rueda and Stegmueller's words: "the relative importance of receiving benefits is greater for the poor than the relative importance of paying taxes is for the rich". Using tax simulation data they show that from 2001 to 2005 "the relative size of benefits (including public pensions) for households in the bottom decile of the distribution represented 71.7% of household disposable income in Western countries. For household in the top decile of the distribution, on the other hand, market income was reduced by just 27.7% after subtracting taxes" (Rueda 2015: 3). Garfinkel, Rainwater and Smeeding (2005) document the same pattern excluding public pensions. I expect that material considerations will trump considerations of deservingness more often among the poor than among the rich.

Figure 1: Support for a Transfer Program and Deservingness Beliefs

Step 1: Is the modal recipient deserving?   Step 2: How much do I benefit from this transfer?
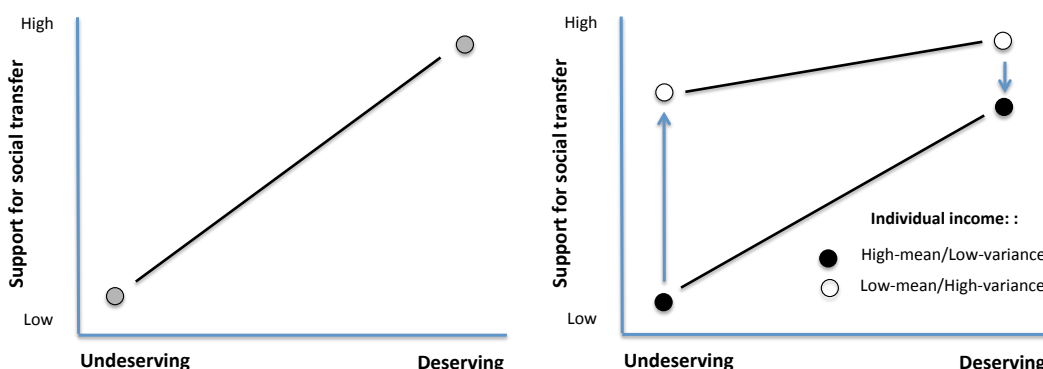
In addition to impacting voters' bottom line, the welfare state also affects how much voters *know* about the impact of redistributive social policy on their income (Gingrich and Ansell 2012). While the poor experience a social program as a direct transfer, the rich experience it as a tax collected without any clear information about how this revenue will be spent. In other words, an increase or a decrease in spending on a redistributive program has implications that are straightforward in the case of the poor (more/less money at the end of the month) and less so in the case of the rich (maybe more/less taxes at the end of the year). Among the rich, not only lower stakes but also less complete information about the stakes result in higher reliance on the deservingness heuristic.

Among the poor, higher stakes and better information about these stakes imply more extensive self-interested adjustment and low reliance on the deservingness heuristic.[7] Figure 1 presents the argument visually. Among those whose reliance on social transfers is high, support will be high and deservingness beliefs will not be a good predictor of policy preferences (flat slope). Among individuals whose reliance on social transfers is low, deservingness beliefs will be more predictive of levels of support (positive slope). The higher correlation among individuals with high-mean, low-variance income is traceable to higher than expected – from a material self-interest perspective – levels of support among individuals who believe recipients to be deserving. Empirically, I expect the following to be true:

Prediction 1.a: The correlation between beliefs about the deservingness of the modal benefit recipient and support for publicly funded social benefits is higher among individuals with high-mean, low variance income than it is among individuals with low-mean, high-variance income.

Prediction 1.b: While income is a predictor of policy preferences among those who find recipients undeserving, there are no income-related differences among individuals who find recipients deserving: both rich and poor express high support for publicly funded social benefits.

Figure 1 assumes that deservingness beliefs are exogenous to one's economic profile and probability of receiving social transfers. This assumption has been examined in detail in separate research projects and all find no evidence that deservingness beliefs are shaped by self-interest (Fong 2001; Gilens 1999). In the analysis presented in the following section, I come to a similar conclusion.

1.2 Empirics (I): Explaining Individual-level Differences in Reliance on Deservingness Beliefs

I use the items listed in Table 1 from the 2008 wave of the European Social Survey to create a measure of beliefs about the deservingness of benefit recipients. I use factor scores derived from factor loadings obtained after separate country-by-country factor analyses. Constraining factor loadings to be the same across all countries returns similar results. The higher a respondent's the score, the less likely she is to believe that recipients are lazy and unreliable free-riders be it because they are trying to cheat the system (cluster 1) or because social benefits make them exert less effort to become self-reliant (cluster 2). The factor scores are centered around the country mean score and divided by two times the country-specific standard deviation (Gelman 2008). In other words, two individuals from two different countries with the same factor score of 0 (1) have in common to have a deservingness score that is one standard deviation below (above) their country's mean score.

I use the deservingness scores to predict answers to the following question: "Many social benefits and services are paid for by taxes. If the government had to choose between increasing (decreasing) taxes and spending more (less) on social benefits and services, which should they do?" Respondents answered using a 0 to 10, with higher values indicating higher support for increasing taxes and spending. This variable is also standardized using country-specific means and standard deviations. Unlike the deservingness scores, the unit is not two standard deviations but one. The coefficient on deservingness can consequently be interpreted as the change in tax-spend preferences (in units of SD) comparing deservingness beliefs at a low value (-1 SD or undeserving) to scores at a high value ($+1$ SD or deserving). What qualifies as high and low in "absolute" terms varies across countries. However, the substantive meaning of the regression coefficient is the same across all countries: the higher the regression coefficient, the more relative differences in deservingness beliefs overlap with relative differences in tax-spend preferences.

To measure income level, I rely on a categorical measure that distinguishes between individuals in the top quintile of their country's income distribution and individuals in the bottom decile. As

Table 1: Deservingness Items: Factor Loadings

Item wording	Factor 1 (retained)	Factor 2 (for information)	Uniqueness score
Cluster 1: Respondents' beliefs about the ubiquity of shirking			
1) Most unemployed people do not really try to find a job	**0.55**	0.28	0.61
2) Many manage to obtain benefits/services not entitled to	**0.44**	0.38	0.70
3) Employees often pretend they are sick to stay at home	**0.49**	0.40	0.63
Cluster 2: Respondents' beliefs about the impact of social benefits on the likelihood to shirk			
4) Social benefits/services make people lazy	**0.76**	-0.04	0.41
5) Social benefits/services make people less willing to care for one another	**0.82**	-0.33	0.30
6) Social benefits/services make people less willing look after themselves/family	**0.79**	-0.28	0.31
Eigenvalue	**2.62**	0.54	

Note: Factor loadings are obtained following an exploratory factor analysis on the pooled data using a polychoric correlation matrix adapted to ordinal variables. The main factor is extracted using a iterated principal factor method. The results are robust to using other extraction methods. I retain one factor that explains most of the shared variance. When performing this analysis separately by country, I obtain similar factor loadings. On average, a respondent's answers on 5 of the 6 items predict his or her answer on the 6th item correctly about 3/4 of the time.
Data: The European Social Survey Wave 4 (2008)

a proxy of income variance, I use the measure of occupational unemployment risk developed by Rehm (2009). To control for left-right economic ideology, I use one item that asks about support for redistribution and rely on six different items to capture latent support for government involvement in the provision of public good and social insurance. Table SI.1 in the Supporting Information provides detailed information on how each variable is computed.

To test Prediction 1.a, I examine whether the coefficient on deservingness varies with the share of income impacted by social transfers, i.e with income level and income variance. I expect a higher estimate among groups with high-mean and low-variance income (the rich), relative to the covariance among groups with low-mean and high-variance income (the poor). To test Prediction 1.b, I examine both predicted and observed differences in average tax-spend attitudes in four groups defined by their deservingness beliefs (undeserving versus deserving) and income levels (top versus bottom quintiles). Throughout the analysis, I examine the data in a multilevel framework.[8]

Results (I)

The deservingness coefficient obtained using the pooled data[9] is substantively meaningful at **0.5** (see model 1 in Table SI.2 and model 1 in Table 3).[10] This result is not an artifact of deservingness beliefs and tax-spend preferences being jointly determined by either material conditions or latent ideology on traditional left-right economic issues. Indeed, the inclusion of either set of variables does not affect the size of the deservingness coefficient (see model 2 and 3 in Table SI.2).

Echoing results by Fong (2001)– who uses American data – Figure 2 indicates that, if anything, less risk exposed and higher income individuals are *more* likely to find the recipients of social benefits deserving. The same pattern emerges when examining each country in turn (see Figure SI.5). Table SI.3 in the Supporting Information presents a more detailed multivariate analysis of the relationship between socio-economic factors and deservingness beliefs. Well-off respondent – top income quintile, with a university degree faced with zero unemployment risk– have a predicted deservingness score that is on average more than 2/3 of a standard deviation *higher* than an

Figure 2: Income and Risk are Poorly Correlated with Deservingness Beliefs

High versus low risk   Top versus bottom quintile
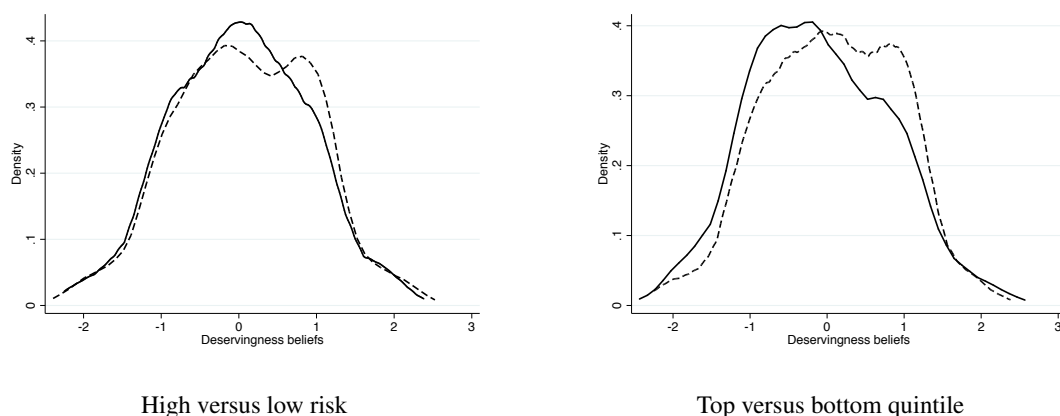
Dashed line represented low risk (< 2 percent) / high-income (top decile) individuals. Full line represents high-risk (> 15 percent) / low-income (bottom decile) individuals. Higher values on the deservingness scores indicate that respondents find recipients more deserving.

individual with the opposite characteristics.[11]

While the probability of relying on social transfers as a source of income is a poor predictor of deservingness beliefs it should, according to Prediction 1.a, affect when deservingness beliefs matter more and when they matter less. Table 3 presents regression results after interacting the deservingness scores with the categorical income measure of income and the measure of occupational unemployment risk. In each case, the interaction term is significant. However, the interaction with unemployment risk is not robust to the inclusion of both risk and income alongside each other (not shown). Because of its straightforward interpretation, I focus, in the remainder of this section, on the income measure that distinguishes between top and bottom quintile respondents (see Table SI.1 for more details on the pros and cons of each measure).

According to estimates presented in Table 3, the predicted difference between top and bottom quintile respondents, conditional on finding recipients deserving, is indistinguishable from zero while it is close to 0.2 among individuals who find recipients deserving. In line with Prediction 1.b, this is due to a higher than expected level of support for high income individuals who find recipients deserving (see Figure SI.2 in the Supporting Information). This result is not an artifact

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Table 2: Difference in Reliance on the Deservingness Heuristic by Income and Risk Group

	(1)	(2)	(4)
Deservingness beliefs	**0.51*****	**0.36*****	**0.58*****
	(0.02)	(0.05)	(0.02)
Top quintile		-0.19***	
		(0.03)	
Deservingness * Top quintile		**0.31*****	
		(0.04)	
Unemployment risk			0.48
			(0.34)
Deservingness * Unemployment risk			**-0.07***
			(0.23)
Residuals SD	0.97***	0.96***	0.94***
	(0.01)	(0.00)	(0.01)
N	29226	23960	15064
ll	-40535	-32406	-20404

Significance levels: * p<.05, ** p<.01 *** p<.001.

Note: When unemployment risk is included, the sample is restricted to individuals on the job market only. Indeed this measure of risk exposure is meaningless for individuals who are not directly exposed to job loss. The categorical income measure compares individuals in the top and bottom quintile of the income distribution. Results are robust to using a continuous measure of income running from 1 to 10 and identifying the income decile individuals belong to.

Data: ESS 2008.

Figure 3: Predicted Support for a Decrease in Spending and Taxes: Top versus Bottom Income Quintiles
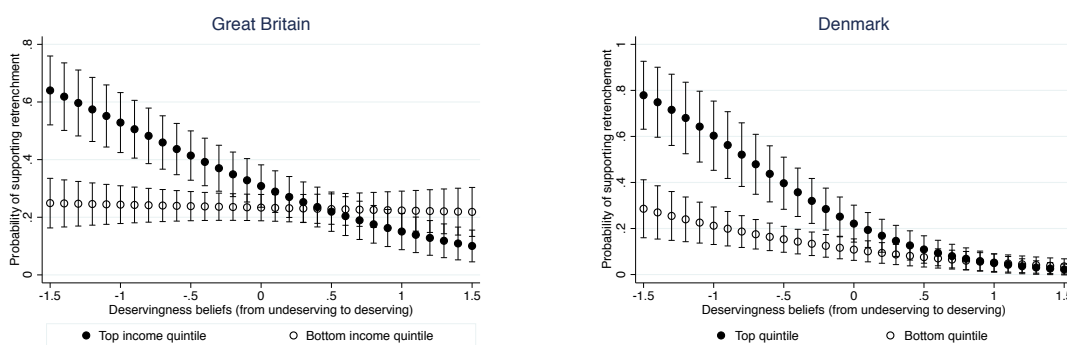
Binary measure: 1 is equal to a response category below the median category

of holding economic ideology at its mean value – which would artificially increase support among the rich and decrease it among the poor –. Indeed, this pattern is directly observable in the raw data: among top quintile individuals who believe recipients to be deserving the average answer to the standardized tax-spent item is 0.32, equal to the average answer among bottom quintile respondents who also find recipients deserving.

Figure 3 further illustrates these findings in two real world cases, Great Britain and Denmark.[12] To better capture the substantive implications of my argument, I switch to a dichotomous measure of policy preferences that distinguishes individuals who support retrenchment (0/4 answers on the 0/10 scale) from others. Great Britain, in particular, has attracted much attention from pundits puzzling over low-income individuals' hostility to welfare recipients and sharp social policy retrenchment since David Cameron's election. As made clear by Figure 3 , low-income individuals might hold negative priors but this does not translate into opposition to spending on social transfers they stand to benefit from. In line with Prediction 1.b, the higher correlation among high-income groups is the result of higher than expected – from a self-interest perspective – opposition to retrenchment on the part of high-income individuals who find recipients deserving.

Alternative Explanations and Robustness Checks (I)

The larger deservingness coefficient among high-income individuals, relative to low-income individuals could potentially be an artifact of group differences in what students of public opinion have called "ideological constraint" (Converse 1964). High-income individuals are more likely to be highly educated and exposed to complex ideological frames. As a result, they might be naturally more inclined to develop coherent ideologies, explaining why their beliefs and preferences better align. I examine this issue in the Supporting Information and find no evidence that differences in ideological constraint or cognitive capacity are driving my results. More importantly, my framework makes predictions that this alternative argument cannot account for. If we assume that low cognitive capacity and ideological constraint explain the lower covariance among the poor, then we should expect mismatch between deservingness beliefs and tax-spend preferences to be evenly distributed among all poor. My model, in contrast, predicts that this mismatch will be limited to the poor who find recipients undeserving. Figure 3 – as well as mean policy attitudes in the raw data – show that this is indeed true.

In this section, I have described the large covariance between deservingness beliefs and support for increased spending. I have shown, in line with previous findings by Fong (2001) and Gilens (1999), that this covariance is not an artifact of self-interest and left-right ideology on economic issues. In agreement with the claim that lower stakes and less information make the rich more reliant on the deservingness heuristic, I find that high-income individuals are more likely than low-income individuals to align their attitudes toward taxes and social spending with their deservingness beliefs. As a result, support for increased taxes and spending is as high among the rich who find recipients deserving as it is among the poor who also find recipients deserving.

2 Deservingness Matters More in Some Countries than Others

In the previous section, I argued that individuals with high-mean, low-variance income are less affected by public transfers and consequently more likely to rely on heuristic processing. Because of differences in labor market conditions and policy design, social transfers reach higher up the income ladder in some countries than others. In countries where benefits are less concentrated on the poor, material self-interest considerations among the better-off ultimately decrease reliance on the deservingness heuristic.

2.1 Cross-national Differences in the Distribution of Social Benefits: Determinants

The impact of labor market conditions on who stands to benefit from redistributive social policies is straightforward: the more unemployment risks are concentrated on the poor, the less high-income workers expect to rely on social transfers aimed at protecting against income shocks (Rehm, Hacker and Schlesinger 2012).

Policy design matters in two ways. First, it can exclude middle and high-income groups *a priori*: by definition, means-tested, public transfers are limited to the worse-off (Korpi and Palme 1998). Second, policy design affects middle and high-income individuals' expectations of one day relying on social benefits, especially benefits targeted to those facing temporary job loss. A key factor is replacement rates, defined as the percentage of previous income social transfers replace on average. If replacement rates are low, social transfers have income-smoothing properties only for the poor. Middle and high-income individuals who want to insure against the risk of catastrophic income loss (Moene and Wallerstein 2001) will more likely self-insure through the private market or private savings. In contrast, in countries with high replacement rates, high-income individuals will positively value the income smoothing properties of public unemployment insurance and social programs. In addition, overall benefit generosity – which includes benefit duration in addition to replacement rates – directly affect the likelihood of *becoming* a recipient. A long line of re-

search documents the impact of more generous unemployment transfers on employment patterns: individuals are more likely to become unemployed and experience longer unemployment spells (Chetty 2005; Fredriksson and Holmlund 2006; Borghans, Gielen and Luttmer 2014). If benefits are generous, especially if replacement rates are high, moral hazard is no longer limited to the poor.

In other words, because of differences in labor market conditions and policy design, countries vary in how social benefits are distributed in the population. In some countries, the probability of relying on publicly-funded transfers is disproportionately higher for the poor because of the concentration of unemployment risk among this group, because of conditionality in access to benefits or because of low replacement rates that decrease take up rates among other income groups. In other countries, the probability of becoming a recipient is more evenly distributed among income groups because of more homogeneous risk profiles, universal benefits or higher take up rates in response to generous transfers.

As a result, reliance on the deservingness heuristic varies systematically across countries. Where access to a benefit is more evenly distributed across income groups, I expect the share of individuals who support a social program out of self-interest to be higher and the share of individuals who split along the deserving/undeserving divide to be lower. When benefits are concentrated, the size of this latter group increases and deservingness beliefs are more predictive of policy preferences. I consequently expect the following to be true:

Prediction 2.a: The correlation between beliefs about the deservingness of benefit recipients and support for the public funding of this benefit is higher in countries where benefits are concentrated among the worse-off, relative to countries where benefits are more evenly distributed.

In low concentration countries, the correlation between beliefs and preferences is lower because individuals with middle and high income, who believe recipients to be undeserving, receive a comparatively higher share of their income from public transfer and adjust their support accordingly. Figure 4 captures this insight. Consequently:

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Prediction 2.b: Country differences in the correlation between deservingness and policy preferences are mainly explained by differences in the preferences of middle and high-income individuals, especially if they find recipients to be undeserving. There is no effect of benefit concentration among the poor.

Figure 4: Country Differences in the Correlation Between Deservingness Beliefs and Policy Preferences
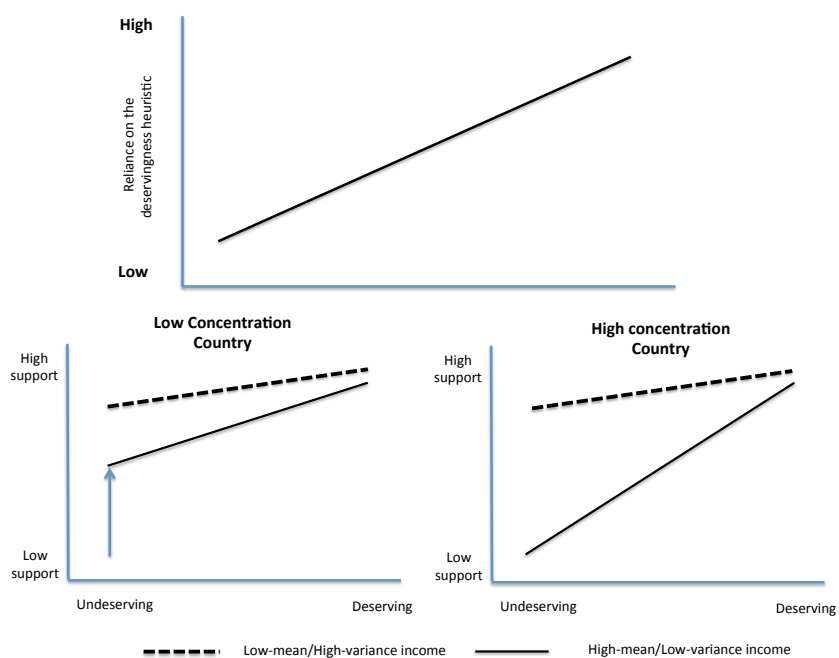
The individual-level predictions previously tested can be interpreted as causal statements. I expect individuals to adapt their behavior in line with available information and levels of certainty about the net benefits of a given transfer. In contrast, the country-level predictions presented here should be understood as observable macro-level implications of my framework with regards to the *structure* of policy preferences in advanced capitalist countries (Alesina and Angeletos 2005; Benabou and Tirole 2006).

2.2 Empirics (II): Explaining Country-level Differences in Reliance on Deservingness Beliefs

To test predictions 2.a and 2.b, I turn to a different survey item which asks respondents about their support for transfers to the unemployed. Indeed, the reasoning presented in the previous section is especially tailored to the component of the welfare state that insures against income shocks. Another reason for switching policy item is that the tax-spend survey question is particularly unreliable for cross-country comparisons. Answers to tax-spend questions are known to be very sensitive to contextual variables that shape perceptions of this item's implicit reference point, i.e. current levels of taxation and spending (Wlezien 1995). I would need to control for a host of country-level variables, something my sample size does not allow me to do. The item about the unemployed, in contrast, taps into an individual's commitment to a policy principle, which is less sensitive to short-term changes in the political context. Respondents are asked "how much responsibility do (they) think governments should have to ensure a reasonable standard of living for the unemployment." Respondents answered using a 0 to 10 scale with higher values indicating support for higher involvement from the government. [13]

As a measure of benefit concentration, I rely on data provided by the OECD (OECD 2008). It is similar to a Gini coefficient, capturing the differences between a group's share of the population and its share of all the cash transfers that are targeted to individuals of working age distributed in a given year. A value of zero indicates that all income groups (ranked according to their disposable income) receive an equal share of all cash transfers. A negative coefficient indicates that lower income groups receive a higher share of transfers than their share of disposable income. In the Supporting Information, I detail a set of checks I ran to assess the quality of this measure of cross-national differences in benefit concentration.

To test Predictions 2.a, I examine the relationship between deservingness beliefs and support for social transfers to the unemployed. I expect reliance on the deservingness heuristic to vary systematically with the concentration of working-age benefits: the more concentrated the benefits, the higher the reliance on the deservingness heuristic. I examine this relationship by including

a cross-level interaction between individual-level deservingness beliefs and country-level benefit concentration. To test Prediction 2.b, I examine whether this is true only among the better-off. I run the analysis in two steps, first only using observations from individuals in the bottom income quintile and then only using observations from individuals in the top income quintile.

Results (II)

Table 3 presents the results. As predicted, the cross-level interaction between deservingness beliefs and benefit concentration is substantive and significant (model 2). The predicted standardized slope in the country with the highest level of concentration is 0.52, while it is 0.14 in the country with the lowest level of concentration. In line with Prediction 2.b, when I examine top and bottom quintile individuals separately, I find that the cross-level interaction is mostly driven by cross-country differences in the behavior of the top income group, not the behavior of the bottom quintile (compare model 3 and model 4). In addition, these differences appears limited to individuals who believe recipients to be undeserving: as concentration decreases they are less likely to rely on their deservingness priors, increasing their support for self-interested reasons. I find not evidence of this being the case among middle and high-income individuals who believe recipients to be deserving (see table SI.5 in the Supporting Information).

Figure 5 plots the standardized coefficients against the benefit concentration measure. These coefficients were obtained after running separate country by country regressions, controlling for economic ideology and education. The raw data confirm that the results in Table 3 are not an artifact of modeling decisions.

Alternative Interpretations and Robustness Checks (II)

One possible interpretation of these results is that greater reliance on the deservingness heuristic (i.e. larger standardized coefficients) simply reflects harsher attitudes toward the unemployed. Countries where benefits are more concentrated are countries that are more likely to find the poor undeserving and thus less likely to fund transfers to this group. My framework predicts that *co-*

Table 3: Cross-level Interaction: Deservingness Beliefs and Benefit Concentration

|	(0) Full sample	(1) Full sample	(2) Full sample	(3) Full sample	(4) Bottom quintile	(5) Top quintile
Fixed Effects Level 1						
Deservingness beliefs	**0.42*****	**0.29*****	**0.30*****	**0.28*****	**0.32*****	**0.31*****
	(0.03)	(0.03)	(0.03)	(0.03)	(0.05)	(0.04)
Government responsibility		0.99***	0.99***	0.99***	1.03***	0.97***
		(0.04)	(0.04)	(0.04)	(0.04)	(0.05)
Support for redistribution		-0.16***	-0.15***	-0.15***	-0.11**	-0.15***
		(0.02)	(0.02)	(0.02)	(0.04)	(0.03)
Years of schooling			-0.01	-0.01	-0.03	0.04
			(0.01)	(0.01)	(0.01)	(0.02)
Tertiary degree			-0.04*	-0.03*	-0.02	-0.00
			(0.02)	(0.02)	(0.04)	(0.03)
Fixed Effects Level 2						
Benefit concentration[a]				-0.01	-0.08	0.09
				(0.01)	(0.10)	(0.12)
Cross Level interaction						
Deservingness beliefs * benefit concentration				**-0.39*****	-0.25	**-0.47***
				(0.11)	(0.23)	(0.19)
Random Effects[b]	Y	Y	Y	Y	Y	Y
Residuals SD	0.97***	0.82***	0.82***	0.82***	0.84***	0.81***
	(0.00)	(0.02)	(0.01)	(0.01)	(0.02)	(0.02)
N	40490	40391	40315	38681	6110	4642
ll	-56443	-49392	-49281	-47373	-6827	-6014

Significance levels: * $p<.05$, ** $p<.01$ *** $p<.001$.
Data: ESS 2008.
[a] The benefit concentration measure is not standardized. The smallest values is -0.34 and the highest value 0.31.
[b] Random Effect for attitudinal variables only.

**Figure 5:** Country Differences in the Correlation Between Deservingness Beliefs and Policy Preferences
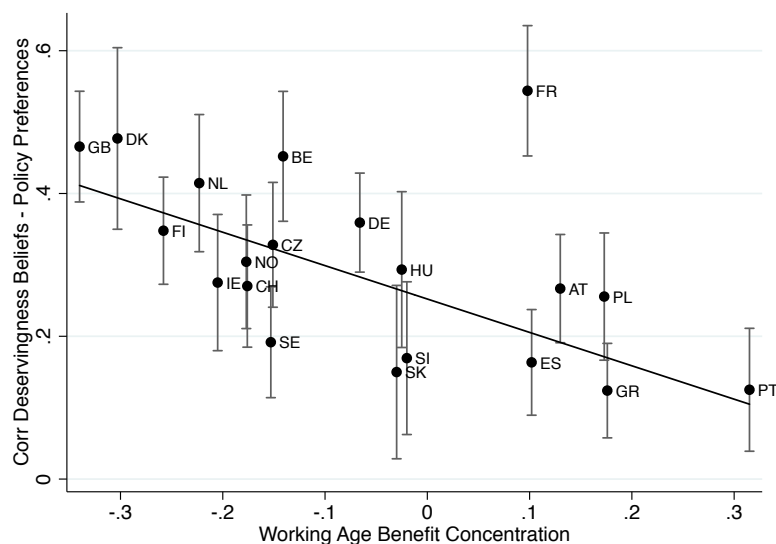
The higher the benefit concentration measure the less concentrated benefits are among the poor. Standardized coefficient is equal to −0.58 when including France and −0.76 without France. Benefit concentration explain a third of the variation in regression coefficient when including France and 2/3 when excluding France.

variance (reliance on deservingness beliefs) not *level* (mean deservingness beliefs) is what matters. Figure 6.A further supports this claim. While countries with greater reliance on the deservingness heuristic are more likely to believe recipients to be undeserving, the relationship is weak. Sweden and Norway, for instance, are two countries with average beliefs that emphasizes the deservingness of recipients but the covariance is much higher in Denmark than in Sweden. A look at benefit concentration can shed light on this difference. Similar contrasts can be drawn between the Czech Republic and Slovakia or Great Britain and Ireland. Portugal, on the other hand, is a country that is more likely to find recipients undeserving, especially when compared with Greece or Spain, but it's reliance on the deservingness heuristic is similarly weak. This can be partly traced back to these countries low levels of benefit concentration.

While not the focus of this paper, these findings also suggest a rethinking of the existing literature on the relationship between benefit concentration and attitudes. Against the expectation that

Figure 6: Country-level Correlations

A. Average Beliefs versus Reliance estimate

B. Benefit Concentration versus Average Beliefs
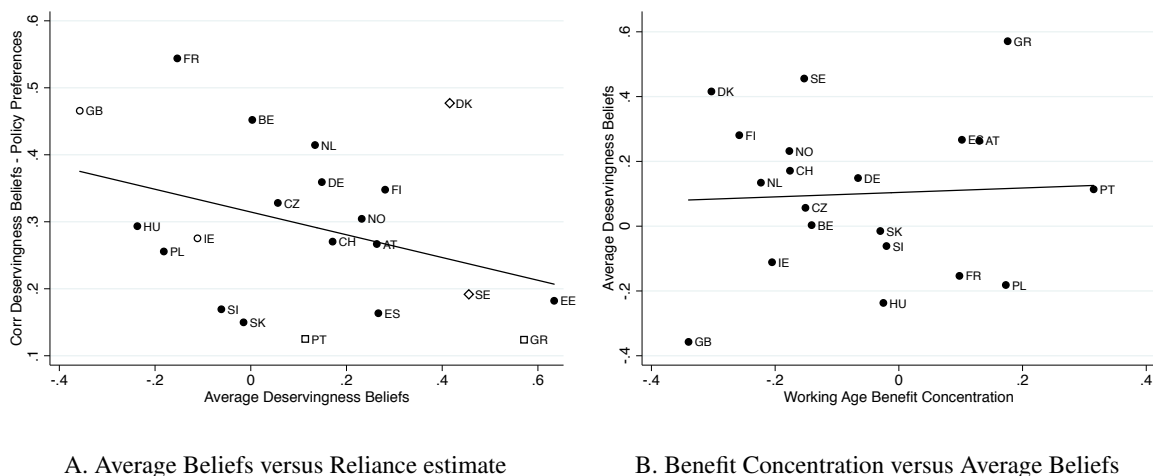
the concentration of benefits among the worse-off fosters negative attitudes vis-a-vis recipients (see Korpi and Palme (1998); Larsen (2008); Rothstein (1998)), I find that average beliefs about recipients are poorly correlated with the concentration of benefits. Figure 6.B, plots this relations. The correlation remains close to 0, even after taking the outlier Greece out of the sample. In line with the argument presented in this paper, it is the covariance between deservingness beliefs and policy preferences that correlates with benefit concentration, not average beliefs. The argument presented in this paper offers another advantage to the existing theory on the relationship between deservingness and policy design: it generates new expectations, i.e. Predictions 1.a, 1.b and 2.b, regarding preference heterogeneity in the population.

To assess the robustness of my results, I ran an additional set of analyses that I detail in Table SI.6 in the Supporting Information. I mention the most important here. First, I ran two placebo tests. The cross-level interaction between deservingness scores and benefit concentration should only apply to benefits targeted to the unemployed and individuals of working-age more generally. I examined whether a measure of concentration that is only related to old-age transfers produces the same outcome: it does not. In addition, the concentration of working-age benefit should not be systematically related to cross-national differences in the covariance between support for transfers to the unemployed, on the one hand, and attitudinal items that have *nothing* to do with deservingness,

on the other. I examined whether the covariance between support for transfers to the unemployed on the one hand, and the two controls capturing latent economic ideology on the other, is higher in countries where benefits are concentrated on the poor: this is not the case.

One factor, namely ethnic diversity, deserves mentioning. Indeed, because of its genesis in American social science, the concept of deservingness is unavoidably intertwined with the study of group bias. As shown by Gilens (1999), in the United States, the impact of out-group bias on attitudes toward welfare are fully mediated by the belief that most recipients are black and by racial stereotypes about black lazyness. We might, as a result, expect the presence of immigrants to be correlated with average beliefs about deservingness but there are no reasons *a priori* to expect immigration to impact the main outcome of interest, i.e. *how much* individuals rely in deservingness considerations. At the individual level, I find that negative beliefs about the economic and cultural consequences of immigration explain part of the variance in deservingness beliefs. However, at the country level, countries with more immigrants are also countries more likely to find recipients deserving. More importantly, the substantive and significant cross-level interaction between deservingness beliefs and policy design is robust to the inclusion of both stock and flow measures of immigration.

Finally, one important outlier in Figure 5 requires some attention, namely France. The results are stronger when taking this country out of the analysis. A review of the secondary literature indicates that the high coefficient on deservingness in this country, despite low levels of benefit concentration, is probably due to an outlier event, namely Nicolas Sarkozy's election campaign in 2008, the year the data was collected. His campaign emphasized hard work (*Travailler plus pour gagner plus*) and chastised benefit abuse. In other words, respondents had most likely been primed to use the deservingness heuristic.

This section provides evidence that in countries where working-age benefits are more evenly spread and reach higher up in the income ladder, material self-interest trumps deservingness considerations. Respondents who find recipients undeserving are more likely to support transfers to

the unemployed and less likely to rely on the deservingness heuristic. In countries where benefits mostly go to the worse-off and transfers are less generous, higher-income individuals face both lower stakes and incomplete information about the self-interested position to take when forming an opinion about unemployment transfers and are consequently more likely to rely on the deservingness heuristic. The covariance between beliefs and policy preferences in this group is higher.

3 Overview and Discussion

Comparative studies of redistributive politics have largely overlooked the issue of deservingness. I have shown that the omission of deservingness beliefs comes at a cost for our understanding of redistributive politics in post-industrial democracies. I am here in agreement with Fong, Bowles and Gintis (2006) who write: "Understanding egalitarian politics today requires a reconsideration of *Homo Economicus*, the unremittingly self-regarding actor of economic theory (...) we believe that conditional cooperation and punishment", in other words the willingness to help the deserving and punish the undeserving, "better explains the motivations behind support for the welfare state" (page 6). This paper provides one of the first systematic cross-national extension of the mainly US-centric research that provides the empirical bases for this claim. In line with previous findings by Fong (2001, 2007) and Gilens (1999), I show that deservingness beliefs are not simply a posteriori justifications of one's material self-interest, defined as self-oriented income maximizing behavior.

However, while Fong, Bowles and Gintis (2006) argue that the deservingness heuristic is a better predictor of redistributive preferences than self-interest, I argue that the two matter jointly. Without the deservingness heuristic, key components of mass social policy preferences are unaccounted for. Without self-interest, researchers cannot explain why the predictive power of deservingness beliefs varies across socio-economic groups and countries. Overall, this framework has important implications for our understanding of redistributive politics in post-industrial countries.

First, it sheds a new light on the coalitions behind social policy retrenchment in the "Age of Austerity" (Pierson 2001). Mainstream models predict that high-income groups will be more likely to turn against a bankrupt welfare state for fear of having to foot the bill. My framework predicts strong heterogeneity among the rich: high-income "bleeding heart" liberals, who believe recipients to be deserving, are central to coalitions opposing retrenchment, especially if the policy targets transfers to the least well-off. The lack of correlation between deservingness perceptions and benefit recipiency can also help understand why welfare to workfare reforms have been embraced by center left parties

Second, the argument in this paper calls for a renewed attention to Moene and Wallerstein

(2001)'s emphasis on a disaggregated analysis of social spending. Social policies that cover widespread risks such as illness and old age will command strong support for the status quo, rooted in well-understood self-interest and buttressed by loss aversion. It severely constrains reform-inclined politicians as vividly illustrated by the 1995 strikes in France or the more recent 2014 December lock-down in Belgium. Social insurance policies that cover more concentrated risks such as illness, unemployment or disability are less likely to follow this model with support for and opposition to retrenchment coming from unexpected socio-economic groups. Policy design, in turn, can make the politics of concentrated risk look more like the politics of universal risk, and vice-versa.

A comparison between the politics of health care reform in Great Britain and the United States provides a quick illustration of the benefits of the framework presented in this paper. Both countries are known for an extensive use of the deservingness rhetoric. Their populations hold, comparatively to other western countries, negative priors about the deservingness of the poor (Svallfors 2012). In Great Britain, the recent debates over the privatization of segments of the National Health Service (NHS), have made no references to deservingness. The universal design of the NHS results in a strong self-interested support for the status quo. In contrast, the coalition behind Obamacare is a mix of self-interested low-income voters hoping to get access to year-around health insurance and high-income individuals who perceive the lack of insurance among the poor as a form of injustice. Tea-party voters, on the other hand, are an illustration of the mobilizing power of a combination of self-interested opposition to a reform – they usually have an above average income – alongside the beliefs that future beneficiaries are among the undeserving lazy scroungers (Skocpol and Williamson 2011).

Finally, the theory and findings presented in this paper are an important addendum to the literature on the impact of growing ethnic diversity on European welfare states. The bulk of the existing research hypothesizes that the (perceived) over-representation of minority ethnic groups among recipients will decrease support for redistributive social policies among the majority because of a widely-shared disaffinity for out-group members. According to Gilen's, group bias and racial

antipathy impact social policy preferences beliefs through their effect on perceptions of lazyness and free-riding intentions, i.e. beliefs about deservingness. The interaction between the deservingness heuristic and self-interest documented in this paper indicates that hostility to immigrants, and its effect on deservingness beliefs does not always translate into opposition to redistribution. Institutional design and risk distribution appear to further shape the extent to which this might be the case. In other words, the causal channel linking immigration to social policy preferences is a complex one mediated by self-interest and institutional design. Most empirical tests do not account for these mediators, potentially explaining why findings have been contradictory at best (Finseraas 2008).

While this paper examines the consequences of deservingness beliefs, it leaves aside one major area of enquiry: where do beliefs about deservingness come from? Most researchers stop short of answering this question. The emphasis on self-reliance in American culture (Benabou and Tirole 2006) as well as the legacy of slavery most likely play an important role in explaining the United States' position as an outlier. However, perceptions of recipients as lazy free-riders are no longer limited to one side of the Atlantic, with similarly harsh attitudes in Britain (Svallfors 2012), Poland, and at least in 2008, France. Larsen (2008) and Korpi and Palme (1998) trace the origins of beliefs about the poor to policy design. The empirical results presented in this paper provide only limited evidence to support this institutionalist argument. I have mentioned group-bias and ethnic diversity as a potential way forward. However, there is some evidence that reality might only reluctantly fit this framework. In Great Britain, where a casual observer of British politics might assume anti-immigrant preferences to be a driver of negative perceptions of welfare recipients, "most of the poor and welfare recipients are perceived to be white." In Denmark and Sweden, with much lower levels of diversity, "the poor and welfare recipients increasingly have come to be perceived as non-white" (Larsen and Dejgaard 2013), without undermining the beliefs that the modal recipient is deserving. It is beyond the scope of this paper to take on this complex issue. Future research, I believe, will greatly benefit from directly engaging with research in social psychology and behavioral economics on the cognitive apparatus, briefly documented in this paper,

that makes the deservingness heuristic a default mode of reasoning.

Notes

[1]See Oorschot (2000) for a study of deservingness in a European country.

[2]Group bias and racial stereotyping play a key role: Americans tend to believe that most welfare recipients are black and that black people lack sufficient commitment to a moral ethic of hard work and diligence (Gilens 1999).

[3]First, retrenchment is an unpalatable option for an electorate that relies on the welfare state for material security (Pierson 2001; Stephens 2015). Second, growing income and wealth inequality are expected to further buttress support for redistribution (Meltzer and Richard 1981; Acemoglu and Robinson 2005).

[4]Immigrants – who are at the bottom of the deservingness scale – are increasingly over-represented among recipients, undermining the majority's willingness to fund social transfers to the undeserving "other" (Alesina and Glaeser 2006; Dahlberg, Edmark and Lundqvist 2012; Soroka et al. 2015).

[5]The countries are Austria, Belgium, Switzerland, Czechoslovakia, Germany, Denmark, Spain, Finland, France, Great Britain, Greece, Hungary, Ireland, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia and Sweden.

[6] I focus on the deservingness heuristic because it is key to understanding behavior in resource sharing situations, of which the welfare state is a large scale instance. Theoretically, other effort-reducing procedures that weigh computational costs against utility rewards can be used. While the inclusion of the deservingness heuristic doubles the share of the variance explained, there is still much residual variance to explain.

[7]Other components of public spending such as tax subsidies for home buying, childcare or higher education are likely to affect the rich (both in terms of stakes and information) more than the poor. My model predicts that heuristic-processing will play a larger role among the poor, who do not directly experience these tax subsidies, than among the rich. Unfortunately, no cross-national surveys ask questions about this form of retrenchment and I leave this observable implication to future projects.

[8] With twenty countries, concern that standard errors might be severely biased downwards is

mitigated (Green and Vavreck 2008; Stegmueller 2013). However, in the first part of the analysis, I only rely on 16 countries. I ran the analysis separately by country and return substantively similar results. Throughout, I model the coefficients on behavioral variables as random variables (i.e. slopes are allowed to vary across the twenty countries).

[9]In some countries, the coefficient on deservingness, while statistically significant is substantively meaningless (i.e. Spain, Estonia, Poland, Greece and Hungaria). For this part of the analysis, I limit sample to countries where deservingness beliefs matter for policy preferences.

[10]Figure SI.4 in the Supporting Information examines this relationship at the country level.

[11]Self-interest matters in some fashion: unemployed individuals are more likely to find recipients like themselves deserving. The difference decreases to 1/2 a standard deviation if the worse-off individual is unemployed. However this population is small and cannot be driving the results.

[12]Other countries exhibit similar patterns, namely Norway, Belgium, Sweden, Slovakia, France, Austria and Ireland. Several countries however do not exhibit these patterns despite a strong covariance between beliefs and policy preferences, namely Switzerland, Netherlands, Slovenia, Germany, Czech Republic and Finland.

[13]However, this item requires the systematic use of the "government responsibility" variable as a control. Indeed, this questions was asked as part of a list of questions on the government's responsibility in the provision of pensions, healthcare, childcare, jobs and paid leave for those caring for a sick relative. As a result, respondents are primed to think about government responsibility as a general concept in addition to expressing support for public transfers to a given group (the unemployed, the old, young families or the sick). I consequently always control for a respondent's general level of support for government intervention in the provision of social transfers (see Table SI.1 in the Supporting Information for more detail on this variable). Table SI.1 provides additional information on all the variables used in the analysis. Figure SI.3 plots country differences in mean answers to the non-standardized versions of these items.

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Supporting Information

Measuring Income Concentration

The OECD uses country-specific income surveys provided by member states to compute the measures used in the analysis in section 2. These surveys cover the 2004-2008 period. To test the robustness of this measure, I used the Luxembourg Income Study (LIS 2015) , which harmonizes income and labour force surveys to make them comparable across countries, to compute measures of benefit concentration, using a formula identical in spirit to the Gini coefficient (see code below). Because LIS does not provide enough information on the nature and origin of transfers, I rely on a second best solution, which is to examine the distribution of cash transfers in the working-age population (18-62 years old). This allows me to compute a measure that does not take into account pension and old-age related transfers. However, when compared to the OECD measure, the reference population is different, providing only an imperfect point of comparison. I find a strong correlation between the OECD working-age cash transfer and the LIS measure (0.76 with a sample size of 20). The main problematic case is Switzerland: the concentration levels are much higher in the LIS data than in the OECD data. However, a recent 2011 version of this measure released by the OECD confirms the country ranking in the 2008 measure (OECD 2014).

I also examined whether measures of benefit concentration are related, as assumed, to the distribution of unemployment risk in the population, as well as to policy design. To measure risk concentration, I use a measurement strategy similar to the one in Rehm, Hacker and Schlesinger (2012) (see the article for more details). Unfortunately, the size of my sample drops from 20 to 11, in this small sample, the correlation between benefit concentration and risk concentration is 0.66. As a result, I prefer to use average unemployment rates over the previous five years as a proxy for risk concentration. The assumption is that countries with higher resilient unemployment rates are most likely to be countries where unemployment risks expands beyond the low skilled poor workers (i.e. higher average unemployment rate indicates lower risk concentration). As a proxy for policy design, I use average income replacement rates for unemployment insurance. I use an updated version of Ferrarini et al. (2013) that was kindly provided to me by the authors. Unemployment rate and replacement rates predict the working-age benefit measure well: the explained variance is close to 0.7 and the standardized coefficients on each measure are substantive (ranging from 0.4 to 0.7 depending on specifications).

Code submitted to LIS platform (data is only accessible remotely):

```
program define welfdimP
drop if age > 62
drop if age < 18
drop if dhi==.
drop if hwgt==.
replace hwgt=0.01 if hwgt==0
gen pwt=hwgt*nhhmem
```

```
gen transfer =hit - hitp
replace transfer = hit if transfer == .
drop if transfer == .
replace transfer=0 if transfer<0
replace transfer= transfer/(sqrt(nhhmem))

* pre transfer income
gen pretrinc=dhi-transfer
replace pretrinc= pretrinc/(sqrt(nhhmem))
replace pretrinc=0 if pretrinc<0

*concentration coefficient generated here
sgini transfer [aweight=pwt], sortvar(pretrinc)

end

foreach ccyy in at04 be00 cz04 dk04 ee04 fi04 fr05 de04 gr04 hu05 ie04 nl04 no04 pl04 sk07
es04 se05 ch04 uk04

di "'ccyy'"

use age dhi hwgt nhhmem hit hitp hits hitsu hitsa using $'ccyy'h, clear
welfdimP
```

Robustness Check Using Structural Equation Modeling

The code below provides the basic template for re-running the analysis using structural equation modeling (see Table SI.6 for more details). ditxssp is the variable for the tax-spend item. gincdif is the item measuring support for redistribution. DES is latent deservingness beliefs and GOV latent support for government provision of social services. uentrjb bennent prtsick sblazy sblwcoa sblwlka are the items used to measure deservingness beliefs. gvslvol gvhlthc gvpdlwk gvcldcr gvjbevn gvslvue are the items used to mesure support for government provision of social services ("government responsibility") in the text.

- Model without ideology controls:
  sem (uentrjb bennent prtsick sblazy sblwcoa sblwlka <- DES) (ditxssp <- DES) [pw=pspw], stand

- Model with ideology controls:
  sem (uentrjb bennent prtsick sblazy sblwcoa sblwlka <- DES) (ditxssp <- DES GOV gincdif) (gvslvol gvhlthc gvpdlwk gvcldcr gvjbevn gvslvue <- GOV) [pw=pspw], stand

The estimate for the relationship between DES and $ditxssp$ is substantively similar to the one presented in Table SI.2 (column 2), i.e. 0.24, with standard error of 0.007 compared to 0.27 in Table SI.2. The small difference is most likely due to the inclusion of random effects in the multi-level model using factor scores as well as the differences in how measurement errors are treated.

The covariance between DES and $gincdif$ is not substantively meaningful. The covariance between DES and GOV is also low, at 0.16. Because the two variables are constrained to a variance of 1, this estimate can be interpreted as the standardized coefficient obtained after regressing DES over GOV as in Table SI.3, column 4 (coef = 0.11) .

## The Determinants of Deservingness Beliefs

Table SI.3 documents in more details the absence of relationship between variables that proxy for the probability of being a net beneficiary of redistributive transfers, on the one hand, and beliefs about the deservingness of recipients, on the other. Three main results stand out. First, self-interest matters in some fashion: unemployed individuals are more likely to find recipients like themselves deserving. However this population is small and cannot be driving the results. The larger group of individuals who have experienced unemployment in the past year and are working with a precarious job contract, are also more likely to find recipients deserving ($0.1*2 = 0.2$ SD). Second, once I restrict the sample to individuals on the job market and include unemployment risk exposure, I find that the more risk exposed are *more likely* to find recipients undeserving. This is most likely driven by differences in education. Indeed, education, especially a university degree, increases the probability that a respondent believes recipients to be deserving.

Overall, with the exception of the unemployed, proxies of permanent income and deservingness beliefs appear to be orthogonal to each other. As a result, the inclusion of deservingness beliefs to predict social policy preferences increases the explained variance substantially. One average, I find that the standard model – which predicts social policy preferences using proxies of permanent income and left-right economic ideology – explains on average 5 percent of the observed variance in social policy preferences. The inclusion of deservingness factor scores doubles the explained variance with only very limited impact on the other covariates.

## Alternative Hypothesis: Cognitive Capacity and Ideological Constraint

I examine whether differences in the correlation between beliefs and policy preferences are driven by differences in individuals' capacity to "think ideologically." I first control for compositional differences in education level and find that the results do not change (see model 1 in Table SI.4). I also control for economic ideology, in the instance that my results would be driven by more ideologically "extreme" respondents among the top quintile groups (see model 2 in Table SI.4). I also examine whether the main result still holds among a group of ideologically constrained individuals (see model 3) who clearly self-identify with the left or the right of the ideological scale: even among these individuals, income moderates the extent to which beliefs about deservingness will shape support for increased social spending.

Figure SI.1: Contribution to the Existing Literature
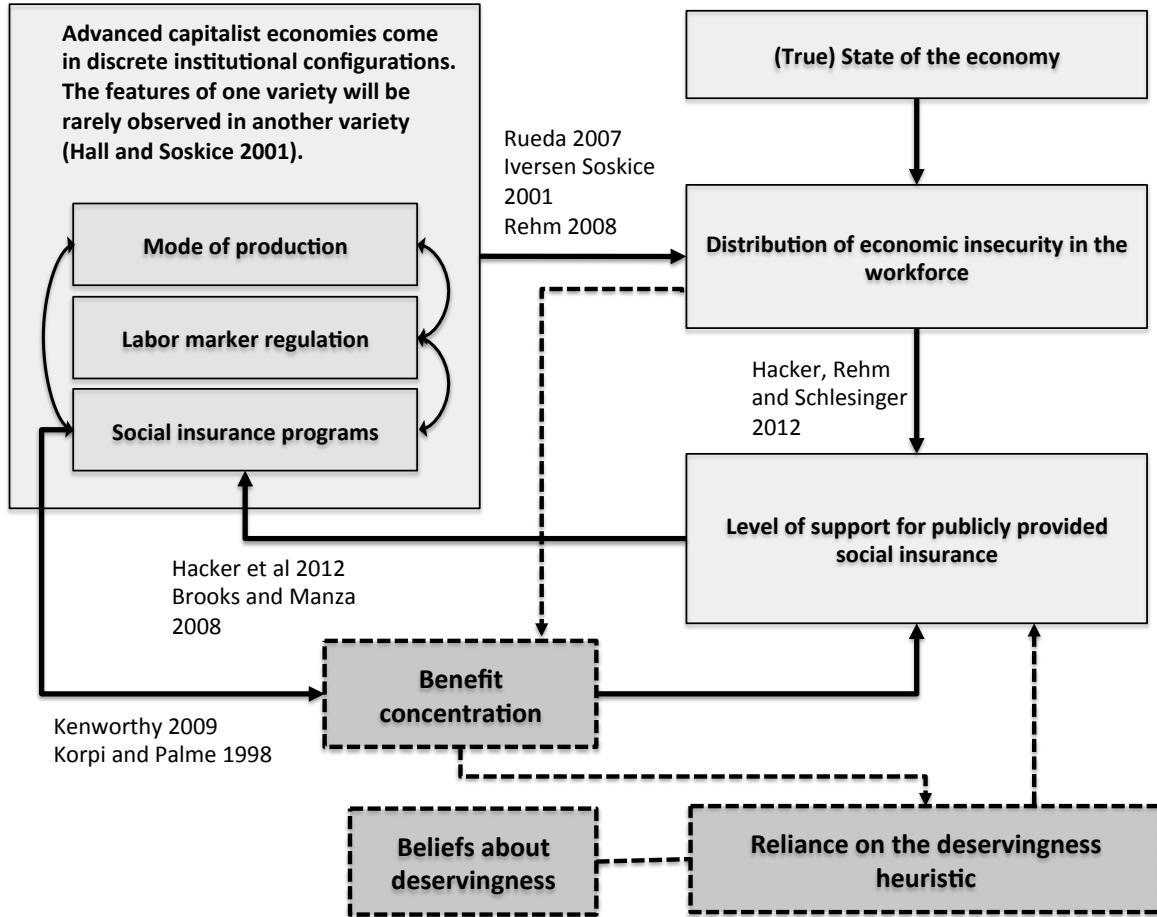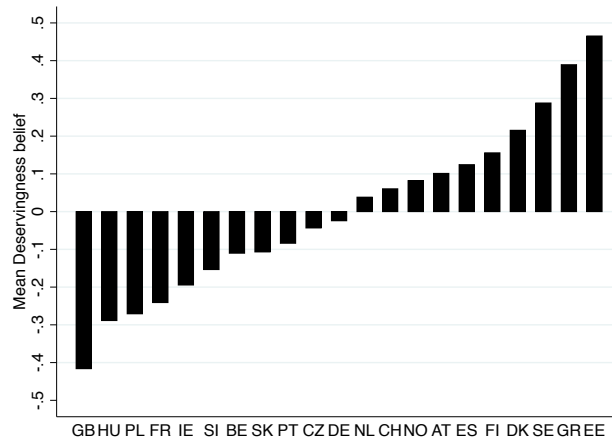

Dashed lines highlight this paper's contribution to the existing literature.

Figure SI.2: Predicted Support for Increases Spending and Taxes: Top versus Bottom Income Quintiles
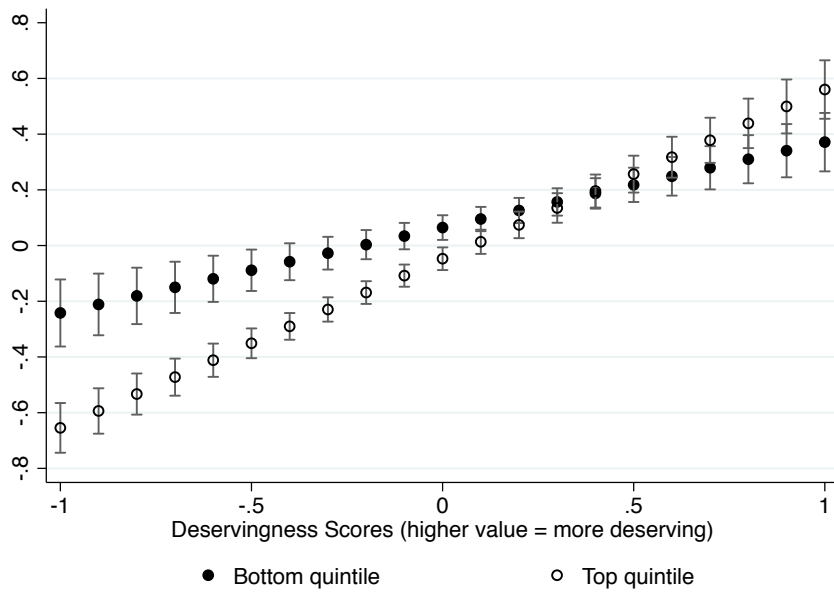
Standardized continuous measure

Figure SI.3: Cross-National Differences in Deservingness Beliefs and Policy Preferences

Mean deservingness beliefs (standardized)
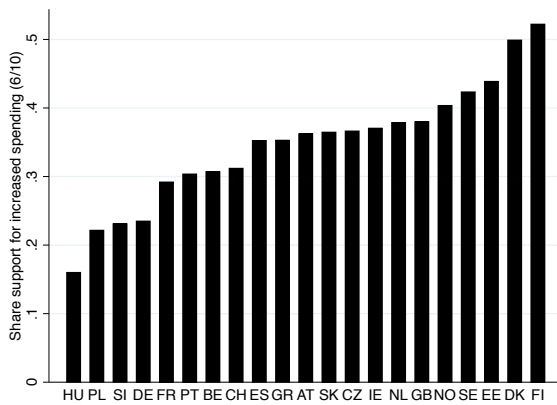
Support for Increased Spending/Taxes
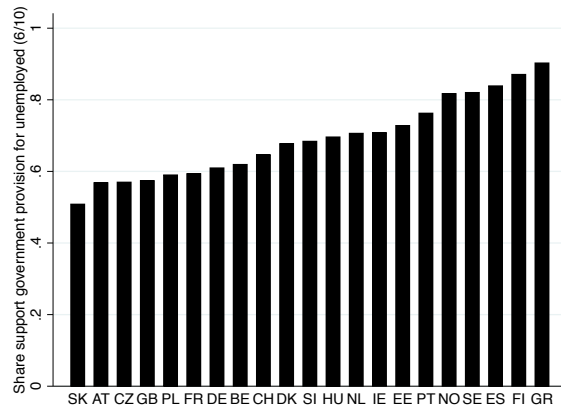
Govern't Responsibility to Provide Decent Std Living : Agree

Unlike in the body of the text, the deservingness beliefs are here standardized using full sample mean and standard deviation, to enable comparison. Policy items are recoded to be equal to 1 if respondent chose any answer between 6 and 10 on the 0 to 10 scale (0 otherwise).

Figure SI.4: Country-level Partial Correlations: Deservingness Beliefs, Government Responsibility and Policy Preferences
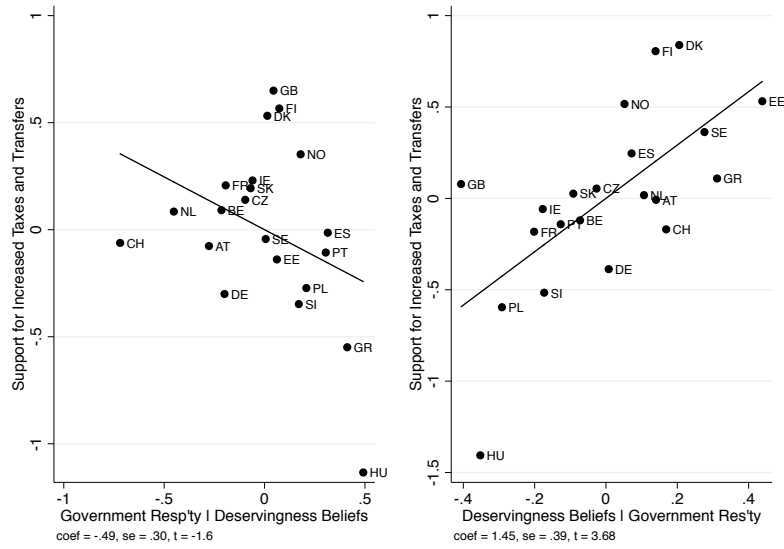
Support for Increased Spending and Taxes
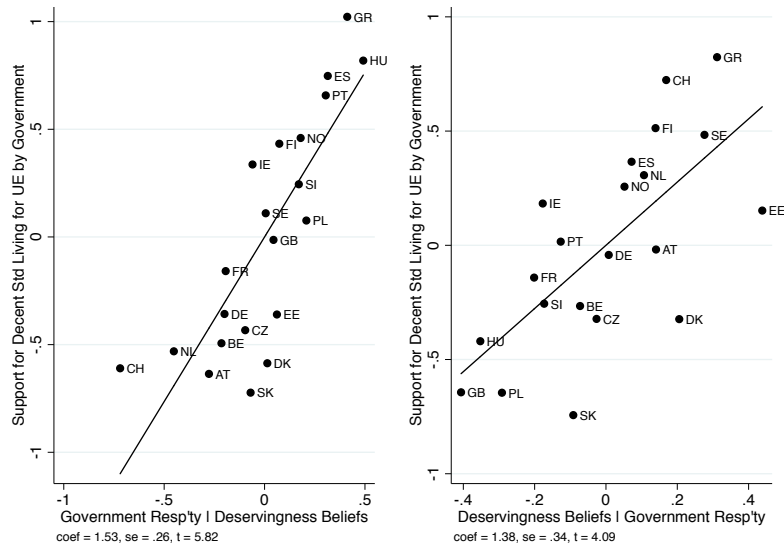
Support for the Provision of Decent Standard of Living to the Unemployed

Figure SI.5: Deservingness Beliefs by Income and Risk Group in Selected Countries
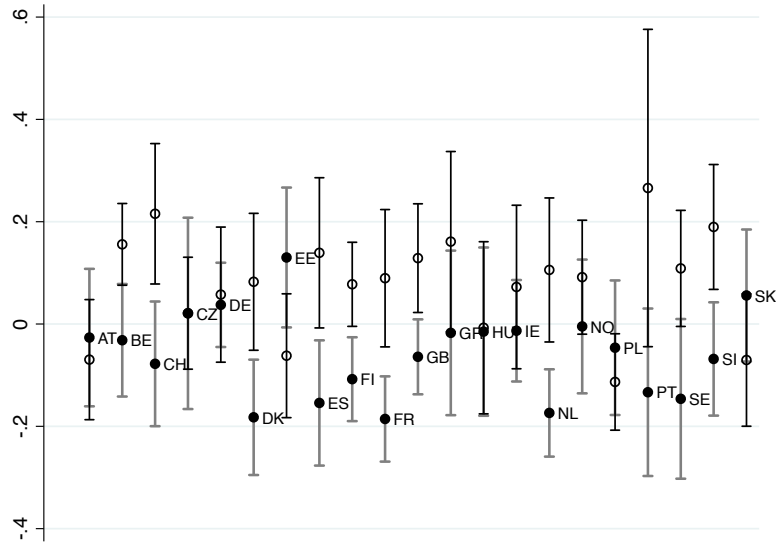
Full circle = bottom quintile / Hollow circle = Top quintile
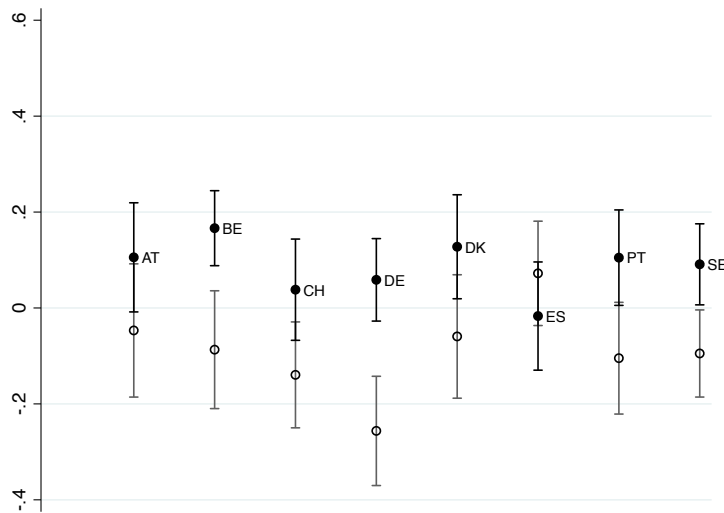
Full circle = Low risk (<2 %) / Hollow circle = High risk (> 0.15 %

Higher values on the deservingness scores indicate that respondents find recipients more deserving. For the bottom figure, countries are selected based on reliability of occupational unemployment rate measures.

Table SI.1: Variables: Overview

	ESS variable	Recoding
Income	The ESS provides a categorical income variable designed to match the income distribution of the surveyed country: e.g. individuals who are in category 1 are individuals who declare a household income below the country's first percentile.	I limit my use of this continuous measure to the bare minimum. Indeed, I need a measure of income that is comparable across countries. Robustness checks reveal inconsistencies in the cut-off points chosen by the ESS country teams. As a result, I recoded the income measure in order to identify households in the top and the bottom quintile. I used the Luxembourg Income Study's datasets to compute country by country values for the P20 and the P80. I then recode the 1 to 10 income value into a three category variable. Unlike the 1/10 income measure, the bottom versus top quintile income measure does not require to make the strong assumption that the relationship between income and preferences is linear in all countries.
Unemployment risk	The ESS provides data on individuals' occupation, using the ISCO88 classification at the 3 digit level	I use the occupation variable to match respondent to a measure of occupational unemployment rate. I use the European Labour Force Survey to measure the share of individuals in a given occupation who are unemployed at the time of the survey. I pooled three years of labour force surveys to decrease measurement error. Occupations that have too few observations are dropped. In a robustness check, I also ran the same analysis using the number of individuals who are unemployed as well as individuals who are in involuntary part-time or in a fixed-term contracts. Despite harmonization efforts by the Eurostat team, some of the measures for Eastern European countries raise a few red flags. I include it in the analysis but interpretation of the coefficients requires much caution. I assume the absolute level of risk to matter more than the relative level (i.e. relative to the country average). This variable is consequently standardized but with regards to the average unemployment rate and standard deviation **of the full sample**.
Education	The ESS provides the following categorical variable: Less than lower secondary education/Lower secondary education completed / Upper secondary education completed /Post-secondary non-tertiary education / Tertiary education completed	I identify respondents who have a post-secondary education as having a "tertiary degree."
Years of schooling	Years of full-time education completed	I standardize this measure with regards to average schooling in the country. I use this measure in conjunction with the "tertiary degree" variable to control for years of education and degree.
Labor market status	The ESS asks respondents about their main activity in the past 7 days	I distinguish between the employed, the unemployed and those out of the labor market. Within the employed, I single out "outsiders", i.e. individuals who have experienced unemployment in the past year and are working part time or on a fixed-term contract.

Variable: Overview (continued)

	ESS Variable	Recoding
Government responsibility	How much responsibility you think the government should have to : Ensure a decent standard of living for the unemployed / Provide childcare services for working parents / Provide paid leave from work to care for sick family / Ensure a decent standard of living for the old / provide healthcare for the sick / Provide jobs for everyone	I use these six items to measure latent support for government responsibility in the provision of social services. Individual scores are computed following a factor analysis using country-specific item means and standard deviations. I use this item as a proxy of an individual's ideology on left-right economic issues.
Support for redistribution	Government should reduce differences in income levels : Agree Strongly / Agree / Neither / Disagree / Disagree Strongly	I use this item as a proxy of an individual's ideology on left-right economic issues.
Subjective placement on the left-right scale	In politics people sometimes talk of "left" and "right". Using this card, where would you place yourself on this scale, where 0 means the left and 10 means the right?	I use this item to single out individuals who are likely to be constrained by left versus right ideological frames, i.e. individuals who chose a response category that signal a clear left (right) ideological attachment, i.e. 0, 1, 2 and 3 (7 8 9 and 10). This is the "intensity" variable in Table SI.4.

Table SI.2: Deservingnes Beliefs and Support for Increased Spending and Taxes

	(0)	(1)	(2)	(3)	(4)	(5)	(6)
Fixed Effects							
Deservingness beliefs		**0.51*****	**0.46*****	**0.50*****	**0.46*****	**0.57*****	**0.52 *****
		(0.02)	(0.02)	(0.03)	(0.02)	(0.03)	(0.03)
Support for redistribution			-0.23***		-0.22***		-0.24***
			(0.04)		(0.04)		(0.05)
Government responsibility			0.25***		0.27***		0.24***
			(0.04)		(0.04)		(0.05)
Top quintile [ref: Bottom][a]				-0.10**	-0.04	-0.10*	-0.03
				(0.03)	(0.03)	(0.04)	(0.04)
Unemployed [ref : Insider]				0.03	-0.00	0.01	0.01
				(0.04)	(0.04)	(0.05)	(0.05)
Outsider				0.05	0.02	0.04	0.02
				(0.03)	(0.04)	(0.04)	(0.04)
Not on the labour market				0.07**	0.07**		
				(0.03)	(0.03)		
Years of education				0.02	0.02	0.02	0.03
				(0.01)	(0.01)	(0.02)	(0.02)
Tertiary degree				-0.00	0.03	-0.01	0.02
				(0.02)	(0.02)	(0.02)	(0.02)
Gender [ref:male]				0.03	0.00	0.05	0.01
				(0.03)	(0.02)	(0.03)	(0.02)
Age				0.01***	0.00***	0.01***	0.01***
				(0.00)	(0.00)	(0.00)	(0.00)
Age^2				-0.00***	-0.00***	-0.00***	-0.00***
				(0.00)	(0.00)	(0.00)	(0.00)
Unemployment risk						0.05	0.04
						(0.04)	(0.04)
Random Effects (SD)							
Deservingness		0.08**	0.05***	0.08***	0.05***	0.08***	0.08***
		(0.08)	(0.02)	(0.02)	(0.02)	(0.03)	(0.03)
Support for Redistribution			0.14***		0.15***		0.15***
		(0.00)	(0.03)	(0.01)	(0.02)	(0.02)	(0.02)
Government responsibility			0.15***		0.14***		0.15***
			(0.02)		(0.02)		(0.03)
Residuals SD	1.00***	0.97***	0.94***	0.95***	0.93***	0.94***	0.92***
	(0.00)	(0.01)	(0.01)	(0.00)	(0.01)	(0.01)	(0.01)
N	29308	29226	29167	22231	22231	11336	11336
ll	-41653	-40535	-39810	-29949	-29353	-15026	-14770

Significance levels: * $p<.05$, ** $p<.01$ *** $p<.001$.

Note: When unemployment risk is included, the sample is restricted to individuals on the job market only. Indeed this measure of risk exposure is meaningless for individuals who are not directly exposed to job loss.

Data: ESS 2008.

[a] The result is the same even if I use a measure of income which orders respondents by income deciles.

Table SI.3: The determinants of deservingness beliefs

	(1)	(2)	(3)	(4)
Fixed Effects				
Support for redistribution	-0.02		-0.03*	-0.04*
	(0.01)		(0.01)	(0.02)
Government responsibility	0.10***		0.10***	0.11***
	(0.02)		(0.02)	(0.02)
Top quintile [ref Bottom quintile][2]		0.03*	0.05**	0.04
		(0.01)	(0.01)	(0.02)
Unemployed		**0.15*****	**0.14*****	**0.14*****
		(0.03)	(0.03)	(0.02)
Outsider[a]		0.00	0.00	**0.05***
		(0.00)	(0.00)	(0.02)
Years of schooling		**0.03*****	**0.03*****	**0.04*****
		(0.01)	(0.01)	(0.01)
Tertiary degree		**0.12*****	**0.12*****	**0.13*****
		(0.02)	(0.02)	(0.03)
Gender [ref: male]		0.02	0.01	-0.01
		(0.01)	(0.01)	(0.02)
Age		-0.00**	0.00	0.00
		(0.00)	(.)	(.)
Age^2		0.00**	0.00**	-0.00
		(0.00)	(0.00)	(0.00)
Unemployment risk				**-0.03** *
				(0.32)
Random Effects				
Tertiary degree[b]		0.08***	0.08***	0.09***
		(0.02)	(0.02)	(0.02)
Unemployed[c]		0.02***	0.05***	0.07***
		(0.00)	(0.02)	(0.03)
Unemployment risk[c]				0.03***
				(0.02)
Support for redistribution	0.00		0.02***	0.05***
	(.)		(0.00)	(0.01)
Government responsibility	0.05		0.05***	0.06***
	(.)		(0.01)	(0.02)
Residuals SD	0.50	0.49***	0.49***	0.48***
	(.)	(0.00)	(0.00)	(0.00)
N	31036	23221	23181	11634
ll	-39713	-28695	-28476	-14178

Significance levels: * $p<.05$, ** $p<.01$ *** $p<.001$. *Note*: the outcome variable is standardized such that the difference between 0 and 1 is equal to 2 SDs, the coefficients on the non-standardized variables, such as income or university degree, are to be interpreted with this recoding in mind. *Data*: ESS 2008. [a] Once I restrict the sample to those who are on the labor market, being an outsider has the expected effect (0.1 SD more likely to believe welfare recipient deserving)
[b] The slope for university degree varies a lot across countries, indicating that higher education is not a good predictor of higher levels of deservingness in all countries.
[c] I include RE for the unemployment risk and unemployed coefficients to account for the fact that measurement error might make it a poor predictor of deservingness beliefs in some of the countries in my sample.

Table SI.4: Cognitive Capacity and the Interaction Between Income and Deservingness Beliefs

	(1)	(2)	(3)
		Compositional Effects of	Ideologues only
		Education and ideological constraint	
Fixed Effects			
Deservingness beliefs	0.31***	0.25***	0.27*
	(0.05)	(0.06)	(0.13)
Top quintile	-0.11***		
	(0.03)		
Deservingness beliefs * Top quintile	**0.30*****		
	(0.04)		(0.08)
Income (1/10)[a]		-0.01**	-0.03**
		(0.00)	(0.01)
Deservingness beliefs * Income (1/10)		**0.04*****	**0.05***
		(0.01)	(0.02)
Intensity	0.01	0.01	
	(0.01)	(0.01)	
Government responsibility	0.26***	0.26***	0.28***
	(0.04)	(0.04)	(0.05)
Support for redistribution	-0.25***	-0.25***	-0.35***
	(0.04)	(0.04)	(0.07)
Tertiary degree	0.02	0.02	-0.03
	(0.02)	(0.02)	(0.06)
Years of schooling	-0.00	-0.00	-0.00
	(0.01)	(0.01)	(0.03)
Random Effects	YES	YES	YES
Residuals SD	0.94***	0.94***	
	(0.01)	(0.01)	
N	23733	23733	3110
ll	-31540	-31533	-4411

Significance levels: * $p<.05$, ** $p<.01$ *** $p<.001$.

Note: The categorical income measure compares individuals in the top and bottom quintile of the income distribution. The continuous measure is a measure running from 1 to 10 identifying the income decile individuals belong to. The "Intensity" variable is computed using subjective left-right placement. The details on how this variable was computed are available in Table SI.1. Using this variable, I run the analysis only using individuals with a clear left-right orientation (intensity > 2) and who have response patterns on the government responsibility variable that place them distinctively (> 1 SD or < - 1 SD) to the left or the right of the ideological spectrum (see M3).

Data: ESS 2008.

[a] I switch to a continuous measure of income for the last test. The sample size is greatly reduced because of the sub-setting and the bottom and top quintiles only have a small number of observations. I consequently leverage the full variation available with the 1/10 income decile variable (see Table SI.1).

Table SI.5: Level of Support for Transfers to the Unemployed Increases with Benefit Concentration

	(1) Above Median Income Deserving	(2) Above Median Income Undeserving	(3) Below Median Income Undeserving
Fixed Effects level 1			
Government responsibility	2.81***	2.62***	2.45***
	(0.10)	(0.06)	(0.06)
Fixed Effects level 2			
Benefit concentration	0.40	**1.32****	0.63
	(0.63)	(0.47)	(0.42)
N	4983	12654	10355
ll	-2738	-6401	-5844

Significance levels: * *p*<.05, ** *p*<.01 *** *p*<.001.

Note. Abbreviated presentation of results. The outcome is a binary variable equal to 1 if an individual chooses a response category on the 0 to 10 scale that is higher than the category that includes the country's average answer to this item. Analyses for models 1 and 2 are restricted to individuals with above median income. Model 1 further restricts the sample to individuals with above country average deservingness scores (Deserving). Model 2 further restricts the sample to individuals with below country-average deservingness scores (Undeserving). The same analysis ran using below median income respondents finds no relationship between benefit concentration and level of support for transfers to the unemployed (Model 3).The predicted probability to choose a response category that is above the country average is 23 % in countries where benefits are highly concentrated - i.e. countries that score at the 10th percentile on the benefit concentration score. The predicted probability is equal to 39 % in countries with low concentration - i.e. countries that score at the 90th percentile of the concentration score.

Data: ESS 2008.

Table SI.6: Additional Robustness Checks

	Concern	Check	Result
1	Higher country-level unemployment rates predict both low reliance and low concentration.	Re-ran multi-level analysis controlling for unemployment rates averaged over the 2003-2008 period, as well as the 2008 unemployment rate.	Results hold.
2	Countries with higher reliance might be countries with more variance on either or both the independent and dependent variables. The results would be an artifact of systematic differences in the shape of the distribution of survey answers.	I examine correlations between descriptive statistics and benefit concentration.	The relationship between benefit concentration and item variance is either equal to 0 or positive meaning that countries with *higher* variance are countries with *less* concentration.
3	Differences in assumptions between the multi-level analysis in Table 3 and the two-stage analysis that generates Figure 5.	I plotted Figure 5 using coefficients recovered from the multi-level analysis (BLUP).	The bivariate relationship is as strong.
4	Because of large confidence intervals my results run the risk of being mainly driven by the contrast between Great Britain and Denmark on the one hand and Greece on the other (see Figure 5).	I re-ran the multi-level analysis taking each country out in turn.	Results hold.
5	By running a regression using factor scores, I do not take into account errors when estimating the deservingness scores in my estimation of covariance between beliefs and policy preferences	I re-ran key parts of the analysis using structural equation modeling (SEM). SEM explicitly models measurement error when examining the relation between a latent construct (here deservingness beliefs) and the outcome of interest.	SEM returns the same results, indicating that my findings are unlikely to be an artifact of systematic differences in measurement errors across groups. An example of the code used is presented above. I use results in Table SI.2 as a point of comparison.

	Concern	Check	Result
6	My results are potentially an artifact of cherry picking the survey items that better fit either individual or country-level predictions.	I re-run the major analyses, switching items.	**Predictions 2.a and 2.b using the tax-spend item**: in line with expectations about cross-national comparisons using the tax-spend item (see discussion page 20) I find similar but substantively weak results. **Predictions 1.a and 1.b using the "unemployed" item**: I find substantively similar results. However, they are driven by a handful of countries, namely Norway, Great-Britain, Finland and Belgium. In Denmark, Czech Republic, Switzerland and Belgium, occupational risk is a better predictor than income of the mediating power of material interest. Given the nature of the policy under consideration, i.e. transfers to the unemployed, this is to be expected. Unfortunately, I do not have very good enough measures of risk exposure to engage in a systematic analysis of the mediating role of risk in all countries.