

## **DEPARTMENT OF ECONOMICS**

# Who is left-wing, and who just thinks they are?

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#### Abstract

This paper suggests that there are consistent patterns in how different groups of individuals perceive their relative ideological position. Using data from a large-scale cross-country survey on individuals' views and personal characteristics it compares who reports themselves as being left(right) wing and who on an objective measure are actually left(right) wing. It finds, for example, the more educated on average believe themselves to be more left wing than their actual beliefs on a substantive issue might suggest.

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#### Introduction

"Ideologies are those systems of political thinking, loose or rigid, deliberate or unintended, through which individuals and groups construct an understanding of the political world they, or those who preoccupy their thoughts, inhabit and then act on that understanding." - Freeden (1996, p.3)

Freeden's is a particular philosophical conception of ideologies, but to an extent it suggests that individuals' political preferences should be expected to exhibit great spatial and temporal variation as the world they encounter varies. This paper investigates two related questions. Firstly, it investigates how individuals' ideologies vary based on their characteristics; age, gender, education, income, etc. Secondly, it analyses how the same set of characteristics explain variation in an individual's perception of their ideological position. It provides evidence of systematic differences in ideological position, and consistent misperception by individuals of their own relative ideological position. These results are of interest for many reasons, but it is argued that they are particularly relevant in the context of much recent research investigating the determinants and consequences of variation in political preferences. If as argued, there are consistent differences between self-perceived and objectively measured views, then it is important to remain mindful of which is relevant to any given question, and the implications for broader inference.

In particular this paper aims to speak to two related areas of study. The first is concerned with understanding empirically demographic patterns in voting behaviour, including how they vary over time, for example Gelman et al. (2008) study voting behaviour in the US. The second considers the impact of individual traits. For example, Aidt and Dallal (2008) suggest that female suffrage led to increases in taxation and government spending. This research also relates to the debate concerning how reasonable it is to assume that voters vote rationally, and to what extent they are prejudiced in favour of policies not in their interest (c.f Caplan (2007)). Taken together it would seem that documenting individuals' misperceptions of their ideological position provides an important alternative hypothesis for how these demographic and genetic sources of variation affect aggregate outcomes. Perhaps, if deciding for whom to vote on the basis of party or candidate differences is likely to prove time-consuming or difficult voters use their perceived relative ideological position as a convenient heuristic. This has important implications for the understanding of the practice of democracy for a variety of reasons. Perhaps most importantly, if people misperceive their location on some ideological spectrum, do they mis-vote rationally? For a simple example, consider a two-party system in which there is a "left" party and a "right" party. If information on parties' positions is costly to obtain, they might rationally vote for a party that does not represent their interests.

This paper attempts to answer some of these questions using data describing individuals' beliefs and circumstances from the first five waves of the World Values Survey (WVS) . The WVS data are based on interviews in 84 countries, of on average 1,500, individuals. In particular, what are the individual characteristics of those who consider themselves to be right or left wing? Are those who perceive themselves to be right (left) wing, on average, also those who might be considered right (left) wing on a more objective criterion? Based upon the results of a bivariate ordered probit model, the analysis will suggest that many individuals who think they are right (left) wing are actually left(right) wing. For example, men, the more educated, and those in full-time employment on average consider themselves to be more left wing than they are measured as being.

#### 1. Defining left and right wing

The terms left wing and right wing have their origins in the *estates-general* of 1789 just prior to the French Revolution. Today, the ideas "Right" and "Left" have very different meanings that vary between and within countries. There have been many attempts to codify what is meant by left and right, and some of these attempts have abandoned a left-right spectrum in favour of a two-dimensional grid.<sup>1</sup> However a key development in the categorization of ideological position is that of Poole and Rosenthal (1997). They estimate the ideological positions of US congressmen for the first 100 congresses and in more recent work (Poole and Rosenthal (2006)) have provided estimates up to and including the  $109^{th}$  congress (2005-2007). The preferences and behaviour of politicians are not the focus of this paper, but Poole and Rosenthal demonstrated that ideologies could be compared over long periods of time (for the US they specify any of the "stable two party periods"). They further demonstrate that ideology can be reduced to one or two dimensions. This reduction is justified by Poole and Rosenthal (2006) who find that 81 percent of the 13 million roll call votes made in the congress since 1789 can be explained with one liberal - conservative ideological dimension. 85 percent of variation can be explained using two dimensions, with no meaningful improvement with three or more. It is argued that whilst these results are for the US only, that 81 percent of the variation in a country as politically diverse as the US over such long periods can be explained by a single left-right dimension, vitiates the assumption discussed below that ideological variation can be adequately described using a single left-right dimension.

<sup>&</sup>lt;sup>1</sup>Examples of this include the chart developed by Pournelle (1963) which locates ideologies on two axes, defined by statism and rationalism. The rationalism dimension refers not to the underlying rationality of the ideology, but rather to the extent that it is believed that societal problems can be resolved through rational analysis and ensuing action. The second dimension distinguishes between those who believe that the State is a powerful force for good (state worship) and those who believe it is, at best, a necessary evil. A common alternative places Communism and Neo-Liberalism as the extremes on a left-right economic dimension, and Libertarianism (Anarchism) and Authoritarianism (Fascism) as the limits of a social-policy dimension.

#### 2. Related Literature

This section discusses some of the relevant literature. Rather than attempt to provide a survey of how the role of ideology has been measured in previous work, it will first consider recent work that describes the determinants of ideology and political beliefs at the individual level and then consider the evidence for its effects.

The first body of work seeks to understand the distribution of voters' preferences. Ansolabehere, Rodden and Snyder (2005) describe "Purple America" in which they argue that the oft described red-state/blue-state dichotomy is not supported by the evidence. More relevantly, they argue that the conventional rational choice models of voters acting solely in their economic interest ignore important moral and religious cleavages. But they do provide evidence that these issues are less important in determining voters' behaviour than economic issues. One recent example of this question that has recently attracted much popular and academic attention is of voting patterns in the USA. Frank (2005) asked "What's the matter with Kansas?" and questioned why white working-class voters have systematically voted in a manner apparently contrary to their economic interests (I.E. Republican). Frank's answer is that they do so due to the relative importance they place on non-economic (I.E. social, moral, or religious) issues. One of the many scholars to dispute this thesis was Bartels (2006) who presented statistical evidence that suggests the opposite. He argues that the voters Frank describes actually are more likely to vote Democratic than they were historically, and are no more conservative, that they vote on the basis of economic issues, and that Christians base their economic views on their faith to a greater extent than they do their views on non-economic issues. Gelman et al. (2007, 2008) argue such distinctions between rich and poor, or religious and irreligious voters are misleading. Gelman et al extend this debate to ask why and how is it the case that rich states vote Democratic, but rich individuals vote Republican. Using a Multilevel methodology they show that in fact it is inaccurate to generalise about Red States and Blue States, religious and non-religious, or rich and poor voters. Rather, whilst in general richer voters care more about non-economic issues, they are also more polarized. That is, rich voters in Red States are more likely to be Republican, rich voters in Blue States vote disproportionately Democratic. In poor states it is the rich who attend church, the opposite is true in rich states.

Other studies have focused on a related specific question. They analyse why it is that there is a 'Political Gender Gap'. Edlund and Pande (2002) argue that the decline in US marriage rates (and the increase in divorce rates) has made women less well-off and men better-off. They provide evidence that this decline is associated with the rise of a difference in political allegiance between men and women. This gap was around 15 percentage points by 1996, whilst in general prior to 1980 there was no significant gap. Moreover, they suggest that around three percentage points of the Political Gender Gap, can be attributed to the impact of divorce on

the voting intentions of women. Aidt and Dallal (2008) exploit the variation in when Women gained the franchise in Europe to obtain results that "support the hypothesis that countries experienced an increase in social spending after women were given voting rights. In the shortrun, the effect is a 0.6-1.2% increase [...] the long run impact beeing three to eight times larger." Cavalcanti and Tavares (2006) argue that as income per capita increases women substitute renumerated employment for household production, and that this leads to the demand for government services. Their headline empirical result, coinciding with the predictions of their theoretical analysis, is that "an increase in female labour force participation of 10% leads to a increase of government spending of about 2.5 percent as a share of GDP". Funk and Gathmann (2008) suggest using data from Swiss Referenda that men and women favour different policies, ceteris paribus. In particular, women seem to "care more about the environment, public health, social welfare and are more skeptical towards nuclear energy or the military. Regarding the fiscal consequences of female policy makers, we find a bigger impact on the composition rather than the size of government."There is also evidence for a 'Political Gender Knowldege Gap', for example Frazer and Macdonald (2003) provide evidence that all else equal British women have less 'political knowledge than men'. More generally, they find that the younger and less educated are less knowledgable about politics based on answers to a set of questions. Mondak and Anderson (2004) argue that the size of the gap is inflated but otherwise suggest that young, uneducated, and female Americans are more likely to be politically uninformed. This result is perhaps less surprising if considered in the context of the emergent literature emphasising the role of physiological and genetic traits as determinants of political behaviour. Oxley et al. (2008) argue that political views are associated with sensitivity to perceived threats, those with lower physical sensitivity were more likely to favour 'liberal' policies, and vice-versa. Fowler et al. (2008) and Alford et al. (2005) use twin studies to measure the effects of genetic variation as a determinant of the tendency to vote and political ideology respectively. They find that greater genetic similarity leads to more similar political behaviour.<sup>2</sup> However, as Alford et al. (2005) note this is not an argument for genetic determinism.

Indeed recent work has also suggested how macroeconomic factors can alter political preferences. Di Tella and MaCulloch (2007) suggest using data from the WVS that individuals who perceive corruption as being widespread are more likely to be left-wing. In common with this paper they use the WVS to obtain estimates for a cross-section of countries on individual beliefs. These results are complemented by country-level panel data estimates of the relationship between corruption and the ideology of different branches of government. They present a persuasive argument that corruption (which they formally model as having a disincentive externality for entrepreneurs) leads individuals to become more left-wing, that is

<sup>&</sup>lt;sup>2</sup>Both studies compare the difference in the variance of turnout rate/political attitudes between monozygotic twins (who share 100% of their DNA) and dizygotic twins (who share on average 50%).

to advocate greater redistribution, and hence impedes the flow of capitalism to poor countries.

Alesina and Giuliano (2009) review the literature on 'Preferences for Redistribution'. They, like this paper, analyse survey data, in particular the US General Social Survey and the WVS. They ask: What makes individuals desire more or less inequality? Broadly, they consider two classes of explanations. Individuals may care about inequality because of its impact in some way upon themselves (E.G. due to some expected affect on crime, their own social mobility, etc) or because they desire an income distribution compatible with a preferred concept of social justice. In particular their results suggest that within the US, Women, Blacks, and the more educated all tend to have a greater preference for redistribution. They also report results including measures of individuals' experience of misfortune. These suggest that individuals' gender, race, and religion are still important determinant of preferences even conditional on experience of misfortune or perceptions of fairness.

In sum, it is clear that the determinants of political preferences remains an important question, and that some confidence can placed in measures derived from survey data. Moreover, taking together Poole and Rosenthal (1997, 2006) and Ansolabehere, Rodden and Snyder (2005) suggests that quantifying the ideological positions of both US voters and politicians can be done with some reliability. Furthermore, Di Tella and MaCulloch (2007) and Alesina and Giuliano (2009) suggest that this quantification can be done successfully for multiple countries.

#### 3. Data

The WVS contains questions concerning the views of over 280,000 individuals in 84 countries on a wide variety of issues as well as data about their personal characteristics.<sup>3</sup> Such questions vary from the perceived prevalence of drink-driving (most common in Hungary), whether output should be sacrificed in order to protect the environment, to the importance of family (most important in China), or whether military rule is preferable (most favoured in Vietnam). The focus of this paper is on political preferences and individual characteristics. In this section the rationale for the choice of the variables used will be outlined and the tradeoffs these choices embody discussed.

<sup>&</sup>lt;sup>3</sup>The data are taken from all five waves of the World Values Survey conducted in 1981-1984, 1989-1991, 1994-1999, 1999-2004, and 2005-2008 respectively. Data for the variables used in this paper were available for 82 countries. These were: Albania Algeria, Andorra, Azerbaijan, Argentina, Australia, Australia, Bangladesh, Armenia, Belgium, Bosnia And Herzegovina, Brazil, Bulgaria, Belarus, Canada, Chile, Taiwan, Colombia, Cyprus, Czech Republic, Dominican Republic, El Salvador, Ethiopia, Estonia, Finland, Georgia, Germany, Ghana, Guatemala, Hong Kong, Iceland, India, Indonesia, Iran, Ireland, Italy, Japan, Jordan, South Korea, Kyrgyzstan, Latvia, Lithuania, Luxembourg, Mali, Mexico, Moldova, Morocco, New Zealand, Nigeria, Norway, Pakistan, Peru, Philippines, Poland, Puerto Rico, Romania, Russian Federation, Rwanda, Slovakia, Viet Nam, Slovenia, South Africa, Zimbabwe, Spain, Sweden, Switzerland, Thailand, Trinidad And Tobago, Turkey, Uganda, Ukraine, Macedonia, Egypt, Tanzania, United States, Burkina Faso, Uruguay, Venezuela, Serbia And Montenegro, Zambia, Northern Ireland, and Serbia

#### 3.1. Dependent Variables

As described above the first dependent variable used in this paper describes individuals' selfperception of their political beliefs, that is how left or right wing they consider themselves to be. It does not define what the different values mean: for example, what 2 means compared to 3 is left as a judgement for the individual. In particular the variable *E033*, referred to here as *rightleft*, was chosen. It asked:

In political matters, people talk of "the left" and "the right." How would you place your views on this scale, generally speaking?

1: 'Left' 2: '2' : : 9: '9' 10: 'Right'

Given the discussion above of two-dimensional characterizations of ideology it might seem that this measure is inherently flawed. But it is argued that given the lack of consensus on what the dimensions should be in a multi-dimensional model of ideology, and the difficulty of asking individuals to locate themselves in multi-dimensional ideological space, this variable has some clear advantages.

The decision as to which variable represents best the *actual* political preferences of individuals is further complicated by, as discussed above, the possibility that the nature of political debate and the ideological cleavages that motivate it vary substantially between countries. This additional concern necessitates using a variable that both represents as much as possible of the variation in individuals' ideological position, whilst remaining consistent in its interpretation across countries. For this reason the variable, *E035*, or here *moreineq*, was chosen, which is based upon the following question:

"Incomes should be made more equal vs We need larger income differences as incentives. How would you place your views on this scale?

'Incomes should be made more equal'
 '2'
 :
 9: '9'
 10:'We need larger income differences as incentives'

Hence, *moreineq* can be seen to represent what Immervoll, Kleven, Kreiner and Saez (2007) refer to as the "old debate", that is, the traditional conflict between equality and efficiency. The relative merits of the arguments that increased inequality improves efficiency or that greater equality is the more ethical outcome are ignored here. It suffices to assert that a great deal of current and historical political debate has centred around arguments like this or those that embody similar ideological principles. For example, a debate on how health care or education should be provided is in essence very similar: a conflict between ideas of equality of provision and the mooted greater efficiency of the market.

Since, *moreineq* is related to desire for change in income inequality it is comparable across countries. More generally, since the question is focused on what explains the variation in perceived and underlying ideological positions within countries, differences in the average ideological position between countries are not important.

To check that the results are not artifacts of *moreineq* the analysis was also repeated for the binary variable *secfair*. This variable was derived from WVS question *c039* and asks the respondent whether the following scenario is fair or not fair.

Imagine two secretaries, of the same age, doing practically the same job. One finds out that the other earns considerably more than she does. The better paid secretary, however, is quicker, more efficient and more reliable at her job. In your opinion, is it fair or not fair that one secretary is paid more than the other?

This question is felt to be meaningfully different to *moreineq*, in particular because it describes a scenario rather than a conceptual choice, whilst also measuring the respondents' views on the same equality-incentives dimension.

#### 3.2. Independent Variables

The choice of the independent variables was driven by two main issues, exogeneity and dataavailability. Whilst there is a great wealth of data contained in the WVS concerning individuals' views on a variety of topics these variables were disregarded as it is plausible that these views are a product of the same processes responsible for determining ideological position, and would therefore give rise to a potential endogeneity problem.<sup>4</sup> Similarly, the WVS contains a large number of variables describing individuals' membership of, and participation in, a wide range of societal institutions such as trade unions, religious groups, local politics, etc. Again, the decision to become involved with such an organisation can be seen to be potentially related to

<sup>&</sup>lt;sup>4</sup>Section E of the WVS contains a variety of questions related to political behaviour and preferences. These include questions on political activism (e.g. willingness to strike, engage in a boycott, etc.), membership of political organisations (e.g. environmental groups, trade unions, local or national political parties), and preferences on particular issues (e.g. immigration, military action, social services provision).

ideology, and in particular the intensity of ideological views. Finally, many variables concerning individual characteristics had to be excluded since they were only available for many fewer observations.

Consequently, the following independent variables were chosen in order to maximize sample size and ensure plausible exogeneity. The variables describing basic personal information are *male, age100, hadnokids* (the respondent's gender, age divided by 100, and whether the respondent had no children), and *livewith* (whether the respondent lives with their parents). Also included, were variables describing labour market activity: *fulltime* (whether the respondent worked full-time), *parttime* (whether the respondent worked parttime), *selfemployed* (if the individual was self-employed), *retired, housewife*, and *student*, with *unemployed* the omitted category.

Information was also available on the type of job the respondent had and the following dummy variables were used to describe job type; *seniornonmanual* (employer/manager/pro-fessional), *senior manual* (foreman, farmer), *skilled manual*, and *soldier*. The omitted category is non-manual, non-senior, office workers. In addition data are available on the socio-economic class of the respondent. This is measured by two different variables, the first is self-reported i.e. what class the respondent believes they belong to, and the second is based upon the interviewer's judgement. Again these variables are represented by binary variables for each class. For self-reported socio-economic class these are, upper middle class *uppermiddle\_sr*, lower middle class *lowermiddle\_sr*, working class *workingclass\_sr* and lower class *lowerclass\_sr*. Upper class, *upper\_sr* is the omitted category. The objective measure defines social-economic status in terms of the standard abc1 categories. In particular, *ses\_c1* refers to non-manual middle class occupations such as junior management, and owners of small businesses. *ses\_c2* refers to skilled and supervisory manual workers. *ses\_de* refers to unskilled workers or the unemployed. The omitted category is *ses\_ab* which corresponds to upper and upper-middle class respondents.

Other variables were *oecd* which describes if the individual lives in an OECD member country. *highesteduc* described the highest level of education achieved on an 8 point scale from no formal education to having achieved a university degree. The income decile in which respondents' perceived themselves as being in is measured by *scaleofy*.

Table 1 contains summary statistics for the independent variables and the three dependent variables. Also included were country and wave fixed effects.

#### **Methodology and Results 4**.

This section will first provide a brief outline of the statistical approach employed, and then the results obtained. Since, the dependent variables are ordered, an ordered probit (or logit) estimator is appropriate. However, it is also likely that the residuals from the two regressions will be correlated. Accordingly, a bivariate ordered probit model is used. The following description is taken from Greene and Hensher (2009). Consider two latent variables  $y_{i,1}^*$ and  $y_{i,2}^*$  which describe individuals self-perceived and actual ideological positions on ordered dependent random variables  $y_1$  and  $y_2$ , in this case *selfpospolit* and *incomeequal*. The error terms  $\varepsilon_{i,1}$ , and  $\varepsilon_{i,2}$  are assumed to be jointly normally distributed with correlation parameter  $\rho$ , and x<sub>i</sub> is the vector of independent variables. Following Greene and Hensher (2009), the bivariate ordered probit model can be expressed as a 'seemingly unrelated regressions (SUR) model for the latent regressions'. That is:-

$$y_{i,1}^* = \beta_1' \mathbf{x}_{i,1} + \varepsilon_{i,1}, y_{i,1} = j \text{ if } \mu_{j-1} < y_{i,1}^* < \mu_j, j = 0, ..., J_1$$
(1)

$$y_{i,2}^* = \beta_2' \mathbf{x}_{i,2} + \varepsilon_{i,2}, y_{i,2} = j \text{ if } \delta_{j-1} < y_{i,2}^* < \delta_j, j = 0, ..., J_2$$
(2)

$$\begin{pmatrix} \varepsilon_{i,1} \\ \varepsilon_{i,2} \end{pmatrix} \sim N \begin{bmatrix} \begin{pmatrix} 0 \\ 0 \end{pmatrix}, \begin{pmatrix} 1 & \rho \\ \rho & 1 \end{pmatrix} \end{bmatrix}$$
(3)

They proceed by noting that the joint probabilities  $y_{i,1} = j$  and  $y_{i,2} = k$  are:-

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$$\Pr(y_{i,1} = j, y_{i,2} = k | x_{i,1}, x_{i,2}) = \Phi_2[(\mu_j - \beta_1' \mathbf{x}_{i,1}), (\delta_k - \beta_1' \mathbf{x}_{i,1}), \rho] - \begin{bmatrix} \Phi_2[(\mu_j - \beta_1' \mathbf{x}_{i,1}), (\delta_{k-1} - \beta_1' \mathbf{x}_{i,1}), \rho] \\ -\Phi_2[(\mu_{j-1} - \beta_1' \mathbf{x}_{i,1}), (\delta_k - \beta_1' \mathbf{x}_{i,1}), \rho] \end{bmatrix} - \begin{bmatrix} \Phi_2[(\mu_{j-1} - \beta_1' \mathbf{x}_{i,1}), (\delta_{k-1} - \beta_1' \mathbf{x}_{i,1}), \rho] \\ -\Phi_2[(\mu_{j-1} - \beta_1' \mathbf{x}_{i,1}), (\delta_k - \beta_1' \mathbf{x}_{i,1}), \rho] \end{bmatrix}$$
(4)

These probabilities can then be used to construct a maximum likelihood estimator of the model parameters. Variations in the history and culture of the different countries in the sample means that it is necessary to allow for both the mean and the variance to differ between countries. Consequently dummy variables for each country will be included and the (robust) standard errors are clustered by country. Moreover, observations were weighted using the WVS variable *S017* which contains probability sampling weights for each observation.

Table 2 contains the results of the bivariate ordered probit estimation. As noted by Hoetker (2007), it cannot be assumed that the unobserved variation is the same in the two equations.

This precludes comparison of the size of coefficients between the two equations, instead the discussion is restricted to the significance and sign of the coefficients. A first-glance suggests that men are both more right-wing than women, and perceive themselves as being so. This would seem to complement the results of previous work such as that of Edlund and Pande (2002) and Aidt and Dallal (2008). What is interesting is that when the analysis is repeated separately for men and for women in Table 4, the estimated coefficients are qualitatively similar for the other independent variables. This suggests that it is not differences in employment patterns, income, or education that are driving this result, but something else. Table 6 suggests that men in OECD countries favour more inequality and on average perceive themselves as being more right-wing than women. Men in the rest of the world perceive themselves as being more right-wing although are not significantly so, as measured by *moreequal*. One speculative explanation for this that might again draw on the literature on gender and policy preferences is that if the proportion of government spending given to public goods and redistribution increases with income, then the differences between men and womens preferences may also be expected to increase. This would suggest that if the composition or size of government spending in non-OECD nations is different due, for example, to a smaller available tax base, then we would not expect as great a variation in average male and female preferences. Why men still perceive themselves as being more right-wing remains an open question.

How does education affect ideology? It would seem that the better educated, if anything, are less accurate in how they perceive their ideology. Higher levels of education are associated with being less likely to believe oneself to be right-wing, whilst simultaneously associated with being in favour of increased inequality. This result contrasts with those for income: higher levels of income are associated with both believing oneself to be more right-wing as well as considering more inequality to be necessary. Whilst, the coefficients vary their sign and significance level are broadly consistent across the different samples analysed.

It is not obvious why living with one's parents is associated with an increase in the probability that an individual considers themselves to be right wing. But, it is notable that the positive coefficient remains significant in all of the specifications considered here. The coefficients associated with *age100* and *hadnokids* suggest that there is no significant effect of either on the dependent variables, although they are good predictors of *secfair*.

Consider the variables that describe individuals' occupations. The coefficient on being selfemployed is large, positive, for both *incomeequal* and *selfpospolit* although it is only significant in Table 2 for *incomeequal*. Like the results for gender, education, and income this result seems stable. Having full-time or part-time employment is also associated with a preference for more inequality but the estimates are statistically significant and the coefficients for *selfpospolit* are negative. This difference has at least two possible interpretations. Either, those who are exposed to what is often considered as the greater risks and rewards of self-employment are come to understand better the importance of income (inequality) as an incentive. Alternatively, those who believe in the power of individual effort are more likely to become self-employed.

Those with non-labour market occupations, that is; students, what the WVS refers to as 'housewives', and the retired, seem to be more likely to be right-wing. The retired seem to perceive themselves as being slightly more left-wing than average, but whilst the coefficient on their estimated actual ideological position is also negative it is small and insignificant. Indeed, when the alternative measure of ideological position, *secfair*, is used in Table 3 it is positive and significant. 'Housewives' are likely to perceive themselves as more right-wing than average as measured using *selfpospolit* but aren't as measured by *incomeequal*. Interestingly, whilst this relationship is maintained using the alternative ideology measure in Table 3, 'housewives' now also are more right-wing. The result in Table 2 remains in the subsamples for men and women in Table 4 for female 'housewives' and as such the result isn't being driven by the 708 male 'housewives' in the sample. Students don't differ significantly from the rest of the population in terms of their actual or perceived ideological position.

Some further analyses were conducted using happiness as an additional independent variable. Recent work provides evidence of a relationship between self-reported happiness and self-reported ideological position (see for example Zavisca and Hout (2005), Tella, New and MacCulloch (2007). It might be argued that it is hard to see ideology as being plausibly exogenous if happiness is the dependent variable, or vice-versa. Thus, it would also seem to violate the criterion described above in which variables concerning individual preferences or views were excluded due to possible questions of endogeneity. It could seem unlikely that how happy an individual perceives themselves as being determines their believed or actual ideological preference, yet it might also be argued that those who are happier are less likely to desire large changes in societal outcomes such as inequality. Results (not reported) suggest that including happiness has little effect on the coefficients or significance of the other variables which lends some robustness to the results. Happier individuals are found to be both more leftwing and perceive themselves as such.

Also considered were variables describing the respondents' marital status: *married*, *live-together* (if the respondent lives together as married) *widowed*, *divorced*, and *separated*, with *single* the omitted category. However, it was felt that the decision to get married or divorced could partly reflect cultural conservatism and hence lead to biased estimates. However, the results reported below are robust to the inclusion of these variables.

#### 5. Conclusions

It is clear is that for whatever reason an individual's conception of their ideological position often differs from that predicted by a policy question. Many of these results merit further investigation. Perhaps the most interesting question would be to consider why men and women see things so differently. Whilst, previous research such as that of Edlund and Pande (2002) also find evidence for differences in women's voting preferences, understanding the root causes of these differences is as yet not properly understood. In particular, given that the nature of the gender difference in ideology varies between the OECD and the non-OECD countries perhaps analyzing further how differences between country's aggregate characteristics affect individuals' ideologies within them will illuminate what drives them. Further decomposition of the data may also explain why the more educated consider themselves on average more leftwing when the evidence would seem to suggest that they are on the right?

The broad conclusion of the paper must be that individuals either choose not to, or are unable to, locate their ideological positions reliably compared to those of the positions of their compatriots. This result complements nicely some of the work discussed in section 2, such as Tilley and Wlezien (2008) and Caplan (2007), as this is further evidence not just that voters are far from fully informed, but that somehow voters consistently misperceive where they lie on the ideological spectrum. Tilley's results suggest that uninformed voters sometimes support parties whose policies are not commensurate with their interests and views, these results suggest that this phenomenon is a consistent one across many countries.

#### References

- Aidt, Toke S. and Bianca Dallal, "Female voting power: the contribution of women's suffrage to the growth of social spending in Western Europe (1869-1960)," *Public Choice*, 2008, 134, 391–417.
- Alesina, Alberto F. and Paola Giuliano, "Preferences for Redistribution," Technical Report 14825, National Bureau for Economic Research March 2009.
- Alford, John R., Carolyn L. Funk, and John R. Hibbing, "Are Political Orientations Genetically Transmitted," *American Political Science Review*, May 2005, 99 (2), 153–167.
- Ansolabehere, Stephen, Jonathan Rodden, and James M. Snyder, "Purple America," 2005.
- **Bartels, Larry M.**, "What's the Matter with "What's the Matter with Kansas?"," Quarterly Journal of Political Science, 2006, 1, 201–226.
- Caplan, Bryan, The Myth of the Rational Voter, 1st ed., Princeton University Press, 2007.

- **Cavalcanti, Tiago and José Tavares**, "Women Prefer Larger Governments: Growth, Structural Transformation and Government Size," Technical Report DP5667, Centre for Economic Policy Research May 2006.
- **Edlund, Lena and Rohini Pande**, "Why have Women become Left-Wing? The Political Gender Gap and The Decline in Marriage," *The Quarterly Journal of Economics*, 2002, *117*(3), 917–961.
- Fowler, James H., Laura A. Baker, and Christopher T. Dawes, "Genetic Variation in Political Participation," *American Political Science Review*, May 2008, *102* (2), 233–248.
- Frank, Thomas, *What's The Matter with Kansas*?, Owl Books, Henry Holt and Company, New York, 2005.
- **Frazer, Elizabeth and Kenneth Macdonald**, "Sex Differences in Political Knowledge in Britain," *Political Studies*, 2003, *51*, 67–83.
- **Freeden, Michael**, *Ideologies and Political Theory: A Conceptual Approach*, 1st ed., Oxford: Clarendon Press, 1996.
- Funk, Patricia and Christina Gathmann, "Gender Gaps in Policy Making: Evidence from Direct Democracy in Switzerland," Economics Working Papers 1126, Universitat Pompeu Fabra 2008.
- Gelman, Andrew, Boris Shor, Joseph Bafumi, and David Park, "Rich State, Poor State, Red State,Blue State: Whats the Matter with Connecticut?," *Quarterly Journal of Political Science*, 2007, 2, 345–367.
- \_\_\_\_, David Park, Boris Shor, Joseph Bafumi, and Jeronimo Cortina, Red State, Blue State, Rich State, Poor State: Why Americans Vote the Way they Do, 1st ed., Princeton University Press, 2008.
- Greene, William H. and David A. Hensher, "Modelling Ordered Choices," January 2009. http://pages.stern.nyu.edu/ wgreene/DiscreteChoice/Readings/OrderedChoiceSurvey.pdf.
- Hoetker, Glenn, "The use of logit and probit models in strategic management research: Critical issues," *Strategic Management Journal*, 2007, *28* (4), 331–343. Hoetker, Glenn.
- **Immervoll, Herwig, Henrik Jacobsen Kleven, Claus Thustrup Kreiner, and Emmanuel Saez**, "Welfare reform in European countries: A microsimulation analysis," *Economic Journal*, 2007, *117* (516), 1–44.
- Mondak, Jeffery J. and Mary R. Anderson, "The Knowledge Gap: A Reexamination of Gender-Based Differences in Political Knowledge," *Journal of Politics*, 2004, *66*, 492–512.

- Oxley, Douglas R., Kevin B. Smith, John R. Alford, Matthew V. Hibbing, Jennifer L. Miller, Mario Scalora, Peter K. Hatemi, and John R. Hibbing, "Political Attitudes Vary with Physiological Traits," *Science*, 2008, *321* (5896), 1667–1670.
- **Poole, Keith T. and Howard Rosenthal**, *Congress: A Political-economic History of Roll Call Voting*, 1st ed., New York, NY: Oxford University Press USA, 1997.
- \_ and \_ , Ideology and Congress, 1st ed., Edison, NJ: Transaction Publishers, 2006.
- Pournelle, Jerry, "Dissertation." PhD dissertation, University of Washington 1963.
- **Tella, Rafael Di and Robert MaCulloch**, "Why Doesn't Capitalism Flow to Poor Countries?," Technical Report w13164, National Bureau of Economic Research 2007.
- **Tella, Rafael Di, John Haisken-De New, and Robert MacCulloch**, "Happiness Adaptation to Income and to Status in an Individual Panel," Working Paper 13159, National Bureau of Economic Research June 2007.
- **Tilley, James and Christopher Wlezien**, "Does political information matter? An experimental test relating to party positions on Europe," *Political Studies*, 2008, 56 (1), 192–214.
- World Values Survey Association (www.worldvaluessurvey.org), "WORLD VALUES SURVEY 1981-2008 OFFICIAL AGGREGATE v.20090901," 2009.
- Zavisca, Jane and Michael Hout, "Does Money Buy Happiness in Unhappy Russia," *Berkeley Program in Soviet and Post-Soviet Studies Working Paper Series*, 2005.

### 6. Results

Variable	Mean	(Std.Dev.)	Min.	Max.	Ν
incomeequal	5.917	(3.017)	1	10	246, 224
selfpospolit	5.674	(2.367)	1	10	201,018
secfair	0.792	(0.406)	0	1	241,880
male	0.483	(0.5)	0	1	278,838
age100	0.406	(0.161)	0.14	0.99	273,750
nokids	0.247	(0.431)	0	1	283,505
livewithrents	0.29	(0.454)	0	1	256,731
fulltime	0.345	(0.475)	0	1	283,505
parttime	0.072	(0.258)	0	1	283,505
selfemployed	0.101	(0.302)	0	1	283,505
retired	0.114	(0.318)	0	1	283,505
housewife	0.147	(0.354)	0	1	283,505
student	0.074	(0.261)	0	1	283,505
highesteduc	4.409	(2.327)	1	8	241,907
scaleofy	4.574	(2.415)	1	11	245,318
seniornonmanual	0.208	(0.406)	0	1	283,505
seniormanual	0.054	(0.225)	0	1	283,505
skilledmanual	0.174	(0.379)	0	1	283,505
unskilled	0.245	(0.43)	0	1	283,505
soldier	0.013	(0.111)	0	1	283,505
ses_ab	0.137	(0.344)	0	1	31,903
ses_c1	0.312	(0.463)	0	1	31,903
ses_c2	0.293	(0.455)	0	1	31,903
ses₋de	0.258	(0.438)	0	1	31,903
upper_sr	0.017	(0.129)	0	1	202,706
uppermiddle_sr	0.184	(0.387)	0	1	202,706
lowermiddle_sr	0.378	(0.485)	0	1	202,706
workingclass_sr	0.28	(0.449)	0	1	202,706
lowerclass_sr	0.141	(0.349)	0	1	202,706

#### Table 1: Summary statistics

Dependent Variable	incomee	equal	selfposp	oolit
	Coefficient	Std. Error	Coefficient	Std. Error
male	0.032***	(0.010)	0.041***	(0.012)
age100	-0.032	(0.055)	$0.180^{**}$	(0.072)
nokids	-0.000	(0.016)	-0.015	(0.013)
livewithrents	0.002	(0.010)	0.046***	(0.011)
fulltime	0.029	(0.018)	-0.012	(0.021)
parttime	-0.001	(0.031)	-0.018	(0.021)
selfemployed	$0.053^{**}$	(0.025)	$0.042^{*}$	(0.024)
retired	0.002	(0.021)	0.002	(0.028)
housewife	0.039	(0.031)	$0.069^{**}$	(0.028)
student	0.011	(0.029)	-0.036	(0.029)
highesteduc	$0.031^{***}$	(0.005)	$-0.018^{***}$	(0.006)
scaleofy	0.033***	(0.006)	$0.018^{***}$	(0.004)
seniornonmanual	$0.066^{***}$	(0.019)	0.010	(0.015)
seniormanual	0.017	(0.023)	0.007	(0.025)
skilledmanual	-0.016	(0.019)	$-0.037^{**}$	(0.018)
unskilled	-0.030	(0.020)	$0.034^{**}$	(0.017)
soldier	0.026	(0.041)	0.042	(0.044)
oecd	0.246***	(0.013)	-0.041**	(0.017)
ρ	0.116***	(0.012)		
Ν	136,046			

Table 2: The determinants of personal ideology: bivariate ordered probit estimates

Robust standard errors, clustered by country, in parentheses. Other controls include the respondent's number of children, survey wave, and country fixed effects.

\* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01

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Dependent Variable	secf	air	selfpos	polit
	Coefficient	Std. Error	Coefficient	Std. Error
male	$0.067^{***}$	(0.014)	0.042***	(0.012)
age100	$0.375^{***}$	(0.067)	$0.188^{**}$	(0.074)
nokids	$0.048^{***}$	(0.018)	-0.014	(0.013)
livewithrents	-0.018	(0.017)	$0.049^{***}$	(0.011)
fulltime	0.053	(0.034)	-0.015	(0.020)
parttime	-0.010	(0.037)	-0.026	(0.022)
selfemployed	$0.068^{*}$	(0.040)	$0.038^{*}$	(0.023)
retired	0.027	(0.045)	0.001	(0.027)
housewife	$0.070^{*}$	(0.041)	$0.074^{***}$	(0.028)
student	0.067	(0.044)	-0.028	(0.028)
highesteduc	$0.045^{***}$	(0.004)	$-0.019^{***}$	(0.006)
scaleofy	0.033***	(0.006)	$0.018^{***}$	(0.004)
seniornonmanual	$0.069^{**}$	(0.028)	0.019	(0.017)
seniormanual	0.028	(0.036)	0.011	(0.025)
skilledmanual	$-0.061^{**}$	(0.030)	$-0.037^{**}$	(0.017)
unskilled	-0.059	(0.038)	0.032**	(0.016)
soldier	-0.006	(0.081)	0.047	(0.044)
oecd	$-0.405^{***}$	(0.060)	-0.021	(0.037)
ρ	0.024	$(0.012)^{**}$		
N	134,350			

Table 3: Alternative measure of perceived fairness

Standard errors in parentheses \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.001 Other details as for Table 2

women
and
men
for
Subsamples
Table 4:

Sub Group		Me	n			Wo	men	
Dependent Variable	incomee	qual	selfpos	polit	income	equal	selfposj	polit
	Coefficient	Std. Error	Coefficient	Std. Error	Coefficient	Std. Error	Coefficient	Std. Error
age100	-0.080	(0.054)	0.117	(0.088)	0.015	(0.074)	$0.231^{**}$	(0.073)
nokids	0.001	(0.017)	-0.015	(0.016)	-0.008	(0.019)	-0.017	(0.017)
livewithrents	-0.008	(0.017)	$0.041^{**}$	(0.014)	0.016	(0.012)	$0.045^{**}$	(0.014)
fulltime	0.004	(0.022)	-0.014	(0.025)	$0.054^{**}$	(0.024)	-0.007	(0.024)
parttime	-0.029	(0.038)	-0.034	(0.027)	0.038	(0.033)	-0.000	(0.028)
selfemployed	0.047	(0.030)	$0.057^{**}$	(0.024)	$0.057^{*}$	(0.029)	-0.001	(0.033)
retired	-0.013	(0.025)	-0.004	(0.030)	0.019	(0.028)	0.015	(0.036)
housewife	0.025	(0.049)	-0.037	(0.082)	0.039	(0.032)	$0.068^{**}$	(0.031)
student	-0.008	(0.045)	-0.032	(0.034)	0.031	(0.034)	-0.040	(0.040)
highesteduc	$0.032^{***}$	(0.006)	$-0.016^{**}$	(0.006)	$0.031^{***}$	(0.005)	$-0.020^{**}$	(0.008)
scaleofy	$0.036^{***}$	(0.006)	$0.017^{***}$	(0.005)	$0.028^{***}$	(0.005)	$0.020^{***}$	(0.003)
seniornonmanual	$0.074^{**}$	(0.026)	0.014	(0.019)	$0.051^{**}$	(0.017)	0.003	(0.016)
seniormanual	0.030	(0.029)	0.016	(0.032)	-0.009	(0.030)	-0.023	(0.030)
skilledmanual	-0.009	(0.026)	$-0.037^{*}$	(0.020)	-0.027	(0.021)	-0.029	(0.023)
unskilled	-0.022	(0.030)	$0.038^{**}$	(0.017)	-0.052**	(0.019)	0.030	(0.024)
soldier	0.051	(0.043)	0.063	(0.045)	-0.131	(0.111)	-0.111	(060.0)
oecd	$0.349^{***}$	(0.014)	0.026	(0.018)	$0.400^{***}$	(0.018)	$-0.207^{***}$	(0.025)
β	$0.126^{***}$	(0.014)			$0.103^{***}$	(0.011)		
N	69,815				66,231			
Standard errors in parent	theses $* p < 0.10, *$	"* $p < 0.05$ , ***	p < 0.001 Other d	etails as for Tal	ble 2			

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Subgroup		OEC	D			Non-	-OECD	
Dependent Variable	incomee	qual	selfposp	oolit	income	sequal	selfpos	polit
	Coefficient	Std. Error	Coefficient	Std. Error	Coefficient	Std. Error	Coefficient	Std. Error
male	$0.089^{***}$	(0.019)	$0.076^{***}$	(0.023)	0.008	(0.010)	$0.028^{**}$	(0.013)
age100	-0.126	(0.076)	$0.391^{***}$	(0.105)	0.013	(0.073)	0.070	(0.096)
nokids	-0.010	(0.022)	-0.020	(0.023)	0.011	(0.018)	-0.010	(0.014)
livewithrents	0.006	(0.017)	$0.081^{***}$	(0.021)	-0.001	(0.011)	$0.025^{**}$	(0.011)
fulltime	0.031	(0.030)	0.037	(0.023)	0.030	(0.023)	-0.021	(0.026)
parttime	0.001	(0.028)	0.008	(0.024)	0.016	(0.045)	-0.008	(0.028)
selfemployed		(0.050)	$0.130^{***}$	(0.033)	0.039	(0.031)	0.016	(0.028)
retired	$0.068^{**}$	(0.029)	0.043	(0.036)	-0.035	(0.027)	-0.020	(0.038)
housewife	$0.118^{*}$	(0.062)	$0.190^{***}$	(0.033)	0.007	(0.027)	0.025	(0.030)
student	0.021	(0.034)	-0.024	(0.039)	-0.002	(0.034)	-0.046	(0.033)
highesteduc	$0.019^{**}$	(0.010)	$-0.037^{***}$	(0.010)	$0.036^{***}$	(0.005)	$-0.011^{*}$	(0.006)
scaleofy	$0.042^{***}$	(0.004)	$0.022^{***}$	(0.005)	$0.029^{***}$	(0.008)	$0.017^{***}$	(0.005)
seniornonmanual	$0.073^{**}$	(0.025)	0.015	(0.023)	0.060**	(0.028)	0.004	(0.020)
seniormanual	-0.001	(0.034)	0.030	(0.049)	0.025	(0.029)	-0.001	(0.028)
skilledmanual	$-0.073^{**}$	(0.027)	$-0.110^{***}$	(0.019)	0.009	(0.023)	-0.005	(0.024)
unskilled	-0.054	(0.035)	$-0.032^{*}$	(0.017)	-0.013	(0.026)	$0.053^{**}$	(0.018)
soldier	-0.033	(0.070)	$0.121^{**}$	(0.050)	0.046	(0.049)	0.031	(0.053)
β	$0.172^{***}$	(0.023)			$0.094^{***}$	(0.012)		
Ν	42,701				93,345			
Standard errors in parent	theses $* p < 0.10, *$	"* $p < 0.05$ , ***	p < 0.001 Other d	etails as for Tal	ble 2			

Class Measure		Objec	tive			Self-re	eported	
Dependent Variable	incomee	equal	selfpost	oolit	income	equal	selfpos	oolit
	Coefficient	Std. Error	Coefficient	Std. Error	Coefficient	Std. Error	Coefficient	Std. Error
male	$0.041^{***}$	(0.011)	$0.049^{***}$	(0.013)	0.040	(0.063)	-0.053	(0.044)
age100	$-0.086^{*}$	(0.045)	$0.126^{*}$	(0.074)	0.171	(0.142)	$0.691^{*}$	(0.410)
highesteduc	$0.020^{***}$	(0.004)	$-0.021^{***}$	(0.006)	$0.040^{***}$	(0.012)	$-0.032^{***}$	(0.007)
scaleofy	$0.020^{***}$	(0.005)	$0.010^{**}$	(0.004)	0.023***	(0.006)	0.004	(0.007)
seniornonmanual	$0.060^{***}$	(0.017)	0.002	(0.016)	$0.125^{**}$	(0.056)	-0.000	(0.041)
seniormanual	-0.001	(0.023)	0.021	(0.025)	0.053	(0.068)	-0.037	(0.074)
skilledmanual	$-0.035^{**}$	(0.015)	-0.020	(0.017)	0.054	(0.042)	-0.006	(0.033)
unskilled	$-0.070^{***}$	(0.021)	$0.037^{**}$	(0.018)	$0.106^{**}$	(0.043)	$0.118^{***}$	(0.016)
soldier	0.008	(0.039)	0.041	(0.046)	-0.008	(0.143)	$0.311^{***}$	(0.083)
uppermiddle_sr	$-0.102^{**}$	(0.045)	$-0.088^{***}$	(0.034)				
lowermiddle_sr	$-0.197^{***}$	(0.051)	$-0.184^{***}$	(0.042)				
workingclass_sr	$-0.259^{***}$	(0.056)	$-0.280^{***}$	(0.047)				
lowerclass_sr	$-0.285^{***}$	(0.061)	$-0.278^{***}$	(0.044)				
ses_c1					-0.014	(0.073)	-0.008	(0.039)
ses_c2					-0.073	(0.081)	-0.077	(0.048)
ses_de					-0.099	(0.135)	-0.011	(0.065)
φ	$0.117^{***}$	(0.012)			$0.100^{***}$	(0.020)		
N	117,659				7,094			
Also included were <i>livew</i>	ith, fulltime, partt	ime, selfemploye	d, retired, housewi	fe, and studen	t. Other details a	s for Table 2		

Table 6: Estimates including measures of socio-economic group

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