

# Religion and Redistributive Voting in Western Europe\*

Daniel Stegmueller  
Department of Government  
University of Essex  
Wivenhoe Park, Colchester CO4 3SQ, UK  
mail@daniel-stegmueller.com

## Abstract

Why some individuals, who would clearly benefit from redistribution, do not vote for parties offering redistributive policies, is an old puzzle of redistributive politics. Recent work in political economy offers an explanation based on the interplay between religious identity and party policies. Strategic parties bundle conservative moral policies with anti-redistribution positions inducing individuals with a strong religious identity to vote based on moral rather than economic preferences. I test this theory using micro-level data on individuals' vote choices in 24 recent multi-party elections in 15 Western European countries. I use an integrated model of religion, economic and moral preferences, and vote choice, to show that religious individuals possess less liberal economic preferences, which shapes their vote choice against redistributive parties. This holds even for individuals who would clearly benefit from redistribution. Moreover, the redistributive vote of religious individuals is primarily based on economic not moral preferences.

---

\*I thank Thomas Gschwend, Pablo Beramendi, David Rueda, Elias Dinas, Jeff Gill, Ray Dutch, Francesc Amat, Geoff Evans, Sigrid Rossteutscher, Peer Scheepers, Eelke deJong, Anja Neundorf, Evelyn Bytzek, Julian Gerritzmann, and participants and discussants at the Nuffield College Politics Seminar, the Merton College Seminar on Political Economy, and the EPSA annual conference 2011 for helpful discussions.

Why do the poor not expropriate the rich? This puzzle has captured thinkers since (at least) John Stuart Mill, who expressed the fear that “those who pay no taxes, disposing by their votes of other people’s money, have every motive to be lavish and none to economise” and instead they “put their hands into the people’s pockets for any purpose which they think fit to call a public one” (Mill 2007: 281). A more analytical implementation of this view is the famous model by Meltzer and Richard (1981), which is however not well supported by empirical research (Rodriguez 1999; Gouveia and Masia 1998; Moene and Wallerstein 2003). While the introduction of general suffrage in the West has been accompanied by rising welfare state activity, the level of redistribution is far smaller than predicted by purely self-interest based models, and a substantial number of individuals make political choices that seem to contradict their economic interests (Alesina and Giuliano 2011).

In this paper, I argue that religion plays an important role in solving this puzzle. I build on recent research in political sociology and economics, which stresses the continuing importance of the religious cleavage (e.g. Manza and Brooks 1997; Brooks and Manza 2004; Brooks et al. 2006; Elff 2007; Stegmueller et al. 2012) and the effects of religious identity (a micro-level manifestation of religious cleavages) on conservative moral and economic preferences (Guiso et al. 2003, 2006; Alesina and Giuliano 2011; Stegmueller et al. 2012).<sup>1</sup> Theoretical work in political economy shows that policy interested parties respond to these predictable micro-level patterns by bundling economic and moral policies (Roemer 1998, 2001; Gill and Lundsgaarde 2004). Combining these perspectives, I link religion to economic preferences and to redistributive vote choice, and argue that religious individuals refrain from voting for redistributive parties, because they are more conservative, both morally and economically, than their secular counterparts.

The paper proceeds as follows. In the next two sections, I present my argument and testable hypotheses. Data from 24 multiparty elections in 15 Western European countries between 1999 and 2008 is described next. I then set up a hierarchical structural model, which allows for an explicit test of the link between religion, preferences, and redistributive voting. The following section describes the results and presents several key quantities of interests. The final section concludes the paper. An [online] appendix contains further robustness checks and details of the data used.

---

<sup>1</sup>I use the terms ‘liberal’ and ‘conservative’ as they are commonly employed in Anglo-Saxon countries, s.t. ‘liberal’ denotes ‘leftist’, pro-redistribution welfare preferences and more secular moral preferences.

## Religion, Preferences, and Voting

Political sociologists have long recognized the importance of religion for individuals' political choices. Following early work by Paul Lazarsfeld and colleagues on the social bases of political behavior (Lazarsfeld et al. 1944; Berelson et al. 1954; Katz and Lazarsfeld 1955; Smith 2001), researchers focusing on the role of religion argue that historically rooted patterns of church-state conflict result in stable individual level links between religiosity and vote choice (Lipset and Rokkan 1967; Lijphart 1968, 1971). Countering claims that the influence of social structure on voting behavior has vanished (e.g. Franklin et al. 1992; Knutsen 2004) a new wave of research is investigating the effect of individuals' social location, showing that membership or identification with social groups shapes preferences and choices. The two most salient groups are socio-economic classes (Manza et al. 1995; Brooks and Manza 1997; Evans 2000; Elff 2007, 2009; van der Waal et al. 2007) and religious denominations (Layman 2001; Norris and Inglehart 2004; Manza and Brooks 1997; De Graaf et al. 2001; Brooks and Manza 2004; Brooks et al. 2006; Elff 2007; Stegmueller et al. 2012).

This line of research confirms arguments made by sociologists of religion, who argue that religion is still important to individuals, even in the most secular societies (Wuthnow 1988; Madeley 1991; Wuthnow 1994; Greeley 2004; see also Inglehart 1997: 281). Thus, in Western countries individuals “who retain their *religious identity* may oppose other aspects of secularization processes, showing increasing political differences in comparison to non-religious voters” (Brooks et al. 2006: 93, my emphasis). Rather than leading to a decline in the importance of religion per se, secularization is hypothesized to increase the relevance of the distinction between secular and religious individuals (Wuthnow 1988; Olson and Green 2006).

### Economic–moral policy bundling

My discussion of the importance of socio-economic class and religion suggest that economic and moral preferences should take center stage in an analysis of redistributive voting. Further theoretical arguments can be derived from models in political economy that link party strategies and redistribution. Individual preferences have to be implemented by political actors to become policy; hence it is sensible to focus on individual preferences that reflect the central dimensions of party competition.

Most workhorse political-economic models of redistribution start from a (unidimen-

sional) economic policy dimension, on which parties position themselves in response to the distribution of individual preferences (Mueller 2003: ch. 11; Persson and Tabellini 2000; Downs 1957). Which economic policy individuals prefer is derived from their economic position, usually captured by income or some measure of skill or economic class (e.g. Meltzer and Richard 1981: 917; Iversen and Soskice 2001; Moene and Wallerstein 2003; Cusack et al. 2005; Iversen 2006). However, this setup has clear limits when trying to capture heterogeneity in redistributive voting between individuals. Therefore, a more complex view is offered by John Roemer (1998, 2001, 2005), who uses a two-dimensional model of political competition. Parties compete using two issue dimensions: an economic, redistribution dimension, and a non-economic, moral dimension (Warwick 2002, Bornschier 2010 and Kriesi 2010 provide evidence on the two-dimensionality of the policy space in Western Europe). Parties do so because citizens do not just have simple uni-dimensional economic preferences. In addition to their economic preferences, they are assumed to also possess moral preferences or “principles” (Akerlof and Kranton 2000; Roemer 2005: 514).<sup>2</sup> But parties are not distributed uniformly in this two-dimensional space. Rather, they offer policies in packages: if you want conservative moral policy, you will have to ‘buy’ anti-redistribution policies as well. This is the core idea of Roemer’s model. The spatial configuration of party policy bundles induces individual behavior, which might seem irrational from a purely economic point of view. For example a worker – who is assumed to be economically liberal – does not vote for a redistributive party. He does so because he is religious and holds conservative moral preferences, which are best represented by a conservative party.

The empirical result of this process is shown in Figure 1. It shows positions of West European parties in a two-dimensional issue space composed of economic and moral policies.<sup>3</sup> Most parties seem to bundle economic and moral policy. Parties that offer pro-redistribution policies are usually socially liberal, whereas parties that run on anti-redistribution platforms are predominantly socially conservative. This relationship is strong: once we know a party’s economic position, we can predict its stance on moral issues quite well, as indicated by a linear regression coefficient of 0.64 with a rather small standard error.<sup>4</sup>

---

<sup>2</sup>Clearly, in this model parties are not Downsian office-seekers but care about policies (Baron 1993; Roemer 2001: 91f.).

<sup>3</sup>Details on the measurement of parties’ policy positions are in section “Data”.

<sup>4</sup>Running the same regression with 6 extreme points at the bottom and top (conservative Italian Christian parties and liberal Swedish lefts) removed yields a similar regression relationship of 0.59.

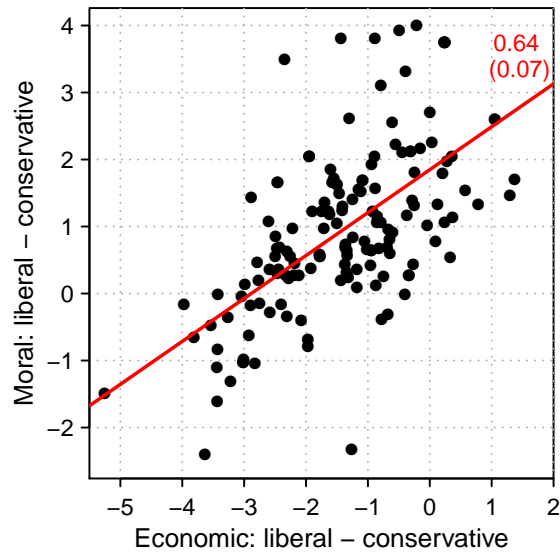


Figure 1: Party positions on moral and economic issues in 15 Western European countries

This line of reasoning posits clearly separable economic and moral preferences. Socio-economic position determines economic preferences, and religiosity determines moral preferences. The fact that the parties in Figure 1 scatter closely around the regression line is a result of the strategies of political elites, who are able to induce some voters to decide on the basis of moral *instead* of economic preferences (see Frank 2004 for a popular version of this argument).

## Religiosity and economic preferences

But the relationship between religion and moral and economic preferences is more complex. Recent research in economics and sociology argues for a strong link between an individual's religiosity and his or her *economic* preferences (e.g Scheve and Stasavage 2006; Guiso et al. 2003, 2006; Alesina and Giuliano 2011).

Following Stegmueller et al. (2012), I conceptualize religiosity as consisting of two (theoretically) distinct components: (1) religious identity, i.e. whether someone identifies with one of the major christian denominations; and (2) church integration, i.e. the extent to which he or she participates in church activities. This distinction needs to be made not only because of its conceptual relevance (more below), but also because of the empirical fact that many individuals identify themselves with a religious group, but do not attend church regularly. Roughly 50 percent of Catholics and 75 percent of Protestants attend

church only on special holy days or less. On the other hand, even in the “secular West” we still find a substantial group of individuals who attend church every week or even more often (12 percent of Protestants and 30 percent of Catholics).<sup>5</sup>

*Religious identity* has a negative effect on redistributive voting, because individuals who identify with one of the major christian denominations hold strongly conservative economic preferences. Stegmüller et al. (2012) argue that these are rooted in a long history of church–state conflict over the provision of welfare (cf. Kahl 2005; Hicks 2006; Rossteutscher 2009), which lead to a “pronounced anti welfare-state position” of churches and parties (Manow 2002:206). Research on social identity has shown that individuals who self-categorize themselves into a social group will adapt the norms, world-views, and preferences that are dominant in that group (Tajfel 1981; Hogg et al. 1995; Huddy 2001). Hence, I argue that contemporary individuals who identify themselves as religious will hold anti-welfare and redistribution preferences. This effect of religious identity operates even when an individual does not attend church regularly, since (i) other mechanisms such as personal networks and parental socialization provide enough information about beliefs and preferences among religious individuals, and (ii) the self-identification mechanism works even in absence of social control (Abrams et al. 1990).

*Church integration* has a separate negative effect on redistributive voting, because individuals who are more integrated in a church community are expected to hold more conservative economic preferences (Chen and Lind 2006; Scheve and Stasavage 2006; Stegmüller et al. 2012). Integration into a religious community helps to insulate individuals against adverse life events, like becoming sick or unemployed, by providing them with material and psychic resources (Pergament 1997; Pergament 2002; Clark and Lelkes 2005). Thus, church integration and state welfare spending are *substitute goods*: regular churchgoers, “irrespective of their denomination”, “privately insure themselves via religion” and prefer less welfare provision by the state (Scheve and Stasavage 2006: 256,263).<sup>6</sup>

The previous discussion shows that religion shapes individuals’ economic and moral preferences and helps to explain why parties are able to offer such clearly bundled economic and moral policies. If religion plays a significant role in an individual’s vote function,

---

<sup>5</sup>Numbers are calculated from European Social Survey data for fifteen West European countries, described below.

<sup>6</sup>Scheve and Stasavage (2006) describe their understanding of religion as “religious involvement” or “degree of religiosity” (p. 257), but it is clear from their model that their argument builds on an individual’s level of church attendance.

no trade-off exists between voting based on economic and moral preferences, since he or she will shun from electing redistributive parties on both moral *and* economic grounds.

## Hypotheses

From this general discussion, I construct the following testable hypotheses about religion, preferences and vote choice. First, following the discussion on the continuing relevance of the religious cleavage and its micro-level manifestation, religious social identities, I expect to find a negative effect of religious identity – self-categorizing as either Catholic or Protestant – on preferences and redistributive vote choice. Thus, I formulate a set of religious identity hypotheses: *(H1a) Individuals who identify as either Catholic or Protestant are less likely to vote for a redistributive party than their secular counterparts.* This should (partly) be the results of their distinct economic preferences, therefore I expect that *individuals who identify as either Catholic or Protestant are more likely to hold conservative economic preferences (H1b) and are more likely to hold conservative moral preferences (H1c).* A precondition for this causal structure to work is that preferences shape individuals' choices. Therefore, I expect to find that *economic and moral preferences influence vote choice (H1d).*

Second, differences in religious teaching between denominations are less important for individuals' politico-economic preferences and choices. Rather, the defining religious cleavage in modern societies lies between religious and secular individuals. While this is implicit in my first hypothesis, where I refer to both Catholics and Protestants, I will test this hypothesis more explicitly. Thus, the religious cleavage hypothesis *(H2)* states that *effect differences between religious and secular individuals will be larger than effect differences between Catholics and Protestants regarding their vote choice (H2a), economic (H2b), and moral (H2c) preferences.*

Third, in addition to the effect of religious identity, church integration has a further negative influence on the vote. Therefore, the church integration hypothesis *(H3)* states that *irrespective of an individual's denomination, the more an individual attends church, the lower will be his or her propensity of voting for a redistributive party (H3a).* As argued above, this is not only the result of an individual's moral outlook, but also due to distinct anti-welfare preferences caused by religious insurance. Consequently, I expect to find that *higher levels of church attendance are linked to conservative economic (H3b) and moral (H3c) preferences.*

## Data

### Redistributive parties

My dependent variable is an individual's choice of a *redistributive* party. Consequently, I employ a measure of how much redistribution a party proposes in their electoral platform. Using data from the Comparative Manifesto Project (CMP) (Budge et al. 2001) and its 2009 update (Volkens et al. 2010), I calculate the extent to which parties favor state involvement in the economy – a measure of redistributive politics proposed by Benoit and Laver (2006, 2007).<sup>7</sup> It is calculated from parties' statements to multiple economic topics (represented by “quasi sentences” in the CMP data set), which are combined into a measure of a party's policy position as the balance of positive (P) to negative (N) statements (Lowe et al. 2011):

$$\theta^{(L)} = \log \frac{P + .5}{N + .5}.$$

Parties can occupy any position on this scale, but more extreme positions need considerably more relative emphasis, yielding a magnitude scaling of policy positions.<sup>8</sup> This yields interval level information on the redistributive policies of almost all European parties.<sup>9</sup> The resulting position of parties were displayed in Figure 1. For the following analyses, I create a binary variable indicating if the party that an individual has chosen favors redistributive policies. I classify a party as redistributive if it occupies a policy position above the country-election specific redistribution policy mean, in other words, when it proposes more redistribution than the (hypothetical) average party.<sup>10</sup> This operationalization takes into account that what constitutes redistributive policy depends on a country and its current electoral climate.

For each election between 1999 and 2008, I matched the corresponding individual

---

<sup>7</sup>One should note that using the CMP's simple “left-right” measure is misleading, since it carries surplus meaning which is not related to redistribution, such as positions on “traditional morality” (Huber and Stanig 2008). Furthermore, simply classifying parties based on their name (‘left’) does not constitute a proper operationalization of the concept of redistributive voting, since country as well as election specific factors influence parties' policy positions on redistribution.

<sup>8</sup>A small constant (.5) is added to prevent problems with low numbers of quasi sentences. The resulting party measure is insensitive to a range of choices (.1 . . . 1).

<sup>9</sup>Some small, extreme parties are not represented in the data set, since the CMP contains no information on their position. An example is the National Democratic Party (NPD) in Germany, a nationalistic, extreme right party. However, the number of survey respondents that chose those parties is generally negligible.

<sup>10</sup>This is the preferred strategy, since the interval level measure of party policy does not imply that zero is a centrist position and therefore the mean is the preferred reference point (cf. Lowe et al. 2011: 131).



level data from the European Social Survey.<sup>11</sup> If multiple waves were available, I used the one closest to the last election. Table A.1 in the appendix shows survey fieldwork periods and election dates for waves included in my analysis. This yields matched elections–survey data for 24 elections held in 15 countries providing information on vote choices of 27,941 individuals.

## Individual level variables

Economic and moral issue preferences are captured by two items, both measured on a 5-point agree–disagree scale. An individual’s position on economic issues is represented by her preferences for redistribution, measured by an item widely used in research on redistribution preferences (e.g. Rehm 2009; Stegmueller et al. 2012). It asks respondents to state their support for income redistribution through government activity. Its exact question wording is “Using this card, please say to what extent you agree or disagree with each of the following statements”: “The government should take measures to reduce differences in income levels”. My measurement of individuals’ preferences over moral issues is somewhat more limited. I use an item probing support for homosexual lifestyles, which is an issue that continues to divide secular from religious respondents (Brint and Abrutyn 2010: 329). The item’s exact wording is “... please say to what extent you agree or disagree with the following statement: Gay men and lesbians should be free to live their own life as they wish”. Scheepers et al. (2002) show that this homosexuality item correlates highly with a general moral values factor, which includes attitudes to pre-marital sex and abortion. Nonetheless, multi-item measures for both concepts would be preferable, but are not available in the ESS.<sup>12</sup>

An individual’s religiosity is captured by his or her denomination and frequency of church attendance. Individuals are classified as either being Catholic or Protestant or having no denomination.<sup>13</sup> Church attendance is captured by a quasi metric variable

---

<sup>11</sup>The ESS was designed from the beginning to be comparative and it has exceptionally high standards regarding the comparability of questionnaires, sampling designs and population coverage, making it an ideal tool to analyze a large number of countries simultaneously. Details on sampling designs, questionnaire translation, fieldwork and data documentation are available at [www.europeansocialsurvey.org](http://www.europeansocialsurvey.org).

<sup>12</sup>See Ansolabehere et al. (2008) for a discussion of the general advantages of multi-item measures, and Stegmueller (2011) for a discussion from an explicitly comparative perspective.

<sup>13</sup>The small number (4% of respondents) of individuals belonging to “other” denominations (a rather heterogeneous group of Muslims and Eastern faiths) are grouped with “none”. Alternatively, removing them prior to the analysis does not change results.

for the frequency with which our respondents visit church, ranging from never to daily attendance. Income is measured on the household level and is standardized to have a within-country mean of zero and a standard deviation of one.<sup>14</sup> I include social class as a proxy for an individual's skill level and its associated labor market risks (Cusack et al. 2005).<sup>16</sup> I focus on the most relevant contrast, which distinguishes class positions as a result of employment contracts (Goldthorpe 1995; Goldthorpe and McKnight 2006), distinguishing 'working class' individuals with wage contracts in jobs with low human capital specificity and easy monitoring of performance, from 'service class' individuals in salaried employment with high human capital specificity and difficult monitoring of performance. Individuals who depend on the state as provider of their main source of income, have a clear interest in high levels of public welfare provision relative to those who are working (Alber 1984; Lepsius 1979; Bean and Papadakis 1998; Gelissen 2000; Jaeger 2006). In line with previous research (e.g. Gelissen 2000, 2001), I include indicator variables for being unemployed, retired, and not in the labor force. To capture further heterogeneity between individuals, I include a respondent's age and years of education.<sup>17</sup> Gender differences are represented by a dummy variable for being female. Table A.2 in the appendix shows descriptive statistics for all explanatory variables used in the analysis. I address missing data using multiple imputation (cf. Rubin 1987; Little and Rubin 2002; King et al. 2001).<sup>18</sup>

---

<sup>14</sup>Respondents could give their income in weekly, monthly or annual figures. The first three waves of the European Social Survey provide a twelve category measure of income, whereas wave four provides country specific deciles. To create a comparable measure I standardize per country and survey wave. Note that De La O and Rodden (2008) find that the effect of income on redistributive voting is nonlinear, especially for the highest income group. To check for this possibility, I estimated a nonparametric model (Wood 2006; Keele 2008) for the effect of income.<sup>15</sup> My results show no sign of any nonlinearities, which suggests that their finding might be a result of the income measurement employed in the World Value Survey (see Figure A.1 in the appendix). Consequently, I specify the effect of income on redistributive voting as linear.

<sup>16</sup>I use the European Socio-economic Classification (Rose and Harrison 2010), which codes detailed occupation-by-employment-status units into a categorical class scheme, to generate class indicators for working and service class positions, a group of intermediate positions, which are characterized by mixed employment contracts, and the self-employed.

<sup>17</sup>To check if a linear specification for age is appropriate, I set up a model for the direct effects, where the age effect is estimated non-parametrically. Details are the same as for my nonparametric income model above. Nonparametric age estimates suggesting an effect decreasing at a roughly constant rate, which suggests that a linear specification captures the central feature of the data.

<sup>18</sup>It has been pointed out repeatedly that listwise deletion of missing cases is a poor strategy (Allison 2001; Little and Rubin 2002; King et al. 2001). Thus, I use multiple imputation via a chained equations approach. It imputes missing values by cycling over variables, imputing each as a function of all others. Whereas traditional imputation methods usually assume multivariate normality for all variables, this approach tailors each imputation equation to a variable's measurement level (Raghunathan et al. 2001; van Buuren et al.

## Model

An appropriate model has to include variables describing an individual's religion, socio-economic background, and economic and moral preferences. Simply including both religion, socio-economic position and preferences on the right hand side of a regression model will not adequately represent the hypothesized causal process (Lewis-Beck 1977; Bartle 1998; Lewis-Beck et al. 2008). I describe below the set-up of a structural model, where an individual's economic and moral preferences are endogenous, shaped by her religion and socio-economic position (cf. Goldberger 1972; Winship and Mare 1983; Yuan and MacKinnon 2009). These preferences, together with other observed characteristics, then influence her propensity to vote for a redistributive party.

I use a latent variable formulation to map categories of observed variables onto their underlying continuous latent variables (Heckman 1978; Albert and Chib 1993). More precisely, for the binary vote choice variable one observes  $y = 1$  if the latent variable  $y^*$  is greater or equal a threshold  $\kappa$  and 0 otherwise, while ordinal measures of redistribution and moral issues with  $k = 4$  categories are mapped onto latent variables via a set of  $k - 1$  estimated ordered thresholds. Thus for each ordinal variable one observes  $\eta_v = k$  if  $\kappa_{k-1,v} \leq \eta_v^* < \kappa_{k,v}$ , ( $k = 1, \dots, 4$ ,  $v = 1, 2$ ). I fix the scale of the latent variables by setting errors,  $\epsilon$ , to follow a standard normal distribution, yielding a probit equation for vote choice and ordered probit equations for moral and economic preferences (Song and Lee 2004). Both latent measures are oriented such that higher values indicate more liberal economic and moral preferences.

Individual  $i$  living in country  $j$  choses a redistributive party according to the following vote function:

$$y_{ij}^* = \beta_1 \mathbf{x}_i + \gamma_1 \eta_{1ij}^* + \gamma_2 \eta_{2ij}^* + \delta_1 \mathbf{z}_{i1} + \xi_{1j} + \epsilon_{i1} \quad (1)$$

$$\eta_{1ij}^* = \beta_2 \mathbf{x}_i + \delta_2 \mathbf{z}_{i2} + \xi_{2j} + \epsilon_{i2} \quad (2)$$

$$\eta_{2ij}^* = \beta_3 \mathbf{x}_i + \delta_3 \mathbf{z}_{i3} + \xi_{3j} + \epsilon_{i3} \quad (3)$$

Here,  $\beta_1$  is a vector that captures the effect of religious denomination and church attendance  $\mathbf{x}_i$ , while  $\gamma_1$  and  $\gamma_2$  capture the respective effect of economic and moral preferences

---

2006; van Buuren 2007). To insure that reasonable values have been imputed, I employ the diagnostic checks outlined by Abayomi et al. (2008). I compute five imputations on which the following results are based.

on vote choice. Controls for further individual characteristics are placed in  $\mathbf{z}_i$  with associated regression weights  $\delta_1$ . Effects of religion on economic and moral preferences are captured in  $\beta_2$  and  $\beta_3$ , respectively.<sup>19</sup>

Since unobserved heterogeneity between countries is likely to influence voting as well as preferences, I model country differences in levels of vote choice and preferences via country-election random effects,  $\xi_{vj}$  (Ansari et al. 2002; Rabe-Hesketh et al. 2007):

$$\xi_{vj} \sim N(0, \Psi_{\xi_v}), \quad v = 1, 2, 3$$

where  $\Psi_{\xi_v} = \text{diag}(\psi_{\xi_{v1}}^2, \dots, \psi_{\xi_{vJ}}^2)$ .<sup>20</sup> I estimate this multilevel system of equations in a Bayesian framework (see, in general, Gill 2008; Jackman 2009, and specifically Palomo et al. 2007). Diffuse priors for the random effects variances are specified as draws from an inverse gamma distribution with shape and scale parameters 0.001. Regression effects priors are normally distributed with mean zero and variance 100, whereas priors for the thresholds are normally distributed with mean zero and variance 10. I run a Gibbs sampler (Spiegelhalter et al. 1997) with two chains for 200,000 iterations thinned by a factor of 10, and base inferences on the second half of the chains.<sup>21</sup>

## Results

While I will calculate more easily interpretable quantities below, a look at the raw coefficients, as shown in Table 1, yields the core structure of my results. Column *Eq. 1* shows

---

<sup>19</sup>Further controls are captured by effects  $\delta_2, \delta_3$  for covariate vectors  $\mathbf{z}_{i2}$  and  $\mathbf{z}_{i3}$ . Since I estimate all binary and ordered probit thresholds, I do not include intercepts. Furthermore, the model implies uncorrelated residuals  $\epsilon$  (Winship and Mare 1983: 75). In the online appendix I present a robust specification with instruments in  $\mathbf{z}_{i2}$  and  $\mathbf{z}_{i3}$ .

<sup>20</sup>A more complex specification allows for correlations between the three different intercepts, modeled using a variance covariance matrix with an inverse Wishart distribution as its hyperprior. More specifically, I estimated  $\xi_v \sim N(0, \Psi)$  with  $\Psi \sim W^{-1}(I_3, 4)$ . However, this analysis has shown that no substantial correlation exists. The covariance between voting and economic preferences is 0.046 (with a standard error of 0.05), between voting and moral preferences it is 0.008 (0.039), and between economic and moral preferences  $-0.005$  (0.029). Therefore, I retain the somewhat simpler (and computationally faster) model specification.

<sup>21</sup>Diagnostic suggested by Gelman and Rubin (1992) and Cowles and Carlin (1996) indicate that both chains mix well and do not show signs of absence of convergence. I conducted several sensitivity analyses, to check the robustness of my results against different prior specifications. As an alternative prior for variances I use a prior that is uniform on the standard deviation as suggested by Gelman (2006). To check the prior sensitivity of thresholds and regression coefficients, I use priors with variances twice as large. In all cases I obtained the same model results.

the direct effects of preferences and individual characteristics on redistributive vote choice (cf. equation 1 above), while columns *Eq.2* and *Eq.3* show how individual characteristics shape moral and economic preferences, respectively, and thus indirectly influence redistributive voting. One immediately notices that both economic and moral preferences play an important role in shaping redistributive vote choice. Individuals who hold liberal, pro-redistribution preferences and have liberal moral views are more likely to vote for a redistributive party. Thus hypothesis *H1c* – which is the prerequisite for all further discussion – clearly holds: moral and economic conservatism is linked with a lower propensity to vote for a redistributive party.

As argued above, these preferences are endogenous and shaped by an individual's religion. As column two and three show, Catholics and Protestants are significantly more morally and economically conservative than the secular population, confirming the *religious identity hypotheses, H1a & H1b*. Therefore, in addition to the direct effects of religion on voting (as given in eq.1), religious identity also exerts a negative effect on the redistributive vote, channeled via economic and moral preferences, thus confirming hypothesis *H1d*.<sup>22</sup>

Estimates of denomination effects in Table 1 already hint that effect differences between Catholic and Protestant are rather small – which was claimed by the *religious cleavage hypotheses*. A stricter test is presented in Figure 2, which test effect differences between Catholics and Protestants for each equation. Shown are estimated differences together with their associated 95% credible intervals.<sup>23</sup> The difference is considerable larger for vote choice and moral preferences than for economic preferences, but in each case the absolute magnitude is negligible. Furthermore all credible intervals contain zero, showing that these differences are statistically insignificant. This confirms the *religious cleavage hypotheses* for both preferences and vote choice *H2a-H2c* and shows the importance of religious–secular differences for political preferences and choices.

I now turn from identity to behavior and examine the *church integration hypotheses*. We see that higher levels of church attendance go hand in hand with more conservative economic and moral preferences, as was predicted by hypotheses *H3a* and *H3b*. Con-

---

<sup>22</sup>These effects are with church attendance held constant. I will relax this strict linear additive specification in section below, in order to examine how religious identity and church integration interact.

<sup>23</sup>Credible intervals are the Bayesian analogue to the frequentist confidence interval. However, owing to the straightforward meaning of posterior probability in Bayesian analysis, they actually *can* be interpreted as region of confidence, i.e. the 95% probability that the effect difference lies in this region (Bernardo and Smith 2000; Jaynes 1976).

Table 1: Structural model of redistributive party choice as function of religion and issue preferences. Estimates (posterior means) and standard errors (posterior standard deviation) from Bayesian hierarchical structural model.

	Eq 1: Vote		Eq 2: Economic		Eq 3: Moral	
	<i>est</i>	<i>se</i>	<i>est</i>	<i>se</i>	<i>est</i>	<i>se</i>
Preferences:						
Economic	0.247	0.007				
Moral	0.130	0.007				
Denomination: <sup>a</sup>						
Catholic	-0.185	0.017	-0.098	0.014	-0.053	0.014
Protestant	-0.162	0.017	-0.099	0.014	-0.072	0.014
Attendance	-0.040	0.005	-0.019	0.004	-0.150	0.004
Income	-0.068	0.007	-0.147	0.006	0.013	0.006
Education	0.005	0.002	-0.013	0.001	0.027	0.001
Female	0.052	0.012	0.167	0.010	0.312	0.010
Age	-0.022	0.005	0.018	0.004	-0.094	0.004
Social class: <sup>b</sup>						
Service	0.039	0.016	-0.111	0.013	0.114	0.013
Working	0.121	0.015	0.079	0.013	-0.031	0.013
Self-employed	-0.280	0.023	-0.174	0.018	-0.052	0.019
Transfer class: <sup>c</sup>						
Unemployed	0.024	0.034	0.107	0.028	-0.055	0.028
Retired	-0.069	0.019	-0.002	0.016	-0.080	0.016
Not in LF	-0.067	0.017	-0.049	0.014	-0.013	0.014
<i>Country-election variance components</i>						
Variance	0.276	0.063	0.137	0.032	0.068	0.016
VPC	0.215	0.037	0.120	0.024	0.064	0.014

*Note:* VPC denotes variance partition coefficient calculated after Goldstein (2010) method D. Estimated thresholds for binary probit equation: -0.273; for ordinal probit redistribution equation: (-1.090, -0.614, 0.722); for ordinal probit moral equation: (-1.853, -1.309, 0.038). Based on 20,000 MCMC samples. Calculated using five imputations of ESS data, N=27941. Multiple imputation standard errors calculated according to Rubin 1987.

<sup>a</sup> Reference category is no/other denomination.

<sup>b</sup> Reference category is intermediate/no class.

<sup>c</sup> Reference category is paid employment.

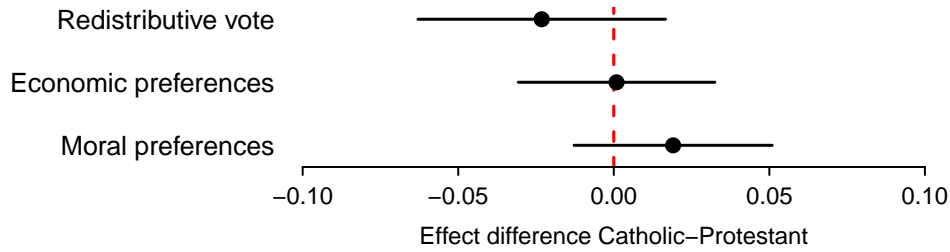


Figure 2: Effect differences between denominations

sequently, we see that regular churchgoers have a lowered probability of voting for a redistributive party, thus confirming hypothesis *H3c*. However, in contrast to religious identity, which has a stronger impact on economic than on moral preferences, the effect of church attendance in the moral preferences equation is seven times larger than for economic preferences. This raises the suspicion that, contrary to the religious insurance argument (Scheve and Stasavage 2006), the main mechanism linking church integration and redistributive non-voting is not based on economic preferences (I will examine this question in more detail below).

Finally, estimates of an individual's socio-economic position in Table 1 confirm expected relationships. Individuals with higher incomes are slightly more socially liberal than the general population, but they are decidedly more economically conservative and have a lower propensity to vote for a redistributive party. The effect of education on economic preferences is much smaller but still negative and different from zero, while it is larger for moral preferences.<sup>24</sup> As expected, I find that individuals in service and working class occupations differ sharply from one another in their economic preferences. Working class individuals hold liberal economic preferences, whereas individuals in service class occupations are economically conservative. With regard to moral preferences, even after controlling for education, members of the service class are liberal while working class members are socially conservative (Lipset 1959). In contrast, the self-employed show a clear distaste for liberal, redistributive economic policy and are less socially liberal than the reference group (individuals in intermediate employment positions). Effects are less clear among members of the service class. Individuals who are currently unemployed prefer a more liberal economic policy than individuals who are currently in paid employment. On the other hand, those not in the labor force (a rather mixed group containing

<sup>24</sup>For a more detailed analysis of the relationship between income and vote choice see De La O and Rodden 2008, Gelman et al. 2008 and Gelman et al. 2010.

students) hold more conservative economic preferences. After controlling for education and income, retired individuals do not differ from the working population in their economic preferences; however, they are more socially conservative even after taking into account the negative effect of age. Finally, I find that women hold more liberal economic and moral preferences than men, taking their socio-economic characteristics into account.

The final two rows of Table 1 show that there exists a good deal of unobserved heterogeneity between countries, especially with regard to vote choice and economic preferences. By calculating the variance partition coefficient (often called intra class correlation), we see that almost 22 percent of unexplained variance in vote choice is due to country differences; the corresponding numbers for economic and moral preferences are twelve and six percent, respectively. Even so, this country heterogeneity does not distort my results (more details on robustness checks can be found in the appendix).

## **Religion and redistributive voting**

I will now take a closer look at the effect of religious identity and church attendance on redistributive voting. To allow for an easier interpretation of effects, I calculate predicted probabilities of voting for a redistributive party for an average individual. More precisely, I hold all socio-economic controls at their mean and use the denomination specific mean level of church attendance to take into account that Catholics and Protestants differ in their average level of church attendance. In a second specification, I use the 10th and 90th percentile of church attendance to capture the effect of religious identification among regular churchgoers and non-churchgoers. These calculations result in Figure 3, which shows differences in predicted probabilities between Catholics or Protestants and their secular counterparts.

Looking at its upper half shows again the relevance of religious identity: holding all other individual characteristics constant, religious identity reduces the probability of voting for a redistributive party by about ten percentage points. Still, contrary to my theoretical argument, religious identity may only be relevant for highly church integrated individuals who show up in church each Sunday. The lower part of Figure 3 suggests that this is not the case. Not surprisingly, I do find that effect differences are stronger among regular churchgoers (those who attend church at least once a week), who differ from secular individuals by about thirteen percentage points. But even among individuals who *never* attend church (not even on special holy days), religious identification has a clear



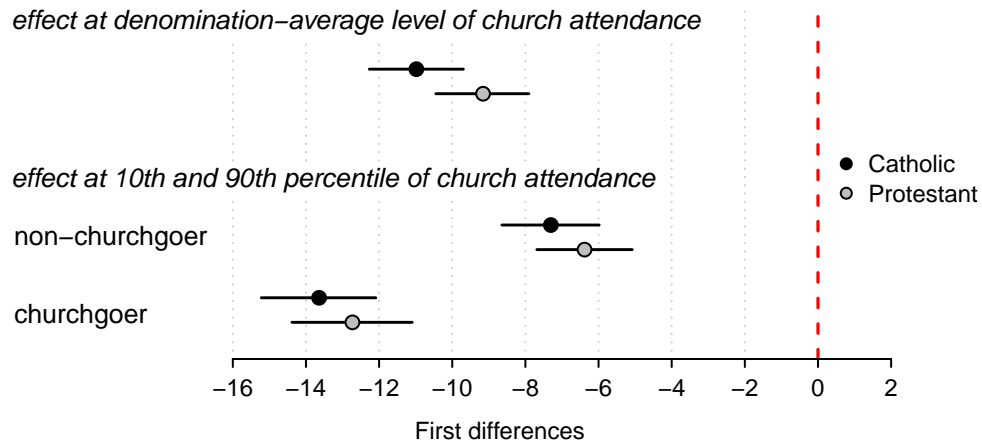


Figure 3: Total effect of religious identity and church attendance on redistributive voting. First differences in predicted probabilities of voting for a redistributive party between religious and secular individuals at different levels of church attendance.

effect, which leads to a difference from secular individuals of roughly seven percentage points.

Is this effect of religion a general force influencing political decisions, or does it depend on one’s socio-economic position? For example, Gelman et al. (2008) find that religion (which they operationalize as church attendance) matters mainly for high income voters. On the other hand there is the notion of lower class people being “preoccupied” with religion instead of economic matters. To assess the role of religious identification in different social strata, I again calculate first denomination differences in predicted probabilities of voting for a redistributive party for four “socio-economic ideal types”: (1) a member of the working class, with below average income and low education; (2) someone in an intermediate class position (and respective education and income); (3) a member of the professional or service class, who obtains above average income and has higher education; and (4) someone who is self-employed, typically with slightly lower education and income than members of the service class. The results are clear. Among all four ideal types, religious identification lowers the probability of voting for a redistributive party by ten percentage points (after rounding to full decimals).<sup>25</sup> In other words, religion is important, irrespective of one’s position on the socio-economic ladder.

<sup>25</sup>Exact differences in predicted probabilities are (s.e. in parentheses):  $-9.92$  (0.52) for workers,  $-10.08$  (0.51) for intermediate occupations,  $-10.07$  (0.51) for members of the service class, and  $-9.82$  (0.53) for the self-employed.

## The role of economic and moral preferences

I now take a closer look religion's *indirect effects*, i.e. how it shapes voting via preferences.<sup>26</sup> Indirect effects, shown in Table 2, quantify the effects of covariates on vote choice mediated via economic and moral preferences. Those estimates are somewhat harder to interpret since they are on the (standardized) scale of the latent preference variables. A more intuitive measure of the importance of preferences is given in the 'percent mediated' columns. There I calculate how much of the total effect of a covariate on the propensity to vote for a redistributive party is due to economic and moral preferences, respectively (Ditlevsen et al. 2005).<sup>27</sup>

Looking over the coefficients describing indirect effects, I find a pattern that is to be expected from my previous results: both economic and moral preferences are relevant factors between social position and the redistributive vote. For economic variables, such as income, education or being in an (dis-) advantageous labor market position, Table 2 indicates that the proportion mediated by preferences is larger for economic characteristics compared to religion. However, it is less surprising to find that income is strongly related to redistributive voting via economic preferences, than to find that economic preferences matter significantly for religious individuals as well. Indeed, I find that while for both Catholics and Protestants, economic *and* moral issues are relevant in determining voting, economics is more important than morals: the percentage of religion's mediated effect is two to three times larger in the economic preferences equation. Contrarily, for individuals who attend church more regularly, moral issues (or, more precisely, homosexuality) is a more important factor.<sup>28</sup>

However, a strict statistical test of the relevance of economic vis-a-vis moral preferences

---

<sup>26</sup>It is worth stressing that the model specification is based on the theoretically implied order of effects, in other words, one expects that social position shapes preferences and ultimately vote choice. However, as one of my reviewers suggests, for a subset of individuals the reverse might be true, e.g., changes in their moral preferences affect their propensity to identify with a Christian denomination. To differentiate between these possibilities further research in single countries using repeated observations, such as household panel data, will be needed.

<sup>27</sup>Calculating the proportion of denomination effects explained by preferences is done as follows. Let  $d$  be a dummy indicating the column of  $x$  giving the denomination of individual  $i$  and  $\beta_{.d}$  the associated effect coefficient. Then the proportions  $\pi$  of the effect of denomination mediated by moral issue or redistribution preferences is given by (Ditlevsen et al. 2005; MacKinnon et al. 2007):  $\pi_{\eta_1^*,d} = \gamma_1\beta_{2d}/(\beta_{1d} + \gamma_1\beta_{2d})$  and  $\pi_{\eta_2^*,d} = \gamma_2\beta_{3d}/(\beta_{1d} + \gamma_1\beta_{3d})$ .

<sup>28</sup>As one of my reviewers rightly pointed out, one could expect the relevance of moral (and possible economic) preferences to rise if more detailed measures, covering a broader range of issues, would be available.

Table 2: Effects of endogenous economic and moral preferences. Estimates (posterior means) and standard errors (posterior standard deviation) from Bayesian hierarchical structural model.

	Economic preferences				Moral preferences			
	Indirect effect		Percent mediated		Indirect effect		Percent mediated	
	<i>est</i>	<i>se</i>	<i>est</i>	<i>se</i>	<i>est</i>	<i>se</i>	<i>est</i>	<i>se</i>
Denomination: <sup>a</sup>								
Catholic	-0.243	0.035	12	2	-0.068	0.019	4	1
Protestant	-0.245	0.035	13	2	-0.093	0.019	5	1
Attendance	-0.046	0.010	10	2	-0.195	0.011	33	3
Income	-0.364	0.018	35	3	0.017	0.008	2	1
Education	-0.033	0.004	42	10	0.035	0.003	44	10
Female	0.413	0.027	45	6	0.407	0.025	45	7
Age	0.045	0.010	17	5	-0.123	0.008	36	6
Social class: <sup>b</sup>								
Service	-0.274	0.032	44	12	0.148	0.019	30	12
Working	0.196	0.031	14	3	-0.040	0.017	3	1
Self-employed	-0.428	0.047	13	2	-0.068	0.025	2	1
Transfer class: <sup>c</sup>								
Unemployed	0.265	0.069	51	21	-0.072	0.036	26	21
Retired	-0.006	0.040	5	4	-0.104	0.022	14	5
Not in LF	-0.120	0.035	16	6	-0.017	0.019	3	3

Note: Calculated from estimates in Table 1. Latent endogenous variables scaled by a factor of 10. Multiple imputation standard errors adjusted according to Rubin 1987. Based on 20,000 MCMC samples.

<sup>a</sup> Reference category is no/other denomination.

<sup>b</sup> Reference category is intermediate/no class.

<sup>c</sup> Reference category is paid employment.

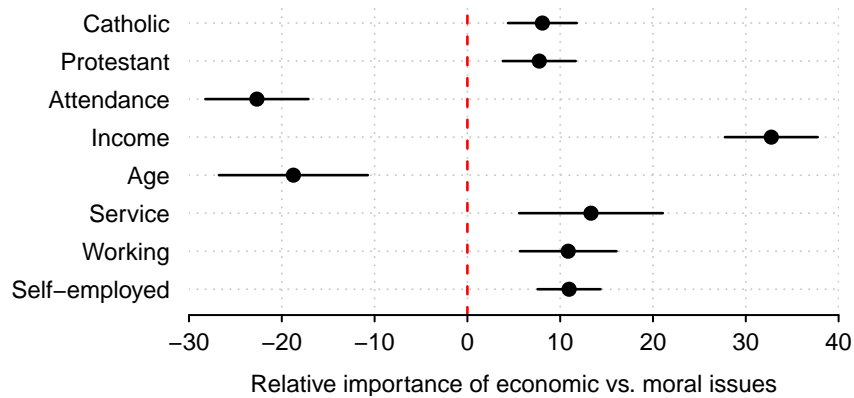


Figure 4: Difference between percent mediated by economic and moral issues.

needs to be based on their relative differences. Thus, for each relevant social characteristic, I calculate the difference between the percentage mediated by economic and moral preferences. These differences together with their corresponding 95% credible intervals are shown in Figure 4. Here, difference estimates which are significantly smaller than zero indicate that moral issues are more important in explaining the effects of a social characteristic on vote choice, while estimates significantly greater than zero indicate a greater importance of economic preferences.

For both Catholics and Protestants, economic preferences play a larger role than moral issues in determining their redistributive party choice. The difference in relevance is 8 percentage points with 95% intervals that do not cross zero – indicating that this is a statistically reliable finding. This result once more underscores the credibility of the religious identity hypothesis, which links religious identity to *economic* preferences and to vote choice.

The opposite picture emerges for the role of church attendance. It shapes an individual’s vote choice more through its effect on moral preferences: the proportion of an individual’s choice for a redistributive party mediated by moral preferences is three times as large as that mediated by economic ones. The calculated difference in Figure 4 illustrates that church attendance has a significantly stronger indirect effect via moral than economic preferences. It’s estimated difference is only surpassed in relative magnitude by the role of income, whose effect on vote choice operates almost exclusively through economic preferences. Thus, while there exists a significant link between church integration, economic preferences and redistribute vote choice, as I have argued following the religious insurance argument by Scheve and Stasavage (2006), the major factor shaping

redistributive non-voting among churchgoing citizens is their moral conservatism. Thus, it seems that integration in a moral community, like a local church, increases the salience of moral issues to such an extent that they become a determining factor in individuals' vote choice. A reverse causal explanation is, of course, that those morally conservative individuals to whom social-moral political issues are of high importance choose to attend church more regularly. However, in both scenarios the economic insurance aspect of church integration is less relevant than expected by the religious insurance argument.

## Conclusion

In this paper, I tackled the question, why individuals do not vote for redistributive parties (Roemer 1998). I focus on a micro-level explanation, arguing that religion plays a crucial role in 'preventing' individuals from voting for parties offering redistribution policies. The role of religion is twofold. First, and not surprisingly, it shapes individuals' moral preferences. Religious individuals hold more conservative positions on moral issues, and living in increasingly secularized societies they turn to conservative parties which promise to implement such conservative policies. Second, and more importantly, religion does shape individuals' economic preferences. Those who identify with one of the major christian denominations hold clear anti-welfare views and prefer more conservative economic policies. Therefore, they are less likely to vote for a redistributive party, irrespective of other socio-economic characteristics. This identity effect of religion does not differ between Catholics and Protestants, substantiating the argument that in a secular environment, the main cleavage lies between religious and secular individuals. My findings are based on an explicit structural model (as called for by e.g. Bartle 1998). Thus, in contrast to an earlier study of religion, economic, and moral preferences and voting by De La O and Rodden (2008), this allows me to specify an explicit causal pathway from religion to preferences and vote choice, and to assert the higher relative importance of economic preferences vis-a-vis moral ones.

Observed vote choices which might be depicted as going against individuals 'obvious' interests (Frank 2004), like a religious worker, who does not prefer redistributive policies (Bartels 2005), are far from irrational or erratic. They are a consequent choice based on strongly held economic and moral preferences resulting from one's social identity. Even in the secular societies of Western Europe, religion still plays a major role in defining a

yardstick on which (some) individuals orient their beliefs and preferences.<sup>29</sup>

My findings suggest that even for scholars studying advanced welfare states, religion is a topic that should not be neglected. Religious individuals hold distinct preferences and they cast their vote in predictable ways. Their preferences are bound to be reflected in social policies and in parties' strategies, since they are more likely than secular citizens to show up at the polls.<sup>30</sup> Understanding the role of religion in shaping policy, and how policy itself shapes identities and preferences will add another facet to our understanding of socio-structural and political sources of social inequality.

---

<sup>29</sup>One should note that the current results are limited to Western European countries, although the theoretical argument is general and should hold for other advanced industrialized countries as well (cf. Roemer 1998). It is also possible that other dimensions of conflict, e.g. race in the U.S., overshadow religion's salience. However this is beyond the scope of the current paper.

<sup>30</sup>The odds of turnout are roughly 50% higher for religious individuals, controlling for age, income, education, social class and gender (calculated from ESS data used in this paper).

## References

- Abayomi, Kobi, Gelman, Andrew, and Levy, Marc. 2008. "Diagnostics for multivariate imputations." *Journal of the Royal Statistical Society C* 57 (3): 273–291.
- Abrams, D, Wetherell, M, Cochrane, S, Hogg, M A, and Turner, J C. 1990. "Knowing what to think by knowing who you are: self-categorization and the nature of norm formation, conformity and group polarization." *British Journal of Social Psychology* 29 (2): 97–119.
- Akerlof, George A and Kranton, Rachel E. 2000. "Economics and Identity." *Quarterly Journal of Economics* 65 (3): 715–753.
- Alber, Jens. 1984. "Versorgungsklasse im Wohlfahrtsstaat [Transfer class in the welfare state]." *Kölner Zeitschrift für Soziologie und Sozialpsychologie* 36: 225–251.
- Albert, James H and Chib, Siddhartha. 1993. "Bayesian Analysis of Binary and Polychotomous Response Data." *Journal of the American Statistical Association* 88 (422): 669–679.
- Alesina, Alberto and Giuliano, Paola. 2011. "Preferences for Redistribution." In Jess Benhabib, Alberto Bisin, and Matthew O. Jackson, eds., "Handbook of Social Economics," San Diego: North-Holland. 93–131.
- Allison, Paul D. 2001. *Missing Data*. Thousand Oaks: Sage.
- Ansari, Asim, Jedidi, Kamel, and Dube, Laurette. 2002. "Heterogeneous Factor Analysis Models: A Bayesian Approach." *Psychometrika* 67 (2): 49–78.
- Ansolabehere, Stephen, Rodden, Jonathan, and Snyder, James M Jr. 2008. "The Strength of Issues: Using Multiple Measures to Gauge Preference Stability, Ideological Constraint, and Issue Voting." *American Political Science Review* 102 (2): 215–232.
- Baron, David P. 1993. "Government Formation and Endogenous Parties." *American Political Science Review* 87 (1): 34–47.
- Bartels, Larry M. 2005. "Homer Gets a Tax Cut: Inequality and Public Policy in the American Mind." *Perspectives on Politics* 3 (1): 15–31.
- Bartle, John. 1998. "Left-Right Position Matters, But Does Social Class? Causal Models of the 1992 British General Election." *British Journal of Political Science* 28 (3): 501–529.
- Bean, Clive and Papadakis, Elim. 1998. "A Comparison Of Mass Attitudes Towards The Welfare State In Different Institutional Regimes, 1985–1990." *International Journal of Public Opinion Research* 10 (3): 211–236.
- Benoit, Kenneth and Laver, Michael. 2006. *Party Policy in Modern Democracies*. Oxon: Routledge.
- Benoit, Kenneth and Laver, Michael. 2007. "Estimating party policy positions: Comparing expert surveys and hand-coded content analysis." *Electoral Studies* 26: 90–107.
- Berelson, B R, Lazarsfeld, Paul F, and McPhee, W N. 1954. *Voting: A Study of Opinion Formation in*

- a Presidential Campaign*. Chicago: Chicago University Press.
- Bernardo, José M and Smith, Adrian F M. 2000. *Bayesian Theory*. Chichester: Wiley.
- Bornschieer, Simon. 2010. "The new cultural divide and the two-dimensional space in Western Europe." *West European Politics* 33 (3): 419–444.
- Brint, Steven and Abrutyn, Seth. 2010. "Who's Right About the Right? Comparing Competing Explanations of the Link Between White Evangelicals and Conservative Politics in the United States." *Journal for the Scientific Study of Religion* 49 (2): 328–350.
- Brooks, Clem and Manza, Jeff. 1997. "The Social and Ideological Bases of Middle-Class Political Realignment in the United States, 1972 to 1992." *American Sociological Review* 62 (2): 191–208.
- Brooks, Clem and Manza, Jeff. 2004. "A Great Divide? Religion and Political Change in U.S. National Elections, 1972–2000." *Sociological Quarterly* 34 (3): 421–450.
- Brooks, Clem, Nieuwbeerta, Paul, and Manza, Jeff. 2006. "Cleavage-based voting behavior in cross-national perspective: Evidence from six postwar democracies." *Social Science Research* 35: 88–128.
- Budge, Ian, Klingemann, Hans-Dieter, Volkens, Andrea, Bara, Judith, Tanenbaum, Eric, Fording, Richard C, Hearl, Derek J, Kim, Hee Min, McDonald, Michael, and Mendez, Silvia. 2001. *Mapping Policy Preferences. Estimates for Parties, Electors, and Governments 1945-1998*. Oxford: Oxford University Press.
- Chen, Daniel L and Lind, Jo T. 2006. "The Political Economy of Beliefs: Why Fiscal and Social Conservatives and Liberals Come Hand-in-Hand, Manuscript."
- Clark, Andrew and Lelkes, Orsolya. 2005. "Deliver us from evil: religion as insurance. Manuscript."
- Cowles, Mary Kathryn and Carlin, Bradley P. 1996. "Markov Chain Monte Carlo Convergence Diagnostics: A Comparative Review." *Journal of the American Statistical Association* 91 (434): 883–904.
- Cusack, Thomas, Iversen, Torbern, and Rehm, Phillip. 2005. "Risks At Work: The Demand And Supply Sides Of Government Redistribution." *Oxford Review Of Economic Policy* 22 (3): 365–389.
- De Graaf, Nan Dirk, Heath, Anthony, and Need, Ariana. 2001. "Declining cleavages and political choices: the interplay of social and political factors in the Netherlands." *Electoral Studies* 20: 1–15.
- De La O, Ana L and Rodden, Jonathan A. 2008. "Does Religion Distract the Poor? Income and Issue Voting Around the World." *Comparative Political Studies* 41 (4-5): 437–476.
- Ditlevsen, Susanne, Christensen, Ulla, Lynch, John, Damsgaard, Morgens Trab, and Keiding, Niels. 2005. "The Mediation Proportion. A Structural Equation Approach for Estimating the Proportion of Exposure Effect on Outcome Explained by an Intermediate Variable." *Epidemiology* 16 (1): 114–120.



- Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York: Harper.
- Elff, Martin. 2007. "Social Structure and Electoral Behavior in Comparative Perspective: The Decline of Social Cleavages in Western Europe Revisited." *Perspectives on Politics* 5 (2): 277–294.
- Elff, Martin. 2009. "Social divisions, party positions and electoral behavior." *Electoral Studies* 28: 297–308.
- Evans, Geoffrey. 2000. "The Continued Significance of Class Voting." *Annual Review of Political Science* 3: 401–417.
- Frank, Thomas. 2004. *What's the matter with Kansas? How conservatives won the heart of America*. New York: Metropolitan Books.
- Franklin, Mark N, Mackie, Thomas T, and Valen, Henry, eds. 1992. *Electoral Change: Responses to Evolving Social and Attitudinal Structures in Western Countries*. Cambridge: Cambridge University Press.
- Gelissen, John. 2000. "Popular support for institutionalised solidarity: a comparison between European welfare states." *International Journal of Social Welfare* 9: 285–300.
- Gelissen, John. 2001. *Worlds of Welfare, Worlds of Consent? Public Opinion on the Welfare State*. Amsterdam: Thela Thesis.
- Gelman, Andrew. 2006. "Prior distributions for variance parameters in hierarchical models." *Bayesian Analysis* 1 (3): 515–534.
- Gelman, Andrew, Kenworthy, Lane, and Su, Yu-Sung. 2010. "Income Inequality and Partisan Voting in the United States." *Social Science Quarterly* 91 (5): 1203–1219.
- Gelman, Andrew, Park, David K, Shor, Boris, Bafumi, Joseph, and Cortina, Jeronimo. 2008. *Red State, Blue State, Rich State, Poor State: Why Americans Vote the Way They Do*. Princeton: Princeton University Press.
- Gelman, Andrew and Rubin, Donald. 1992. "Inference from Iterative Simulation Using Multiple Sequences." *Statistical Science* 7 (4): 457–511.
- Gill, Anthony and Lundsgaarde, Erik. 2004. "State Welfare Spending and Religiosity." *Rationality and Society* 16 (4): 399–436.
- Gill, Jeff. 2008. *Bayesian Methods. A Social and Behavioral Sciences Approach*. Boca Raton: Chapman & Hall.
- Goldberger, Arthur S. 1972. "Structural Equation Methods in the Social Sciences." *Econometrica* 40 (6): 979–1001.
- Goldstein, Harvey. 2010. *Multilevel Statistical Models*. Chicester: Wiley.
- Goldthorpe, John H. 1995. "The service class revisited." In Tim Butler and Mike Savage, eds.,

- “Social change and the middle classes,” London: UCL Press. 313–329.
- Goldthorpe, John H and McKnight, A. 2006. “The Economic Basis of Social Class.” In S L Morgan, D B Grusky, and G S Fields, eds., “Mobility and Inequality: Frontiers of Research in Sociology and Economics,” Stanford: Stanford University Press. 109–136.
- Gouveia, Miguel and Masia, Neal A. 1998. “Does the Median Voter Model Explain the Size of Government? Evidence from the States.” *Public Choice* 97 (1-2): 159–177.
- Greeley, Andrew M. 2004. *Religion in Europe at the end of the second millennium: a sociological profile*. Transaction Publisher.
- Guiso, Luigi, Sapienza, Paola, and Zingales, Luigi. 2003. “People’s opium? Religion and economic attitudes.” *Journal of Monetary Economics* 50 (1): 225–282.
- Guiso, Luigi, Sapienza, Paola, and Zingales, Luigi. 2006. “Does Culture Affect Economic Outcomes?” *Journal of Economic Perspectives* 20 (2): 23–48.
- Heckman, James J. 1978. “Dummy Endogeneous Variables in a Simultaneous Equation System.” *Econometrica* 46 (6): 931–959.
- Hicks, Alexander. 2006. “Comment on Somers and Block, ASR, April 2005: Free-Market and Religious Fundamentalists versus Poor Relief.” *American Sociological Review* 71 (3): 503–510.
- Hogg, Michael A, Hardie Elizabeth, A, and Reynolds, Katherine J. 1995. “Prototypical similarity, self-categorization, and depersonalized attraction: a perspective on group cohesiveness.” *European Journal of Social Psychology* 25: 159–177.
- Huber, John D and Stanig, Pero. 2008. “Voting polarization on redistribution across democracies. Manuscript.”
- Huddy, Leonie. 2001. “From Social to Political Identity: A Critical Examination of Social Identity Theory.” *Political Psychology* 22 (1): 127–156.
- Inglehart, Ronald. 1997. *Modernization and Postmodernization. Cultural, Economic, and Political Change in 43 Societies*. Princeton: Princeton University Press.
- Iversen, Torben. 2006. “Class Politics is Dead! Long Live Class Politics! A Political Economy Perspective on the New Partisan Politics.” *APSA-CP* 17 (2): 1–6.
- Iversen, Torben and Soskice, David. 2001. “An Asset Theory of Social Policy Preferences.” *American Political Science Review* 95 (4): 875–893.
- Jackman, Simon D. 2009. *Bayesian Analysis for the Social Sciences*. New York: Wiley.
- Jaeger, Mads Meier. 2006. “What Makes People Support Public Responsibility for Welfare Provision: Self-interest or Political Ideology?” *Acta Sociologica* 49: 321–338.
- Jaynes, E T. 1976. “Confidence intervals vs. Bayesian Intervals.” In William Leonard Harper and Clifford Alan Hooker, eds., “Foundations of Probability theory, statistical inference, and

- statistical theories of science,” Dordrecht: D. Reidel. 175–257.
- Kahl, Sigrun. 2005. “The Religious Roots of Modern Poverty Policy: Catholic, Lutheran, and Reformed Protestant Traditions Compared.” *European Journal of Sociology* 46 (1): 91–126.
- Katz, E and Lazarsfeld, Paul F. 1955. *Personal Influence*. Glencoe: The Free Press.
- Keele, Luke. 2008. *Semiparametric Regression for the Social Sciences*. Chichester: Wiley.
- King, Gary, Honaker, James, Anne, Joseph, and Kenneth, Scheve. 2001. “Analyzing Incomplete Political Science Data: An Alternative Algorithm for Multiple Imputation.” *American Political Science Review* 95 (1): 49–69.
- Knutsen, Oddbjorn. 2004. *Social Structure and Party Choice in Western Europe: A Comparative Longitudinal Stud.* Palgrave Macmillan.
- Kriesi, Hanspeter. 2010. “Restructuration of Partisan Politics and the Emergence of a New Cleavage Based on Values.” *West European Politics* 33 (3): 673–685.
- Layman, Geoffrey. 2001. *The Great Divide. Religion and Cultural Conflict in American Party Politics*. New York: Columbia University Press.
- Lazarsfeld, Paul F, Berelson, B R, and Gaudet, H. 1944. *The People’s Choice*. New York: Columbia University Press.
- Lepsius, Rainer M. 1979. “Soziale Ungleichheit und Klassestrukturen in der Bundesrepublik Deutschland.” In Hans-Ulrich Wehler, ed., “Klassen in der Europäischen Sozialgeschichte,” Göttingen: Vandenhoeck und Ruprecht. 166–209.
- Lewis-Beck, Michael. 1977. “The Relative Importance of Socioeconomic and Political Variables for Public Policy.” *American Political Science Review* 71 (2): 559–566.
- Lewis-Beck, Michael, Jacoby, William G, Norpoth, Helmut, and Weisberg, Herbert F. 2008. *The American Voter Revisited*. Ann Arbor: University of Michigan Press.
- Lijphart, Arend. 1968. *The Politics of Accommodation: Pluralism and Democracy in the Netherlands*. Berkeley: University of California Press.
- Lijphart, Arend. 1971. “Class Voting and religious voting in the European democracies: A preliminary report.” *Acta Politica* 6: 158–171.
- Lipset, Seymour Martin. 1959. “Democracy and Working-Class Authoritarianism.” *American Sociological Review* 24 (4): 482–501.
- Lipset, Seymour Martin and Rokkan, Stein. 1967. “Cleavage Structures, Party Systems, and Voter Alignments: An introduction.” In “Party Systems and Voter Alignments. Cross-National Perspectives,” New York: Free Press. 1–64.
- Little, Roderick J A and Rubin, Donald B. 2002. *Statistical Analysis with Missing Data*. Hoboken: Wiley.

- Lowe, Will, Benoit, Kenneth, Mikhaylov, Slava, and Laver, Michael. 2011. "Scaling Policy Preferences From Coded Political Texts." *Legislative Studies Quarterly* 36 (1): 123–155.
- MacKinnon, D P, Lockwood, C M, Brown, C H, Wang, W, and Hoffman, J M. 2007. "The intermediate endpoint effect in logistic and probit regression." *Clinical Trials* 4: 499–513.
- Madeley, John. 1991. "Politics and religion in Western Europe." In George Moyser, ed., "Politics and religion in the modern world," London: Routledge. 28–66.
- Manow, Philipp. 2002. "The good, the bad, and the ugly – Esping-Andersens Sozialstaats-Typologie und die konfessionellen Wurzeln des westlichen Wohlfahrtsstaats [Esping-Andersen's regime typology and the religious roots of the western welfare state]." *Kölner Zeitschrift für Soziologie und Sozialpsychologie* 54 (2): 203–225.
- Manza, Jeff and Brooks, Clem. 1997. "The Religious Factor in U.S. Presidential Elections, 1960–1992." *American Journal of Sociology* 103 (1): 38–81.
- Manza, Jeff, Hout, Michael, and Brooks, Clem. 1995. "Class Voting in Capitalist Democracies Since World War II: Dealignment, Realignment, or Trendless Fluctuation?" *Annual Review of Sociology* 21: 137–162.
- Meltzer, Allan H and Richard, Scott F. 1981. "A Rational Theory of the Size of Government." *Journal of Political Economy* 89 (5): 914–927.
- Mill, John Stuart. 2007. *Utilitarianism, Liberty & Representative Government*. Wildside Press.
- Moene, Karl Ove and Wallerstein, Michael. 2003. "Earnings Inequality and Welfare Spending: A Disaggregated Analysis." *World Politics* 55 (4): 485–516.
- Morgan, Stephen L and Winship, Christopher. 2010. "Bringing Context and Variability Back into Causal Analysis (Preprint, October 13, 2010)." In Harold Kincaid, ed., "Oxford Handbook of the Philosophy of the Social Sciences," Oxford University Press.
- Mueller, Dennis C. 2003. *Public Choice III*. New York: Cambridge University Press.
- Norris, Pippa and Inglehart, Ronald. 2004. *Sacred and Secular: Religion and Politics Worldwide*. New York: Cambridge.
- Olson, Laura R and Green, John C. 2006. "The Religion Gap." *Political Science and Politics* 39 (3): 455–459.
- Palomo, Jesus, Dunson, David B, and Bollen, Kenneth A. 2007. "Bayesian Structural Equation Modeling." In Sik-Yum Lee, ed., "Handbook of Latent Variable and Related Models," Amsterdam: North-Holland. 163–188.
- Pargament, Kenneth I. 2002. "The Bitter and the Sweet: An Evaluation of the Costs and Benefits of Religiousness." *Psychological Inquiry* 13 (3): 168–181.
- Pargament, Kenneth. 1997. *The Psychology of Religion and Coping: Theory, Research, Practice*. New

- York: Guilford Press.
- Persson, Torsten and Tabellini, Guido. 2000. *Political Economics. Explaining Economic Policy*. Cambridge: MIT Press.
- Rabe-Hesketh, Sophia, Skrondal, Anders, and Zheng, Xiaohui. 2007. "Multilevel Structural Equation Modeling." In Sik-Yum Lee, ed., "Handbook of Latent Variable and Related Models," Amsterdam: North-Holland. 209–227.
- Raghunathan, Trivellore E, Lepkowski, James M, Van Hoewyk, John, and Solenberger, Peter. 2001. "A Multivariate Technique for Multiply Imputing Missing Values Using a Sequence of Regression Models." *Survey Methodology* 27 (1): 85–95.
- Rehm, Philipp. 2009. "Risks and Redistribution: An Individual-Level Analysis." *Comparative Political Studies* 42 (7): 855–881.
- Rodriguez, F C. 1999. "Does Distributional Skewness Lead to Redistribution? Evidence from the United States." *Economics & Politics* 11: 171–199.
- Roemer, John E. 1998. "Why the poor do not expropriate the rich: an old argument in new garb." *Journal of Public Economics* 70 (3): 399–424.
- Roemer, John E. 2001. *Political competition*. Cambridge: Harvard University Press.
- Roemer, John E. 2005. "Distribution and politics: a brief history and prospect." *Social Choice & Welfare* 25: 507–525.
- Rose, David and Harrison, Eric, eds. 2010. *Social Class in Europe: An Introduction to The European Socio-economic Classification*. London: Routledge.
- Rossteutscher, Sigrid. 2009. *Religion, Zivilgesellschaft, Demokratie [Religion, Civil Society, Democracy]*. Baden Baden: Nomos.
- Rubin, Donald. 1987. *Multiple Imputation for Nonresponse in Surveys*. Hoboken: Wiley.
- Scheepers, Peer, te Grotenhuis, Manfred, and Silk, Frans Van Der. 2002. "Education, Religiosity and Moral Attitudes: Explaining Cross-National Effect Differences." *Sociology of Religion* 63 (2): 157–176.
- Scheve, Kenneth and Stasavage, David. 2006. "Religion and Preferences for Social Insurance." *Quarterly Journal of Political Science* 1 (3): 255–286.
- Smith, Robert B. 2001. "A Legacy of Lazarsfeld: Cumulative Social Research on Voting." *International Journal of Public Opinion Research* 13 (3): 280–298.
- Song, Xin-Yuan and Lee, Sik-Yum. 2004. "Bayesian analysis of two-level nonlinear structural equation models with continuous and polytomous data." *British Journal of Mathematical and Statistical Psychology* 57: 29–52.
- Spiegelhalter, D J, Thomas, A, Best, N, and Gilks, W R. 1997. *BUGS: Bayesian Inference Using Gibbs*

- Sampling. Manual*. Cambridge: Medical Research Council Biostatistics Unit.
- Stegmueller, Daniel. 2011. "Apples and Oranges? The problem of equivalence in comparative research." *Political Analysis* 19: 471–487.
- Stegmueller, Daniel, Scheepers, Peer, Rossteutscher, Sigrid, and de Jong, Eelke. 2012. "Support for Redistribution in Western Europe: Assessing the role of religion." *European Sociological Review* 28 (4): 482–497.
- Tajfel, Henri. 1981. *Human groups and social categories. Studies in Social Psychology*. Cambridge: Cambridge University Press.
- van Buuren, Stef. 2007. "Multiple imputation of discrete and continuous data by full conditional specification." *Statistical Methods in Medical Research* 16: 219–242.
- van Buuren, Stef, Brand, J P L, Groothuis-Oudshoorn, C G M, and Rubin, D B. 2006. "Fully conditional specification in multivariate imputation." *Journal of Statistical Computation and Simulation* 76 (12): 1049–1064.
- van den Akker, H, van der Ploeg, R, and Scheepers, Peer. 2012. "Disapproval of Homosexuality: Comparative Research on Individual and National Determinants of Disapproval of Homosexuality in 20 European Countries." *International Journal of Public Opinion Research* .
- Van der Leeden, R, Meijer, E, and Busing, F. 2008. "Resampling multilevel models." In Jan de Leeuw and Erik Meijer, eds., "Handbook of multilevel analysis," New York: Handbook of multilevel analysis. 401–433.
- Van der Meer, T, Te Grotenhuis, M, and Pelzer, B. 2010. "Influential Cases in Multilevel Modeling: A Methodological Comment." *American Sociological Review* 75 (1): 173–178.
- van der Waal, Jeroen, Achterberg, Peter, and Houtman, Dick. 2007. "Class Is Not Dead – It Has Been Buried Alive: Class Voting and Cultural Voting in Postwar Western Societies (1956–1990)." *Politics & Society* 35 (3): 403–426.
- Volkens, Andrea, Lacewell, Onawa, Regel, Sven, Schultze, Henrike, and Werner, Annika. 2010. "The Manifesto Data Collection. Manifesto Project (MRG/CMP/MARPOR)."
- Warwick, Paul. 2002. "Toward a Common Dimensionality in West European Policy Spaces." *Party Politics* 8 (1): 101–122.
- Winship, Christopher and Mare, Robert D. 1983. "Structural Equations and Path Analysis for Discrete Data." *American Journal of Sociology* 89 (1): 54–109.
- Wood, Simon N. 2006. *Generalized Additive Models: An Introduction with R*. Boca Raton: Chapman & Hall.
- Wu, C F J. 1986. "Jackknife, bootstrap and other resampling methods in regression analysis." *The Annals of Statistics* 14 (4): 1261–1295.

- Wuthnow, Robert. 1988. *The Restructuring of American Religion: Society and Faith since World War II*. Princeton: Princeton University Press.
- Wuthnow, Robert. 1994. "Religion and Economic Life." In Neil J Smelser and Richard Swedberg, eds., "The Handbook of Economic Sociology," Princeton and New York: Princeton University Press and Russel Sage Foundation. 620–646.
- Yuan, Ying and MacKinnon, David P. 2009. "Bayesian Mediation Analysis." *Psychological Methods* 14 (4): 301–322.

## A Appendix

Table A.1: Survey fieldwork periods and corresponding elections used in the analysis

Country	Survey fieldwork periods ( <i>dd.mm.yy</i> )	Election dates ( <i>dd.mm.yy</i> )
Austria	02.02.03-30.09.03	24.11.02
Belgium	01.10.02-30.04.03; 04.10.04-31.01.05	13.06.99; 18.05.03
Denmark	28.10.02-19.06.03; 19.09.06-02.05.07	20.11.01; 8.02.05
Finland	09.09.02-10.12.02	21.03.99
France	15.09.03-15.12.03; 28.09.08-31.01.09	09./16.06.02; 10./17.06.07
Germany	20.11.02-16.05.03; 01.09.06-15.01.07	22.09.02; 18.09.05
Great Britain	24.09.02-04.02.03; 05.09.06-14.01.07	07.06.01; 05.05.05
Ireland	11.12.02-12.04.03	17.05.02
Italy	13.01.03-30.06.03	13.05.01;
Luxembourg	14.04.03-14.08.03	13.06.99
Netherlands	01.09.02-24.02.03; 11.09.04-19.02.05	15.05.02; 22.01.03
Norway	16.09.02-17.01.03	10.09.01
Spain	19.11.02-20.02.03; 27.09.04-31.01.05; 05.09.08-31.01.09	12.03.00; 14.03.04; 09.03.08
Sweden	23.09.02-20.12.02	15.09.02
Switzerland	09.09.02-08.02.03; 15.09.04-28.02.05	24.10.99; 19.10.03

*Note:* Not all ESS waves that corresponded to an election are used, because of non-available CMP data on party positions.



Table A.2: Descriptive statistics of explanatory variables.

	Range	Mean	SD	% imputed
Preferences				
Economic	1–5	3.62	1.08	1.6
Moral	1–5	4.03	1.00	2.0
Income (std.)	–3.85/3.92	0.07	0.99	17.8
Education (years)	5 – 19	12.60	4.13	1.1
Age (years)	18–102	49.90	16.90	0.3
Gender (female)	0/1	0.52		0.0
Denomination: <sup>a</sup>				4.6
Catholic	0/1	0.32		
Protestant	0/1	0.24		
Church attendance	1–7	2.45	1.50	0.2
Social class: <sup>b</sup>				0.0
Working	0/1	0.28		
Service	0/1	0.33		
Self-employed	0/1	0.09		
Transfer class: <sup>c</sup>				0.6
Unemployed	0/1	0.03		
Retired	0/1	0.26		
Not in labor force	0/1	0.17		

<sup>a</sup> Reference category is no/other denomination (of which 40% are no denomination, 4% belong to other, non-christian religions)

<sup>b</sup> Reference category is intermediate/no class

<sup>c</sup> Reference category is currently in employment

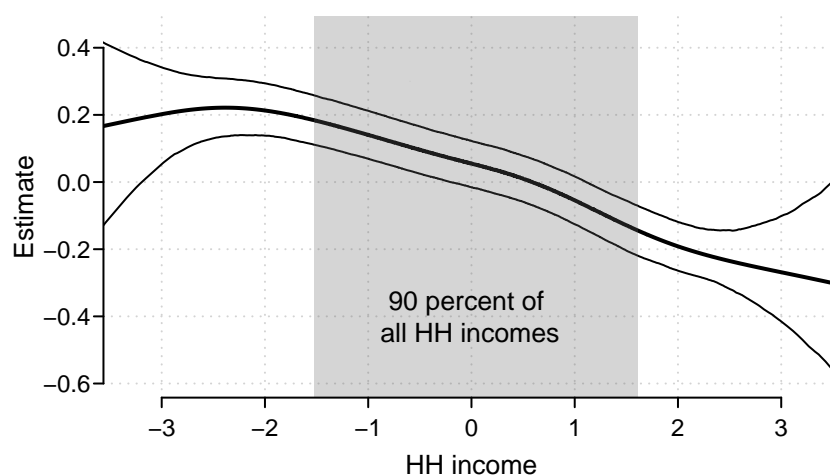


Figure A.1: Nonparametric estimate of income effect

## Robustness tests

There might exist substantial country variation in both vote choice and preference equations, and effects of, say, being Catholic or Protestant on redistribution preferences might vary strongly between countries. This heterogeneity might indicate that general statements about direction and magnitude of effects given in the main paper are misleading (cf. Morgan and Winship 2010). Therefore, I estimate a model that allows for unobserved country heterogeneity of my central variables by including varying effect coefficients. To simplify notation, let  $\boldsymbol{\gamma} = (\gamma_1, \gamma_2)$ . Now the model defined above is extended by specifying country-varying effects of preferences and religion on vote choice:

$$\begin{aligned}\boldsymbol{\gamma}_j &\sim N(\boldsymbol{\mu}_\gamma, \boldsymbol{\Psi}_\gamma) \\ \boldsymbol{\beta}_{1j} &\sim N(\boldsymbol{\mu}_\beta, \boldsymbol{\Psi}_\beta),\end{aligned}$$

where again  $\boldsymbol{\Psi}_\gamma = \text{diag}(\psi_{\gamma 1}^2, \dots, \psi_{\gamma J}^2)$  and  $\boldsymbol{\Psi}_\beta = \text{diag}(\psi_{\beta 1}^2, \dots, \psi_{\beta J}^2)$ . Just like the previously estimated models, it allows for country differences in levels of vote choice and preferences. The new additions are several random coefficients which allow for further unobserved country heterogeneity in effects of preferences and religion on vote choice. This provides an interesting specification test of my previous model. Country differences in the effects of religion and preferences might be so large that my previous statements regarding their effects are invalidated by a model that includes random coefficients. Comparing the results in Table A.3 to the estimates of Table 1, suggest that this is not the case. While unexplained country differences exist for both economic and moral preferences, their estimated average effects are nearly identical to my previous model, and the estimated variance components show that the effect of economic and moral preferences on redistributive voting remains substantial and quite similar over countries.

Coefficients for Catholics and Protestants show larger variations, with the Protestant effect now being 40 percent larger than before, and the Catholic effect showing considerable across-country variance. Nonetheless, the effects of both being Catholic and Protestant remain negative and statistically different from zero in all cases. Does the *religious cleavage hypothesis* still hold up given the larger difference we now see between Catholics and Protestants? I calculate the effect difference between Catholics and Protestants, which yields a difference of 0.066 with a standard error of 0.073. This signifies that even under this considerably more flexible specification the difference between denominations is not statistically different from zero, and the main dividing line is between

Table A.3: Varying effects of preferences and religion over countries. Means and variation of random coefficients. Estimates (posterior means) and standard errors (posterior standard deviation).

	Means		Variation	
	<i>est</i>	<i>se</i>	<i>est</i>	<i>se</i>
Preferences:				
Economic	0.238	0.022	0.021	0.005
Moral	0.137	0.019	0.014	0.004
Denomination:				
Catholic	-0.167	0.055	0.109	0.032
Protestant	-0.233	0.049	0.063	0.024
Attendance	-0.043	0.017	0.013	0.003
Intercept	0		0.229	0.059

*Notes:* Remaining individual level estimates are similar to those in Table 1 and not shown for reasons of space. Based on 20,000 MCMC samples. Calculated using five imputations of ESS data, standard errors adjusted according to Rubin 1987.

religious and secular individuals. This lends additional evidence for the religious cleavage hypothesis.

An alternative robustness check considers influential countries (Van der Meer et al. 2010). I employ the logic of jackknifing, which removes cases one-by-one, each time re-estimating the model (Wu 1986; Van der Leeden et al. 2008). Following this idea, I re-estimated my model 75 times (15 times for each of 5 multiply imputed data sets) each time removing one country. To obtain final results, I average estimates over 75 runs, and penalize standard errors for increased variation between estimates. Results are given in Table A.4. I find somewhat larger standard errors, but the substantive magnitude and significance of all relevant effects remains unchanged.

Analyses in the main text of the paper pool respondents with no and ‘other’ denominations. To check if this influences my results, Table A.5 shows estimates from a model where respondents which belong to a non-Christian denomination are excluded. Results are virtually indistinguishable from those used in the main text.

Finally, Table A.6 shows a model with more robust identification, adding welfare policies effects for economic preferences (cf. Stegmueller et al. 2012) and the existence of liberal laws regarding homosexuality – allowing marriage and adoption – (cf. van den Akker et al. 2012) for moral preferences, with additional exclusion restrictions for the re-

Table A.4: Country-jackknifed estimates of structural model of redistributive party choice as function of religion and issue preferences. Estimates (posterior means) and standard errors (posterior standard deviation).

	Eq 1: Vote		Eq 2: Economic		Eq 3: Moral	
	est	se	est	se	est	se
Preferences:						
Economic	0.247	0.007				
Moral	0.130	0.007				
Denomination:						
Catholic	-0.186	0.018	-0.098	0.014	-0.053	0.015
Protestant	-0.162	0.017	-0.099	0.015	-0.072	0.014
Attendance	-0.040	0.005	-0.019	0.004	-0.150	0.004
Income	-0.067	0.007	-0.147	0.006	0.013	0.007
Education	0.005	0.002	-0.013	0.001	0.027	0.001
Female	0.052	0.013	0.167	0.010	0.312	0.010
Age	-0.022	0.005	0.019	0.004	-0.094	0.004
Social class:						
Service	0.039	0.016	-0.111	0.013	0.114	0.013
Working	0.120	0.016	0.080	0.013	-0.031	0.013
Self-employed	-0.281	0.024	-0.173	0.019	-0.052	0.020
Transfer class:						
Unemployed	0.025	0.035	0.106	0.029	-0.055	0.029
Retired	-0.069	0.020	-0.003	0.017	-0.080	0.017
Not in LF	-0.067	0.018	-0.048	0.014	-0.013	0.015
<i>Country-election variance components</i>						
Variance	0.279	0.067	0.137	0.033	0.069	0.017

Note: Based on 10,000 MCMC samples. Calculated on 45 data-sets (15 jackknifed sets \* 5 imputations). Multiple imputation standard errors calculated according to Rubin 1987.

<sup>a</sup> Reference category is no denomination.

<sup>b</sup> Reference category is intermediate/no class.

<sup>c</sup> Reference category is paid employment.

Table A.5: Estimates of structural model of redistributive party choice as function of religion and issue preferences calculated dropping individuals with “other” denomination, N=26,873. Estimates (posterior means) and standard errors (posterior standard deviation).

	Eq 1: Vote		Eq 2: Economic		Eq 3: Moral	
	est	se	est	se	est	se
Preferences:						
Economic	0.247	0.007				
Moral	0.135	0.007				
Denomination: <sup>a</sup>						
Catholic	-0.162	0.018	-0.095	0.014	-0.100	0.015
Protestant	-0.135	0.017	-0.101	0.014	-0.116	0.014
Attendance	-0.049	0.005	-0.019	0.004	-0.133	0.004
Income	-0.068	0.007	-0.146	0.006	0.011	0.007
Education	0.005	0.002	-0.013	0.001	0.026	0.002
Female	0.056	0.013	0.168	0.010	0.317	0.010
Age	-0.018	0.005	0.021	0.004	-0.100	0.004
Social class: <sup>b</sup>						
Service	0.038	0.016	-0.110	0.013	0.113	0.013
Working	0.118	0.016	0.077	0.013	-0.027	0.013
Self-employed	-0.292	0.024	-0.177	0.019	-0.045	0.020
Transfer class: <sup>c</sup>						
Unemployed	0.011	0.035	0.112	0.028	-0.032	0.029
Retired	-0.076	0.020	-0.008	0.016	-0.074	0.017
Not in LF	-0.070	0.018	-0.049	0.014	-0.002	0.015
<i>Country-election variance components</i>						
Variance	0.278	0.064	0.135	0.031	0.069	0.016

Note: Based on 20,000 MCMC samples. Calculated on five random subsamples of ESS data. Multiple imputation standard errors calculated according to Rubin 1987.

<sup>a</sup> Reference category is no denomination.

<sup>b</sup> Reference category is intermediate/no class.

<sup>c</sup> Reference category is paid employment.

maintaining equations. Another strategy to check for (local) non-identification is to randomly remove parts of the data, re-estimate the model several times, and penalize standard errors for varying coefficient estimates. Results of this procedure are given in Table A.7, which shows estimates and standard errors from 5 subsets of data, generated by randomly deleting one-third of all cases. Both strategies lead to virtually identical results compared to the specification used in the main paper.

Table A.6: Structural model of redistributive party choice as function of religion and issue preferences. Estimates (posterior means) and standard errors (posterior standard deviation) from Bayesian hierarchical structural equation model.

	Eq 1: Vote		Eq 2: Economic		Eq 3: Moral	
	est	se	est	se	est	se
Preferences:						
Economic	0.247	0.006				
Moral	0.130	0.007				
Denomination: <sup>a</sup>						
Catholic	-0.185	0.017	-0.100	0.014	-0.052	0.014
Protestant	-0.162	0.017	-0.098	0.014	-0.072	0.014
Attendance	-0.040	0.005	-0.018	0.004	-0.150	0.004
Income	-0.067	0.007	-0.148	0.006	0.013	0.006
Education	0.005	0.002	-0.013	0.001	0.027	0.001
Female	0.052	0.012	0.167	0.010	0.312	0.010
Age	-0.022	0.005	0.019	0.004	-0.095	0.004
Social class: <sup>b</sup>						
Service	0.039	0.016	-0.110	0.013	0.114	0.013
Working	0.120	0.015	0.080	0.013	-0.031	0.013
Self-employed	-0.280	0.023	-0.173	0.019	-0.052	0.019
Transfer class: <sup>c</sup>						
Unemployed	0.025	0.034	0.107	0.028	-0.055	0.028
Retired	-0.069	0.019	-0.003	0.016	-0.079	0.016
Not in LF	-0.067	0.017	-0.049	0.014	-0.013	0.014
Welfare policy:						
socialist—liberal			-0.153	0.058		
conservative			0.266	0.057		
Liberal homosexuality law					0.129	0.060
Country-election variance components						
Variance	0.278	0.064	0.093	0.023	0.068	0.016

*Note:* Based on 20,000 MCMC samples. Calculated using five imputations of ESS data, N=27941. Multiple imputation standard errors calculated according to Rubin 1987.

<sup>a</sup> Reference category is no/other denomination.

<sup>b</sup> Reference category is intermediate/no class.

<sup>c</sup> Reference category is paid employment.

Table A.7: Estimates of structural model of redistributive party choice as function of religion and issue preferences calculated on five random subsamples, N=18,442. Estimates (posterior means) and standard errors (posterior standard deviation).

	Eq 1: Vote		Eq 2: Economic		Eq 3: Moral	
	est	se	est	se	est	se
Preferences:	0.246	0.010				
Economic	0.132	0.012				
Moral						
Denomination: <sup>a</sup>						
Catholic	-0.187	0.028	-0.100	0.019	-0.055	0.018
Protestant	-0.162	0.030	-0.105	0.018	-0.082	0.019
Attendance	-0.039	0.008	-0.018	0.007	-0.148	0.005
Income	-0.070	0.012	-0.149	0.007	0.015	0.009
Education	0.005	0.002	-0.013	0.002	0.027	0.002
Female	0.050	0.020	0.173	0.019	0.316	0.014
Age	-0.023	0.007	0.017	0.009	-0.095	0.006
Social class: <sup>b</sup>						
Service	0.048	0.024	-0.109	0.020	0.115	0.017
Working	0.126	0.024	0.074	0.023	-0.025	0.020
Self-employed	-0.266	0.038	-0.176	0.029	-0.047	0.032
Transfer class: <sup>c</sup>						
Unemployed	0.042	0.055	0.115	0.053	-0.047	0.043
Retired	-0.064	0.029	-0.001	0.027	-0.069	0.022
Not in LF	-0.059	0.024	-0.072	0.024	-0.015	0.027
<i>Country-election variance components</i>						
Variance	0.278	0.064	0.137	0.033	0.066	0.016

Note: Based on 20,000 MCMC samples. Calculated on five random subsamples of ESS data. Multiple imputation standard errors calculated according to Rubin 1987.

<sup>a</sup> Reference category is no/other denomination.

<sup>b</sup> Reference category is intermediate/no class.

<sup>c</sup> Reference category is paid employment.