**Policy-bundling and Religion:  An Experimental Approach**

Aina Gallego
Institut Barcelona d'Estudis Internacionals
aina.gallego@csic.es


Jonathan Rodden
Stanford University
jrodden@stanford.edu

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**Introduction**

While an economic dimension of partisan conflict over taxation and redistribution has been at the heart of democratic politics at least since the rise of mass suffrage in most industrial democracies, policy disagreements related to religion and moral values have continued to provide structure to political conflict in many societies around the world.  Among advanced industrial democracies, a cleavage related to religion and morality is the only division that has consistently rivaled social class over the last century (Caramani 2004; Dalton 2008).  In the United States, a large literature tracks the recent revival of this dimension and its replacement of race as the clear second dimension in U.S. politics (Ansolabehere, Rodden, and Snyder 2006; Baldassarri and Gelman 2008; Layman 1997, 2001).

Ever since 19th century socialists grappled with the challenge of mobilizing a highly religious industrial workforce, analysts have considered the possibility that a politicized religious dimension of conflict could undermine the redistributive goals of the economic left.  Early socialists worried that if forced to choose between their interests as wage laborers and their identification with the Church, workers would choose the latter.  The revival of a political cleavage related to religion and moral values in the United States in recent decades has led to a revival of this argument among leftist American social critics (e.g. Frank 2004).  The claim is that a sizable group of Americans is "cross-pressured," such that they have right-of-center views on one dimension but left-of-center views on the other, but there is a persistent asymmetry such that one group of such voters—those with economically progressive but morally conservative preferences—is more likely to favor the social over the economic dimension than the other.

The underlying logic of this asymmetry was not explicitly addressed by the 19th century socialists or their contemporary progeny, but recent psychological literature demonstrates that many religious individuals have a distinctive approach to morality, favoring a non-consequentialist logic whereby there

is a class of sacred moral values that should never be sacrificed in favor of secular goods like monetary gain (Tetlock 2003; Piazza and Sousa 2013). Thus when forced to choose between a candidate with a proximate policy platform on a "moral" versus a secular issue dimension, this literature suggests that religious individuals are more likely to favor the former.

Although this literature does not explicitly reference electoral rules or party systems, the claim is that if a fuller range of options were available to voters, as in a European-style system of proportional representation, parties of the economic left would receive more votes (Huber and Stanig 2009). One of the most basic claims in comparative political science is that multi-dimensional politics plays out very differently in countries with multiple political parties than in countries with only two parties. In a multi-party system, parties can more fully occupy a two-dimensional issue space, providing alternatives for cross-pressured voters to find parties with proximate views on both dimensions. For example, working-class advocates of the welfare state with morally conservative views can cast a vote for Christian Democrats, while economic conservatives with morally progressive views can vote for a Liberal party.

By contrast, a strict two-party system in which economic and moral issues are bundled together by the parties offers no such alternatives. For instance, a secular, high-income American supporter of gay rights who also favors lower taxes must choose between her preferences over gay rights and those over taxation when choosing between Democratic and Republican presidential candidates. Thus it is not surprising that the revival of the classic Marxist argument has happened in the United States, which is not only one of the most religious of the advanced industrial societies, but also has one of the purest two-party systems in the world.

To our knowledge, the argument about asymmetric suppression of economic preferences in the presence of bundling with religious or moral policies has not yet been tested. The closest approximation is a literature that regresses a binary indicator of left voting on some combination of survey-based

measures of income, religiosity, and issue preferences (Ansolabehere, Rodden, and Snyder 2006; Bartels 2006; Gelman, Park, and Shor 2009; Huber and Stanig 2009; De La O and Rodden 2008; Stegmueller 2013). The main finding in the U.S. literature is that in spite of the common media portrayals of a "culture war" that has come to dominate American politics, economic preferences are far better predictors of American voting behavior than are moral preferences, and this appears to be true for rich and poor as well as secular and religious individuals. Huber and Stanig (2009) show that low-income voters are less likely to choose economically conservative parties in countries with multi-party systems where there is an economically progressive but morally conservative party.

These studies provide interesting stylized facts that help motivate our analysis, but they cannot answer our basic question about policy-bundling. This paper uses a survey experiment with a U.S. sample to hold candidate platforms fixed and contrast the choices of respondents under conditions of policy-bundling—where only two candidates take positions on both dimensions of conflict—with conditions where policies are unbundled. One form of unbundling is akin to a situation in which the religious or moral issue dimension is not politicized, as in the United States prior to Roe versus Wade. The other form of unbundling is akin to a European-style system of proportional representation in which candidates offer a wider range of platforms in the two-dimensional policy space. This experimental approach reveals a rather striking asymmetry that is consistent with the fears of early socialists and the findings of psychologists: policy-bundling favors the candidates of the economic right, in large part because religious voters are less willing to suppress their moral values preferences than are secular voters.

**Religion and Policy Bundling**

Claims about religion as the source of misfortune have captured the imagination of leftists from 19th century Europe to the contemporary American *kulturkampf*. Yet the argument is somewhat difficult to pin down (see Bartels year). For instance, the basic claim of Thomas Frank seems to be that the introduction of a non-economic dimension distracts some Americans from their economic interests and/or preferences and induces them to vote for Republicans. Perhaps the most basic problem with this argument is that it is not clear why higher-income social liberals would not also defect to the Democrats in equal numbers. Though not clearly articulated, the claim seems to be that religion creates an asymmetry in the way it acts upon cross-pressured voters.

Before making further efforts to develop this argument, it is useful to contrast it to the most influential related argument in the academic literature. For Roemer (1998, 2007), issue-bundling generates an asymmetric push against the preferences of the economic left because of a specific feature of the joint distribution of preferences on the two dimensions. In Roemer's model, economic preferences are perfectly correlated with income. Reflecting the interests of its core constituents, the party of the left would push for radical redistribution in the absence of a bundled non-economic issue dimension. However, if the voters around the median level of religiosity have above-average income, the party of the left would offer a lower tax rate and a less redistributive policy agenda as it attempts to win support among anti-clerical high-income voters. This effect only obtains, however, if Roemer's assumption about the income of the median religious individual holds. While Roemer presents evidence from several countries that the median voter on a dimension related to race and immigration is relatively wealthy, this crucial assumption appears not to hold with respect to overall religiosity or preferences related to issues like abortion and women's rights.[1]

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[1] Over multiple years of the General Social Survey and American National Election Study, we find no consistent evidence that mean income is different for voters around the median level of religiosity, or around the median of an issue scale related to moral values, than in the overall sample. We also find no consistent difference between these groups using similar techniques in the World Values Survey.

In contrast, this paper explores an argument that does not rely on the income distribution, and does not endeavor to make predictions about equilibrium party platforms or policies. Rather, we attempt to understand the implications of party platforms for voter behavior if religious voters react differently than secular voters to situations where they are forced to consider trade-offs between two dimensions of political conflict.

Let us begin by considering a simple example that captures basic features of the distribution of preferences in many countries. Voters have preferences on two issue dimensions—a primary dimension rooted in conflicts over the government's role in regulating the economy and redistributing income, and a secondary religious dimension related to moral issues like women's rights, homosexuality, and abortion—and preferences on these two issue dimensions are positively correlated.
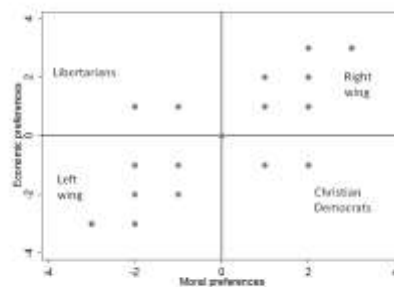
Figure 1: Simple example of two-dimensional preference distribution

Figure 1 represents preferences on moral issues on the horizontal axis, and preferences on economic issues on the vertical axis. Around 70 percent of the population is not cross-pressured: they have preferences to the right or left of the median on both dimensions. Henceforth, we refer to these on-diagonal voters as "right wing" and "left wing." Around 12 percent of the population has preferences to the left of the economic median and to the right of the moral median (henceforth

Christian Democrats), and 12 percent has preferences to the right of the economic median but to the

left of the moral median (henceforth Libertarians).

Let us first consider a scenario in which only the economic dimension is politicized. In Figure 2,

two candidates, $c_1$ and $c_2$, set their platforms symmetrically around the median voter on the economic

dimension, but they are perceived as offering identical platforms directly at the median on the moral

values dimension. This example represents a situation in which the non-economic dimension is not

politicized, and neither party is proposing any significant change to the status quo. This is the standard

description of American politics in the 1970s, prior to the politicization of issues like abortion, religious

freedom, and gay rights. It also corresponds to relatively secular countries like Great Britain and the

Nordic countries, where party conflict has little to do with issues like abortion and gay rights.
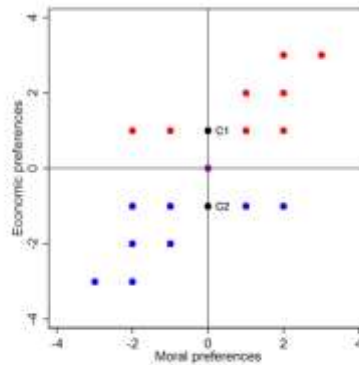


Figure 2: Electoral competition on a single dimension

Let us consider a simple model of vote choice in which these platforms are first exogenously

determined by the candidates, $c_i$, and then voters simply choose the most proximate candidate in the

two-dimensional Euclidean issue space. By the Pythagorean Theorem, this amounts to the following

decision rule for voters:

$$min\sqrt{(c_{ie} - v_e)^2 + (c_{im} - v_m)^2} \tag{1}$$

where $c_{ie}$ and $c_{im}$ are the economic and moral platforms of each candidate $i$, and $v_e$ and $v_m$ are the economic and moral preferences of the voter. Thus in Figure 2, all voters above the economic median vote for the party of the right (represented in red), and all voters below the economic median vote for the left (represented in blue), regardless of their moral views. In this example, the (purple) median voter is indifferent, and the isoprobability line distinguishing left from right voters is simply a horizontal line at the median economic preference.

Next, let us consider what happens when the second dimension is activated. This might happen because parties react to an exogenous shock that changes the status quo, like the Roe versus Wade Supreme Court decision, or because parties strategically undertake the "flanking" maneuvers described by Miller and Schofield (2003). In their model, each party's perceived platform is a function of the policy interests of its activist core of campaign contributors. Office-oriented candidates ascertain opportunities to gain disaffected activists in the off-diagonals of Figure 1 by offering them policy concessions, bringing them into their group of core activists, and hence changing the party's perceived platform. Ultimately this flanking maneuver leaves the party exposed, inviting a symmetric move by the other party.

In Figure 3, a flanking move of this kind is portrayed: both candidates keep their economic positions the same, but $c_1$ moves one unit to the moral right and $c_2$ moves symmetrically to the moral left. For the voters in each of the off-diagonals, the improved proximity on the moral dimension causes one of them to switch to the opposite candidate, and the other to become indifferent between the two. The isoprobability frontier separating the voters of the right and left parties has now shifted from horizontal to diagonal, following the purple dots in Figure 3.
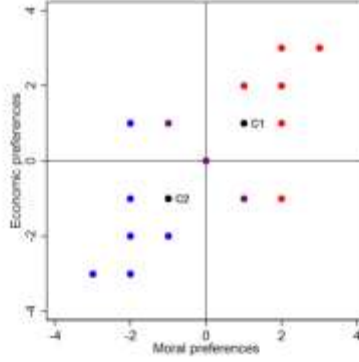
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Figure 3: Electoral competition on two dimensions

This account of the rise of multi-dimensional competition captures the standard accounts in the literature, such as those of Miller and Schofield (2003) or Krasa and Polborn (2014), where diverging candidate platforms on the second issue dimension cause a rotation in the isoprobability frontier, conceived as a straight line.

This standard account does not accommodate the central claim under examination in this paper. In the end it helps neither the left nor the right. Our reading of the Marxist concern with the activation of a religious dimension of conflict is that when forced to choose between secular policy preferences and sacred values, religious voters will place greater weight than secular voters on the former.

A simple way to address this possibility is to introduce the term α, capturing the relative weight placed by each respondent on economic versus moral issues, which changes the voter's decision rule as follows:

$$min\sqrt{(1-\alpha)(c_{ie}-v_e)^2 + \alpha(c_{im}-v_m)^2} \tag{2}$$

In this formulation, if α is sufficiently large (small), a voter will choose the party that is more distant in Euclidian space because she gives greater weight to the moral (economic) dimension. For individuals

with α>.5, their indifference curve becomes increasingly ellipsoidal in a vertical direction as α gets larger and proximity on the moral values dimension is more important than proximity on the economic dimension. For individuals with α<.5, the indifference curve becomes increasingly ellipsoidal in a horizontal direction as they are relatively less willing to accept compromise on the economic dimension.

We interpret the classic Marxist story about religion as an assertion that it induces a positive correlation between α and $v_m$. In other words, more religiosity is correlated not only with increasingly right-wing preferences on the non-economic policy dimension, but also with a greater weight on that dimension: a decreasing willingness to sacrifice sacred for secular preferences. Building from the example above, let us examine a situation in which the candidates occupy the same positions as in Figure 3, but now the voters are weighting the policy distances by α that is perfectly correlated with $v_m$.

In Figure 4, we see that this has a dramatic effect. Because they place larger weight on moral values, both of the Christian Democrats now prefer $c_1$ because of its proximity on the moral values dimension. Because they place greater weight on economics, both of the Libertarians also now prefer the party of the right.
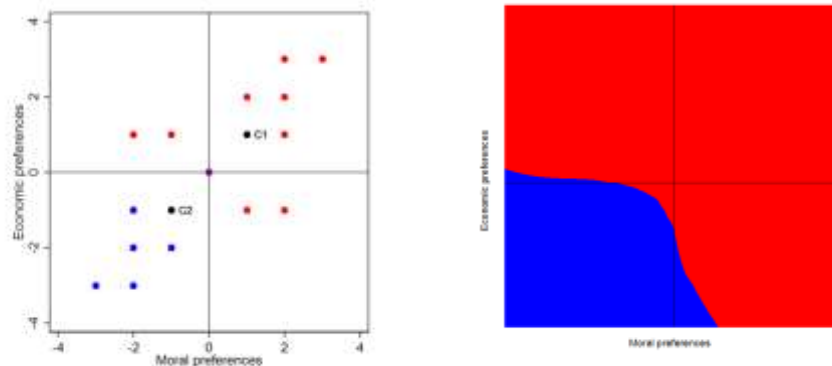


Figure 4: Electoral competition in two dimensions where moral preference weight is correlated with moral issue preferences

The panel on the right in Figure 4 shows that in this scenario the isoprobability frontier is no longer a straight line, but a convex curve. This is a troubling scenario for the party of the left, but of course this would not necessarily constitute a political equilibrium. The left party faces incentives to move its platform to the right. However, in this example, the left still cannot win the voters in the off-diagonals even if it moves its platform to the median on both dimensions (the purple dot in the middle). In this way, the correlation between $\alpha$ and $v_m$ shifts political competition to the economic right of where it would be in the absence of candidate divergence on the second dimension or the absence of a correlated $\alpha$.

We stop short of providing a model of equilibrium platform choice along the lines of Roemer (1998, 2007) or Miller and Schofield (2003). Our goal is merely to make explicit what we believe is a longstanding implicit claim in the literature, and use these insights to inform our empirical analysis. In a society with a sufficiently religious population and a strong correlation between religion and conservative moral values, where the moral and economic dimensions are clearly distinct, and where those with conservative moral values are also more likely to resolve conflicts between secular and sacred values in favor of the sacred, the activation of a moral values dimension should alter the political playing field in predictable ways.

**The United States as a case study in policy bundling**

It is not surprising that 19th century Marxist arguments about religion have been resurrected in the United States rather than Europe. First, religious belief and church attendance are much more prevalent in the United States than in Europe. Second, it is important to note that arguments about issue-bundling disintegrate in countries with low barriers to entry for political parties. As Miller and Schofield (2003: 248) point out, "in a European-style proportional representation system, such a two-

dimensional diversity of opinion would no doubt be represented by a diversity of parties." A large literature beginning with Duverger (1954) culminates in the syntheses of Ordeshook and Shvetsova (1994), Neto and Cox (1997), and Cox (1997): when electoral systems create low barriers to entry for parties, pre-existing social cleavages will be expressed in the party system.

In a setting like that depicted in Figure 1 above, a shift to proportional representation would likely lead to partisan entry, as political entrepreneurs create parties that attempt to peel of disaffected voters in the off-diagonals (Laver and Schofield 1990). The clearest recent example is provided by New Zealand, which prior to electoral reform in the 1990s, had the purest two-party system among the industrial democracies outside the United States. After adopting proportional representation, the two major parties have lost a considerable share of the vote to parties like ACT New Zealand, New Zealand First, and United Future that occupy positions in the off-diagonals. More generally, even in the European countries that are substantially more secular than the United States, permissive electoral rules have allowed for the long-term maintenance of multi-party systems in which parties have staked out a fuller range of positions in a two-dimensional space including economic and moral issues. De la O and Rodden (2006) and Huber and Stanig (2009) argue that by inviting partisan entry in this way, proportional representation absolves voters in the off-diagonals of the need to choose between their economic and non-economic preferences.

We return to this point below, but the high barriers to entry for political parties and the purity of the two-party system in the United States makes it an ideal setting to explore the possibility of an asymmetry between religious and secular voters in the resolution of conflicts between issue preferences. Furthermore, the United States appears to have a distribution of voter preferences for which such an asymmetry would be consequential. To explore this, we have generated scales that

capture the answers of respondents in the American National Election Study (ANES) to a series of

questions related to economic and moral policy issues (see the appendix for details).

In Figure 5, we draw from the 2000 ANES and plot preferences related to moral issues on the

horizontal axis, and those related to economic issues on the vertical axis.  Higher values are associated

with more right-wing preferences.  The two scales are standardized to have mean zero and standard

deviation 1, and are correlated at .35.  The median on each dimension is indicated with a solid black line.

Around 60 percent of the respondents have preferences that place them in either the top right or lower

left quadrant, such that they are on the same side of the sample median on both dimensions.  Around

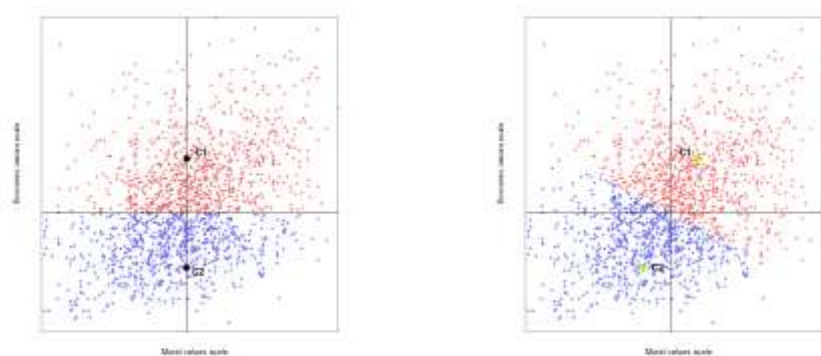40 percent of the respondents are divided evenly between the two off-diagonal quadrants.



Figure 5: U.S. economic and moral issue preferences with hypothetical candidates

We represent two hypothetical candidates that take positions only on the economic dimension, and in

the first panel, the marker for each respondent is colored red or blue according to the predictions of the

simple proximity voting model above. In the second panel, we simulate the introduction of a moral

values issue dimension:  both candidates keep their economic positions the same, but $c_1$ moves one

standard deviation to the moral right and $c_2$ moves symmetrically to the moral left.  As above, the

isoprobability frontier shifts to a diagonal line.

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Let us now consider the Marxist conjecture that religiosity is a direct proxy for α. The ANES includes a question about the importance of religion as a source of guidance in life, ranging from zero (not important) to 3 (very important); we normalize it to get a rough proxy for α. Given the theory above, it is important to note that this measure of religiosity (or alternatives based on church attendance or other related questions), economic preferences are only very weakly correlated with religiosity (or not at all), while there is a strong positive correlation between religiosity and conservative moral issue preferences.
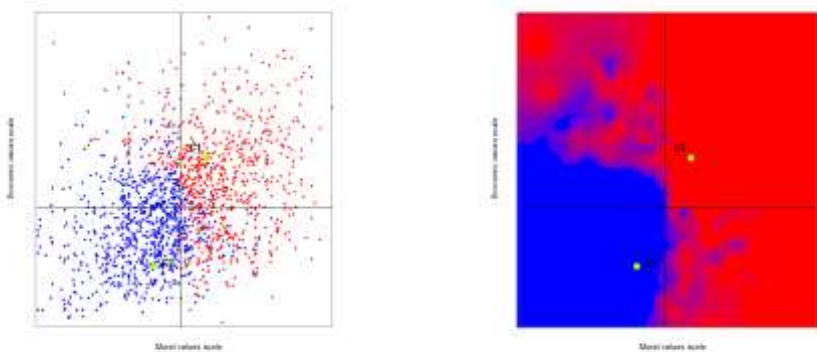


Figure 6: Moral and economic issue scales with alternative hypothetical candidates, with weight as a function of religiosity

Figure 6 simply recalculates the optimal choice between the hypothetical candidates for each individual, this time weighting the economic and moral distances by our proxy for α. The panel on the left displays the individual points according to the voters' best choice, and the panel on the right applies an inverse distance weighting interpolation function to generate a clearer sense of the isoprobability line. As in the toy example, it is no longer a line, but a convex curve. Most notably, it suggests that if α is a function of religiosity, the Christian Democrats in the lower right quadrant move dramatically to the party of the right.

**Observational research in the United States**

Perhaps the most attractive feature of U.S. public opinion data for a study of issue-bundling is a consensus among U.S. scholars that the parties were perceived by voters as having indistinguishable platforms on the moral values dimension in the 1970s, but beginning with the Reagan era, the parties have begun a gradual and quite dramatic divergence in their moral values platforms. If we make the (heroic) assumption that the correlation between moral values preferences and $\alpha$ is positive and fixed throughout the period, and accept the premise that moral values platforms have diverged over time, as in the simulations above, we should expect to see that the performance of Republicans is steadily improving among voters whose preferences place them in the off-diagonals.

To take a first cut at this proposition, we attempt to generate isoprobability frontiers generated from economic and moral issues preferences and reported vote choice in the ANES. We focus on presidential elections between 1992 and 2008 because the consistency in the wordings of issue questions declines substantially in earlier periods. Our approach is to use a support vector machine (SVM), a global classification model that generates a non-overlapping partition of the two-dimensional space according to presidential vote choice, based on maximum marginal linear discriminants. That is, the SVM classifier chooses the hyperplane with the maximum margin between Democrats and Republicans.[2]

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[2] For this and the following non-parametric analysis, we drop African Americans from the sample, largely because reported voting for Democratic candidates approaches 100 percent in the 1990s and in 2008, indicating an insensitivity to economic and especially moral issue preferences that is quite distinct from the rest of the sample.
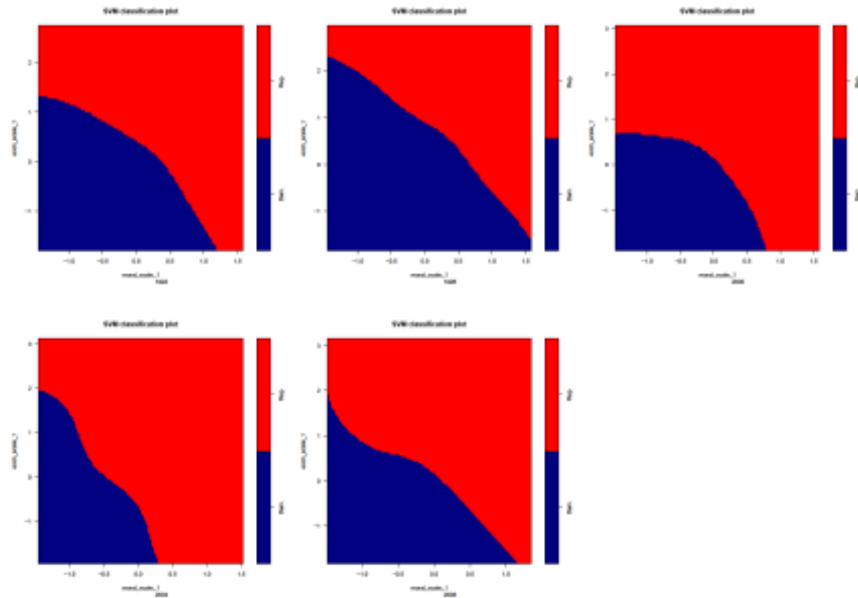
Figure 7:  Support vector machine classification plots, moral and economic issue scale and reported votes, ANES 1992-2008

For the Clinton victories in 1992 and 1996, the dividing line between Democrats and Republicans is essentially diagonal.  In 2000 and 2004, it appears that Bush makes substantial gains in the off-diagonals, especially among Christian Democrats.  In the 2008 election, dominated by the financial crisis, we see a return to something like the diagonal line of the Clinton era.

This is consistent with a narrative in which the perceived divergence of party platforms was similar on the economic and moral dimensions in the 1990s, but the perceived divergence on the moral values dimension jumped in 2000 and 2004 relative to perceived divergence on the economic dimension.

Another approach to the ANES data is to examine whether the relationship between economic preferences and vote choice has changed over time.  Specifically, if the weight placed on moral values preferences is higher for respondents with more conservative moral values preferences, we should

expect to see that the impact of economic preferences on vote choice diminishes among those we have deemed Christian Democrats.

Using non-parametric approaches that provide little structure is important in this setting. We are particularly interested in the choices of citizens located in the off-diagonals, but these groups are not numerous. Failing to provide flexibility would not allow us to capture the hypothesized asymmetry in the choices of these relatively small groups. We simply divide respondents in three equally sized groups according to their moral issue orientations and plot their actual voting choices against their economic issue positions, and add lowess regression lines to the plots.

Figure 8 once more suggests that the way voters respond to cross-pressures varies across elections. Large majorities of voters with liberal preferences on moral issues vote for the Democratic candidates, but the most cross-pressured in this group are more likely to vote for Republican candidates. For instance, the proportion of morally liberal citizens with conservative economic preferences that are one standard deviation above zero who vote for the Republican candidate ranges from 52 percent in 1996 to 75 percent in 2000.  But across elections, the relatively large vote shares for the Republican candidates among Libertarians suggest that members of this cross-pressured group place a large weight on their economic preferences when voting.

Figure 8: Vote choice by economic and moral issue positions 1992-2008

The voting behavior of the other group of cross-pressured citizens, those with economically liberal but morally conservative preferences, varies substantially over the years. Consistent with the SVM plots above, in 2000 and 2004, clearly cross-pressured Christian Democrats were very likely to vote for the Republican candidate. In fact, the Republicans did extremely well among morally conservative citizens in those years. In the 1990s elections, when positions on moral issues were arguably closer together for Clinton and his Republican opponents, a majority of Christian Democrats chose the

Democratic candidate. This pattern suggests that the vote choices of this group strongly depend on features of the electoral context and possibly on the degree to which candidates diverge on moral issues relative to their divergence on economic issues.

Overall, the analysis provides some indication that while the Republicans have a fluctuating but somewhat consistent advantage among Libertarians, as the moral values platforms of the candidates are perceived to move apart, they also open up an advantage among Christian Democrats.

This interpretation is inconsistent with Bartels (2006) and Ansolabehere et al (2006), who regress vote choice on multi-item issue scales and search in vain for interactions with variables like religiosity and church attendance. These papers do not examine possible interactions between moral and economic preferences, however, and do not adopt flexible modeling strategies. On the other hand, the evidence above is consistent with recent work by Baldassari and Goldberg (2012), who adopt a more flexible modeling strategy and find that Republicans have indeed gained an advantage over time among cross-pressured Christian Democrats and Libertarians.

In order to believe that any of these observational analyses provides evidence of an underlying correlation between conservative moral preferences and the weight placed on those preferences, one must accept some assumptions about the relative divergence of perceived moral issue positions over time, especially in the Bush years, and attempt to look past a variety of problems with possible measurement error and alternative drivers of election behavior that vary from one election to another (valence considerations, candidate attributes, wars, scandals, economic crises, and the like).

Finally, one additional hint of the proposed correlation between conservative preferences and higher weights on the moral values dimension is also lurking in virtually every standard U.S. survey that asks questions about issue importance. Whether questions are closed-ended or open-ended, the

overwhelming majority of those who identify abortion, gay rights, or moral values as the most important issue facing the country have extremely conservative preferences on these issues.

**Candidates experiment in the United States**

The observational approaches to survey data described above are plagued with vexing problems of measurement error and require hefty assumptions, above all about the perceived platforms of parties over time.  The remainder of this paper experimentally manipulates those platforms in order to assess more directly whether morally conservative cross-pressured citizens place greater weight on moral issues when forced to choose between proximity on the moral or economic dimension.

Design and procedures

The experiment asked respondents to vote for hypothetical candidates and manipulated the menu of choices such that we can compare the vote choices of citizens in a policy bundling situation, in which two candidates differ on both economic and moral issues, and their choices in other situations that, by design, do not require cross-pressured citizens to engage in a trade-off between their economic and moral issue positions.  The experiment creates two situations that do not require trade-offs.  First, we create an experimental condition in which political competition occurs in a one-dimensional issue space—akin to our characterization of American presidential elections prior to the Reagan era.  Second, we create an experimental condition akin to the discussion of European proportional representation, where four candidates occupy the four quadrants of a two-dimensional issue space.

To recapitulate, we expect a large majority of Christian Democrats to prefer economically left-wing candidates when choosing between two candidates in a one-dimensional economic policy space,

as well as in a two-dimensional space when the menu of choices includes candidates with all

combinations of moral and economic issue positions. However, we hypothesize that many Christian

Democrats will choose economically right-wing candidates under policy bundling: when competition is

between only two candidates in a two-dimensional issue space. For other types of citizens, we do not

expect very large differences in their vote in policy-bundling conditions relative to other conditions. If

anything, the discussion above leads to the anticipation that Libertarians are more likely to favor the

economic dimension when forced to choose.

We embedded the experiment in an online survey fielded by SSI, a polling company, in June

2013. Respondents could choose to take the survey in English or Spanish. The supporting information

provides details of the study.[3]

The experiment had four treatment conditions. The first two conditions described candidates

with positions on only one dimension. In treatment (1), which we call the "Economics Only" condition,

the two candidates differed on economic issues, and in treatment (2), the "Morals Only" condition, the

two candidates disagreed on moral issues. These conditions elicit the baseline support for each camp in

a one-dimensional conflict space. While it can be argued that respondents may have attributed other

characteristics of the candidates when learning about their issue positions, such as partisanship or

positions on other issues, we attempted to avoid such projection of non-issue considerations by

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[3] The sample, while similar to the population in terms of socio-demographic characteristics, is more left-wing than the population as is usual in online surveys. Among self-reported voters in the 2012 presidential election, 56 percent reported that they voted for Barack Obama, 38 percent for Mitt Romney, and 5 percent for other candidates. The official figures are 51 percent, 47 percent, and 2 percent respectively. However, the distribution of key political variables such as partisan identification, ideology, or attitudes towards abortion is similar to the results of the 2012 American National Election Study (see Table A1 in the supporting information). Our sample is slightly more liberal and less religious than comparable samples, but the difference is not large. This fact may have implications for our results as we discuss in the analyses section and the supporting information.

emphasizing that the candidates were hypothetical, had otherwise similar positions on all major

platforms and issues, and did not belong to a party (e.g. Tomz and Van Houweling 2008, 2009).[4]

In treatments (3) and (4) candidates had positions on economic and moral issues. Treatment (3),

the "Unbundled" condition, described four candidates occupying the four quadrants of a two-

dimensional issue space, as in a European multi-party system.[5] Treatment (4), the "Policy Bundling"

condition, described two candidates with congruent positions on economic and moral issues. This is the

only treatment that forced cross-pressured respondents to suppress their preferences on one dimension

and the situation that most resembles the current political system in the US. After reading the

descriptions, respondents were asked to choose one of the candidates and they did not have the option

of not voting.

Table 1: The treatment conditions

| Condition | No. of candidates | Issue positions |
|---|---|---|
| Economics Only | 2 | Economic issues |
| Morals Only | 2 | Moral issues |
| Policy Bundling | 2 | Economic and moral |
| Unbundled | 4 | Economic and moral |

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[4] Specifically, all participants were told: "We would like to know your opinion about two [four] candidates. They have similar platforms on all major political issues except for the positions we describe below. The description is general, and is not about candidates from a specific party. Which candidate do you prefer?"
[5] The first candidate had left-wing positions on both dimensions; the second candidate had right-wing positions; the third candidate had left-wing economic views but right-wing moral views; and the fourth candidate had the opposite views.

We are mainly interested in two treatment effects.[6] The first quantity of interest is the difference in the proportion voting for the economically right-wing candidate in the baseline *economics only* situation and in the *policy bundling* situation. This difference addresses the question: How do voters' choices in two party systems change when they learn about the candidates' moral issue positions? We also compare vote choices in the *policy bundling* and *unbundled* conditions: in both cases, policy competition is in a two-dimensional space, but the number and positions of candidates differ. Candidates can be two and located in the diagonal, or four occupying the whole issue space. These two treatments capture relevant traits of the offer of choices in majoritarian and PR systems and address the counterfactual question: would election results change if voters had the richer menu of political choices typical of multi-party systems?

In addition to randomly assigning respondents to the four treatment conditions, we also randomized the order in which the candidates appeared with the aim of avoiding order effects. Figure 9 illustrates how respondents encountered information about the candidates using the policy bundling condition as an example. We chose the issues of social spending, taxes, abortion and same-sex marriage because they are central indicators of economic and moral attitudes in the US (Treier and Hillygus 2009).

**Candidate A**

Wants less spending on social programs and lower taxes for wealthy citizens.

Wants more restrictions on abortion and a ban on same-sex marriage.

**Candidate B**

Wants more spending on social programs and higher taxes for wealthy citizens.

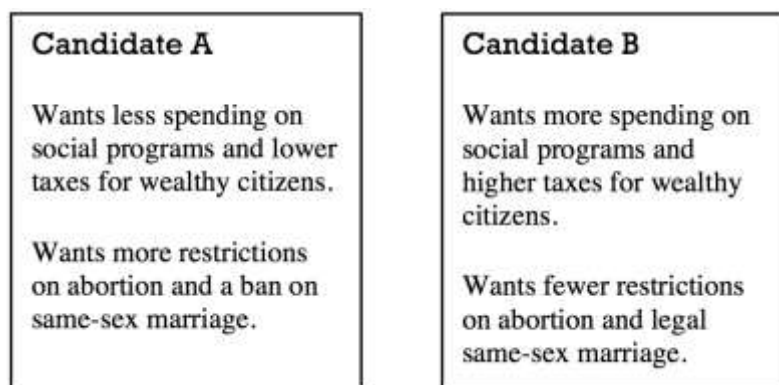Wants fewer restrictions on abortion and legal same-sex marriage.

Figure 9: Information about the candidates in the "policy bundling" treatment

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[6] While including the condition with two candidates with only positions on moral issues was necessary for design purposes, here we focus on the analysis of the differences between the three conditions of more analytical interest.

The study contained extensive information about respondents' background and political views. To create a measure of respondents' economic positions we fitted a standard linear measurement model to six questions about redistribution and social insurance.[7] The measure of moral issue positions is the score of four questions about core moral issues. The supporting information provides further details about the content of the issue positions. As in the previous section, higher values of the variables stand for morally conservative views.

Central to our research question was the existence of cross-pressured voters as we hypothesized that one group of voters, Christian Democrats, would be particularly sensitive to policy bundling situations. To assess the reactions of different types of voters, we divided respondents into four groups: "Left-wing" respondents (33 percent of the sample) reported positions to the left of the mean on economic and moral issues; "Right-wing" respondents (23 percent) had right-of-center positions on both; "Christian-Democrats" (18 percent) had left-of-center positions on economic issues and right-of-center positions on moral issues; and "Libertarians" (26 percent) reported the opposite issue orientation.[8]

Results

First, we briefly review the overall results of the experiment. In the *economics only* condition, 71 percent of respondents chose the candidate who championed more social spending and higher taxes. Support for the left-wing candidate was lower in the *morals only* condition at 51 percent. These figures provide the baseline level of support for each position in a context of one-dimensional political conflict.

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[7] We fit a structural equation model with one latent variable and six observed variables, but the results are robust to using other methods to extract the latent scores of economic and moral conservatism, such as principal component analysis and generalized structural equation models.

[8] According to this classification, a substantial share of respondents (42 percent) experiences cross-pressures. This figure is similar to the estimates of previous research using different criteria. For instance, in the National Election Study data presented above, around 40 percent of U.S. citizens are cross-pressured. The estimate of Treier and Hillygus (2009) is between 35 and 40 percent, Feldman and Johnston (2013) put the figure between 23 and 60 percent, and Baldassarri and Goldberg (2012) found that 41 percent are cross-pressured.

The baseline support for the economic left is quite high, which may be due to our description of the hypothetical platforms or to a left-leaning sample. We discuss possible consequences of this fact later. In the *policy bundling* condition, 61 percent of respondents chose the candidate with left-wing views on economic and moral issues. Finally, in the *unbundled* condition, 46 percent voted for the candidate with left-wing platforms on both dimensions. The second most preferred candidate with 26 percent of the vote had left-wing economic views but conservative moral views. The candidate with right-wing views on both dimensions received 18 percent of the vote, and the Libertarian candidate got 9 percent of the vote.

The results provide preliminary evidence that policy bundling can be politically consequential. Relative to the Economics Only situation, support for the economically conservative candidate was significantly higher when we offered bundled choices. The 10 percent points difference is statistically significant (p=0.002). The results also suggest that in a counter-factual four-party system, the candidates of the economic left would do jointly better than in a two-party system with two dimensions of conflict. The 13 percent points difference is also highly significant. However, the results may be shaped by ceiling effects. A large share of respondents chose the party of the economic left in the baseline condition. Hence, the introduction of a second dimension of political conflict had more room to reduce the vote for the left-wing candidate. We next turn to a more detailed sub-group analysis of the choices of cross-pressured voters under different conditions.

Our main question is whether policy-bundling had a stronger effect on the choices of morally conservative cross-pressured citizens. To examine this, we analyzed the results separately for four types of voters depending on their issue orientation. We expected consistently left-wing and right-wing respondents to be largely unaffected by the treatment because these groups are not cross-pressured, the introduction of a congruent second dimensions should not change their choices. The real focus of

interest is in the reactions of cross-pressured respondents: are some likely to disregard their preferences on economic issues in order to vote for the candidate that is closer on moral issues? In particular, we expected the Policy Bundling Condition to have a larger effect on the choices of Christian Democrats. Figure 10 displays the differences in the proportion of respondents that voted for the economically right-wing candidate in the policy bundling condition relative to the two other relevant treatment conditions, sub-setting by respondent's issue orientation.



Note: The effect of policy bundling on support for the economically right-wing candidate is defined as the difference in the proportion of respondents who chose the economically conservative candidate in the Economics Only and the Policy Bundling condition (circles) and the difference between the Policy Bundling and the Unbundled conditions (triangle). The data are subsetted by respondents' issue orientation.

Figure 10: Main results of the candidates experiment

As expected, non-cross-pressured respondents exhibited small or non-existent treatment effects. Respondents with left-of-center preferences on both economic and moral issues voted for the economically leftist candidate in very high numbers in all conditions.[9] Right-wing respondents also voted for the economically conservative candidate in similar numbers across treatment conditions. A large

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[9] Specifically, 94 percent of left-wing respondents chose that candidate in the Economics Only condition and 88 percent did so in the Policy Bundling Condition.

number of right-of center respondents, between 30 and 39 percent, chose the economically left-wing candidate in all treatment conditions. This may be because the economic views of the right-wing candidate were perceived as very conservative and because the sample is relatively liberal such that some fraction of the respondents we classified as right-wing have in fact liberal economic positions. We explore this possibility in the robustness checks by repeating the analyses dropping moderate voters who may have been misclassified.

The treatment effects were largest for Christian Democrats, confirming our expectations that they place greater weight on moral issues. While 18 percent voted for the economically conservative candidate in the Economics Only condition, as many as 55 percent did so in the Policy Bundling condition. The large 36 percent point difference is highly statistically significant. In the Unbundled condition, only 6 percent of Christian-Democrats voted for a candidate with economically conservative views. The 48 percent points difference between the Policy Bundling and the Unbundled Conditions is also highly significant and very large in magnitude. The results suggest that half of Christian-Democrats suppressed their economic preferences and based their vote on proximity in the moral dimension in the policy bundling situation compared to the two situations that did not force choices upon them.

Finally, the vote choices of Libertarians did not change much across treatment conditions. Members of this group were somewhat more likely to vote for the economically left-wing candidate in the Policy Bundling condition (64 percent) than in the Economics Only condition (62 percent) or the Unbundled condition (64 percent), suggesting that cross-pressured Libertarian respondents did not favor their economic preferences, as was suggested by the observational analysis above.

To assess the robustness of the results to different ways of classifying cross-pressured respondents, we conducted additional analyses which we report in more detail in the supporting information. First, we excluded moderate voters defined as respondents with economic or moral issue

positions within a half standard deviation from the value zero in either scale. Because of the left-leaning

sample and the description of the candidates, many respondents we classified as conservative because

they had right-of-center positions in this sample may in fact be quite liberal. Excluding moderates

allowed us to examine if the segments of the electorate with political positions more clearly anchored in

the extremes, which can hence be classified more reliably, also presented asymmetric reactions to

policy bundling. The results remain substantially unchanged when applying this or other exclusion

rules.[10]  We also replicated the analyses excluding non-voters. It is well known that, in the US, voters

have a higher socio-economic status than non-voters and that SES is associated with political

preference. Christian-Democrats may be less likely to vote in elections both because they are cross-

pressured and because they have a lower SES.[11] The analyses allow us to rule out that the results on

asymmetric responses are driven by a distinct group of politically disengaged cross-pressured voters.



Asymmetric reactions and religiosity:

The analysis so far have examined if the effects of policy bundling are conditional on

respondents' issue positions. This section examines if, among Christian Democrats, the more religious

respondents drive the asymmetry. Figure 11 presents the effects of policy bundling focusing on Christian

Democrats and subsets by their reported importance of religion in life. It needs to be noted, however,

that we are zooming in on a rather small group of respondents.

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[10] The supporting information also reports the results of a second classification that only excluded those with moral issue positions within a half standard deviation from zero or with economic issue positions between zero and one-half standard deviation, as this latter group is the most likely to have been misclassified. We have replicated the analyses using different exclusion criteria, with consistent results.

[11] In our sample, Christian Democrats reported the lowest turnout rates. While 57 percent reported that they voted in the 2012 presidential election, this figure was 69, 69, and 75 percent for Libertarian, Left-wing, and Right-wing respondents respectively. The fact that Christian Democrats are the least participatory group might suggest that the reaction of this group to changes in the menu of choices is less politically consequential than the response of other groups. Christian Democrats may be less likely to vote precisely because they are cross-pressured.
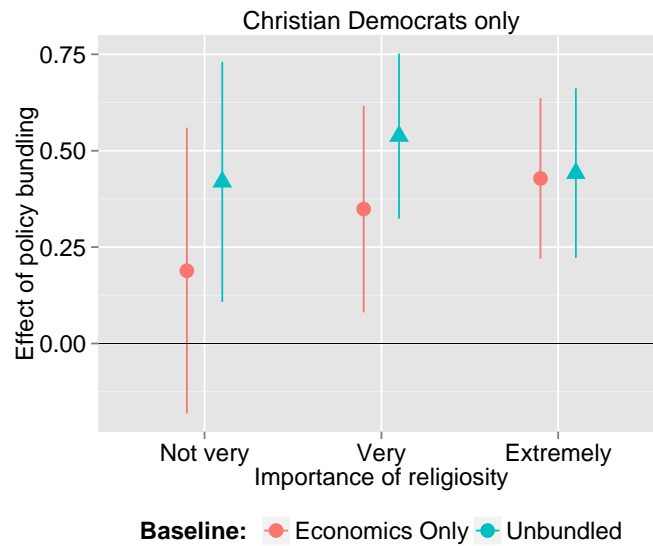
Christian Democrats only

Figure 11: The effects of policy bundling on Christian Democrats by religiosity

The results are not as clean as we expected, but they are broadly consistent with the hypothesis that religious respondents drive the asymmetry. We are zooming in a rather small group of respondents and subsetting, and hence the sample size is too small to make reliable inferences.[12] When focusing on the comparison between the *economics only* and the *policy bundling* situation, which is the one that more directly addresses the effect of introducing a moral issue dimension, the effect of policy bundling is increasing in the level of religiosity.[13] While only 14 percent of respondents who consider religion extremely important voted for the economically conservative candidate in the *economics only* condition, 57 percent voted for the conservative candidate in the *policy bundling* condition. For people who consider religion very important in their life the treatment effect of policy bundling was 35 percentage

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[12] There are only 294 respondents classified as Christian Democrats, of whom 75 received the Morals Only condition that we do not examine in this analysis. This leaves us with just 209 respondents in three treatment conditions.

[13] The cell sizes are in fact very small because very few respondents classified as Christian Democrats report that religion is not very important or not at all important in their life. Specifically, there are 17 cases in the Economics Only condition, 11 cases in the Policy Bundling condition, and 10 cases in the Unbundled condition.

points and statistically significant relative to the baseline condition, but the difference was just 19

percentage points among those who do not consider religion very important, and not significant. This

pattern is consistent with the claim that religious people place a larger weight on moral issues, such that

they are more likely to change their vote after the introduction of a moral issue dimension in a forced

choice situation.

The results, by contrast, are less clear when comparing the vote choices in the scenario with two

candidates and issue bundled positions and four candidates with unbundled positions. Respondents

classified as Christian Democrats but who do not consider religion very important exhibit large

treatment effects. However, since these results are based on a very small number of cases we do not

interpret them as a disconfirmation of the main theory.

Taken together, the experimental results suggest that there is an asymmetry in voters'

responsiveness to the introduction of the moral dimension of electoral competition. The finding that

voters who favor redistribution but have morally conservative views are highly sensitive to information

about the candidates' stances on moral issues like abortion supports the claim that members of this

cross-pressured group place a larger weight on moral issues when voting. The changes in voting

behavior observed in this group were substantial and were not matched by similar shifts among the

second group of cross-pressured voters, Libertarians. While some part of this asymmetric response may

be attributable to the composition of the groups, it is unlikely to be driven completely by this: the

differences in the choices of Christian Democrats are very large in magnitude and they are stable when

we remove centrist voters who might be misclassified. As a consequence of the asymmetric weight

given to moral issues, the introduction of policy bundling benefited the party of the economic right.

**Discussion and Conclusions**

The analyses provided extensive support for the hypothesis that a particular group of voters, cross-pressured religious voters with economically liberal but morally conservative preferences, are disproportionately likely to change their vote in response to policy bundling. When they are absolved of forced choice, either because political conflict plays out along only one dimension or because they are faced with a European-style multi-party system, some voters become more likely to support candidates that are more liberal economically and more conservative morally than when they are forced to choose in a US-style, two-candidate and two-dimensional system. These findings are consistent with the counter-factual claim that if a fuller range of options were available to voters, parties of the economic left would receive more votes.

This finding has potentially interesting implications for both comparative and American politics. First, while the causal mechanism is different than Roemer (1998), this result is consistent with the claim that the striking cross-country correlation between religiosity and redistribution has something to do the asymmetric advantage for the economic right created by policy-bundling. Moreover, our results suggest the relationship between religiosity and leftist economic policies might be mediated by electoral rules and the effective number of political parties. When there are low barriers to entry for political parties and they offer a full range of policy options in the two-dimensional space created by moral and economic issues, there is no reason to expect that the politicization of the moral dimension will have an impact on the support for parties of the economic left. Indeed, we found no difference between the treatment condition with economics only and the treatment condition with four candidates. The asymmetry at the heart of our analysis only shows up in a strict two-party system with policy-bundling.

Thus our results also shed a different light on the strong cross-country correlation between proportional representation, multi-party systems, and high levels of redistribution (e.g. Persson and Tabellini 2002, Iversen and Soskice 2006). Perhaps two-party systems are most likely to suppress

redistribution in the presence of a salient non-economic dimension that, for an important group of economically progressive voters, has a "moral" character that is difficult to trade off against the economic dimension. For instance, it is conceivable that political conflict related to the protection of a national identity against perceived cultural threats from immigrants and minorities has similar qualities.

Second, our results may help solve a persistent puzzle of American politics. While the policy preferences of liberal and conservative Americans have not moved apart over time, preferences on the moral values dimension have become better predictors of voting behavior since the 1980s (Fiorina and Abrams 2008). At the same time, an asymmetric form of Congressional polarization has taken place as moderate members of Congress have disappeared and Republican representatives have moved to the right, as measured through roll-call votes that take place on issues that are primarily economic in nature (McCarty, Poole, and Rosenthal 2006). If the asymmetry described in our survey experiment withstands scrutiny and has external validity, and our cross-pressured Christian Democrats are relatively clustered in crucial Midwestern and Southern districts, as suggested by Rodden and Warshaw (2009), perhaps we have the beginning of an explanation for the fact that Republican incumbents in seemingly moderate districts are able to cast surprisingly conservative economic roll-call votes without facing electoral punishment.

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**Supporting information**

**1. American National Election Studies: Cumulative file**

We use the cumulative file of the American National Election Studies and select the studies conducted on Presidential Election years between 1992 and 2008. The variables included in the economic and moral issue scales are items that have been asked in all the selected waves and that have at least moderate correlations with the other issues[14].

Items included in the economic issue scale (reliability coefficient is 0.77):
- VCF0809: Guaranteed jobs and income (7-point scale)
- VCF0839: Government Services and Spending (7-point scale)
- VCF9013: Society should ensure equal opportunity to succeed (5-point scale)
- VCF9014: We have gone too far pushing equal rights (5-point scale)
- VCF9015: Big problem that not everyone has equal chance (5-point scale)
- VCF9016: Not big problem if some have more chances in life (5-point scale)
- VCF9017: We should worry less about how equal people are (5-point scale)
- VCF0886: Federal Spending: Poor people (3-point scale)
- VCF0887: Federal Spending: Child care (3-point scale)
- VCF0890: Federal Spending: Public schools (3-point scale)
- VCF0894: Federal Spending: Welfare programs (3-point scale)
- VCF9049: Federal Spending: Social Security (3-point scale)

Items included in the moral issue scale (reliability coefficient is 0.72):
- VCF0834: Women should have an equal role (7-point scale)
- VCF0838: Abortion (4-point scale)
- VCF0876a: Law against homosexual discrimination (4-point scale)
- VCF0877a: Gays in the military (4-point scale)
- VCF0851: Newer lifestyles contribute to society breakdown (5-point scale)
- VCF0852: One should adjust view of moral behavior to changes (5-point scale)
- VCF0853: More emphasis on traditional values (5-point scale)
- VCF0854: Tolerance of different moral standards (5-point scale)

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[14] For instance, we exclude questions on spending on crime and science because they show very low correlations with other items.

## 2. The candidates experiment

Characteristics of the study and the sample

The online study, conducted in the US in June 2013, contained quotas by age, education, and place of residence generated using census estimates. Hence, the distribution of these variables is similar to the overall US population. However, the sample may differ from the population in important respects, which can affect the results. Table A1 compares the distribution of responses to selected variables that had the exact same question wording in our survey and in the 2012 pre- and post-election surveys.

Table A1: Comparison of selected questions of the online survey with the 2012 Time Series ANES

| | ANES 2012 face-to-face | | ANES 2012 web | | ANES all | | 2013 web | |
|---|---|---|---|---|---|---|---|---|
| | Not weighted | Weighted | Not weighted | Weighted | Not weighted | Weighted | Not weighted | Weighted |
| **Party identification** | | | | | | | | |
| Democrat | 46.8 | 34.6 | 38.1 | 36.1 | 41.0 | 35.6 | 39.8 | 35.6 |
| Republican | 17.3 | 24.9 | 27.6 | 29.4 | 24.1 | 27.9 | 25.2 | 27.9 |
| Independent | 33.8 | 37.2 | 31.2 | 31.1 | 32.1 | 33.1 | 31.8 | 33.1 |
| Other party | 2.2 | 3.3 | 3.1 | 3.5 | 2.8 | 3.4 | 3.2 | 3.4 |
| **Ideology** | | | | | | | | |
| Extremely liberal | 4.9 | 3.0 | 3.2 | 3.2 | 3.7 | 3.1 | 7.6 | 7.1 |
| Liberal | 14.1 | 13.1 | 11.3 | 10.4 | 12.0 | 11.2 | 14.3 | 13.5 |
| Slightly liberal | 13.1 | 11.4 | 11.7 | 11.8 | 12.1 | 11.7 | 11.2 | 10.9 |
| Moderate | 32.6 | 30.7 | 35.2 | 36.0 | 34.5 | 34.4 | 35.4 | 35.2 |
| Slightly conservative | 15.5 | 17.1 | 14.7 | 15.0 | 14.9 | 15.6 | 11.5 | 11.9 |
| Conservative | 16.1 | 20.1 | 20.0 | 19.1 | 18.9 | 19.4 | 14.6 | 15.7 |
| Extremely conserve. | 3.9 | 4.7 | 3.9 | 4.6 | 3.9 | 4.6 | 5.4 | 5.7 |
| **Bible is the word of God or men** | | | | | | | | |
| Actual word of God | 41.0 | 33.7 | 28.4 | 29.7 | 32.7 | 31.1 | 27.5 | 27.4 |
| Inspired word of God | 42.0 | 46.4 | 47.6 | 48.0 | 45.7 | 47.5 | 44.5 | 45.0 |
| Ancient book of fables | 17.0 | 19.9 | 24.0 | 22.3 | 21.6 | 21.5 | 28.0 | 27.7 |
| **Abortion self-placement** | | | | | | | | |
| Should never be allowed | 12.1 | 11.8 | 11.1 | 12.5 | 11.5 | 12.3 | 13.5 | 14.0 |
| Rape, incest, or danger | 27.9 | 27.6 | 27.2 | 27.7 | 27.5 | 27.7 | 31.0 | 31.8 |
| For other reasons | 15.9 | 17.5 | 15.1 | 14.6 | 15.3 | 15.6 | 15.6 | 15.3 |
| Personal choice | 44.2 | 43.0 | 46.6 | 45.2 | 45.7 | 44.5 | 39.9 | 39.0 |
| **Homosexual adoption** | | | | | | | | |
| Yes | 63.4 | 66.2 | 60.8 | 61.5 | 61.6 | 63.0 | 63.7 | 63.0 |
| No | 36.6 | 33.8 | 39.3 | 38.6 | 38.4 | 37.0 | 36.3 | 37.0 |

Note: The table reports the distribution of responses for questions that had the exact same question wording in the 2012 American National Election Study and in the online survey conducted in June 2013. The 2013 web survey is weighted by partisan identification.

The comparison suggests that the online sample is slightly more ideologically liberal than the ANES samples and it is less likely to believe that the bible is the actual word of God. However, the differences are not large in magnitude. In terms of party identification and moral attitudes, the distribution of responses was similar to the unweighted ANES responses and suggests that this sample is not unusual.

The left-wing bias is common in online samples. To attempt to address the bias, we weight observations by reported partisanship in all analyses. We use the weighted full sample of the 2012 American National Election Study (ANES) study to create the weights. We have also replicated all analyses weighting by a combination of voter turnout and reported vote and without any weights. The results we report, however, never change significantly –at most by 2 percentage points.

The survey experiment was placed at the beginning of the questionnaire. We conduct the analysis on the 1619 respondents for whom we have complete information about the main variables.

Generation of the economic and moral issue scales

The economic and moral issue scales are obtained from fitting measurement models to the following issue questions reported below. Higher values stand for morally conservative views.

Items included in the economic issue scale (reliability coefficient is 0.75):
- Spending on unemployment benefits (5-point scale)
- Spending on Social Security (5-point scale)
- Spending on aid for the poor (5-point scale)
- The government should reduce income differences (7-point scale)
- Government funded or private health insurance plan (7-point scale)
- Raising taxes for the rich (5-point scale)

Items included in the moral issue scale (reliability coefficient is 0.70):
- Abortion (4-point scale)
- Doctors allowed to prescribe drugs for assisted suicide (4-point scale)
- Same-sex marriage (3-point scale)
- Adoption by same-sex couples (2-point question)

Characteristics of respondents in each quadrant

The following table examines the socio-demographic and attitudinal characteristics of respondents classified by their issue orientation. Christian Democrats have a distinct profile. They are more racially diverse than other groups, less educated, poorer, and less likely to vote. They also give more importance to religiosity than other groups, 82 percent claim that religion is very or extremely important in their life.
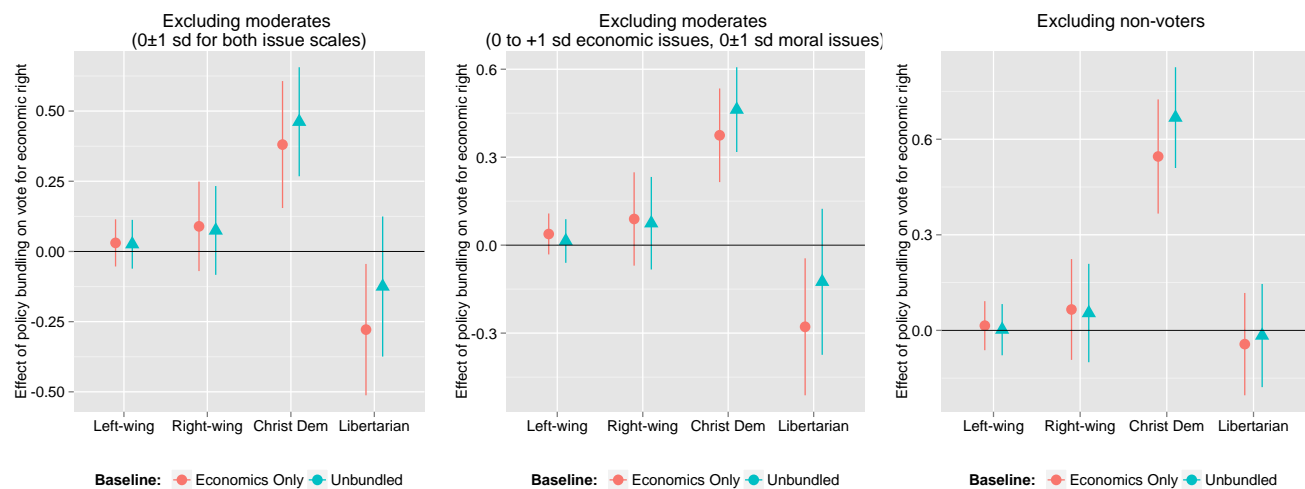
Table A2: Characteristics of respondents in each quadrant

| | Left-wing | Right-wing | Christian-democrat | Libertarian |
|---|---|---|---|---|
| Male (%) | 44.3 | 59.3 | 47.8 | 47.6 |
| Mean age in years | 44.23 | 52.78 | 46.32 | 45.2 |
| White (%) | 66.7 | 80.8 | 60.3 | 82.1 |
| High school or less (%) | 28.4 | 28.2 | 44.7 | 24.0 |
| Income<$40000 (%) | 43.2 | 32.2 | 54.0 | 29.5 |
| Voted in 2012 (%) | 69.0 | 74.9 | 57.4 | 69.3 |
| South (%) | 26.7 | 35.2 | 38.1 | 26.3 |
| Religion very important (%) | 52.9 | 74.8 | 82.7 | 44.9 |
| Attends church weekly (%) | 20.8 | 46.5 | 42.9 | 17.1 |
| Protestant (%) | 32.7 | 49.9 | 50.0 | 32.2 |
| Catholic (%) | 20.9 | 24.4 | 18.0 | 22.0 |

Additional robustness checks

Figure A3 reports the effect of policy bundling when excluding economic moderates (first and second panels), and non-voters (third panel). In the first panel, moderate voters are defined as respondents with economic or moral issue positions within one half of a standard deviation from 0. In the second panel they are defined as respondents with moral issue positions within one half of a standard deviation from 0 or with economic issue positions between 0 and one half of a standard deviation. This is because our sample is too left-wing and we are particularly interested in excluding respondents who may have been misclassified as having right-wing economic preferences when in fact they don't. As in the main text, the effect of policy bundling on vote for the economic right is defined as the difference in support for the economically conservative candidate in the Economics Only and the Policy Bundling conditions and the Unbundled and Policy Bundling conditions. Positive values mean that the introduction of policy bundling increased the vote for the conservative candidate.

Figure A3: Robustness checks in the candidates experiment



Note: The coefficients are the treatment effect of policy bundling. The first panel excludes respondents with economic or moral issue positions within one half of a standard deviation from 0. The second panel excludes those with economic preferences between 0 and 1 half of a standard deviation. The third panel excludes non-voters in the 2012 presidential election.

The results are largely robust to the exclusion of some segments of the electorate. Policy bundling consistently produced very large increases in the percentage of Christian Democrats that voted for candidates with conservative economic views. In fact, when excluding respondents who report that they did not vote in the 2012 election, the difference in the proportion of Christian Democrats who chose the economically right-wing candidate is much larger in the policy bundling situation than in the two baseline comparisons. In percentages, the vote for the economic right increases by 55 points relative to a situation with two candidates with positions on only economic issues, and by 67 points relative to a situation with four candidates and unbundled positions.

Among the other groups there are only small changes when we exclude economic moderates or non-voters. The small positive effect of policy bundling among left-wing respondents in the whole sample disappears when excluding any of the two groups. The effect of policy bundling among Libertarians, when excluding moderates members, is now clearly negative, but smaller in magnitude than the effect among Christian Democrats. Hence, the results confirm the hypothesis that Christian Democrats have asymmetric reactions to the bundling of moral and economic positions: While other types of citizens are unlikely to change their vote when they learn about the candidates' moral positions in a policy bundling situation, there are very large changes among Christian Democrats.