

# The impact of party polarization on ideological voting

Romain Lachat  
Department of Politics  
New York University  
mail@romain-lachat.ch

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## **Abstract**

Although ideology is a central factor in models of voting choice, little is known about the factors that explain the variation across elections in the strength of ideological voting. This paper suggests that the role of citizens' left–right orientations increases with party system polarization. It improves on previous studies on this question by avoiding potential sources of bias linked with voters' perceptions of the level of polarization, with rationalization effects, and with the specification of the spatial model of the vote. Based on data from the 1999 European Election Study and from an expert survey on party positions, the results confirm that polarization reinforces ideological voting. However, this effect is mediated by party identification and by political sophistication.

**Keywords:** Party system; Polarization; left–right orientations; spatial models; two-step hierarchical estimation; European Election Study.

## Introduction

Ideological orientations and issue positions are central factors in explaining citizens' voting decisions. The importance of these factors has grown in recent decades following the phenomenon of electoral dealignment (Dalton et al., 1984; Franklin et al., 1992). Economic and social changes, often referred to as the process of social modernization (Thomassen, 2005), have reduced the impact of social-structural factors and long-term predispositions on how a citizen votes. While party identification and social cleavages were central in traditional models of voting choice (Campbell et al., 1960; Lipset and Rokkan, 1967), their importance has diminished in most advanced industrial democracies. Voters now are less strongly influenced by such stable social identities and rely more strongly on their issue preferences and ideological orientations.

Less is known about the factors that explain the *variation across countries* in the degree of ideological or issue voting. This is symptomatic of a lack of comparative electoral research focusing on how political and contextual factors affect voting choices (Curtice, 2002; Thomassen, 2005). This paper deals with the role of one such contextual factor, the polarization of the party system, and its impact on ideological voting. Recent studies suggest that party system polarization affects voters' behaviour. A higher level of polarization would reinforce the impact of issues and ideology on the vote (van der Eijk et al., 2005; Knutsen and Kumlin, 2005), at least among politically sophisticated citizens (Ensley, 2007). However, alternative explanations suggest that the observed impact of party system polarization may be spurious or overestimated. More robust analyses are required to confirm that party system polarization truly impacts the level of ideological voting and to address potential methodological problems.

First, the risk of a spurious relationship exists when the polarization measure is based on average voters' *perceptions*. The fact that voters perceive parties to be ideologically distant from one another, on the left–right dimension for example, and the fact that they rely on such a dimension to make their electoral decision may be consequences of a third factor. Citizens who vote on the basis of ideological criterion might be better able to locate parties and thus perceive these as being more polarized than citizens who vote on the basis of other factors. As more voters base their vote on ideology, average perceived polarization might thus increase – but this would not reflect an impact of polarization on ideological voting. A second problem is that voters' self-location on an ideological scale and their perceptions of party positions may be affected by party identification. Schmitt and Holmberg (1995) suggested that party identifications are more salient and have stronger effects on voters' attitudes and perceptions

when the party system is polarized. Thus, a higher level of ideological voting may be the consequence of a rationalization process among party identifiers. Their perceptions of party positions or of their own position may be biased by their party attachment. Third, the observation that polarization reinforces ideological voting may be influenced by the choice of the underlying spatial model of the vote. Voters' motivation to make an accurate choice increases with the perceived stakes of their decision (Maheswaran and Chaiken, 1991; Lachat, 2007). This motivation, then, should increase with the polarization of the party system. At the same time, it may increase voters' reliance on the proximity model of ideological voting, which is cognitively more demanding than the directional one (Macdonald et al., 1995). If voters change from directional to proximity voting as polarization increases, and if only proximity voting is accounted for, the impact of party system polarization on the overall level of ideological voting will be overestimated.

Herein I test the relationship between party system polarization and ideological voting while trying to rule out these possible biases. I use data from the 1999 European Election Study and from an expert survey on party positions, and focus on the role of left–right ideology. Both the proximity and the directional models of spatial voting are considered. I also account for the interaction effects of ideology, party identification, and political sophistication. This paper is divided into five parts. In the first I discuss why party polarization is expected to affect ideological voting and I review the relevant literature. Then I examine alternative explanations for variations in the level of ideological voting that may affect the observed impact of party polarization. In the third section I introduce the data and discuss the operationalization of the central variables, and I present the results of my analyses in the fourth section. I conclude with a discussion of the implications of my results.

### **Ideological voting and the role of party system polarization**

Before addressing specifically the role of party system polarization, it is important to emphasize more generally the relevance of political and institutional factors in explaining how people vote. The availability of comparable datasets that include a large number of political systems has made it easier to account for such factors, and it has become more important to do so. The determinants of voting choices should be more strongly conditioned by political and institutional factors today than they were a few decades ago. This is an indirect consequence of the process of electoral change. A decline in the role of traditional loyalties and of stable social cleavages means that citizens should be more strongly influenced by their ideological orientation and by attitudes towards issues, parties, and candidates. At the

same time, such factors are more likely to be influenced by short-term forces. The consequence of electoral change on the determinants of voting choices is a shift from the social structure and stable predispositions towards short-term factors (Thomassen, 2005). This also means that the determinants of the vote should be more sensitive to the context in which voters make their choice. Variations in political and institutional factors should thus be more important for understanding voting choices (Thomassen, 2005, 5).

The impact of ideological orientations should *increase* with the polarization of the party system for several reasons. If parties present coherent ‘issue packages’ and express their position by referring to general ideological orientations, ‘voters should learn to use such value-laden concepts themselves’ (Knutsen and Kumlin, 2005, 158). This has two consequences. First, as polarization increases ideological concepts should become more easily accessible to voters. As parties and candidates refer more frequently to ideological concepts and as voters do the same, these concepts should become more affectively laden in voters’ minds. Second, ideological concepts should become easier to use. Following the terminology of Zaller’s (1992) model of opinion formation, a polarized party landscape should provide voters with more ‘cueing information’ (Knutsen and Kumlin, 2005). Voters should be better able to relate their ideological preferences to the positions of parties. From this point of view, polarization allows voters to make more sophisticated decisions at a lower cognitive cost.

These arguments point to the role of cognitive factors in the formation of voting choices. Research has shown that voters’ degree of political sophistication affects the way in which they process and organize political information. Political experts have a better knowledge of politics than political novices, and they also organize and process this information in a more meaningful way (Fiske et al., 1983; McGraw and Pinney, 1990; Zaller, 1992). Their issue positions and other political attitudes are more strongly related to one another (e.g., Luskin, 1987) and have a stronger relationship with their voting choices. Researchers in the field of electoral studies or of opinion formation have extensively researched such differences between groups of citizens. Furthermore, cognitive factors also help to explain how contextual factors can impact voters’ cognitive strategies; the same individuals will not necessarily always rely on the same decision criteria. Individuals will devote more or less effort to their decision task depending on their motivation and the availability of information (Chaiken, 1980; Fiske and Taylor, 1991; Maheswaran and Chaiken, 1991). Contextual factors may influence the degree to which voters rely on simple heuristics, such as partisanship, or whether they try to make more sophisticated decisions by comparing in a more systematic way their political preferences to the positions of parties

(Rahn, 1993; Ensley, 2007; Lachat, 2007). For example, voters in intense campaigns make more sophisticated decisions and rely less strongly on party identification (Westlye, 1991; Kahn and Kenney, 1999; Lachat and Sciarini, 2002; Basinger and Lavine, 2005). Increased polarization of parties' ideological positions should have a similar effect.

Several studies have emphasized this impact of party polarization. Knutsen and Kumlin (2005) analyzed the influence of polarization on the total impact of value orientations in 21 national elections from five European countries (Denmark, Germany, the Netherlands, Norway, Sweden). The impact of values on the vote increased with the degree of polarization. Working with the same set of elections, van der Eijk et al. (2005) examined the variation in the impact of voters' left-right orientations and found an effect of polarization: the larger the ideological distances between parties, the stronger was the impact of voters' ideology. Finally, Ensley (2007) estimated the impact of polarization on ideological voting in U.S. Senate elections. His study supports the expected impact of polarization by showing that larger ideological differences between the Republican and Democrat candidates increased the level of ideological voting. This effect, however, was limited to the more sophisticated voters. Variations in the electoral context seemed to matter less for citizens with a lower level of political knowledge or of education.

### **Alternative explanations**

Although strong theoretical arguments exist in favour of a link between polarization and ideological voting, there are reasons to think that these empirical results referred to above might be spurious. Here I discuss three potential problems that might affect these results: voters' perceptions of party polarization, the role of party identification, and the specification of the model of voting choice.

First, if the measure of ideological polarization is based on voters' average *perceptions*, the observed effect on ideological voting may be spurious. Instead of polarization impacting on ideological voting, variations in the average perceived degree of polarization and in the level of ideological voting could both be consequences of unobserved factors. They could simply reflect the fact that voters who rely on ideological criteria also have more accurate perceptions of parties' locations. If the proportion of such citizens varies across contexts, we will observe a non-causal relationship between the average perceived degree of polarization and the average impact of ideology on the vote. Relying on an objective measure of party positions would avoid this problem. Knutsen and Kumlin (2005) measured polarization as the average perceived distance on the left-right scale between the

major left-wing and right-wing parties. Thus, their results could be affected by this potential problem. They also showed that the perceived degree of polarization was related to the actual level of polarization, as indicated by analyses of manifesto data (2005, 161, 165), but the strength of the association between the two measures of polarization is far from impressive. It is unclear whether relying on a more objective measure of polarization would confirm their results. Van der Eijk et al. (2005) also used a measure of polarization based on the perceived positions of parties, and they did not find the interactive effect of party polarization when it was measured on the basis of manifesto data. They argued that the *perceived* polarization was likely to be 'more consequential than polarization as derived from information that is not directly available to most voters' (2005, 185). While it is true that party programs do not necessarily reflect the same level of polarization as that observed during the campaign (Budge and Farlie, 1983), this does not eliminate the risk of spurious relationships. From this point of view, Ensley's (2007) analysis is more convincing. His results remained substantially the same when polarization was measured on the basis of candidates' positions rather than on voters' perceptions.

The second potential problem is linked with party identification. While polarization may affect the level of ideological voting, it can also increase the salience of party identifications (Schmitt and Holmberg, 1995; Berglund et al., 2005). Following the traditional model of party identification (Campbell et al., 1960; Miller and Shanks, 1996; Green et al., 2002), voters' attachment to parties affects their political attitudes and their evaluations of candidates and parties. From this point of view, ideological orientations or issue positions may be a consequence of party identification. Changes in the relationship between ideology and the vote could thus reflect a variation in the salience or strength of party identifications. In other words, ideological voting could result from a rationalization process. Two forms of rationalization can be distinguished (Page and Jones, 1979; Feldman and Conover, 1983; Conover and Feldman, 1989; Pierce 1997): projection and persuasion. A projection effect means that voters attribute their own preferences to the party they favour, whereas a persuasion (or assimilation) effect refers to a situation in which citizens bring their self-reported issue preferences or ideological location in line with the positions of their favoured party. A projection effect can affect the voters' perceptions of parties' positions. It is similar to the type of problems emphasized in the previous paragraph. This potential bias in the analysis of ideological voting can be avoided by relying on more objective measures of parties' positions. In contrast, the problem with persuasion effects is more difficult to solve. Voters' ideological self-placement cannot be 'corrected', even if it was biased by their party

identification.<sup>1</sup> However, it is possible to determine indirectly whether the impact of party polarization is mediated by party identification by contrasting identifiers and non-identifiers. This is the strategy followed in this paper.

The choice of a spatial model of voting choice is the third source of potential bias. There is an ongoing debate in electoral research about the merits of ‘proximity’ versus ‘directional’ models of the vote (e.g., Merrill and Grofman, 1999). According to the proximity model, citizens favour a party that is closest to them on an ideological dimension.<sup>2</sup> In contrast, the directional model argues that voters prefer a party that is on their side of the ideological divide but that proposes a more radical departure from the status quo. The two models propose very different concepts of how citizens make their electoral choice, and they have both been supported empirically. The debate is not easily settled, as each model makes different statistical assumptions that are difficult to test (Lewis and King, 2000; Macdonald et al., 2007). In the absence of a definitive reason to support one or the other of these models, both can be viewed as valid descriptions of the voting decision process. This is all the more important when studying the effect of party system polarization, as the directional model is cognitively less demanding than the proximity model (Macdonald et al., 1995). As emphasized in the previous sections, a polarized party landscape, through its effect on the perceived stakes of elections, may incite citizens to make more sophisticated voting decisions. In other words, a higher level of polarization might lead some voters to switch from directional to proximity voting, which is based on a more precise perception of issues and which should allow voters to be more confident in their own decision. If only one of the two forms of spatial voting is accounted for, it remains unclear how the overall level of ideological voting varies with party system polarization. This is not too problematic in Ensley’s (2007) study, which focused on the choice between only two candidates: In such a case, the proximity and directional models lead to the same predictions, at least as long as the candidates are equidistant from the status quo. In a multiparty context (e.g., van der Eijk et al., 2005; Knutsen and Kumlin, 2005), however, the choice of the underlying spatial model may be critical. Because the data used in this study come from multiparty systems, I will consider both the proximity and directional models.

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<sup>1</sup> It is important to emphasize that a persuasion effect is only problematic when it is limited to the *reported* ideological position of voters. If party identification influences a citizen’s ‘true’ ideological preferences, the observed relationship between ideology and the vote would be genuine and the interpretation of polarization effects unproblematic.

<sup>2</sup> Or, more generally, in the political space defined by the main issue dimensions or ideological dimensions. For the present purpose, however, I consider the case of a one-dimensional ideological continuum.

In summary, I expect that a higher level of party system polarization reinforces voters' reliance on ideological criteria when making their electoral choice. To rule out spurious relationships, I 1) specify models that rely on objective rather than perceived measures of parties' ideological positions; 2) consider how the relationship between polarization and ideological voting is affected by party identification; and 3) account for both proximity and directional forms of spatial voting. Moreover, I also include voters' level of political sophistication, as political experts are likely to rely more strongly on ideology than political novices and as they may react differently to changes in the level of polarization.

### **Data and methods**

The relationship between spatial utilities and electoral preferences is central to the above hypothesis. Electoral preferences are measured with 'electoral utilities' (or 'probabilities to vote') rather than with voting choice. This specification is standard for spatial models (e.g., Westholm, 1997; Merrill and Grofman, 1999).<sup>3</sup> In this study I use data from the 1999 European Election Study.<sup>4</sup> Not only does that study include the relevant variables for a relatively large number of countries, but also, an expert survey of party positions was conducted in the same year and with the same countries. Electoral utilities were measured using questions that ask respondents to indicate the probability that they will ever vote for a given party. The questions were formulated as follows:

*We have a number of parties in [name of country], each of which would like to get your vote. How probable is it that you will ever vote for the following parties? Please specify your views on a 10-point scale where 1 means 'not at all probable' and 10 means 'very probable'. You may use any number between 1 and 10 to specify your views.*

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<sup>3</sup> It also offers several advantages over a categorical dependent variable. As the probabilities to vote are measured separately for each party, the number of observations is large enough, even for small parties that may be represented by only a handful of voters in a typical survey. This specification also facilitates the comparison of the determinants of voters' preferences across party systems. Finally, probabilities to vote contain more detailed information than voting choice, which is a binary opposition between the party a citizen voted for and all other parties. Probabilities to vote allow more fine-grained distinctions to be made among the parties that were not supported. Voting choice represents the final step in the voting decision process, but the concept of electoral utility is present, at least implicitly, in most models of voting choice (van der Eijk and Franklin, 1995; van der Eijk et al., 2006; see also Tillie, 1995).

<sup>4</sup> The data are available at <http://www.europeanelectionstudies.net>. From the 15 countries covered by the 1999 European Election Study, I have to exclude respondents from Luxembourg, Belgium, and Northern Ireland because there are too few observations. In Belgium, the same number of interviews is available as in most other countries, but the number is not sufficient once Wallonia and Flanders are considered separately, which would be necessary because they have distinct party systems.

*If you think of [name of party]: what mark out of ten best describes how probable it is that you will ever vote for [name of party]?*

This question was asked for a number of parties ranging from five in Portugal to 12 in Denmark. Thus, multiple utilities exist for each respondent and these respondent  $\times$  party combinations represent the observations used in my analyses. I have modified the structure of the dataset to form a ‘stacked’ data matrix, in which each respondent is represented as many times as the number of parties for which he or she indicated a probability to vote (for more detailed explanations on this procedure, see van der Eijk et al., 2006).

The main independent variables are the spatial utilities, which express the relationship between the ideological positions of voters and parties.<sup>5</sup> Voters’ positions on a left–right axis were measured on a 10-point scale.<sup>6</sup> Data about parties’ positions come from an expert survey conducted in 1999 by the Center for European Studies of the University of North Carolina at Chapel Hill (see Hooghe et al., 2002).<sup>7</sup> This expert survey and the 1999 European Election Study cover the same countries and were conducted during the same year. In the expert survey, party positions were measured on an 11-point left–right scale on which experts had to locate parties in terms of their broad ideological stances. These positions were recoded to a 10-point scale to match the possible range of values of the individual-level data. The relationships between voters’ and parties’ positions were computed in two different ways. The spatial utility corresponding to the proximity model is defined as:

$$U_{ij}^P = -(v_i - p_j)^2 \quad (1)$$

and the utility of the directional model as:

$$U_{ij}^D = v_i p_j, \quad (2)$$

where  $v_i$  is the left–right position of voter  $i$  and  $p_j$  the position of party  $j$ , both coded on scales ranging from  $-4.5$  to  $+4.5$ . Spatial utilities can only be computed for parties that were

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<sup>5</sup> The reason for focusing on ideology, rather than on more specific issues, is data availability. It is difficult to find political issues that are potentially equally relevant in different contexts and that are measured in a comparable way. The left–right dimension is, however, not disconnected from specific political issues. Quite to the contrary, it can be seen as a summary of voters’ preferences over a wider range of issues (Fuchs and Klingemann, 1989).

<sup>6</sup> When not presented in the text, the wording of the questions used is available in the Appendix.

<sup>7</sup> The dataset is available at <http://www.unc.edu/~gwm/uncmarks/data.htm>.

included in both the expert survey and the questions on probabilities to vote, which is the case for all but some minor parties.<sup>8</sup> Political sophistication was measured by an additive index of political interest and education level;<sup>9</sup> both were four-point scales, and the resulting seven-point scale of political sophistication was recoded to the 0–1 range.

Party identification was measured by the question ‘Do you consider yourself to be close to any particular party?’ Respondents were invited to mention the party they feel close to, if any. Two dummy variables were used to code this information. The first dummy (‘PID own party’) has the value 1 for voters who identify with the party of the corresponding respondent  $\times$  party relationship and the value zero if they have no party identification (non-identifier) or if they identify with another party. The second dummy (‘PID other party’) has the value 1 for voters who feel closer to another party than that of the corresponding respondent  $\times$  party relationship and the value zero for both non-identifiers and those who identify with the corresponding party (Table 1). This coding procedure diverges from the usual specification of spatial models including party identification. Such models typically include a single variable for party identification, corresponding to the dummy ‘PID own party’ defined above. This usual specification implies a strong assumption: That party identifiers evaluate the parties other than their preferred party in the same way as independents evaluate parties. I consider this to be unrealistic (and the results presented below support this quite strongly). Furthermore, specifying two dummy variables for party identification is also necessary in order to rule out a possible bias linked with persuasion effects: As discussed above, the presence of such a bias can only be examined by letting the impact of polarization on ideological voting vary between identifiers and non-identifiers.<sup>10</sup>

‘Table 1 about here’

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<sup>8</sup> Electoral coalitions were sometimes treated differently in the European Election Study and in the Chapel Hill survey. Experts were asked to locate each coalition member separately. In contrast, in the European Election Study, respondents usually were asked about their electoral utility for the whole coalition. This was the case, for example, for the joint lists of the CDU and CSU in Germany or of the PS and PRG in France. The ideological position of the coalition, which is needed to measure the spatial utilities, was computed as the average position of its partners, weighted by their respective share of vote at the previous national elections.

<sup>9</sup> Education was measured in the survey by asking respondents ‘How old were you when you stopped full-time education?’ For respondents who were still in school, I set the answer equal to their actual age. The variable was then recoded separately in each country by forming four groups, as equally sized as possible.

<sup>10</sup> Identifiers and non-identifiers cannot be contrasted in this way with a single dummy variable, as the reference category (i.e., the cases for which the dummy takes the value 0) would then merge identifiers and independents.

The measure of party system polarization also derives from the 1999 Chapel Hill expert survey. It combines information about parties' left–right positions and party strength, using an index designed by Taylor and Herman (1971):

$$V = \sum_{j=1}^J \omega_j (p_j - \bar{p})^2, \quad (3)$$

where  $\omega_j$  is the vote share of party  $j$ ,  $p_j$  is the position of party  $j$  on the left–right scale,<sup>11</sup> and  $\bar{p}$  is the weighted average position on this scale, that is:

$$\bar{p} = \sum_{j=1}^J \omega_j p_j. \quad (4)$$

The theoretical model combines individual-level and contextual-level factors. Most important for my analysis is the impact of polarization on the individual-level relationships between spatial utilities and probabilities to vote. To estimate this interaction effect while accounting for the hierarchical nature of the data, I follow a two-step strategy (Achen, 2005; Jusko and Shively, 2005; Lewis and Linzer, 2005). First, I estimate the individual-level model separately for each country. Then, I use the coefficients from the first-stage models as the dependent variables and regress them on the level of polarization. I estimate the second-stage model using weighted least squares regressions, which allow me to account for the differences across countries in the standard deviation of the stage-one coefficients. The weights are computed following the method proposed by Lewis and Linzer (2005, 351f.).

The individual-level analyses at the first stage of the procedure must also be weighted, as the stacking procedure multiplies the number of observations. To reflect the true number of interviewees, I weighted the observations corresponding to a given respondent by the inverse of the number of available respondent  $\times$  party combinations for this person.<sup>12</sup>

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<sup>11</sup> Electoral coalitions were treated here in a similar way as when computing spatial utilities. The ideological position of a coalition is the average position of its members, weighted by their respective strength at the previous national elections.

<sup>12</sup> The error terms for the group of observations corresponding to the same respondent could be correlated, as these observations are probably not independent from one another. Accordingly, the standard errors in individual-level regression models were estimated by allowing for clustered observations, with the groups corresponding to the respondents.

## Results

At the individual level, probabilities to vote are influenced by the spatial utilities, by political sophistication, and by party identification. The corresponding model can be specified as follows:

$$\begin{aligned}
Y_{ij} = & \beta_0 + \beta_1 \text{spatial utility}_{ij} + \beta_2 \text{soph.}_i + \beta_3 \text{PID own}_{ij} + \beta_4 \text{PID other}_{ij} + \beta_5 \text{soph.}_i \cdot \\
& \cdot \text{spatial utility}_{ij} + \beta_6 \text{PID own}_{ij} \cdot \text{spatial utility}_{ij} + \beta_7 \text{PID other}_{ij} \cdot \text{spatial utility}_{ij} + \\
& + \beta_8 \text{soph.}_i \cdot \text{PID own}_{ij} + \beta_9 \text{soph.}_i \cdot \text{PID other}_{ij} + \beta_{10} \text{soph.}_i \cdot \text{PID own}_{ij} \cdot \\
& \cdot \text{spatial utility}_{ij} + \beta_{11} \text{soph.}_i \cdot \text{PID other}_{ij} \cdot \text{spatial utility}_{ij} .
\end{aligned} \tag{5}$$

$Y_{ij}$  is the probability to vote for voter  $i$  and party  $j$ ,  $\text{soph}_i$  is the level of political sophistication of voter  $i$ , and the variables  $\text{PID own}_{ij}$  and  $\text{PID other}_{ij}$  express the party identification of voter  $i$  with respect to party  $j$ , as defined above. Given the large number of interaction terms, it is helpful to start by writing the effect of spatial utilities in a different way. This effect can be referred to as  $\gamma$ :

$$\begin{aligned}
\gamma = & \beta_1 + \beta_5 \text{soph.}_i + \beta_6 \text{PID own}_{ij} + \beta_7 \text{PID other}_{ij} + \\
& + \beta_{10} \text{soph.}_i \cdot \text{PID own}_{ij} + \beta_{11} \text{soph.}_i \cdot \text{PID other}_{ij}
\end{aligned} \tag{6}$$

This shows more clearly that the effect of left–right orientations varies between party identifiers and non-identifiers, as well as across levels of political sophistication. This expression can be further simplified by writing it separately for three types of respondents or respondent  $\times$  party combinations:

$$\gamma_1 = \beta_1 + \beta_5 \text{soph.}_i, \tag{7}$$

$$\gamma_2 = \beta_1 + \beta_6 + (\beta_5 + \beta_{10}) \cdot \text{soph.}_i, \tag{8}$$

$$\gamma_3 = \beta_1 + \beta_7 + (\beta_5 + \beta_{11}) \cdot \text{soph.}_i. \tag{9}$$

$\gamma_1$  corresponds to the impact of left–right ideology among voters who have no party identification (i.e., when both party identification dummies are equal to zero). Among party identifiers, the impact of ideology varies across parties: it is equal to  $\gamma_2$  for the party they

identify with and to  $\gamma_3$  for the other parties. Central for these analyses is seeing how the gamma coefficients vary with the polarization of the party system. Before turning to this task, however, it is better to start by examining the individual-level relationships. To this end, I estimated the model of Equation 5 with a pooled dataset that includes respondents from all countries. Table 2 presents the results for proximity utilities.<sup>13</sup> As there are many interaction terms, it is easier to rewrite a separate equation for each type of respondent  $\times$  party combination, by grouping the corresponding coefficients:<sup>14</sup>

$$\text{Non-identifiers: } Y_{ij}^P = 3.96 + 0.96 \cdot \text{soph.}_i + (0.03 + 0.06 \cdot \text{soph.}_i) \cdot \text{spatial utility}_{ij} \quad (10)$$

$$\text{Identifier, own party: } Y_{ij}^P = 9.05 + 0.04 \cdot \text{soph.}_i + (0.00 + 0.04 \cdot \text{soph.}_i) \cdot \text{spatial utility}_{ij} \quad (11)$$

$$\text{Identifier, other parties: } Y_{ij}^P = 3.22 + 0.32 \cdot \text{soph.}_i + (0.03 + 0.02 \cdot \text{soph.}_i) \cdot \text{spatial utility}_{ij} . \quad (12)$$

The effect of left–right ideology clearly is conditional on political sophistication and varies across these three groups. For voters with no party identification and a low level of political sophistication, the predicted electoral utility is about 4.0 when their ideological position and that of the party coincide (i.e., for a spatial utility of zero). When the ideological distance grows larger, the probability to support this party decreases, as expected. Because the spatial utilities for the proximity model range from zero to about  $-79$  (corresponding to a distance of 8.9 on the left–right scale), the maximal effect of spatial utilities among these voters is to reduce the probability to support a party by about 2.3 points on the 0–10 scale. Among non-identifiers, the impact of ideology becomes larger as political sophistication increases. The ‘baseline’ probability (i.e., the constant in the above equation), however, is also higher. This indicates that political experts with no party attachment have a higher probability than political novices to support parties that are relatively close to them on the left–right scale, but that this probability decreases more rapidly as the ideological distance grows larger. Among such voters, the maximal effect of ideological distance is to reduce the voting probability by over 7 points (i.e., to zero).

‘Table 2 about here’

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<sup>13</sup> For this pooled analysis, the observations were also weighted to give the same importance to each national sample.

<sup>14</sup> The sums of coefficients are based on the detailed estimates and may differ slightly from the sums computed on the basis of the rounded coefficients of Table 2.

Among party identifiers, the results differ strongly for the two types of relationships. As far as their preferred party is concerned, the baseline probability is quite high, greater than 9 on the 0–10 scale. Furthermore, this probability is affected only marginally by ideological distances at all levels of political sophistication (the value of  $\gamma_2$  is never significant at the 95 percent level). Of course, party identifiers are usually quite close to ‘their’ party on the left–right scale.<sup>15</sup> What happens, however, is that the exact size of the ideological distance does not matter. Party identifiers always indicate a high probability to vote for their preferred party, and this is almost independent of their relative location on the left–right scale.

As far as other parties are concerned, party identifiers have much lower probabilities to vote (a maximum of 3.2 among political novices). These probabilities vary with left–right distances and political sophistication but less markedly so than among non-identifiers.<sup>16</sup> These results show that voters are responsive to ideological distances, but that this effect is conditioned by both their level of political sophistication and their party identification. This finding allows us to better understand how voters’ characteristics affect the strength of ideological voting. The ideological or ‘rational’ component of the voting choice is less pronounced for political novices than for political experts, which is not really a surprise. However, the same difference can be seen in the contrast between non-identifiers and identifiers. This model was replicated using directional spatial utilities. The results lead to exactly the same substantial conclusions regarding the effects of ideology, party identification, and political sophistication.<sup>17</sup>

Following this first look at the consequences of ideological distances and at the moderating effects of party identification and political sophistication is a look at the role of party system polarization. To this end, I estimated the model of Equation 5 separately for each country and used the resulting coefficients as the dependent variables of the second-stage models.<sup>18</sup> Figure 1 presents the estimated values of  $\gamma_1$ , that is, the impact of left–right distances among non-identifiers. Each of the three panels plots the values of  $\gamma_1$  against the level of party system polarization, showing both the point estimates obtained in the various countries and the regression line of the second-stage model. The left-wing panel corresponds

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<sup>15</sup> The average ideological distance separating identifiers from their preferred party was 1.6 on the 10-point scale, compared to an average distance of 2.6 for all voter  $\times$  party combinations.

<sup>16</sup> This shows clearly that independents do not evaluate parties in the same way as identifiers evaluate their non-preferred parties. It is thus necessary to include two dummy variables for party identification, as discussed in the previous section. Specifying a single dummy would imply assuming that the coefficients in Equations 10 and 12 are equal, which is not the case.

<sup>17</sup> These results are available from the author on request.

<sup>18</sup> The effect of polarization is conditional on party identification and on political sophistication. This means that a second-stage model must be estimated for each  $\beta$  parameter that enters into the composition of  $\gamma$ .

to voters with a low level of political sophistication (i.e., a value of 0.2 on the 0–1 scale), the centre panel to citizens with a medium level of sophistication (0.5), and the third panel to political experts (sophistication level of 0.8).<sup>19</sup> Figures 2 and 3 are structured in the same way but show the effects of left–right distances for the preferred party of identifiers ( $\gamma_2$ ) and for other parties among identifiers ( $\gamma_3$ ), respectively.

‘Figures 1 to 3 about here’

A comparison of these figures reveals the same general pattern as that found in Table 2. On average, the effect of left–right distances (i.e., the value of gamma) is largest for non-identifiers, whereas it is close to zero for the relationship between party identifiers and their preferred party.  $\gamma_1$  and  $\gamma_3$  are sensitive to voters’ level of political sophistication; values are higher on average among political experts than among political novices, showing that voters with a high level of political sophistication are more responsive to the ideological location of political parties. Most interesting here, however, is the effect of polarization, which corresponds to the *slope of the regression lines* drawn in each figure. A positive slope indicates that the effect of ideological distances grows larger as polarization increases.

Among non-identifiers, the slope is close to zero for respondents with a low degree of political sophistication, but it becomes positive as sophistication increases. Polarization appears to have the expected effect of reinforcing ideological voting, but the exact size of this impact is conditioned by citizens’ level of political expertise. At the same time, the observations are scattered around the regression line, which suggests some uncertainty about the effect of polarization. A regression of the values of  $\gamma_1$  on the degree of polarization shows that the effect is not significant at traditional levels. However, the sample size here is very small, with just 13 observations at the contextual level. Figure 4 plots the values of the corresponding regression coefficients and of the associated 90 percent confidence intervals, which shows the level of confidence possible in the observed effect of party system polarization. The left-hand panel, which corresponds to voters with no party identification, shows that the effect of polarization is close to being significant at the 90 percent level among respondents with a medium or high level of political sophistication. It is difficult to draw an unambiguous conclusion from these results. Some evidence supports the hypothesized effect

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<sup>19</sup> I chose values of 0.2 and 0.8 for novices and experts, rather than the highest and lowest possible values, so as to present more typical results. The values chosen here correspond approximately to the average level of sophistication plus or minus one standard deviation.

of party system polarization, but given the small sample size, this result must be interpreted with caution.

‘Figure 4 about here’

For party identifiers, the results pertaining to  $\gamma_3$  (i.e., to parties other than the one to which they feel close) are similar to those just discussed (Figure 3). The slope of the regression line is positive and becomes stronger as political sophistication increases. Furthermore, the point estimates for the various countries are less strongly scattered, pointing to a clearer effect of polarization, as reflected by the smaller confidence interval in Figure 4 (right-hand panel). Polarization has a significant effect on ideological voting for voters with a medium or high level of political expertise.<sup>20</sup> This effect is also substantially large. The effect of ideology on the probabilities to vote of political experts is twice as large in a highly polarized system such as France than in weakly polarized Britain (Figure 3, right-hand panel).<sup>21</sup>

As for the relationship between party identifiers and ‘their’ party, Figure 2 indicates that the effect of ideology generally is very small. The predicted value of  $\gamma_2$  is always close to zero. However, evidence that polarization reinforces the impact of ideology among political experts also exists. The slope of the regression line is negative or zero at the first two levels of political sophistication but positive in the third group. This finding must be interpreted with caution for two reasons. First, this result is strongly influenced by the French case, which is an outlier at low or average levels of political sophistication. Second, and most important, although the right-hand panel of Figure 2 points to a reinforcement effect among experts, the effect of ideology is still not significant. Even in countries such as Austria, Denmark, and Finland, where the estimated effect of ideology is strongest, the value of  $\gamma_2$  is not significantly different from zero at the 90 percent level. The conclusion to draw from these results is that party identifiers do not respond to ideological distances *when evaluating their preferred party*, even among political experts and in polarized party systems. Signs of a polarization effect exist, but they are not strong enough to make ideological distances relevant for these evaluations.

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<sup>20</sup> The effect is significant at the 90 percent level for respondents with a level of political sophistication of 0.3 or higher on the 0–1 scale.

<sup>21</sup> The point estimates were 0.068 in France and 0.035 in Britain, with standard errors of 0.003 and 0.006, respectively.

The results illustrate that the level of polarization of the party system matters for explaining ideological voting but that such effects are conditioned by party identification and by political expertise. Furthermore, a replication of this analysis based on directional spatial utilities, rather than on the proximity model, leads to exactly the same conclusions (Figure 5).<sup>22</sup> This alternative specification confirms that polarization reinforces ideological voting, particularly among political experts. It does so most clearly for the way in which party identifiers evaluate the competitors of their preferred party, but the effect also exists among non-identifiers. The latter effect is characterized by a higher degree of uncertainty (similarly to what we saw in the left-hand panel of Figure 4) and must be interpreted with caution. However, the similarity in the results across the two voting models increases the confidence that this effect is genuine.

‘Figure 5 about here’

## **Discussion**

In this paper I analysed the impact of party system polarization on the level of ideological voting in Western Europe and found that polarization reinforces the impact of ideology on the vote. Thus, my results support the general hypothesis suggested by Knutsen and Kumlin (2005), van der Eijk et al. (2005), and Ensley (2007)—but with two important qualifications. First, the reinforcement of party polarization does not affect all citizens to the same extent. The level of political sophistication and party identification condition voters’ responsiveness to this contextual factor. Political experts are more strongly influenced by ideological polarization than political novices. That the impact of ideological factors on the vote is related to the degree of political sophistication was already known, but the results presented here show that the gap between political novices and political experts grows larger as the polarization of the party system increases. This confirms Ensley’s (2007) work, which showed that political experts are more responsive to variations in the political context. In contrast to his study, however, I found that the impact of polarization is already noticeable among voters with an average degree of political expertise, or even a relatively low one as far as party identifiers are concerned.

The second important qualification is that the present results are likely to be more robust than those from previous studies, as my analyses avoided three potential weaknesses.

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<sup>22</sup> Scatter plots showing the point estimates of gamma in the various countries, similar to Figures 1 to 3, are available on request.

For the measure of polarization I relied on an expert survey rather than on voters' perceptions, thereby ruling out the possibility that my results are due to an effect of ideological voting on the perceived level of polarization or to a projection effect. I also addressed the risk of a persuasion effect. Party identifiers may rationalize their ideological self-placement in a survey to bring it in line with their partisan attachment. While it is not possible to avoid this problem entirely, I was able to at least contrast identifiers and non-identifiers. In the latter group, which is not affected by the persuasion effect, the hypothesis about the role of polarization was confirmed. Among party identifiers, the observed relationship between polarization and ideological voting could be the product of a persuasion effect. However, as polarization has no impact at all on the evaluation of identifiers' preferred party, this conclusion is much less likely. If persuasion was the explanation for the reinforcement effect of polarization, it should affect the probabilities to vote for all parties, not just for those to which these voters do not feel close. Finally, my conclusions are strengthened by the comparison between the two specifications of the spatial model of the vote.<sup>23</sup> Both proximity and directional voting get stronger as the ideological distances among parties grow larger. The similarity between the results is striking. The same effects of polarization were found with the two models. Although this was not the reason for performing the comparison, the results increase the confidence in the validity of the main hypothesis. This is particularly important with respect to the group of non-identifiers. As emphasized, the effect of polarization in this group of voters is close to being significant, but does not reach the 90 percent level. Given the small number of cases at the contextual level *and* the similarity of the results of both models, however, this finding is remarkable.

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<sup>23</sup> I also estimated a mixed model, including both proximity and directional utilities. However, the uncertainty surrounding the estimated effect of polarization is then even larger, because there are fewer degrees of freedom for the contextual-level model and because the two measures of spatial utilities are correlated with one another. The point estimates of this model suggest that polarization reinforces only the directional form of spatial voting, but this effect is not significant.

## Appendix

### Question wording

Unless otherwise mentioned, all questions come from the 1999 European Election Study. The questions for which the wording was specified in the main text are not listed here.

### *Voters' left–right position*

In political matters people talk of ‘the left’ and ‘the right’. What is your position? Please indicate your views using any number on a 10-point-scale. On this scale, where 1 means ‘left’ and 10 means ‘right,’ which number best describes your position? You may use any number between 1 and 10 to specify your views.

### *Political interest*

To what extent would you say you are interested in politics? Are you very interested, somewhat interested, a little interested or not at all interested?

### *Parties' left–right positions* (1999 Chapel Hill expert survey)

Now we would like to ask you some questions concerning the ideological position of political parties in [COUNTRY].

First, we would like you to characterize the parties in terms of their *broad ideological stances*. On the scale below, 0 indicates that a party is at the extreme left of the ideological spectrum, 10 indicates that it is at the extreme right, and 5 means that it is at the centre. For each party, please circle the ideological position that you believe best characterizes where a party is located in terms of its overall ideology.

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Table 1. Coding of the party identification variables.

Observation	PID Own Party	PID Other Party
Respondent 1 × Party A	1	0
Respondent 1 × Party B	0	1
Respondent 1 × Party C	0	1
Respondent 2 × Party A	0	1
Respondent 2 × Party B	1	0
Respondent 2 × Party C	0	1
Respondent 3 × Party A	0	0
Respondent 3 × Party B	0	0
Respondent 3 × Party C	0	0

*Note: This table illustrates the coding of the two dummies measuring party identification, in the case of a three-party system where respondent 1 identifies with party A, respondent 2 with party B, and respondent 3 has no party identification.*

Table 2. Effect of spatial (proximity) utilities, sophistication, and party identification on the probabilities to vote.

	Coefficient	Std. Error
Spatial utility	0.03***	0.00
Political sophistication	0.96***	0.14
PID own party	5.09***	0.13
PID other party	-0.74***	0.12
Sophistication × spatial utility	0.06***	0.01
PID own party × spatial utility	-0.03*	0.01
PID other party × spatial utility	0.00	0.01
PID own party × sophistication	-0.92***	0.22
PID other party × sophistication	-0.64***	0.19
PID own × spatial utility × sophistication	-0.03	0.03
PID other × spatial utility × sophistication	-0.05***	0.01
Constant	3.96***	0.08
N (weighted)		9599
R <sup>2</sup>		0.29

\*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

*Note: Coefficients and robust standard errors were estimated with OLS regressions. Observations were weighted to reflect the true number of respondents and to give the same importance to all national samples.*

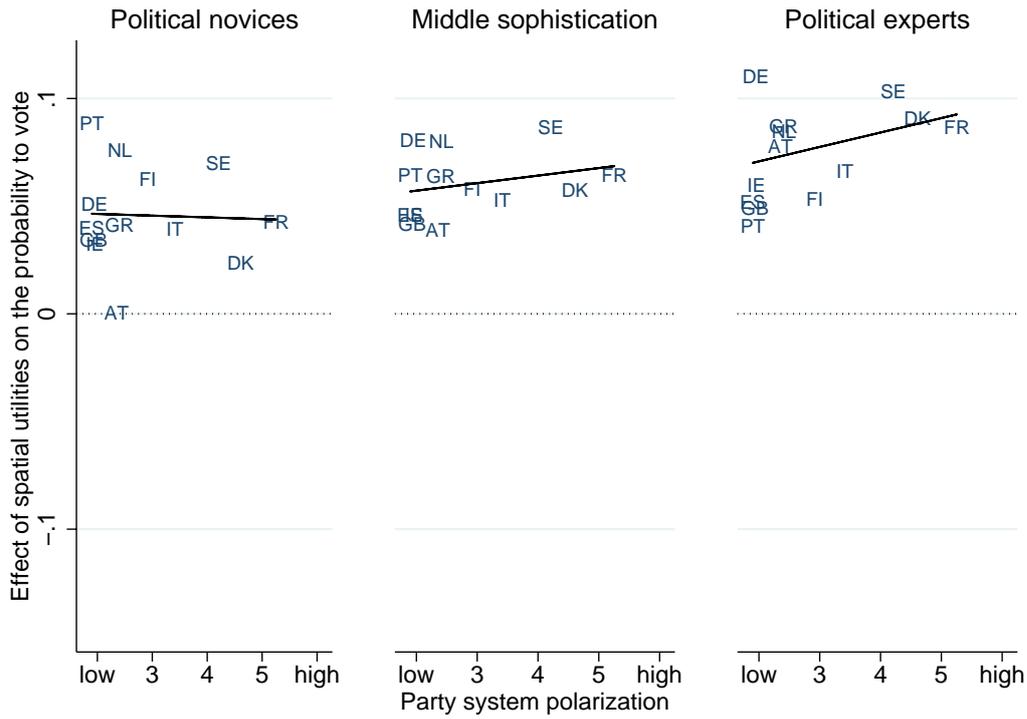


Figure 1. Effect of spatial (proximity) utilities on the probability to vote, among non-identifiers ( $\gamma_1$ ), by level of party system polarization and for three levels of political sophistication: point estimates for each country (indicated by country abbreviation) and regression line (predicted values of  $\gamma_1$ ).

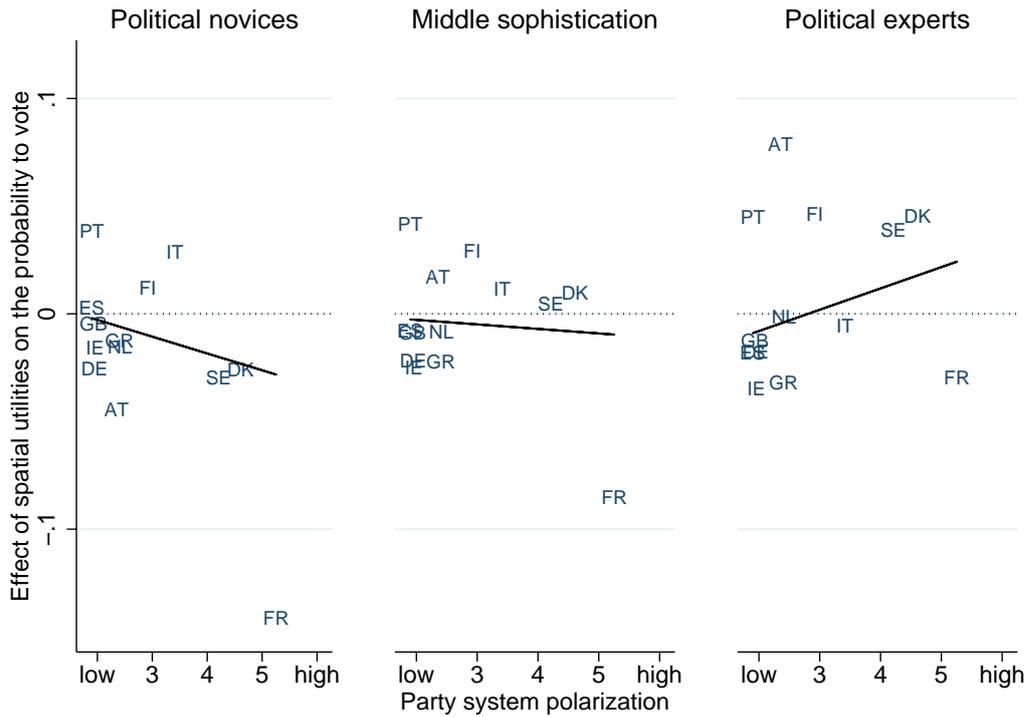


Figure 2. Effect of spatial (proximity) utilities on the probability that party identifiers support their preferred party ( $\gamma_2$ ), by level of party system polarization and for three levels of political sophistication: point estimates for each country (indicated by country abbreviation) and regression line (predicted values of  $\gamma_2$ ).

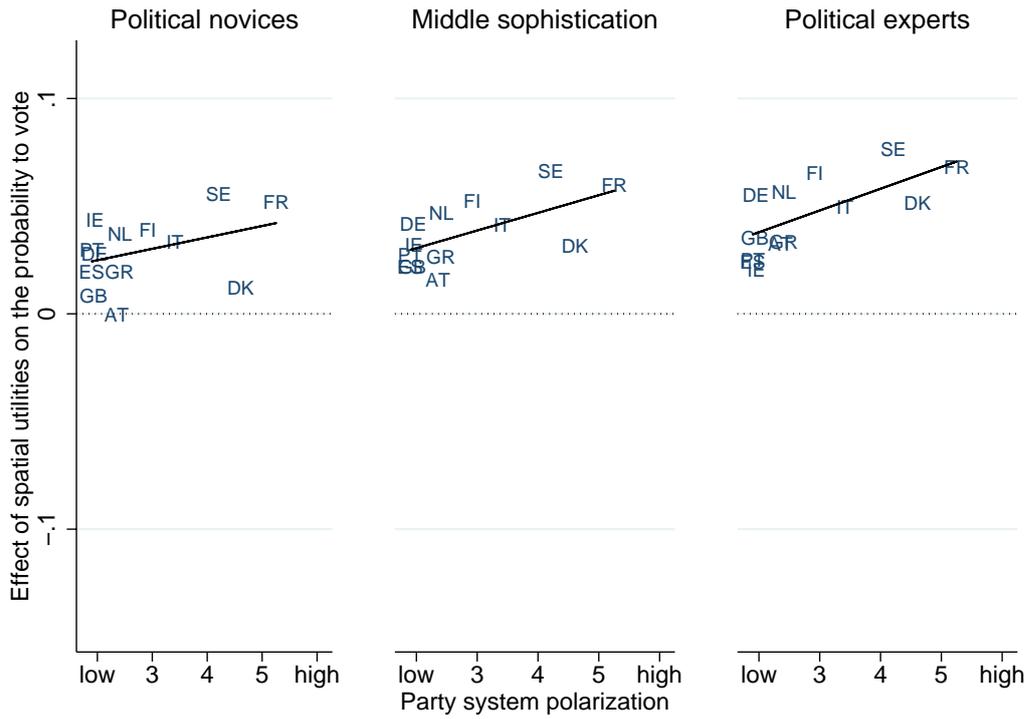


Figure 3. Effect of spatial (proximity) utilities on the probability that party identifiers support another party than their preferred party ( $\gamma_3$ ), by level of party system polarization and for three levels of political sophistication: point estimates for each country (indicated by country abbreviation) and regression line (predicted values of  $\gamma_3$ ).

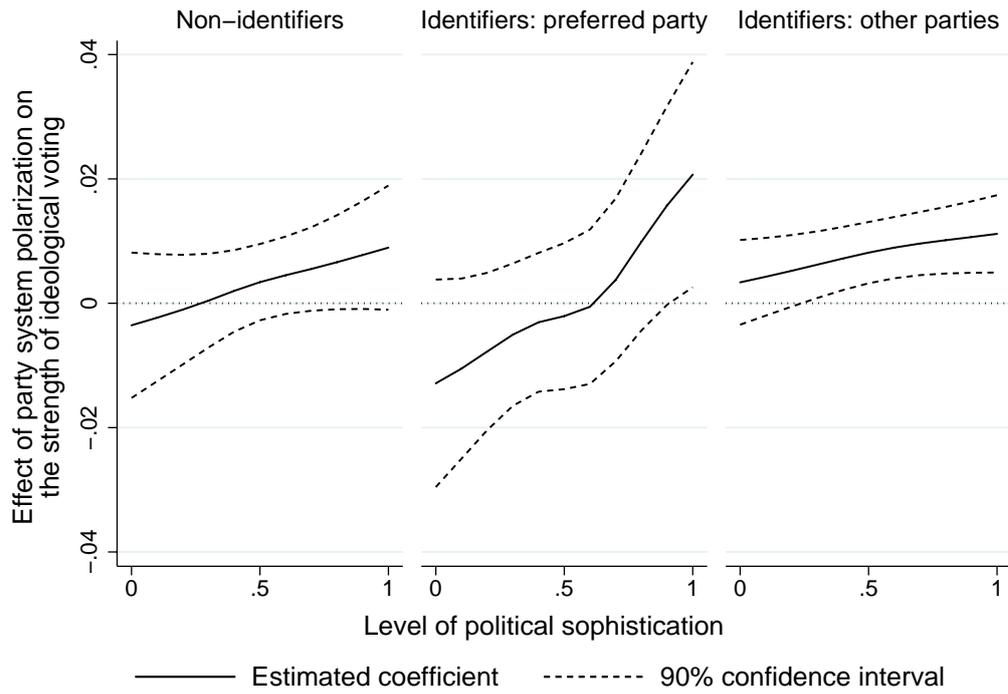


Figure 4. Impact of party system polarization on the strength of (proximity) ideological voting ( $\gamma$ ), by level of political sophistication and for three types of voter  $\times$  party relationship: values of the estimated coefficient and 90 percent confidence intervals.

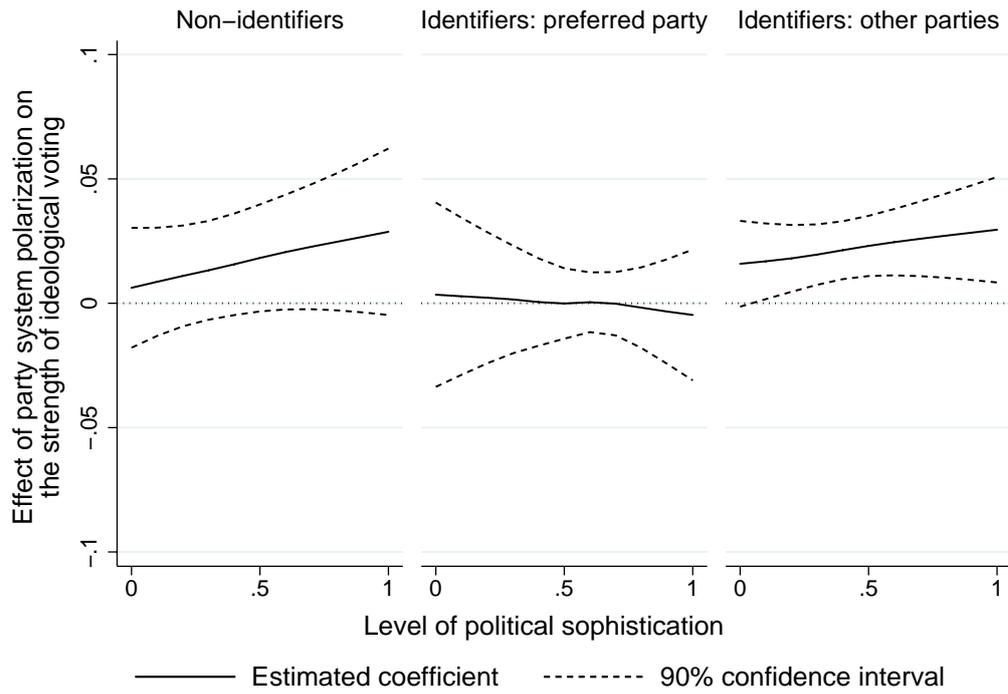


Figure 5. Impact of party system polarization on the strength of (directional) ideological voting ( $\gamma$ ), by level of political sophistication and for three types of voter  $\times$  party relationship: values of the estimated coefficient and 90 percent confidence intervals.