

**Electoral competition and issue voting: The effects of institutions  
and party characteristics on the voting decision process**

Romain Lachat  
Universitat Pompeu Fabra  
Barcelona  
mail@romain-lachat.ch

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**Abstract**

This paper analyzes how the electoral context and party characteristics influence the strength of issue voting. Previous research has shown that issue preferences exert a stronger impact on the vote in polarized party systems and in proportional electoral systems. This paper investigates these effects in more detail, by considering to which degree these context effects vary across parties. It relies on a model of party utilities that allows the impact of voter-party issue distances to vary across parties. It is expected that the effect of polarization is stronger for parties that take relatively more extreme positions, and that the effect of proportionality is conditioned by party size. These hypotheses are tested with data from recent Swiss national election studies. This case offers strong variation across electoral districts in the proportionality of the electoral system and in the characteristics of party systems. It thus allows one to test the effect of regional variation in electoral context characteristics.

## **1. Introduction**

In recent years, scholars have paid increasing attention to the influence of context-level factors on the voting decision process. Several studies have revealed that the factors that explain party evaluations and voting choice may vary across electoral contexts (Kroh 2009; Lachat 2008; Singh 2010). The relative importance of different voting choice determinants, such as issue preferences, leader evaluations, or party identification, may vary across countries and elections. For instance, some institutional characteristics may incite voters to attach more importance to substantial factors, such as parties' issue positions.

This paper focuses on variation in the strength of issue voting. In line with spatial models of voting choice (Downs 1957; Merrill and Grofman 1999), I expect the relative positions of citizens and parties on various political issues to be important explanatory factors in the voting decision process. In the literature on contextual effects, the strength of issue voting and ideological voting has been related to various institutional and contextual factors, such as the degree of proportionality of the electoral system, the fragmentation and polarization of the party system, or the dimensionality of the political space. Several arguments have been suggested to explain the link between such context level factors and the voting decision process. A central idea is that ideological or issue voting is easier in some contexts than in others (Kroh 2009; Singh 2010). Voting on the basis of issues requires a certain level of information about the positions of parties. This information is easier to get when parties emphasize more strongly their issue positions, which is for instance expected to be the case in more polarized party systems (Alvarez and Nagler 2004; Lachat 2008). In other words, the costs required by issue voting are lower under some circumstances. Contextual level factors may also increase voters' motivation to invest more cognitive resources in their voting decision, that is, they may increase citizens' willingness to bear the costs of spatial voting. This can again be illustrated with the example of party system polarization: When parties diverge strongly from one another, citizens may perceive the stakes of the elections to be higher and deem their own voting decision to be more important.

This paper looks in more detail at the effect of two central contextual characteristics: polarization and proportionality. In line with recent scholarship, I expect polarization and proportionality to be related to the frequency of spatial voting. But the analysis presented here goes one step further by suggesting that the impact of such contextual characteristics may not be the same for all parties in competition. Polarization should reinforce spatial voting, but this

impact should be stronger on the evaluation of parties that take relatively extreme positions. Similarly, it is suggested that the effect of electoral system proportionality is conditional on party size.

Central to this argument is a different conception of the voting decision process. This process is usually viewed as the product of a direct comparison of parties, on a fixed set of criteria. In the logic of spatial models, this means that citizens compare all parties on the same set of issues. In contrast, this paper suggests that party utilities, that is, the degree to which a citizen considers a given party to be electorally attractive, may be based on different criteria for different parties. This less restrictive assumption makes it possible that party characteristics, such as size or extremity, moderate the impact of issue distances on party utilities.

These hypotheses about the role of contextual factors and party characteristics are tested with data from the 2011 Swiss federal elections. The strong variation across electoral districts in the configuration of parties in competition and in district magnitude allow testing the effects of contextual characteristics while avoiding many of the difficulties linked with cross-national comparative electoral research.

The next section offers an overview over the literature on contextual effects, and discusses how these effects may be conditional on party characteristics. Section 3 presents a new specification of the proximity model of party utilities, which allows for cross-party variation in the impact of issues. Section 4 introduces the data used and the operationalization of the variables. It is followed by the presentation of the models' results. The last section discusses the implication of the main findings.

## **2. Contextual determinants of spatial voting**

Several characteristics of the electoral context may reinforce citizens' incentives to vote on the basis of issues and ideology and may decrease the informational costs associated with it. Several studies have made the hypothesis that voter-party distances, on specific issues or on a general left-right ideological dimension, should have a stronger impact on party utilities in more polarized party systems (Alvarez and Nagler 2004; Ensley 2007; Kroh 2009; Lachat 2008, 2011; Singh 2010). A higher level of polarization means that citizens have clearer alternatives to choose from. It should also create stronger incentives for parties to emphasize

the issues on which their position differs strongly from those of their competitors. This should reinforce the salience of the corresponding issue dimensions in voters' minds, and make it easier for them to identify parties' positions. As a consequence, it is generally expected that a higher degree of polarization leads to a stronger impact of voter-party distances.

The expectations are less clear-cut as regards two other important contextual characteristics: party system fragmentation and electoral system proportionality. First, it must be emphasized that while these concepts are analytically distinct, they tend to be strongly correlated. It is thus often difficult to distinguish between their respective effects. This is particularly the case in the context of the present study and is the reason why only of them, proportionality, will be considered in the empirical section.<sup>1</sup> Some authors have suggested that spatial voting may be stronger in more fragmented party systems and more proportional electoral systems. As noted by Weßels and Schmitt (2008), a higher number of parties in competition means it is more likely that voters find a party close to their own ideological position, which should reinforce the impact of spatial considerations on the vote (see also Singh 2010). Also, fragmentation and proportionality might incite parties to follow different campaign strategies (Lachat 2011): Fewer parties in competition and less proportional elections mean that parties need to mobilize a broader electorate, which is likely to have more diverse issue preferences. In order to be successful, parties in such a context may need to tune down too specific issue proposals and focus more on valence issues. Also, a more proportional electoral system will reduce incentives for strategic voting, as supporters of smaller parties have less reason to fear wasting their vote by voting sincerely (Singh 2010).

Yet, other arguments may lead one to expect a negative impact of fragmentation and proportionality on spatial voting. As emphasized by Kroh (2009), a higher level of fragmentation may make it more difficult for citizens to distinguish among the positions of the parties in competition. Fragmented party systems and proportional electoral systems are also often conducive to coalition governments. This implies that citizens may discount parties' spatial location, as they know that parties in a coalition government will have to negotiate with their coalition partners (Kedar 2005; Lachat and Selb 2010). These opposite arguments mean that it is more difficult to have a clear hypothesis regarding the expected effect of proportionality. Following previous research on the Swiss case (Lachat 2011),

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<sup>1</sup> In the 2011 Swiss elections, the correlation between the Effective Threshold and the Effective Number of Electoral Parties across the 26 cantons is -0.92.

however, I expect spatial voting to be stronger in electoral districts with a lower electoral threshold. In any case, this effect should be weaker than that of polarization.

In addition to these expected effects of polarization and proportionality, this paper suggests it is necessary to take party characteristics into account. While polarization is expected to strengthen spatial voting, the consequences should not be the same for all parties. A higher level of polarization means that parties are, on average, more distant from one another. They are located further away from the center of gravity of the party system. But some parties will still take a centrist position. That is, not all parties in competition will contribute equally to the increased level of polarization. The higher level of issue competition in a polarized party system can be driven by just one or two parties. Hence, the expected effects of polarization, in terms of the accessibility of issue considerations, will not be distributed equally across parties. Voters may still find it difficult to evaluate center parties in terms of their issue positions. These considerations will be less salient in voters' memory than for extreme parties. Accordingly, I will consider the extremity of parties' issue positions in addition to the level of polarization. A given issue should play a larger role in voters' party evaluations in contexts in which the degree of party polarization is higher. In addition, the impact of spatial factors on that issue should be stronger for parties that take relatively extreme issue positions.

In the models estimated below, I will also test for an interaction effect of polarization and party extremity. However, I do not start from a strong hypothesis on this. Issues on which the party system is polarized should play a stronger role in explaining party utilities for all parties. In addition, it could be that the polarization effect is even more pronounced for the parties that are more distant from the party system's center of gravity.

The second party characteristic which I take into consideration is party size. First, I expect the relation between spatial distances and party utilities to be somewhat stronger for large parties than for small parties. Larger parties are likely to be better known and to attract more coverage in the media. It should thus be easier for citizens to receive information about their positions. In other words, the costs of evaluating parties on the basis of issues should be lower for larger parties. Also, the relation between spatial distances and utility for small parties may be weakened by strategic voting. Both of these arguments mean party utilities for small parties should be less strongly related to spatial factors. At the same time, however, large parties and small parties may differ in their electoral strategies. Larger parties need to

mobilize a larger share of the electorate than smaller parties. If their target electoral segments are somewhat heterogeneous in terms of their issue preferences, larger parties may emphasize issues less strongly and focus more on valence issues, for instance. Thus, as there are arguments going both ways, I do not expect a very strong impact of party size.

What I do expect, however, is that the effect of party size is conditional on the proportionality of the electoral system. Incentives for defecting from one's preferred party become smaller in larger districts, as there are fewer reasons to fear wasting one's vote by supporting a small party. As a consequence, the effect of party size should be reduced in proportional systems. In other words, the lower the electoral threshold, the smaller should be the difference in the impact of spatial voting between large and small parties.

To sum up, the arguments presented above lead to the following expectations. First, the impact of issue distances on party utilities should be stronger in more polarized party systems (Hyp. 1). The impact of issue distances should also be stronger parties that take a more extreme position (Hyp. 2). The effect of party extremity and of polarization may also be conditional on one another. That is, it could be that the polarization effect is stronger for extreme parties than for center parties (Hyp. 3). Regarding electoral system proportionality, I expect spatial voting to be stronger in districts with a lower electoral threshold (Hyp. 4). And regarding finally party size, I expect utilities for larger parties to be more strongly related to issue distances (Hyp. 5) and I expect this effect of party size to be weaker in more proportional electoral systems (Hyp. 6).

### **3. Spatial voting revisited**

The hypotheses presented in the previous section mean that spatial voting should be influenced by both party-level and context-level characteristics. The expectation that the impact of voter-party distances is conditional on party characteristic is unusual in the literature. It implies a different conception of the voting decision process and requires relaxing a central assumption usually made in the spatial modeling literature.

The voting decision process usually is viewed as a parallel evaluation of the competing parties. It is considered to be the product of a direct comparison of the parties based on a fixed set of criteria. Enelow and Hinich (1984, 3), for instance, expect that voters "will compare the

package offered by the candidate with that offered by his opponent(s) and vote for the candidate whose package is most favorably evaluated. Viewed in simplest spatial terms, the voter will cast his vote for the candidate ‘closest’ to him in a space that describes all the factors that are of concern to the voter.” This conception implies that a given voter uses the exact same criteria to evaluate all parties in competition. If the issue of taxation, for instance, is important in a given election, then voter-party distances on that issue will be equally important in the evaluation of all parties in competition. There may be differences across voters, with some citizens relying more strongly on issues than others (e.g., Rivers 1988). Yet, for a given voter, all parties are evaluated on the basis of the same vote function.

I suggest that this central assumption is too restrictive. When citizens think about a given party and evaluate its electoral attractiveness, they do not necessarily need to do this in a comparative fashion. The factors that lead them to evaluate a given party as an attractive option for their voting choice may be specific to that party. They do not necessarily play a role in the evaluation of all parties. The issues and considerations that are activated in voters’ memory might not be the same when evaluating a right-wing populist party or a green party. The former could for instance be associated in voters’ minds with the issue of immigration, because the party emphasizes that issue repeatedly and takes a position that is far away from that of mainstream parties. Immigration preferences may thus exert a larger impact on voters’ utility for the right-wing populist party than for the green party, because they are more easily accessible (Iyengar 1990; Krosnick 1988). In other words, rather than constraining all parties to be evaluated on the exact same set of criteria, I allow voters to evaluate the attractiveness of parties separately from one another. The decision which party to vote for, of course, is the product of a direct comparison, with citizens supporting the party for which their expected utility is highest. But in the process of forming party utilities, citizens may be influenced by party-specific factors. This conception of the voting decision process does not imply that citizens will use entirely different criteria for each party. Some issues may well play an important role in the evaluation of all parties. However, I expect to observe party-specific patterns.

In order to estimate how the strength of issue voting is influenced by party characteristics and context-level factors, I start from a proximity model of voting choice, which includes both issue distances and party identification. With  $K$  issue dimensions, the utility of citizen  $i$  ( $i = 1, \dots, n$ ) for party  $j$  ( $j = 1, \dots, J$ ) can be defined as:

$$y_{ij} = \alpha_j + \sum_k \beta_{jk} \cdot |x_{ik} - p_{ijk}| + \gamma_{1j}pid_i + \gamma_{2j}pid\ own_{ij} + \varepsilon_{ij}. \quad (1)$$

In Equation 1,  $x_{ik}$  is the position of citizen  $i$  on issue dimension  $k$ ,  $p_{ijk}$  is the position of party  $j$  on that issue dimension as perceived by citizen  $i$ ,  $\alpha_j$  is a party-specific constant,  $\beta_{jk}$  captures the strength of the impact of issue dimension  $k$  on the voter's utility,  $pid_i$  and  $pid\ own_{ij}$  are dummy variables that code party identification and  $\gamma_{1j}$  and  $\gamma_{2j}$  their respective effects, and  $\varepsilon_{ij}$  is a random error term. This specification of the proximity model differs on three important points from a standard specification (e.g., Adams, Merrill, and Grofman 2005, 17). The most important difference is that the impact of individual-level characteristics, issue distances and party identification, is allowed to vary across parties (that is, the beta and gamma parameters are indexed by party  $j$ ). This is a necessary change in order to test the hypotheses presented above. Second, contrary to the most frequent specification of the proximity model, Equation 1 relies on linear voter-party distances, rather than squared distances. This is in line with recent research showing that a linear loss function tends to outperform a quadratic one (Grynaviski and Corrigan 2006; Singh forthcoming). Third, party identification is coded using two dummy variables, not one. The reason for this is that we are dealing with a party utility model. That is, observations do not correspond to individuals, but to respondent-by-party combinations. Party utilities are measured separately for each party in competition. With respect to party identification, three types of respondent-by-party combinations can be distinguished:

- A party identifier's utility for his or her traditionally preferred party,
- A party identifier's utility for another party, and
- A nonidentifier's utility for any party.

Distinguishing among these three situations requires two party identification dummies (Lachat 2008). The variable  $pid_i$  is a dummy that distinguishes between party identifiers (value 1) and non-identifiers (value 0). The dummy  $pid\ own_{ij}$ , in contrast, takes the value 1 for the utility of a party identifier's traditionally preferred party, and the value 0 otherwise.

Central for this paper's hypotheses is how the impact of voter-party issue distances, captured by the parameters beta, varies across parties and contexts. The parameters  $\beta_{jk}$  are a function of the characteristics of parties and of the electoral context. With  $j$  denoting parties,  $k$  denoting



issues, and  $z$  denoting electoral districts, the corresponding context-level model can be specified as

$$\begin{aligned} \beta_{jk} = & \delta_0 + \delta_1 \text{Polarization}_{kz} + \delta_2 \text{Extremity}_{jkz} + \\ & \delta_3 \text{Polarization}_{kz} \cdot \text{Extremity}_{jkz} + \delta_4 \text{Disproportionality}_z + \\ & \delta_5 \text{Size}_{jz} + \delta_6 \text{Disproportionality}_z \cdot \text{Size}_{jz} + u_{jk} \end{aligned} \quad (2)$$

Note that the hierarchical structure of the data is relatively complex. Electoral system proportionality is a characteristic of electoral districts; party size varies across districts and parties; polarization varies across districts and issues, and extremity varies across districts, parties, and issues. As a simplification, all of these characteristics will be assumed to be measured at the same level, that is, to be characteristics of party-by-issue-by-district combinations. This means the model to be estimated is considered to be only a two-level model, with individuals at the lower level and all contextual characteristics in a single upper level. This model is estimated with a two-step strategy (Achen 2005; Lewis and Linzer 2005): First, the individual-level model is estimated separately for each party and electoral district with ordinary least-squares regressions. Then the resulting beta coefficients for all issues, parties, and districts are pooled and used as the dependent variables of a feasible generalized least squares (FGLS) regression, following the procedure suggested by Lewis and Linzer (2005, 351f.).<sup>2</sup>

Given that observations correspond to respondent-by-party combinations, there are several observations for each respondent which may not be independent from one another. As a consequence, robust standard errors are computed in the individual-level model, with observations being clustered by respondent. In order to reflect the true number of respondents, the observations are weighted by the inverse of the number of available observations for each respondent.

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<sup>2</sup> The way in which the model is specified means that the effect of party identification can also vary across parties and electoral districts. However, as this variation is not the object of the present paper, I will not comment on the corresponding results.

#### **4. Data and operationalization**

This paper's hypotheses are tested using data from a post electoral survey conducted at the occasion of the 2011 Swiss federal elections.<sup>3</sup> These data are well suited for comparative analyses, since the 26 electoral districts (cantons) vary strongly in terms of party system polarization and electoral system proportionality. Cantonal party sections may differ from one another in their issue positions and the strength of parties greatly varies across electoral districts. Furthermore, while all elections are based on a PR system, the district magnitude ranges from 1 (de facto majoritarian election) to 34.

The dependent variable is a voter's utility for a given political party. These utilities are measured by a battery of question on "probabilities of future vote" (van der Eijk et al. 2006). Respondents were asked how likely it is that they "will ever vote" for each of a series of parties. Respondents answered using an 11-point scale ranging from "very unlikely" to "very likely" (coded from 0 to 1 for the present analyses). Party utilities were measured for 9 parties: the Green Party (GPS), the Social Democratic Party (SPS), the Green Liberal Party (GLP), the Christian Democratic Party (CVP), the Conservative Democratic Party (BDP), the Liberal Party (FDP), the Swiss People's Party (SVP), the Lega (only in the canton of Ticino), and the Geneva Citizens' Movement (MCG, only in the canton of Geneva).

Voter's issue preferences and their perception of parties' positions were measured on two issues: The question whether Switzerland should join the European Union or stay out of it, and the question if taxes on high income should increase or decrease. For both issues, citizens were asked to position themselves on a five-point scale. Citizens were also asked to locate the nine parties mentioned above, using the same type of scale. Party identification, is based on a question asking respondents whether they "feel close" to a political party. As mentioned above, this information is coded using two dummy variables: one dummy distinguishes between party identifiers and non-identifiers, while the second dummy indicates which party identifiers feel close to.

At the contextual level, four variables are measured: issue polarization, party extremity, electoral system (dis)proportionality, and party size. The degree of polarization of the party system on a given issue and in a given district is defined as the standard deviation of parties' issue positions weighted for party size (Taylor and Herman 1971):

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<sup>3</sup> The data are available from the Swiss foundation for research in social sciences, <http://www2.unil.ch/selects/>.

$$Polarization_{kz} = \sum_j v_{jz} (p_{jkz} - \overline{p_{kz}})^2, \quad (3)$$

Where  $v_{jz}$  is the vote share of party  $j$  in canton  $z$ ,<sup>4</sup>  $p_{jkz}$  is the position of party  $j$  on the corresponding issue in district  $z$ , and  $\overline{p_{kz}}$  is the weighted average party position on this dimension, that is:

$$\overline{p_{kz}} = \sum_j v_{jz} p_{jkz}. \quad (4)$$

Calculating this index requires information on party positions and strength. For the latter, this study relies on the official vote shares in the 2011 election. Party positions are based on the average voters' perceptions of party positions in the corresponding canton. For this, I rely only on respondents in the upper third of the distribution of political sophistication.<sup>5</sup>

I rely on the same information to measure party size (i.e., a party's vote share in a given canton) and party extremity. The latter is the absolute distance between a party's position on a given issue and the corresponding weighted average position, as defined in Equation 4.

Finally, the proportionality of electoral systems depends on both electoral rule and district magnitude. In the case of Switzerland, the main source of variation is the magnitude of the electoral districts, which ranges from 1 to 34. To capture this variation, this study starts with Lijphart's effective threshold index (1997), defined as  $75\%/(M+1)$ , where  $M$  is the district magnitude. Since this variable's distribution is strongly skewed, its natural logarithm is used here instead. This variable takes a higher value for more restrictive electoral system, that is, for less proportional systems. Accordingly, I refer to it in the analyses below as a measure of the *disproportionality* of the electoral system.

## 5. Results

Before turning to the test of the paper's hypotheses, I start by giving some information on the individual-level model. Table 1 presents the results of the individual-level model, when it is estimated at the national level, that is, ignoring the variation across electoral contexts. This

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<sup>4</sup> The vote shares of the parties considered for the analysis are rescaled to sum to 1.

<sup>5</sup> Political sophistication is measured as an index of political knowledge. It is based on seven questions about the Swiss political system and Swiss politics.

model was estimated by including a set of party dummies (using the Swiss People's Party SVP, the largest party, as the reference category), which are however not reported in the table. The results are in line with the expectations from the spatial voting literature. For both issues, a larger voter-party distance leads to a lower utility for the corresponding party. As party utilities and issue distances are coded in the 0-1 range, the maximum effect of the distance on the EU and taxes issues is 24% and 17% of the range of the dependent variable.

[Table 1]

Utilities also respond to party identification. For a non-identifier, the predicted utility for the SVP is 0.51 when the voter shares the same issue positions. For a respondent with a similar profile but who identifies with a competitor of the SVP, the predicted utility is 0.41 (the constant plus the coefficient of the party identifier dummy), while a SVP identifier has a predicted utility of 0.93 (the constant plus the coefficients of both party identification dummies).

Central for this paper is to analyze how the effect of issue distances varies across parties and electoral contexts. To this end, I estimated the above model (without the party dummies) separately for each party and in each canton. The corresponding estimated coefficients of issue distances are then pooled and used as the dependent variable of a FGLS regression at the context level (Table 2).

[Table 2]

Three versions of the model were estimated. In the first one, party-level characteristics are ignored. That is, the model includes only party system polarization and electoral system disproportionality. In that model, polarization has the expected reinforcement effect: in contexts and on issues for which parties' positions diverge strongly from one another, issue voting is stronger. This is in line with the findings of previous studies. In that model, however, electoral system proportionality does not significantly influence the strength of issue voting.

The second model adds the party-level characteristics (size and extremity), but not the interactions terms. Disproportionality remains non-significant and party size does not either

seem to be an important factor for explaining the strength of issue voting. Party extremity, in contrast, has a strong effect. The impact of a given issue is stronger on the utilities of parties that take more extreme positions. Furthermore, including that variable weakens somewhat the polarization effect. The model's goodness-of-fit is much higher, revealing that party-level characteristics, or party extremity at least, are important. To get a better sense of the magnitude of the effect of polarization and party extremity, Figure 1 presents the estimated impact of voter-party distances for various degrees of issue polarization and party extremity. The left-hand panel shows how the model prediction (i.e., the predicted value of beta in the individual-level model) varies with the degree of polarization, as well as the corresponding 90 per cent confidence interval. For that, the other variables were set at their average value (that is, a party of average size, with an average degree of extremity, in a canton with an average effective threshold). The right-hand panel shows the corresponding results when party extremity varies and when polarization is set at the average value.

[Figure 1]

Both variables exert a large impact on the strength of issue voting. The maximum effect of party extremity is somewhat larger. Furthermore, as the distribution of party extremity (mean 0.21, std. dev. 0.13) is less concentrated than that of issue polarization (mean 0.07, std. dev. 0.02), the effect of extremity is also substantially larger. These findings show that accounting for party characteristics in addition to party-system (or electoral context) characteristics allow for a better explanation of the variation in the strength of issue voting.

The final step is to test whether interaction effects between party-level and context-level characteristics are justified. None of the coefficients in the corresponding model (Table 1, model 3) are significant. However, as we are dealing with interaction terms, single coefficients may not give all the relevant information (Brambor, Clark, and Golder 2005). Figure 2 shows the corresponding results pertaining to the effects of polarization and extremity. Similarly to the left-hand panel of Figure 1, it illustrates how the strength of spatial voting varies with the level of polarization. But it does so separately for centrist parties (left-hand panel) and extreme parties (right-hand panel), that is, parties with a degree of extremity corresponding to the average value minus or plus one standard deviation. For both types of parties, the impact of spatial distances on party utilities grows stronger with the level of polarization. But this reinforcement effect is somewhat stronger for extreme parties. This

means that while a higher level of party system polarization incites citizens to rely more strongly on issues when evaluating parties, this effect is stronger for the parties that contribute most directly to the increased level of polarization. As regards these two context-level characteristics, then, hypotheses 1 to 3 are supported.

[Figures 2 and 3]

The combined effect of proportionality and party size is illustrated in a similar way in Figure 3. The left-hand panel shows the effect of party size on spatial voting in contexts with a low electoral threshold (average minus one standard deviation), while the right-hand panel does the same for cantons with a less proportional electoral system (average value of the log effective threshold plus one standard deviation). These results show a weak tendency for larger parties to be more strongly evaluated on the basis of spatial factors than smaller parties. But the uncertainty surrounding this effect is large and support for hypothesis 5 is weak. Furthermore, a comparison of the two types of cantons shows only marginal differences in the average strength of spatial voting or in the degree to which it varies with party size. Accordingly, hypotheses 4 and 6 are disconfirmed by these results.

## **6. Conclusion**

Recent comparative research on the voting decision process has shown that several characteristics of the electoral context influence how citizens make their voting decision. In particular, it is now well established that a higher level of party system polarization leads citizens to attach more importance to the differences between the issue positions of parties. Spatial factors, that is, the issue distances between voters and parties, have a stronger impact on party utilities in more polarized electoral contexts. Other recent studies show similar effects for other aspects of electoral competition, such as electoral disproportionality, party system fragmentation, or the dimensionality of the political space. This paper suggested that the way in which parties are evaluated may not only differ across electoral contexts, but also across parties. An alternative specification of the proximity model of voting choice was developed, in which the relation between issue preferences and party utilities can vary with both context-level and party-level characteristics.

This paper's hypotheses suggested that the role of two central context-level characteristics, polarization and proportionality, should be conditional on party-level characteristics. In line with recent research, I showed that issue voting in the 2011 Swiss federal elections was stronger in cantons with a more polarized party system. The degree of extremity of a party's issue position exerts a similar and even stronger effect. Furthermore, the analysis showed a reinforcement effect of polarization and extremity: Polarization strengthens issue voting, but the magnitude of this effect is larger for more extreme parties. As regards the second set of hypotheses, the results were far less convincing. Evidence in favor of an effect of party size was weak, at best. And electoral system disproportionality does not appear to moderate the strength of issue voting, irrespective of party size.

Although party size did not prove to be an important factor, the role played by party extremity shows that some party-level characteristics may be important factors in the voting decision process. Such characteristics are usually not taken into account, as virtually all applications of the spatial model start from the assumption that the electoral utilities for all parties are determined by a single vote function. The findings presented in this paper suggest that this central assumption may be too restrictive.

## 7. References

- Achen, Christopher H. 2005. "Two-Step Hierarchical Estimation: Beyond Regression Analysis." *Political Analysis* 13 (4):447-456.
- Adams, James F., Samuel Merrill III, and Bernard Grofman. 2005. *A Unified Theory of Party Competition. A Cross-National Analysis Integrating Spatial and Behavioral Factors*. Cambridge: Cambridge University Press.
- Alvarez, R. Michael, and Jonathan Nagler. 2004. "Party System Compactness: Measurement and Consequences." *Political Analysis* 12 (1):46-62.
- Brambor, Thomas, William Roberts Clark, and Matt Golder. 2005. "Understanding Interaction Models: Improving Empirical Analyses." *Political Analysis* 14 (1):63-82.
- Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York: Harper and Row.
- van der Eijk, Cees, Wouter van der Brug, Martin Kroh, and Mark Franklin. 2006. "Rethinking the dependent variable in voting behavior: On the measurement and analysis of electoral utilities." *Electoral Studies* 25 (3):424-447.
- Enelow, James, and Melvin Hinich. 1984. *The Spatial Theory of Voting: An Introduction*. Cambridge: Cambridge University Press.
- Ensley, Michael J. 2007. "Candidate Divergence, Ideology, and Vote Choice in U.S. Senate Elections." *American Politics Research* 35 (1):103-122.
- Grynaviski, Jefferey D., and Bryce E. Corrigan. 2006. "Specification Issues in Proximity Models of Candidate Evaluation (with Issue Importance)." *Political Analysis* 14:393-420.
- Iyengar, Shanto. 1990. "Shortcuts to Political Knowledge: The Role of Selective Attention and Accessibility." In *Information and Democratic Processes*, edited by John A. Ferejohn and James H. Kuklinski, 160-185. Urbana: University of Illinois Press.
- Kedar, Orit. 2005. "When Moderate Voters Prefer Extreme Parties: Policy Balancing in Parliamentary Elections." *American Political Science Review* 99 (2):185-199.
- Kroh, Martin. 2009. "The Ease of Ideological Voting: Voter Sophistication and Party System Complexity." In *The Comparative Study of Electoral Systems*, edited by Hans-Dieter Klingemann, 220-236. Oxford: Oxford University Press.
- Krosnick, Jon A. 1988. "The Role of Attitude Importance in Social Evaluation: A Study of Policy Preferences, Presidential Candidate Evaluations, and Voting Behavior." *Journal of Personality and Social Psychology* 55 (2):196-210.
- Lachat, Romain. 2008. "The impact of party polarization on ideological voting." *Electoral Studies* 27 (4):687-698.
- Lachat, Romain. 2011. "Electoral Competitiveness and Issue Voting." *Political Behavior* 33 (4):645-663.
- Lachat, Romain, and Peter Selb. 2010. "Strategic Overshooting in National Council Elections." *Swiss Political Science Review* 16 (3):481-498.
- Lewis, Jeffrey B., and Drew A. Linzer. 2005. "Estimating Regression Models in Which the Dependent Variable Is Based on Estimates." *Political Analysis* 13 (4):345-364.
- Lijphart, Arend. 1997. "The Difficult Science of Electoral Systems: A Commentary on the Critique by Alberto Penadés." *Electoral Studies* 16 (1):73-77.
- Merrill III, Samuel, and Bernard Grofman. 1999. *A Unified Theory of Voting: Directional and Proximity Spatial Models*. Cambridge: Cambridge University Press.
- Rivers, Douglas. 1988. "Heterogeneity in Models of Electoral Choice." *American Journal of Political Science* 32 (3):737-757.
- Singh, Shane P. 2010. "Contextual influences on the decision calculus: A cross-national examination of proximity voting." *Electoral Studies* 29:425-434.
- Singh, Shane P. Forthcoming. "Linear and quadratic utility loss functions in voting behavior research." *Journal of Theoretical Politics*.



Taylor, Michael, and V.M. Herman. 1971. "Party Systems and Government Stability."  
*American Political Science Review* 65 (1):28-37.

Weßels, Bernhard, and Hermann Schmitt. 2008. "Meaningful choices, political supply, and  
institutional effectiveness." *Electoral Studies* 27 (1):19-30.

Table 1. Impact of issue distances and party identification on party utilities

	Coef.	Robust std. err.
EU distance	-0.24	0.01
Taxes distance	-0.17	0.01
Party identifier	-0.10	0.01
Party identifier: own party (Party dummies)	0.52	0.01
Constant	0.51	0.01
R2		0.31
N (weighted)		3266

All reported coefficients are significant at the 0.1% level.

Note: Model estimated with OLS. Party dummies are omitted from the table.

Table 2. Impact of context factors and party characteristics on the strength of issue voting. Coefficients (standard errors in parentheses) estimated using FGLS.

	Model 1	Model 2	Model 3
Polarization	-1.28** (0.44)	-0.97* (0.42)	-0.63 (0.78)
Extremity		-0.38*** (0.05)	-0.26 (0.24)
Polarization × extremity			-1.60 (3.17)
Disproportionality	-0.01 (0.01)	-0.00 (0.01)	-0.00 (0.02)
Size		-0.07 (0.06)	-0.08 (0.20)
Disproportionality × size			0.01 (0.07)
Constant	-0.08 <sup>†</sup> (0.05)	-0.03 (0.05)	-0.05 (0.07)
R2	0.03	0.19	0.19
N	294	294	294

<sup>†</sup> p < 0.10; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001.

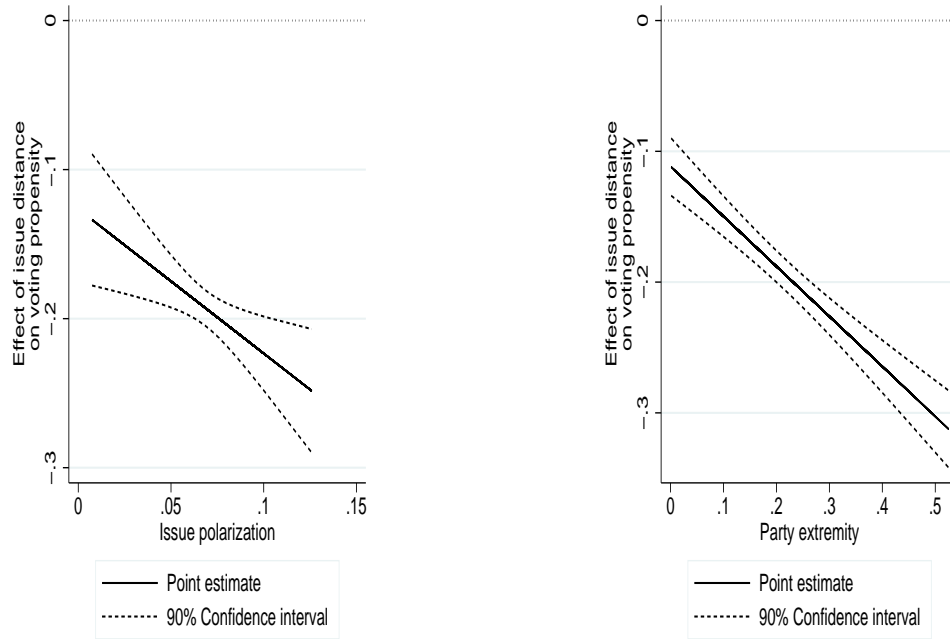


Figure 1. Impact of issue-distances on party utilities by issue polarization and party extremity.

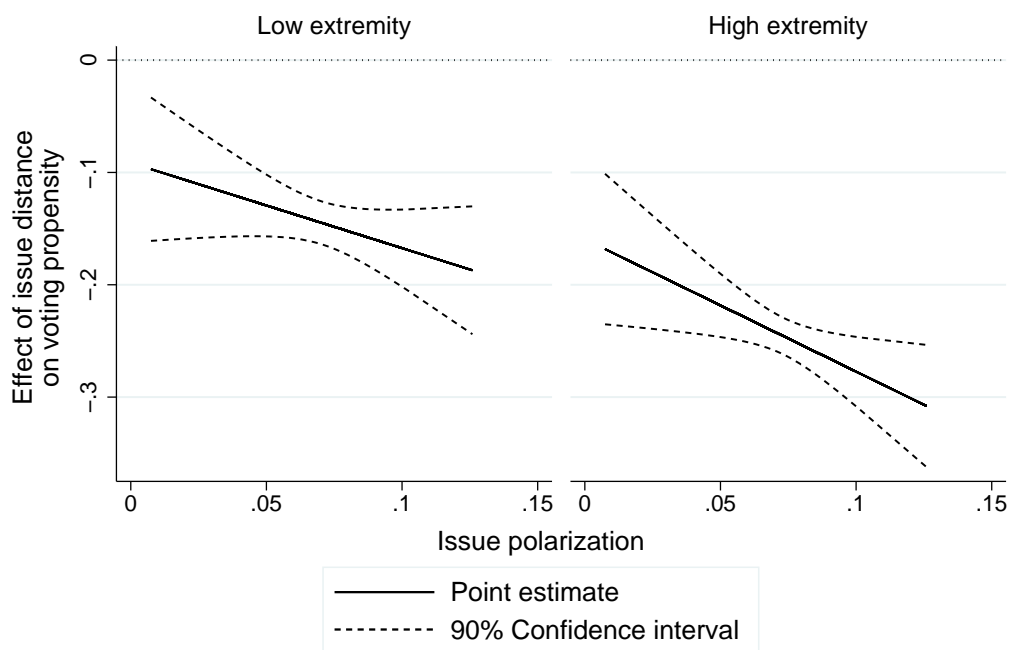


Figure 2. Impact of issue-distances on party utilities by issue polarization, for centrist parties and extreme parties.

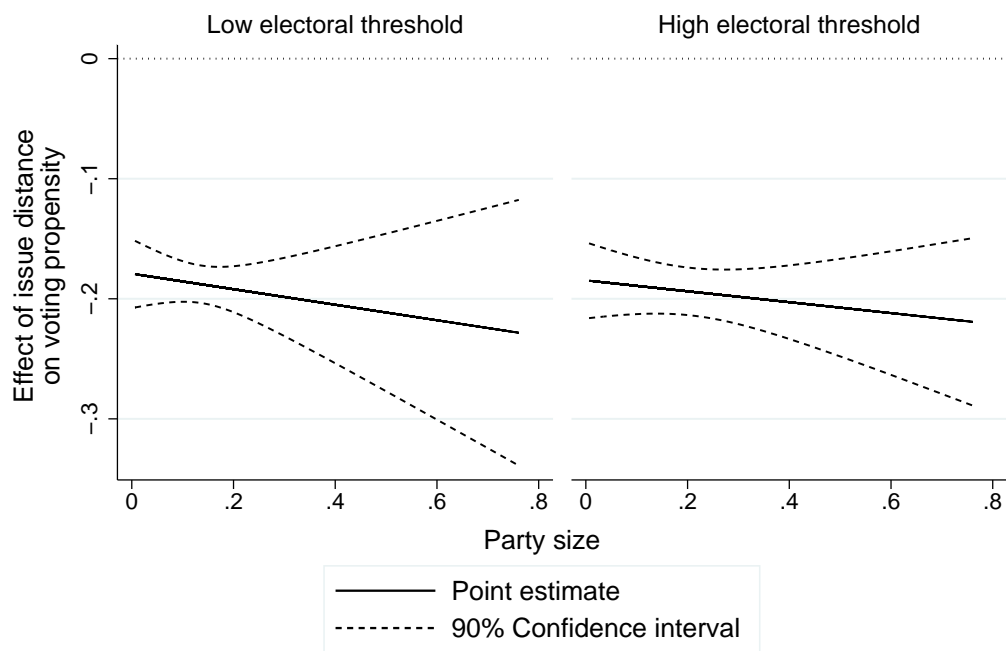


Figure 3. Impact of issue-distances on party utilities by party size, in contexts with a low electoral threshold or a high electoral threshold.