### ORIGINAL PAPER

# **Electoral Competitiveness and Issue Voting**

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Abstract This article suggests that voters rely more strongly on "substantial" criteria, such as issues and ideology, when elections are competitive. In such contexts, voters should attach more importance to their own choice and rely less on "heuristics." Three aspects of election competitiveness are considered: the fragmentation and polarization of the party system and the proportionality of the electoral system. Elections are more competitive when there are many parties in competition, when they differ strongly from one another in ideological terms, and when the threshold of representation is lower. These hypotheses are tested with data from the 2007 Swiss federal elections. The electoral districts differ markedly from one another as far as electoral competitiveness is concerned while being similar in many other respects. The results show that competitiveness strengthens issue voting and reduces the impact of party identification.

**Keywords** Issue voting · Party identification · Polarization · Fragmentation · Electoral system

### Introduction

Issue preferences are an important component in many models of voting choice (e.g., Adams et al. 2005). Relatively little, however, is known about variations in the strength of issue voting across contexts. Do voters rely more strongly on issue preferences in some political contexts than in others? Can electoral institutions incite voters to rely

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more strongly on substantive criteria, such as issues and ideology, rather than on traditional loyalties? Such comparative questions have become more prominent in recent years (Curtice 2002; Thomassen 2005; Dalton and Anderson 2010).

Previous research has mainly investigated the effects of party system polarization. A higher level of polarization has been shown to strengthen ideological voting (Van der Eijk et al. 2005; Ensley 2007; Dalton 2008, 2010; Lachat 2008a; Kroh 2009), value voting (Knutsen and Kumlin 2005), and issue voting (Alvarez and Nagler 2004). These findings have been mainly explained by a salience effect. Greater polarization means that parties' issue positions diverge more strongly, which should incite parties to emphasize their issue positions. The increased salience of issues, in turn, should motivate voters to rely on more substantial criteria and make it easier to do so.

This article extends on this research in two ways. First, it considers the more general concept of electoral competitiveness, which combines several characteristics of the electoral context. Competitive elections are fragmented, polarized, and take place under a proportional electoral system. They are elections where voters are faced with a variety of parties, advocating different political positions, and where the hurdles for entry into parliament are relatively low. The competition among parties is stronger, since the number of players involved is higher. All three aspects of competitiveness are expected to strengthen issue voting. These characteristics should affect both parties' mobilizing strategies and voters' incentives to rely more on issues and less on traditional loyalties.

Second, this article distinguishes between two forms of issue voting: proximity voting, where citizens systematically compare their preferences to parties' issue positions, and a less elaborate form of "single-issue voting" (Lau and Redlawsk 2006). While both of these decision-making strategies are based on citizens' issue preferences, they differ in the level of cognitive engagement and political sophistication required. This article also compares the impact of issues with that of party identification. Thus, this study considers how electoral competitiveness affects the relative importance of several decision-making strategies.

This study's hypotheses are tested using data from the 2007 Swiss election study. The electoral districts (cantons) for Swiss federal elections offer sufficient variations in the relevant context-level characteristics while still being very similar in many respects, avoiding many of the difficulties associated with cross-country comparisons.

The next section discusses the roles of issue preferences and party identification in the voting decision process. The third section presents hypotheses about how electoral competitiveness moderates the impact of issue preferences and party identification. This is followed by a presentation of the data and variables used, as well as by a specification of the statistical model. The corresponding results are presented in the next section, followed by a summary of the main findings and a discussion of their implications.

# Issue Voting and Party Identification

Political issues play a central role in normative theories of political representation. Elections are seen as the central linkage between citizens and their representatives.



Parties are expected to compete on the basis of their policy preferences, allowing citizens to support the platform that corresponds most closely to their ideals (Thomassen and Schmitt 1997; Adams and Merrill 2005). Ideological congruence between citizens and legislators is thus often perceived as a central criterion for evaluating how well a political system represents the interests of its citizens (Powell 2004).

This privileged role of issue preferences is reflected in spatial models of electoral competition. These explain voting choices and party strategies by the relative positions of voters and parties in a policy or ideology space (Downs 1957; Adams et al. 2005). Parties are typically assumed to be vote maximizers, while voters are most often expected to support the party or candidate that is closest to them in the political space (proximity voting). While such a model of electoral competition is attractive from a normative standpoint, it makes demanding assumptions for voters. Citizens have limited information about parties' positions and politics in general and invest limited cognitive resources in their electoral choices and other political decisions (Sniderman et al. 1991; Zaller 1992; Bartels 1996). Rather than engage in a rational comparison of parties' policy proposals, many citizens rely instead on simpler decision-making strategies. Their political decisions are often guided by "heuristics," that is, easily available pieces of information that allow them to reach a decision without processing large amounts of information. In the electoral context, for instance, citizens can vote on the basis of candidates' party affiliation, relying on the stereotypes or images they associate with the parties (Lodge and Hamill 1986; Rahn 1993).

Several scholars have suggested extending spatial models in order to integrate non-spatial explanatory factors. An important development in this line of research is to combine spatial factors and party identification (Erikson and Romero 1990; Adams 2001). Party identification designates a relatively stable psychological attachment to a party and has long been a central explanatory factor in models of voting choice (Campbell et al. 1960). Such "unified" models have proven to be better than traditional spatial models at predicting electoral results and party positions (e.g., Adams et al. 2005).

Proximity voting and voting based on partisan heuristics are not the only possible decision-making strategies. An important alternative is single-issue voting, that is, a simplified form of issue voting, where citizens focus only on the issue they consider most important. This is similar to the "fast and frugal" decision-making strategy identified by Lau and Redlawsk (2006) or to models of voting choice based on perceived party competence or issue ownership (Petrocik 1996; Bellucci 2006; Green 2007). Single-issue voters are citizens who decide to support a given party because they perceive it as the best able to handle what they see as the most pressing political problem. While this decision-making strategy involves issues, it differs from proximity voting. It does not involve a systematic comparison of parties. In terms of cognitive engagement and required information, it can be seen as intermediate between proximity voting and "party identification voting."

These three types of explanatory factors—proximity voting, party identification, and single-issue voting—will be at the center of this study's comparative analyses. I am interested in analyzing how their importance is influenced by political and institutional context. The next section discusses why such context effects are to be expected.



# **Electoral Competitiveness**

Citizens' capacity and motivation to consider large amounts of information are limited. When making political decisions, they tend to rely on heuristics rather than on a systematic treatment of the available information (Chaiken 1980; Fiske and Neuberg 1990). Yet, some characteristics of the decision context can incite citizens to process information in a more systematic way. Individuals will be motivated to process larger amounts of information when they want to be more confident in their decisions (Maheswaran and Chaiken 1991). It has, for example, been shown that voters in intense election campaigns rely more on issues and ideology and less on party identification (Westlye 1991; Lachat and Sciarini 2002). Issue voting can also be *easier* in some contexts than in others (Kroh 2009; Hellwig 2010). The more parties refer to issues and ideological positions, for instance, the greater should be the availability of these criteria in voters' minds (Alvarez and Nagler 2004; Knutsen and Kumlin 2005; Lachat 2008a).

These ideas have been applied to party system polarization. Following the ideas developed above, one would expect citizens in polarized party systems to rely more strongly on issues (or other substantive criteria) and less on heuristics. This hypothesis has been confirmed with respect to the impact of issues (Alvarez and Nagler 2004), ideology (Van der Eijk et al. 2005; Ensley 2007; Dalton 2008, 2010; Lachat 2008a; Kroh 2009; Hellwig 2010), and values (Knutsen and Kumlin 2005). Although these studies concur that party system polarization has important effects, they rely on different specifications of the voting-choice model. The spatial modeling framework and the notion of proximity voting, on which this study is based, is shared by the contributions of Alvarez and Nagler (2004), Lachat (2008a), Kroh (2009), and Hellwig (2010). The remaining studies examine the association between ideology (or issues) and the vote, but not by specifically relying on voterparty distances. As these different approaches lead to similar findings on the role of polarization, this strengthens the conclusion that this aspect of the context matters. At the same time, however, this diversity makes it more difficult to compare directly the results of these studies. I will come back to the implications of this potential problem in the conclusion of this paper.

While previous authors have mainly focused on party system polarization, other contextual characteristics can play a similar role (Kroh 2009; Hellwig 2010). I suggest focusing here on the more general concept of "electoral competitiveness," which combines three aspects: party system polarization, party system fragmentation, and electoral system proportionality. Elections are more competitive when parties are numerous (fragmentation), when they represent distinct political positions (polarization), and when many of them have a real chance of being represented in parliament (proportionality).

While these characteristics may be empirically related (I will come back to this point when discussing the specification of the statistical model), they are conceptually distinct and are all expected to influence voters' reliance on issues. Polarization should incite parties to emphasize their issue positions more strongly. Fragmentation means that parties are smaller, on average; their electorate is likely to be more homogeneous and to have more in common in terms of ideological preferences. Similarly to the effect of



polarization, the impact of ideological preferences on voting propensities should therefore be strengthened. Finally, the proportionality of the electoral system can also influence party strategies. In less proportional elections, a party needs to mobilize a larger share of the electorate, possibly with more diverse issue preferences, which can incite parties to place less of an emphasis on concrete policy positions and focus more strongly on valence issues (Norris 2004). To sum up, more competitive elections should incite voters to rely more strongly on issues. *Proximity voting* should be stronger in polarized, fragmented, and proportional elections. *Single-issue voting* should also be strengthened when parties emphasize their issue positions and priorities more strongly. The effect of *party identification*, in contrast, should decrease with electoral competitiveness, since citizens are encouraged to rely less strongly on heuristics.

# Research Design and Data

Testing these hypotheses requires comparing different electoral contexts. The most obvious design would probably be to compare countries. This would maximize the variability of the central context-level characteristics, i.e., party systems and electoral rules. At the same time, however, such a design may involve several drawbacks. A number of additional contextual features may also vary across countries, making it more difficult to isolate the effects of electoral competitiveness. Also, issue voting is difficult to investigate with a cross-country design, as the issue questions included in national election studies are country-specific and difficult to compare across contexts. For these reasons, I adopt here a different design, comparing electoral districts within a single national election.

More precisely, this study relies on data from the 2007 Swiss election study. Of the 26 cantons, 22 can be included in this study's analyses. These data are well suited for comparative analyses, since the cantons offer much variation in competitiveness. Cantonal party sections may differ from one another in their

<sup>&</sup>lt;sup>2</sup> No election took place in the canton of Nidwalden, since there was only one candidate for the available seat (a so-called "tacit" election). Three other cantons (Uri, Appenzell Outer Rhodes, and Appenzell Inner Rhodes) were excluded because their level of party system polarization was difficult to determine. In these cantons, a single major party was competing against independents or candidates from very small parties. The issue positions of the latter were not measured in the election study and to ignore them altogether would have meant assuming a total absence of polarization, which makes little sense.



<sup>&</sup>lt;sup>1</sup> The dataset is available from the Swiss Foundation for Research in Social Sciences, at <a href="http://nesstar.sidos.ch">http://nesstar.sidos.ch</a>. The 2007 Swiss election study is based on a telephone survey conducted from 22 October to 5 November 2007, following the federal elections of 21 October. Respondents were selected using a two-stage sampling design. First, households were selected using a random sample from the telephone register. Second, one person by household was randomly chosen to be interviewed. 4392 interviews were realized, corresponding to a response rate of 70.6% (number of completed interviews/ number of valid households). This sample is divided into two parts. 2005 persons are from a national representative sample. The remaining 2387 respondents are from additional samples drawn in selected cantons. In small cantons, where less than 100 respondents were expected in the national representative sample, an additional sample was drawn to reach an expected number of 100 interviews. In three larger cantons (Geneva, Ticino, Zurich), an additional sample was drawn in order to reach an expected number of 600 interviews. The number of interviews realized by canton is as follows: Zurich: 649, Geneva: 580, Ticino: 519, Bern: 294, Vaud: 160, Aargau: 148, other cantons: 91–126.

issue positions, reflecting variations in the traditional cleavage structures (Lutz and Selb 2007; Kriesi and Trechsel 2008). Also, the strength of parties greatly varies across electoral districts. This produces important variation in the sizes and polarizations of the party system. Furthermore, while all elections are based on a PR system, the district magnitude ranges from 1 (de facto majoritarian election) to 34. Admittedly, the variation in electoral competitiveness is probably weaker than that observed in a comparison of countries. But still, the cantonal differences are sizeable. Also, I cannot rule out that citizens in different cantons are also influenced by party competition at the national level, thus reducing the specific effects of district-level characteristics. This research design implies thus a more conservative test of how context-level characteristics may influence the voting decision process.

In line with much research on issue voting, the dependent variable here is a measure of the "voting propensity" for a given party. This type of measure is often preferred over voting choice, since it entails more detailed information on voters' preferences (Tillie 1995; van der Eijk et al. 2006). While voting choice only distinguishes between the party a voter supports and all the others, voting propensities are assessed separately for different parties. They offer a direct measure of the concept of electoral utility or party utility which is implicit in most theories of voting choice (Tillie 1995). Furthermore, the relation between voting propensities and voting choices is almost deterministic (van der Eijk et al. 2006). Thus the same decision process is still being analyzed when substituting voting propensities for voting choice. Relying on voting propensities implies that the dataset is "stacked," with the observations corresponding to respondent × party combinations rather than to respondents.

In the 2007 Swiss election study, voting propensities were measured by asking citizens to indicate how likely it was that they would ever vote for each of a series of parties. Answers were coded on an 11-point scale ranging from a "very low probability" to a "very high probability." These variables are recoded here to the 0–1 range. The analysis includes voting propensities for the five main parties: the Social Democratic Party (SP), the Christian Democratic Party (CVP), the Liberal Party (FDP), the Swiss People's Party (SVP), and the Green Party (GPS).

The individual-level model includes three types of determinants: voter-party issue proximities, party identification, and evaluations of parties' abilities to solve important issues. Voter-party proximities are measured on two issues: the taxation

<sup>&</sup>lt;sup>5</sup> Descriptive statistics for all variables can be found in Tables A1 and A2 of an online appendix available at <a href="http://www.romain-lachat.ch/publications.html">http://www.romain-lachat.ch/publications.html</a>. This online appendix also indicates the wording of the questions used in this study.



<sup>&</sup>lt;sup>3</sup> van der Eijk et al. (2006) show that 93% of voters in the 1994 Dutch election study voted for the party for which their utility was highest. I find the same percentage for the respondents of the 2007 Swiss election study.

<sup>&</sup>lt;sup>4</sup> This implies that the observations within a respondent are probably not independent from one another. Accordingly, the standard errors in the individual-level models were estimated by allowing for clustered observations, with the groups corresponding to the respondents.

of high incomes and the question of Swiss EU membership. These two issues correspond to the main dimensions that have structured Swiss politics in recent years: a traditional economic dimension and an "integration-demarcation" conflict formed by attitudes toward cultural liberalism, immigration, and the EU (Kriesi et al. 2006; Lachat 2008b). Voters' positions on these issues and their perception of parties' positions were measured on five-point scales. For each observation (i.e., respondent × party combination) and each issue dimension, the voter-party proximity is calculated as the squared distances between a voter's position and his or her perception of the corresponding party's position on that issue. The voter-party distances were recoded into the 0–1 range for the present analyses and then centered.

Party identification was measured by asking respondents whether they feel "close to a political party." This is a relatively standard formulation in the European context and corresponds to the question asked in the Comparative Study of Electoral Systems (CSES). While this question distinguishes only between two groups of voters, party identifiers and non-identifiers, it results in three types of respondent × party combinations, a consequence of the dataset's stacked format. The three groups of observations are as follows:

- party identifiers × the party they identify with,
- party identifiers × other parties,
- non-identifiers × any party.

Finally, single-issue voting is based on a set of two questions. Respondents were first asked to mention what they saw as the most important problem in Switzerland. Those who mentioned a problem were then asked which party was best able to solve that problem. The answers to this second question indicated which party a voter perceived to be most competent. Again, the information is dichotomous but requires two dummy variables to identify the corresponding voter × party relations, given the stacked nature of the dataset.

At the contextual level, the degree of *polarization* of the party system is defined as the standard deviation of the parties' ideological positions weighted for party size (Taylor and Herman 1971)<sup>8</sup>:

Polarization = 
$$\sum_{j=1}^{5} v_j (p_j - \bar{p})^2,$$
 (1)

where  $v_j$  is the vote share of party j,  $p_j$  is the position of party j on the corresponding dimension, and  $\bar{p}$  is the weighted average position on this dimension, that is:

<sup>&</sup>lt;sup>9</sup> The vote shares of the five parties considered for the analysis are rescaled to sum to 1.



<sup>&</sup>lt;sup>6</sup> On the first of these issues, respondents were asked if they were for higher or lower taxes on high incomes. For the European issue, they were asked whether or not they supported Swiss EU membership. The detailed question wording is available in the online appendix.

 $<sup>^7</sup>$  A total of 94% of respondents mentioned a most important problem. 58% of these indicated a (single) party most capable of solving it.

<sup>&</sup>lt;sup>8</sup> As emphasized by Dalton (2008), a measure of polarization should reflect both the size and position of parties. The index used here meets these conditions.

$$\bar{p} = \sum_{j=1}^{J} v_j p_j. \tag{2}$$

Calculating this index requires information on party positions and strength. For the latter, this study relies on vote shares in the 2007 election. Party positions are based on the average voters' perceptions of party positions in the corresponding canton. Three dimensions can be used to measure party positions (and thus determine the level of polarization): the two issues of taxation and EU membership, as well as a general left-right dimension. As explained in the following section, all three measures of polarization will be considered. Party system *fragmentation* is calculated as the effective number of parties, based on vote shares in the 2007 election (Laakso and Taagepera 1979). 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 electoral 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.

### **Model Specification**

The individual-level model, including three types of explanatory variables, can be specified as follows:

$$y_{ij} = \alpha_0 + \sum_{j=1}^{4} \alpha_j$$

$$+ \beta_1 \operatorname{Taxes}_{ij} + \beta_2 \operatorname{EU}_{ij}$$

$$+ \beta_3 \operatorname{PID} \operatorname{own}_{ij} + \beta_4 \operatorname{PID} \operatorname{other}_{ij}$$

$$+ \beta_5 \operatorname{Best party}_{ij} + \beta_6 \operatorname{Other best}_{ij} + \varepsilon_{ij},$$

$$(3)$$

where  $y_{ij}$  is the voting propensity of respondent i for party j,  $\alpha_0$  is a constant, and the  $\alpha_j$  coefficients are four party-specific constants. These terms allow one to capture variation in the average voting propensity across parties that is not due to the model's covariates. The variables  $Taxes_{ij}$  and  $EU_{ij}$  are the squared voter–party distances on the issues of high-income taxation and EU membership, respectively. The variables PID  $own_{ij}$  and PID  $other_{ij}$  are two dummies coding for party identification. When voter i identifies with party j, PID  $own_{ij}$  takes on the value of 1 for the corresponding respondent  $\times$  party combination and PID  $other_{ij}$  takes on the value of 1 for the combinations of voter i and parties other than party j. The dummies Best  $party_{ij}$  and Other  $best_{ij}$  are coded similarly, identifying the respondent  $\times$  party combinations where voter i thinks party j is best at solving the most important problem (Best  $party_{ij}$ ) or where another party is best able to do so (Other  $best_{ij}$ ).  $^{10}$  12,104 observations (i.e., respondent  $\times$  party combinations) can be used for this analysis, based on 3,296 respondents.  $^{11}$ 

 $<sup>^{11}</sup>$  The analysis includes all respondent  $\times$  party combinations with valid voting propensities and perceived party positions. This results in the exclusion of 651 respondents.



<sup>&</sup>lt;sup>10</sup> The coding of these two pairs of dummy variables is illustrated in Table A3 in the online appendix.

Most important to this study's hypotheses is the variation across electoral districts in the individual-level relations. The coefficients  $\beta_1$  to  $\beta_6$  in Eq. 3 are expected to be a function of context-level factors. With k designating the cantons and z the first to sixth  $\beta$  coefficients, the context-level model can be specified as

$$\beta_{zk} = \gamma_{0zk} + \gamma_{1zk} \text{Polarization}_k + \gamma_{2zk} \text{Fragmentation}_k + \gamma_{3zk} \text{Proportionality}_k + u_{zk}. \tag{4}$$

The model specified by Eqs. 3 and 4 has a hierarchical structure. Voting propensities are influenced by three types of individual-level variables. The strength of these relations is conditional on context-level variables. This model is estimated by following a two-step strategy (Achen 2005; Lewis and Linzer 2005). First, the individual-level model is estimated separately in each canton with ordinary least-squares regressions. Then the resulting coefficients are used as the dependent variables for a context-level model, as specified in Eq. 4. This second-stage model is estimated using weighted least-squares regressions, which allow one to account for the differences across contexts in the standard deviations of the coefficients in the first stage. The weights are calculated following the method proposed by Lewis and Linzer (2005). <sup>12</sup>

While this model specification is quite straightforward, a few potential problems need to be addressed. First, the polarization of the party system can be computed in different ways, depending on which dimension party positions are measured (general left-right dimension, taxation issue, or European issue). These measures of polarization are strongly correlated with one another. 13 A stronger level of polarization on the EU dimension, for instance, is usually associated with a stronger polarization on the taxation issue. But depending on the  $\beta_z$  coefficient modeled, different dimensions seem to be most relevant: The strength of proximity voting on the EU issue, for instance, should be mainly influenced by polarization on that same EU dimension. Similarly, the strength of economic proximity voting should be best explained by polarization on the economic dimension. The effects of party identification and of perceived party competence, in contrast, are not issue specific. It probably makes more sense to relate them to general left-right polarization. Given the strong correlations between these polarization measures, it is not possible to include several of them in a single model. As a consequence, this study uses different measures of polarization to model different cross-level interactions. The impact of polarization on proximity voting will be estimated by using the measure of polarization on the corresponding issue dimension, while polarization on the general left-right dimension will be used to explain the strength of single-issue voting and party identification voting.

A second difficulty is that some of these aspects of electoral competitiveness are empirically related (cf. Table A4 in the online appendix). The party system is more fragmented in cantons with more proportional elections, that is, with a lower



<sup>&</sup>lt;sup>12</sup> The procedure recommended by Lewis and Linzer can be estimated using the *edvreg* program for Stata, available at http://svn.cluelessresearch.com/twostep/trunk/edvreg.ado.

<sup>13</sup> Cf. Table A4 in the online appendix.

effective threshold (r = -0.65).<sup>14</sup> Given the small number of contexts, this relation makes it difficult to distinguish among their respective effects. Consequently two limited versions of Eq. 4 will be estimated by including only proportionality or fragmentation along with party system polarization.<sup>15</sup>

Finally, there may also be collinearity and endogeneity issues with the individual-level variables. Party identification and evaluations of parties' issuesolving capacity could be influenced by citizens' evaluations of parties—this study's dependent variable. There may also be reciprocal relationships among the individual-level independent variables. Party identification, for instance, could influence voters' issue positions or their evaluation of parties' issue-solving capacity. Such influences are not problematic for this article as long as they do not vary systematically across cantons. But while this assumption seems to be reasonable, it is difficult to test with the present data. To be more confident that the results of the above specification are robust, a reduced version of the model including only proximity issue voting is also tested. Another reason to replicate the analysis in this way is that there may be collinearity among the issue voting variables. In the specification of Eq. 3, four variables capture voters' issue preferences. This makes it more difficult to determine how context-level factors influence the strength of issue voting. This is particularly true of respondents who view as most important a problem closely related to the European or taxation questions. Accordingly, the analysis is replicated with a reduced version of the individual-level model.

### Results

As a preliminary step, the individual-level model of Eq. 3 is estimated at the national level. The results provide a first impression of the impact of issue proximities, party competence, and party identification and serve as a reference when considering how these estimates vary across contexts. All three types of determinants have a significant impact (Table 1). Regarding proximity voting, the negative coefficients for both dimensions indicate that larger voter–party distances lead to smaller voting propensities. One also sees that this effect is stronger for the integration–demarcation dimension than for the economic one. Voter–party distances on the question of EU membership have a stronger impact on voting propensities than the distances on the taxation issue. These estimated effects are not only significant but also substantially large. Increasing the voter–party distance from the minimum to the maximum on the European issue, for instance, leads to a reduction of the voting propensity of about 0.25 on the scale of 0 to 1.

Single-issue voting also has a strong impact. To interpret the coefficients correctly, it is important to remember that this study distinguishes between three situations. The reference category is composed of citizens who do not view any

<sup>&</sup>lt;sup>15</sup> To be more confident that the results are robust, I have also estimated the impact of context-level variables with bivariate regressions, including only one indicator of electoral competitiveness at a time.



<sup>&</sup>lt;sup>14</sup> Table A4 also shows that fragmented party systems are more polarized, but only on the taxation issue.

 Table 1 Impact of issues and party identification on voting propensities at the national level

	Coefficient	Robust std. error
Taxes on high incomes	-0.201***	0.012
EU membership	-0.248***	0.010
Most competent party	0.252***	0.011
Other party most competent	-0.029***	0.008
Party identification, own party	0.286***	0.009
Party identification, other party	-0.075***	0.007
Party dummies (Ref.: SP)		
CVP	0.005	0.010
FDP	0.048***	0.010
SVP	-0.085***	0.011
GPS	0.039***	0.011
Constant	0.454***	0.009
N (weighted)	3335	
$R^2$	0.40	

* $P < 0.05$ ; ** $P < 0.01$ ;
*** $P < 0.001$
Coefficients and standard errors
are from an ordinary least-

are from an ordinary leastsquares regression. The observations are weighted to account for the varying number of respondent × party combinations by respondent and to give each cantonal sample an importance proportional to its

single party as most competent to solve their most important problem (or who do not identify any such problem). The two dummy variables allow one to compare the voting propensities of these respondents to those who do identify such a party a) with respect to this most competent party and b) with respect to other parties. As expected, respondents who single out a party as most competent have a higher voting propensity for that party than other respondents. One can also see that at the same time this perception of competence has a negative impact on propensities to support the remaining parties. Here again, the size of the effect is impressive. Identifying a party as most competent produces a gap of 0.28 in voting propensities between that party and its competitors. <sup>16</sup>

Finally, party identification also has the expected effect. Traditional attachment increases the propensity to support the corresponding party and decreases the chances of supporting another party. The effect is even larger than that of party competence. Among party identifiers, the propensity to support one's traditionally preferred party is higher than the voting propensities for other parties by a value of 0.36 on the scale of 0 to 1.17

Next this study analyzes the variations in the strength of these effects across contexts. The model of Eq. 3 is re-estimated, this time separately in each canton, allowing one to determine how the individual-level relations are shaped by the characteristics of the decision context. One can first consider the extent to which the effects of issue distances, perceived party competence, and party identification vary across contexts. Table 2 presents some summary statistics for each of the six series of coefficients. Clearly, the impact of these variables is not the same in all contexts.

<sup>&</sup>lt;sup>17</sup> The value of 0.36 is equal to the sum of the absolute values of the dummies *Party identification, own party* and *Party identification, other party*.



<sup>&</sup>lt;sup>16</sup> The value of 0.28 is obtained by adding the absolute values of the two party competence dummies.

	Mean	Std. dev.	Min.	Max.
Taxes on high incomes	-0.179	0.079	-0.315	0.054
EU membership	-0.234	0.067	-0.341	-0.107
Most competent party	0.238	0.080	0.090	0.432
Other party most competent	-0.023	0.035	-0.084	0.041
Party identification, own party	0.283	0.048	0.195	0.387
Party identification, other party	-0.076	0.039	-0.155	0.022

**Table 2** Summary statistics for cantonal regression coefficients (N = 22)

Voter-party distances on the issue of high-income taxation, for instance, do not have a significant impact on voting propensities in all cantons. While the expected negative estimate is found in most cases, voters are not significantly influenced by their economic preferences in about one-fifth of the cantons (four out of 22). Attitudes toward EU membership have a significant impact in all districts but the strength of this impact also varies across cantons, by a factor of 1 to 3. The same applies to the other estimated effects: They are not significant in some of the cantons or the magnitude of the effect varies substantially.

Most interesting for the present purposes is determining how this variation is related to party system polarization, party system fragmentation, and electoral system proportionality. As mentioned in the previous section, the strong empirical relations between fragmentation and proportionality make it problematic to include both of these independent variables in the same model. Instead, two models are estimated, each including two independent variables: polarization and fragmentation (Model 1) and polarization and proportionality (Model 2). The results in Table 3 show that the strength of proximity voting on the economic issue dimension is affected by fragmentation and proportionality. In Model 1, the effective number of parties has a negative and significant effect on the coefficient of the voter-party distance. As party system fragmentation grows, the coefficient becomes increasingly negative, corresponding to a stronger effect of economic issue distances on voting propensities. Proximity voting on the taxation issue is also strengthened when the electoral threshold *decreases*, that is, when the electoral system is more proportional. Party system polarization, on the other hand, does not have a similar effect, contrary to this study's expectations. As far as the economic issue dimension is concerned, proximity voting does not become significantly stronger as polarization increases.

This variation in the strength of economic proximity voting across cantons is illustrated in the upper left panel of Fig. 1, which plots the predicted coefficient of economic proximity voting (and the corresponding confidence interval) against the effective number of electoral parties. <sup>18</sup> The predicted effect is stronger (i.e., the coefficient is more negative) in fragmented party systems than in concentrated ones.

<sup>&</sup>lt;sup>18</sup> The predicted results presented in Fig. 1 were calculated by setting the other context-level variables to their average value.



Table 3 Impact of electoral competitiveness on proximity voting, single-issue voting, and party identification voting

Dependent variable	Model 1				Model 2			
	Polarization	ENEP	Constant	$R^2$	Polarization	Log (ET)	Constant	$R^2$
Proximity voting								
Taxes on high incomes	-0.829 (0.675)	-0.029 (0.012)*	0.000 (0.057)	0.39	-0.785 (0.821)	0.029 (0.019)*	-0.203 (0.070)**	0.20
EU membership	-1.221 (0.780)	0.005 (0.013)	-0.159 (0.102)	0.13	-1.217 (0.775)	0.009 (0.018)	$-0.152 (0.083)^{\dagger}$	0.14
Single-issue voting								
Most competent party	2.669 (1.191)*	-0.013 (0.014)	0.195 (0.088)*	0.24	2.849 (1.235)*	0.008 (0.019)	0.108 (0.075)	0.22
Other party most competent	0.482 (0.494)	-0.004 (0.006)	-0.031 (0.038)	90.0	$1.062 (0.515)^{\dagger}$	0.018 (0.008)*	-0.107 (0.033)**	0.24
Party identification voting								
PID, own party	-2.321 (0.584)***	0.008 (0.007)	0.344 (0.046)*** 0.48	0.48	-2.479 (0.653)***	-0.005 (0.011)	0.399 (0.042)***	0.45
PID, other party	-0.067 (0.567)	$0.013 (0.007)^{\dagger}$	-0.133 (0.044)**	0.16	-0.475 (0.673)	-0.012 (0.010)	-0.026 (0.041)	0.08
	4 111111							

P < 0.10, \*P < 0.05, \*\*P < 0.01, \*\*\*P < 0.001

Coefficients (standard errors in parentheses) of the second-stage models estimated with weighted least squares regressions. Each line corresponds to one dependent variable. Each dependent variable is regressed on polarization and fragmentation (Model 1) and on polarization and proportionality (Model 2). For all models, N = 22. The measure of polarization used varies across dependent variables: economic polarization for issue voting on taxation, EU polarization for issue voting on EU membership, and general left-right polarization for the remaining dependent variables



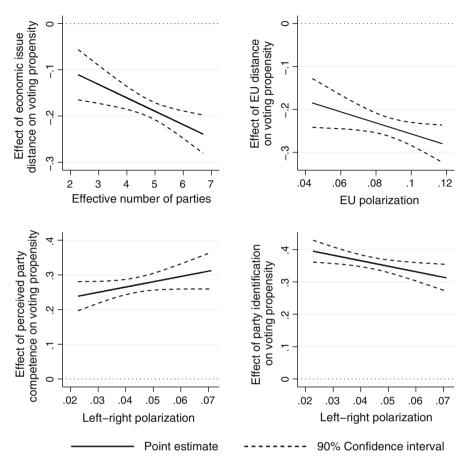


Fig. 1 Impact of electoral competitiveness on proximity voting, single-issue voting, and party identification voting

This study finds different results for proximity voting on the European dimension. This form of issue voting is affected neither by party system fragmentation nor by the proportionality of the electoral system. The corresponding coefficients have estimates close to 0, with large standard errors. The point estimates for the polarization of the party system, in contrast, are negative and not too far from being significant. The P values are about 0.13 in both models. Given the very small number of observations at the level of cantons, this may be seen as confirming the hypothesis about the role of polarization. Furthermore, polarization is significant at the 10% level when it is included as the single independent variable ( $\beta = -1.29$ ). The effect of polarization in this simplified model is presented graphically in the

<sup>&</sup>lt;sup>19</sup> See Table A5 in the online appendix. Such bivariate models were estimated for all dependent and independent variables. With the exception just mentioned, they always confirm the conclusions based on the results of Table 3.



upper right panel of Fig. 1. The effect is less pronounced than what was observed with economic proximity voting and fragmentation, for instance; however, EU proximity voting is significantly reinforced as polarization increases.

Party system polarization also influences the strength of single-issue voting. This article discussed earlier how citizens confer a bonus upon the party they deem most competent to solve the most pressing political problem. The corresponding voting propensity is substantially larger than for the parties' competitors. The size of this bonus increases with the polarization of the party system, as shown by the large and positive coefficients of the dummy *Most competent party* in Models 1 and 2 together with the smaller or non-significant effects of the dummy *Other party most competent*. The difference between these two values corresponds to the effect of perceived party competence. Figure 1 (lower left panel) shows how the size of this effect increases with party system polarization.

The level of polarization also influences the effect of party identification. In more competitive contexts, party identification has a *smaller* impact. This relation is illustrated in the lower right panel of Fig. 1, which shows the predicted gap in the voting propensities of party identifiers between their traditionally preferred party and other parties. The predicted effect of party identification is always positive and significant; that is, party identification always leads to a bonus for one's preferred party. The size of this bonus, however, decreases with party system polarization.

The other aspects of competitiveness, however, do not seem to impact on single-issue voting or party identification voting. District magnitude and party system fragmentation affect neither the increase in the voting probability associated with perceived competence nor the advantage conferred by party identification.<sup>20</sup>

The effects of electoral competitiveness were also estimated with a reduced individual-level model, including only voter-party distances on the European and taxation issues (as well as the party-specific intercepts). These models lead to the same conclusion as the main specification. They show again that economic proximity voting is stronger in more fragmented party systems and in more proportional elections, but is not influenced by the level of party system polarization. Proximity voting on the European dimension, in contrast, becomes stronger as party system polarization grows.

### Discussion

Voting choices based on issues preferences are a central component of normative models of political representation. An efficient system of political representation is one that guarantees the congruence of citizens' and legislators' issue positions, a demanding requirement given the relatively low level of political information



<sup>&</sup>lt;sup>20</sup> The significant effect of fragmentation on the dummy *PID*, other party (Table 3, Model 1) points only to a difference in voting probabilities between non-identifiers' and identifiers' evaluations of their non-preferred parties. The effect of party identification, however, does not significantly vary with fragmentation. Similarly, electoral system proportionality has no effect on single-issue voting in Model 2, that is, on the difference between the dummies *Most competent party* and *Other party most competent*.

<sup>&</sup>lt;sup>21</sup> The corresponding results are presented in the online appendix (Table A6).

among citizens. This article investigated whether some political and institutional factors could help approach that ideal by inciting citizens to rely more strongly on issue preferences. Two forms of issue voting were considered: proximity voting, where citizens support the party closest to them in the political space, and a less elaborate single-issue voting, where voters support the party viewed as best able to handle the most important political problem. This study's hypothesis is that both forms of issue voting would be stronger (and the effect of party identification weaker) in competitive elections, that is, in elections held under a more proportional electoral system and with a fragmented and polarized party system.

This study's analyses of voters' behavior in the 2007 Swiss election show strong variations across cantons in the strength of issue voting and the effect of party identification. Most important, they reveal that this variation is related to electoral competitiveness. Issue voting is stronger in more competitive electoral contexts and the effect of party identification weaker. This supports the idea that institutional factors can incite voters to rely more strongly on substantial criteria, and less on heuristics. Citizens in more competitive elections make their voting decisions in a way which is closer to the normative ideal of political representation. Not all aspects of competitiveness appeared to be equally relevant, however. Party identification voting and single-issue voting are affected by the polarization of the party system, but not by its fragmentation or the proportionality of the electoral system. The same pattern was observed with respect to proximity voting on the issue of EU integration. Economic proximity voting, in contrast, is not significantly affected by polarization but it is stronger in fragmented party systems and in more proportional electoral systems. Altogether, party system polarization appears to be the single most influential factor. This important role of polarization is in line with previous research on context effects on the voting decision process (Alvarez and Nagler 2004; Van der Eijk et al. 2005; Knutsen and Kumlin 2005; Ensley 2007). The positive impact of fragmentation on economic proximity voting, by contrast, is at odds with the conclusions reached by other scholars. Working with CSES data, Dalton (2008) and Kroh (2009) found no positive relationship between the effective number of parties and the strength of ideological voting.

It is not possible here to determine the reason(s) for these diverging results about the impact of party system fragmentation. The analyses presented in this article are based on a different research design, on different data and on a different specification of the voting-choice model than those of Kroh (2009) and Dalton (2008). Also, I focused here on issue-voting, rather than ideological voting. All of these factors may play a role in explaining these diverging conclusions. The diversity of methodological and theoretical approaches limits our ability to compare the findings of different studies.

One possible way to better understand such differences would be to look in more detail at party configurations and campaign strategies. The expected effects of competitiveness on issue voting are indirect: they should depend, among other things, on parties' issue emphases during the campaign. While economic conflict corresponds to a basic conflict of left versus right, likely to be observed in all cantons, mobilization on the EU dimension is mainly associated with the right-wing populist Swiss People's Party (Kriesi et al. 2005). Since this party takes a relatively



extreme position on the European question, it is likely to have a strong influence on the level of polarization. This could explain why the strength of EU proximity voting is mainly related to that aspect of competitiveness. In other words, it may be necessary not only to consider electoral competitiveness per se but also to distinguish among different causes for higher or lower levels of competitiveness.

Another direction for future research is to explore the *mechanisms* that underlie contextual effects—an aspect on which there is little direct empirical evidence (but see Hellwig (2010) for an important exception). In the discussion of the expected context effects, three possible mechanisms were mentioned: The political and institutional context can incite parties to emphasize their issue positions more clearly, can lead voters to deem their own decision as more important, and can make issue criteria more easily available and easier to use for voters. It was not the aim of this analysis to test these causal mechanisms or to weigh their relative importance. However, more detailed analyses of such mechanisms will be necessary to better understand how voters may be influenced by context-level factors. This should improve our knowledge of how the political and institutional context can lead to a better representation of citizens' preferences.

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