

Parties' responsiveness to Voters' Position Shifts in a direct democratic setting

Abstract

The responsiveness of political parties to voters' policy preferences is a core feature of democracies. A growing number of studies analyze this phenomenon, but key obstacles remain such as the availability of reliable measures and the infrequency of these measures (election periods). As a consequence, the literature remains vague in theorizing and analyzing instances where the preferences of the median voter clash with those of the party electorate. By studying party responsiveness in a different setting, this paper advances the literature on these fronts: We focus on the Swiss political context, where the frequent use of direct democratic institutions enables us to evaluate the dynamic responsiveness of political parties with several observations per year, for a large variety of topics. The paper uses a Bayesian Item Response Theory model to operationalize the general ideological position of ballot proposals and uses them to evaluate parties' responsiveness to the median and party voter. Our results confirm the most recent literature that political parties are responsive to their own electorates' position shift but not the median voter even in this least likely case. Furthermore, we show that, in situations where the signal from the general electorate and the party voters disagree, parties value the party voter more thus giving even more weight to their partisan electorate. These findings have important implications for the study of party responsiveness.

Introduction

The responsiveness of political parties is a central feature of party competition in democratic systems. Either parties respond to voters' preferences change in office - *the direct responsiveness* - or they are voted out of office - *the indirect responsiveness* (Stimson, MacKuen, & Erikson, 1995). Based on spatial voting theories (Downs, 1957), political parties are expected to adapt their positions to the position of voters to avoid electoral backlashes and collect electoral gains.

So far, the literature has examined responsiveness to the median voter (e.g. Adams, Clark, Ezrow, & Glasgow, 2004; Adams, Haupt, & Stoll, 2009) and political parties' responsiveness to their electorate on the other (e.g. Ibenskas & Polk, 2022). While the literature is flourishing (Adams et al., 2004, 2009; Dassonneville, Fréchet, Jabbour, Ferland, & Homola, 2024; Ezrow, De Vries, Steenbergen, & Edwards, 2011; Klüver & Spoon, 2016; Koedam, 2021; Steenbergen, Edwards, & De Vries, 2007; Williams & Spoon, 2015), key obstacles remain. First, the measures used to estimate parties' responsiveness to voters' positions are not necessarily reliable (Adams et al., 2019), and as a consequence, not all studies do find evidence of responsiveness (O'Grady & Abou-Chadi, 2019). Second, and related, as measures are connected to the electoral arena, they are only available during election periods, i.e., every four or five years. This seems a rather limited research design given that the theoretical premise is that parties' responsiveness to the electorate's position shift - *the direct form of responsiveness* - is a vote-seeking behavior (Harmel & Janda, 1994), meaning that political parties should aim to be responsive also between elections. Doing so means that a party knows what is happening within their electorate and, more broadly, where public opinion is heading. Also, there is ample evidence that parties react more short-term to changing public priorities (e.g. Bevan & Jennings, 2014; Bonafont & Palau, 2011), to coalition dynamics within the electoral cycle (e.g. Bevan, Borghetto, & Seeberg, 2023; Pardos-Prado & Sagarzazu, 2019) and even that public policy is adapted in the short run (Burstein, 2003; Lax & Phillips, 2012a). Third, the literature is surprisingly vague in theorizing and analyzing instances where the preferences of the median voters clash with those of the party electorate, probably because such situations are rare in the real world.

This paper aims to contribute to this literature on parties' responsiveness and offers a remedy to the challenges mentioned above by studying party responsiveness in a different setting: We focus on the Swiss political context, where the frequent use of direct democratic institutions enables us to evaluate the dynamic responsiveness of political parties with several observations per year, for a large variety of topics. We utilize the fact that political parties have to make their positions public before each popular ballot and match this with information on the median voter position as well as on their party electorate's position in previous ballots. Moreover, our setting allows us to delve deeper into how parties resolve situations when the median voter and partisan

supporters' positions don't align. We argue and show empirically that party responsiveness always trumps median voter responsiveness, and parties act in a directional voting logic to represent their partisan supporters.

This study is based on the analysis of around 300 ballot proposals collected over 37 years. We use dynamic Bayesian IRT models to estimate the ideological meaning of ballot proposals to map voters and parties in one ideological space. We then analyze whether a change in party position is influenced by the previous support of this very position by different segments of the electorate, i.e., the median voters' or the partisan supporters' position. The results indicate that political parties in this direct democratic setting are responsive to public opinion. However, they are not responsive to the median voter but to the party voter. Moreover, the analyses suggest that parties try to position themselves to represent better the party voter than the median voter.

In the next section, we discuss the responsiveness of political parties and formulate our expectations before delving deeper into the specificity of our setting of direct democracy and how this allows us to study responsiveness. Then, we present the research design data and method used in the analyses. Finally, we present the results and concluding remarks to discuss the implications of the findings.

Theory

The literature on the reasons why political parties shift their positions has revealed two major forces for such a position change. First, based on spatial models of party competition, parties calibrate their positions in line with the median - often measured as the mean - voter (Adams, 2012; Adams et al., 2009). Second, they adapt their position in response to shifts in their core constituency, i.e., party electorates (Ibenskas & Polk, 2022; Schumacher, De Vries, & Vis, 2013). Let us delve deeper into these forces now.

Many studies aim to evaluate if and to what extent parties are responsive to position shifts from the median voter. In general, studies found that parties are responsive to public opinion shifts on one or more ideological dimensions (Adams et al., 2004, 2009; Ezrow et al., 2011; Klüver & Spoon, 2016; Koedam, 2021; O'Grady & Abou-Chadi, 2019; Williams & Spoon, 2015) and in attitudes towards European integration (Arnold, Sapir, & De Vries, 2012; Spoon & Klüver, 2014; Spoon & Williams, 2017; Steenbergen et al., 2007). The main argument behind this literature is that parties should adapt their ideological position or issue position to position change by the median voter. Such behavior is argued to become more crucial given the growing shares of independent voters that parties want to appeal to as well (Dassonneville, 2018) and to serve both vote and office-seeking purposes (Lehrer, 2012; Schumacher, Van de Wardt, Vis,

& Klitgaard, 2015). Given the high visibility of the mean voter position in the Swiss direct democratic setting - parties just have to look at the outcome of the ballot, i.e., whether the proposals have gotten an electoral majority - we expect parties to adapt their positions in response to signals by the mean voter, i.e., the general electorate. Thus, we expect parties to adapt their position when the mean voter disagrees with their previous position - *the mean voter hypothesis*.

Although the responsiveness of parties to the mean voter should be a frequent phenomenon, empirical studies do not always confirm this expectation and often report rather low responsiveness from political actors to the mean voter. An important qualification concerns party heterogeneity in median voter responsiveness. It seems that especially mainstream parties are prone to respond to mean voter shifts (Adams, Clark, Ezrow, & Glasgow, 2006). Also recently, Adams et al. (2019) showed that one core issue with the study of party responsiveness and studies relying on measures of ideology is that they do not correlate well across different data sources. Thus, it is difficult to give any reliable indication of parties' responsiveness to the median voter's position change. Using a more sophisticated measure of voters' ideology on four dimensions developed by Caughey, O'Grady, and Warshaw (2019), O'Grady and Abou-Chadi (2019) found no evidence of parties' responsiveness in their large study across European countries. Thus, either we consider that "[e]lections do *not* force successful candidates to reflect the policy preferences of the median voter, as Downsian logic implies" (Achen & Bartels, 2016, p.48-49), or the median voter is overlooked in the literature on parties' responsiveness and parties are responsive to more specific segments of the electorate.

A second important logic of responsiveness is that parties respond to shifts in their own electorates. While earlier literature found this behavior confined to niche or more activist-dominated parties (Adams et al., 2006; Schumacher & Giger, 2018), recent work on European parties suggests that party responsiveness is the dominant behavior of political parties in Western Europe nowadays (Ibenskas & Polk, 2022). Ibenskas and Polk (2022) argue that a strong realignment process has made party constituents more distinct, which in turn encourages the responsiveness of vote-seeking parties. Importantly, such reactions are no longer confined to niche parties but are observable across all party types.

In short, we expect that parties adapt their position when partisan voters disagree with their previous position - *the partisan voter hypothesis*.

But what happens when the position of the median voter and the partisan supporter diverge considerably? While previous work has argued that more ambiguous party positions become likely in such a situation (Bräuninger & Giger, 2018), this is not really an option in a direct democratic setting where parties are constrained to announce their policy position in a clear-cut,

binary fashion in concrete policy proposals. We argue that, faced with such a situation, political parties will follow shifts in their partisan supporters more than those in the median voter group. In other words, the further away from the position the partisan voter is compared to the median voter, the higher the chance that the party will adapt its own position.

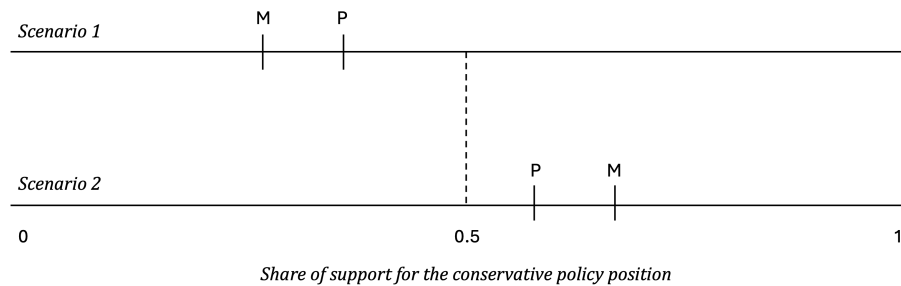


Figure 1: Comparison between two scenarios with a divergent position between the Median (M) and the Partisan (P) voters.

Figure 1 compares two scenarios with different support for the conservative policy position by the median (M) and partisan (P) voters. In the first scenario, both the median voter hypothesis and the partisan voter hypothesis expect parties to take the progressive position in the next ballot. Indeed, we see that both groups have a greater opposition to the conservative policy position and thus support the progressive position on the ballot more. In the second scenario, we see the opposite. Indeed, both the partisan and the median voters are more supportive of the conservative policy position. In this case, our hypotheses stipulate that parties should unequivocally take the conservative position in future policies to maximize their electoral gain. However, in both scenarios, parties would then support the median voter more than the partisan voter. In representative terms, this means that parties represent more the general electorate than their partisans. Although parties would be more in line with their voters and the general electorate if they take the position supported by the majority of their partisan, in comparative terms, this position would be less in line with the position of their electorate than with the position of the median voters. If parties aim to take a position that represents more their electorate than the general electorate, they should balance the position of their electorate - the position of the partisan voters - with the position of the general electorate - the median voter's position. In doing so, parties would take the conservative position in the first scenario, and the progressive position on the second scenario.

Such behavior can, on the one hand, be explained by the factors listed in Ibenskas and Polk (2022). On the other hand, such behavior can also be explained with a "directional logic" of party competition. If we assume that a divergence between median and partisan supporters is equal to a more extreme position of the partisan voter since the median voter is more centrist,

being responsive to the partisan voter means also being responsive to a more extreme position. In a directional voting logic (Rabinowitz & Macdonald, 1989), this signals also a more intense position and thus is to be preferred to a more centrist, i.e., non-intense, policy position.

Thus, not only should parties follow moves from parts of the electorate that are likely to vote for the - voters who identify with the party - but they should also represent these voters more than they represent the median voter. In other words, mean voter responsiveness is hardly relevant anymore in our model. It occurs only collaterally if median voter and party voter positions align.

Thus, we should expect that that party adapt their position when the relative partisan voter disagrees with their previous position - *the relative partisan voter hypothesis*.

The study of responsiveness in direct democratic settings

We test these hypotheses in the Swiss direct democratic system. The Swiss political system relies heavily on direct democratic decision-making. Swiss citizens vote up to four times a year on one or more ballot proposals. There exists a variety of direct democratic instruments ranging from compulsory referendum on international treaties to initiatives that take up topics from civil society. Importantly, before the ballots are presented to the population, the government and parliament vote also on them. In general, political parties are heavily involved in the direct democratic process and play an important role (Kriesi, 2006). In fact, political parties structure the decision-making process by citizen with their role to provide so-called "vote recommendations" on all direct democratic ballots at the beginning of the campaign. These vote recommendations are, in fact, positions on a variety of issues with a clear indication of the preferred direction, which aims to guide their electorate in how to vote on each ballot. For this study, we interpret these vote recommendations as revealed positions of political parties on all sorts of issues. They serve as important policy signals as well since voters heavily rely on these partisan cues in their decision-making (Colombo & Kriesi, 2017; Kriesi et al., 2005). In other words, if a big political party recommends voting no or yes on a ballot, the result of the popular vote can be turned upside down. We can thus see these positions as consequential behavior on the party side. In other words, contrarily to party manifestos - which are regularly used to measure parties' positions - vote recommendations in direct democracy have clear policy implications as they at least influence, if not determine, the adoption or the rejection of a policy proposal. As policy seekers, parties have incentives to reveal their true position in this setting given the likely impact on policy implementation (see Kriesi, 2006, for more on how elite coalitions drive vote results in direct democracy.).

Voters are called to the Voting Booth up to four times a year and have to decide on one or more ballot proposals. From the point of view of political parties, the results and accompanying opinion polls offer valuable information on the preferences of the electorate as a whole, and their party supports in particular. Thus, for parties, the direct democratic votes offer a valuable (and free) source of information on the preferences of the voters. This is especially important in the Swiss setting, where parties do not have the resources for frequent opinion polls.

In sum, the great advantage of studying the responsiveness of parties in such a setting is that parties take a position on ballot proposals by communicating vote recommendations to voters, and voters choose the preferred outcome on the exact same ballot proposal. Thus, it is possible to directly compare voters' and parties' positions on policy proposals, avoiding many issues highlighted by Adams et al. (2019). Second, while many studies document how voters use party vote recommendation to make voting decisions (Colombo & Kriesi, 2017; Colombo & Steenbergen, 2020; Dancey & Sheagley, 2013; Kriesi, 2006; Kriesi et al., 2005), party vote recommendations are usually considered as exogenous to voters' positions. Indeed, as party vote recommendations are known to influence voters' decisions, changing position through their vote recommendation has a great policy cost and is not something done easily. Third, Switzerland has a multiparty system that allows party responses to be compared over time across different political parties. In sum, this setting allows us to analyse how the position taking of parties is influenced by public opinion and their partisan electorate on a frequent basis and in a dynamic setting given that the ballots take place every three to four months.

We see the position taking the form of vote recommendations as a signal of responsiveness. It seems a good moment for parties to show that they are responsive to the expressed public opinion and their partisan electorate in past ballots and thus put an example that they listen to what their voters want. On the other hand, as these position-takings have no direct electoral connection, i.e., a party cannot gain more votes from being responsive, one could interpret the setting as a hard test to observe parties' responsiveness.

In the next section, we present the research design, the data, and the methods used in the analyses to test the hypotheses. Then, the analysis section will compare parties' responsiveness to the median, the partisan, and the relative partisan voter before concluding the paper.

Data and Methods

The core idea of the research design of this paper is to see whether parties adapt the position they take on a specific ballot based on the electorates' general or their party electorates' position in former proposals. In essence, this is a classical formulation of party responsiveness (Ibenskas

& Polk, 2022; Lax & Phillips, 2012b) but adapted to the direct democratic setting, which requires parties to publicly announce their position on the ballots in the form of a so-called "vote recommendation" and detailed information about public opinion on the exact same policy questions exists.

In this paper, we use two main data sources. The Swissvotes data (Swissvotes, 2021) and the Voxit data (Kriesi, Brunner, & Lorétan, n.d.). The Swissvotes data contain information about ballot proposals, including the vote recommendations of political parties since 1868. The Voxit data regroups post-vote surveys conducted after most voting days between 1981 and 2016. This data regroups individual surveys that were conducted after each voting day. Overall, it contains 320'197 observations on 297 proposals collected over 37 years. The surveys asked respondents about their vote choice and party affiliation, which allowed us to operationalize our variable of electoral support.

To get an idea of the temporal dynamic, we first create dyads of proposals based on their temporal location. More precisely, we link each proposal at t_0 to each proposal at t_{-n} where n is more than 0 and up to three years. This way, we create groups of ballot proposals. The main idea is to see whether the relationship between parties' policy positions at t_0 and t_{-n} is influenced by the electorate's support for the ballot at t_{-n} . In other words, this allows assessing whether parties change positions on ballots when the electorate does not support this position in previous ballots. We also conduct robustness tests with different lags of one and five years, which we discuss at the end of the paper and present in Appendix A.

In order to render the ballots comparable, we have to specify the ideological meaning of each ballot. In fact, direct democratic ballots in Switzerland cover a variety of topics and can take a conservative/right-leaning or liberal/left-leaning position.¹ In other words, as our data is organized in dyads based on temporal proximity, without the additional information on the ballot position on the ideological space, it makes little sense to compare vote recommendations (yes or no) over time as support for a ballot - i.e., our measured outcome - can mean very different things. For example, if we compare the positions on promoting a recycling infrastructure to one on green energy, supporting the two items has the same ideological meaning, but this would not be the case if the second ballot would have been on the deregulation of the fuel industry.

The first important step in our empirical strategy is thus to estimate the ideological meaning of ballot proposals. In order to classify each proposal on an ideological scale, we rely on a dynamic Bayesian Item-Response Theory (IRT) model. This model positions actors on a latent scale based on their responses to questions. In our case, the actors are political parties, and the

¹In this paper, we use the terms conservative/progressive and left-right interchangeably, given that we are interested in the general ideological leaning in a one-dimensional ideology model.

responses to questions are represented by the parties' vote recommendations. In general, the model can be specified as:

$$Y_{ij} \sim \text{Bernoulli}(\text{logit}^{-1}(\theta_{jt}b_i + a_i)) \quad (1)$$

In this model, Y_{ij} represents the response of actor j - political parties - on item i - ballot proposals. This variable takes the value 1 if the party recommended supporting the ballot, and 0 if it gave a recommendation against it ². θ_j represents the position of the actor j on the latent scale. Given the specification of the model and the unidimensionality of the latent space, in this case, θ_j is equivalent to the latent position of party j on the left-right or the progressive/conservative axis. Finally, b_i represents the discrimination, and a_i represents the difficulty of the ballot. In this paper, we are especially interested in the b_i parameter as it allows us to estimate how much the response of actors is discriminated by their response to the item i . If the discrimination is different than 0, it means that the position of actors on the latent space influences its response to the question i . However, if the discrimination of item b_i is close to 0, this means that the latent position of the actor has only a little importance in explaining its response to the item i . This can be seen with the multiplication between the parameters θ_j and b_i in equation 1. Finally, we also implement a random walk on the parameter θ_{jt} so that if $t = 1$, $\theta_{jt} \sim N(0, 1)$ and if $t > 1$, $\theta_{jt} \sim N(\theta_{jt-1}, \sigma_j)$. This specification allows us to estimate the latent position of parties over time and unconstrained the ideological meaning of ballot proposals through the parameter b_i with a dynamic ideological space.

We rely on the Swissvotes data to run this model. We selected all the ballot proposals between 1971 and 2016 included. Then we excluded counter-proposals as the response of parties to these items does not always have meaningful latent ideology³. This gives a total of 369 ballot proposals over 47 years. We then selected the five main parties of interest in this paper - The Social (SP), the Liberals (FDP), The Christian Democrats (CVP), the Conservative (SVP), and the Greens (GPS)⁴. These five parties are the major parties in Switzerland (Bütikofer & Seitz,

²In a marginal amount of cases, parties also give a free recommendation. We exclude these cases from our model as it changes the nature of the outcome variable. Also, free recommendations can be made for various reasons. Thus, it does not necessarily represent a middle position between Yes and No. Thus, we only keep cases where the party gave a clear Yes or No vote recommendation.

³Counter proposals are a form of ballot that proposes an alternative to a ballot initiative. If parties are in favor of the initiative, they may recommend voting no to the counter-proposal in order to favor the initiative. On the contrary, if parties oppose the initiative, they may oppose the counter-proposal and defend the status quo but may also be in favor of the proposal to avoid the adoption of the initiative ballot. Thus, the yes and no vote recommendation can have a different ideological meaning, which the model cannot take into account. Thus, to increase the reliability of our measure, we exclude the counter-proposal from our analyses

⁴The abbreviations relate to the German names of the Swiss political parties. The SPS is the Sozialdemokratis-

2023; Ladner, Schwarz, & Fivaz, 2023).⁵ We use these vote recommendation from parties - actors j - on ballots - item i - to run the Bayesian IRT model as specified in equation 1. To do so, we use the `rstan`, which is an R interface to the stan probabilistic programming language (Carpenter et al., 2017). The model runs for 10'000 iterations with 5000 warmups over four parallel chains. Section B of the appendix present the diagnostics of the dynamic Bayesian IRT model.

The first relevant parameters of the models are the θ_{jt} parameters. This gives the latent position of parties over 47 years. Figure C1 in the appendix presents the latent position of parties over time. The picture painted there seems plausible as the comparison between parties' positions perfectly fits common knowledge about the parties' positions. Indeed, we see on the extreme the right-wing and conservative party SVP on the one hand and the socialist and the greens on the other and in between the Liberals and Christian democratic party. Moreover, we see a growing polarization between the SVP and the SP/GPS over time, which is consistent with the observations Sciarini (2023, p.346-347) makes in his recent book on Swiss politics..

While Figure C1 shows that the model gives the position of parties on a latent space that fits our expectations and thus lends credibility to the model, the principal parameter of interest for this study is the discrimination of ballot proposals. This will help determine whether the dyads of ballot proposal at t_0 and t_n ideologically go in the same direction or not.

Figure 2 plots the parameter b for each item from the most progressive, left-wing to the most conservative right-wing ballot. However, several ballots have a median of the distribution for the discrimination parameter that is close to 0. In these cases, it is not possible to assess with sufficient certainty whether the support for the ballots has a left or a right meaning. Indeed, in the model, if all parties give the same vote recommendation, the parameter b for the ballot will be close to 0 - as the party vote recommendation Y_{ij} is not dependent on their ideology. Nevertheless, it is possible that the ballot has an ideological meaning and that including more extreme fringes of the political spectrum in the model would change this perception. As it is necessary to evaluate the ideological meaning of the ballot proposals correctly, we keep only ballot proposals where 95% of the posterior predictions are either positive or negative. This way, we ensure a high probability that the ballot's aim is effectively progressive or conservative and that unclear cases are dropped. Figure 2 plots the discrimination of each ballot. Ballots

che Partei der Schweiz, the FDP is the Freisinnig-Demokratische Partei, the CVP is the Christlichdemokratische Volkspartei, the SVP is the Schweizerische Volkspartei, and the GPS is the Grüne Partei der Schweiz. We will use these to refer to the different parties in the following.

⁵In this study, we focus on mainstream parties given that for this type of parties, the theoretical expectations in the literature are clearer than for niche parties. While the Green party is now considered an established party (Bütikofer & Seitz, 2023), we conduct the robustness test presented in Tables and Figures A4 to A6 in the appendix to provide evidence that the result presented in the paper holds with only historical mainstream parties.

indicated in grey are removed from the rest of the analysis, given their non-discriminatory nature. For now, this leaves 291 ballot proposals and excludes 78 ballot proposals where the ideological direction is not clear enough.

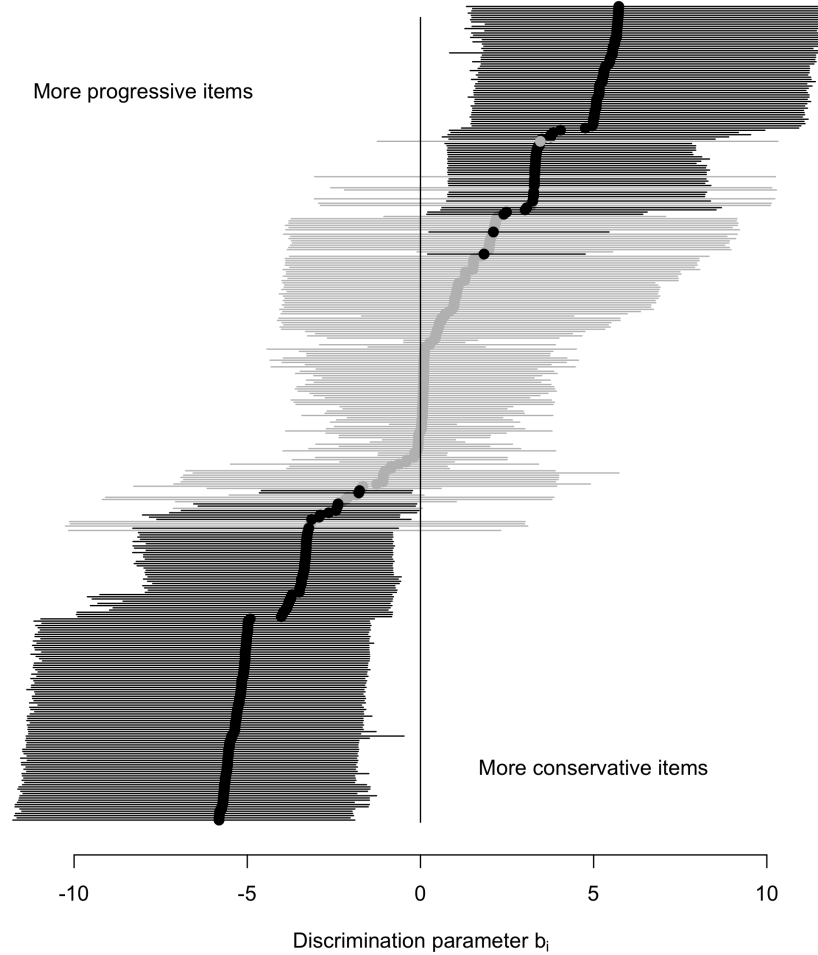


Figure 2: Distribution of the discrimination parameter of ballot proposal from the most progressive (bottom) to the most conservative (up). The extremity of the line represent the 2.5th and 97.5th percentiles of the parameter distribution.

We use the posterior estimate of the discrimination parameter from the Bayesian IRT model presented in Figure 2 to operationalize our dependent variable. The advantage of the Bayesian IRT model is that it gives a precise indication of the direction of the ballot. It is thus possible to specify whether parties take the conservative or a left-wing position on a given ballot. To do so, we classify the ballots into two categories. Ballots with discrimination parameters above 0 aim towards conservative proposals, and ballots with negative discrimination parameters aim towards more progressive proposals. Then, we recode the position of parties so that if parties support (oppose) conservative right-wing proposals, their position is coded as 1 (0). On the other

hand, when parties support (oppose) progressive left-wing proposals, their position is coded as 0 (1). Using the Bayesian IRT model enables us to operationalize an ideological position from a position on a proposal.

In a second step, we operationalize our main independent variable - the support of the conservative right-leaning position by the electorate. To do so, we use the same logic than for the dependent variable and consider the yes vote share for conservative ballots and the no vote share for progressive ballots.

To test the median voter hypothesis, we will rely on the Voxit survey data. It collected post-vote survey data from ballots between 1981 and 2016. We use this data to operationalize the electorate's support of the party position as the share of the voters that supported the conservative position on a ballot. In more technical terms, it takes the share of Yes votes if the ballot has a positive discrimination score and the share of No votes if the ballot has a negative discrimination score. This represents the *mean voters' support of the conservative position*.

We then operationalize the *party voter support of the party position* as the share of party voters that support the party position. This means that for each ballot, we take the share of party voters who voted Yes if the ballot has a positive discrimination score and the share of No if the ballot has a negative discrimination score. This represents the support of partisans of the conservative party position.

Lastly, the electorate's support of the party position is operationalized as the relative support of conservative position by the party voters - the relative partisan voter. To operationalize this *relative partisan voter* variable, the difference between the support of the conservative position by the party voter and by the median voter is computed. It takes positive values if the partisan voter supports more the conservative position than the median voter and negative values in the opposite case. Table 1 summarizes the operationalization and function of the different variables used in our models.

Variabe Name	Function	Operationalisation	Data source
Party support for conservative position	Dependent Variable	1 if conservative position, 0 if progessive position	Swissvotes + Bayesian IRT
Median voters' support for conservative position	Independent Variable	share of conservative vote for the whole electorate.	Voxit + Bayesian IRT
Party voters' support for conservative position	Independent Variable	share of conservative vote for the party voters.	Voxit + Bayesian IRT
Party voters' relative support	Independent Variable	Party voters' support - Median voter's support	Voxit

Table 1: Summary of the operationalization for the variables used in the regression model.

Using the variables described in table 1, we use a logistic regression model to estimate the probability of a conservative policy position on a ballot based on the electorate's support of a conservative position on the previous ballot at t_{-n} , and the position of the party on the last ballot. This model is, in essence, similar to other models analyzing parties' responsiveness. We test whether the position of a party is influenced by the previous position of voters on the same scale. The main difference relates to our dependent - and lag-dependent - variables, which are binary due to the nature of our data. Generally, studies test whether the general left-right self-position of the party is influenced by the general left-right position of the electorate between elections. In our case, we test if parties are more likely to switch positions if they see that their electorate did not support their position on previous ballots. Formally, the model is written as:

$$\begin{aligned}
ConservativePolicyPosition_{it=0} = & \beta_0 + \beta_1 ConservativePolicyPosition_{it_{-n}} + \\
& \beta_2 ElectSuppConservative_{it_{-n}} + \epsilon_{it/t_{-n}}
\end{aligned} \tag{2}$$

Concretely, the model includes a lag-dependent variable. The goal is to estimate what is the effect of the electorate's position on the party position controlled by the lagged party position. In this sense, it is similar to modeling strategies used in other research on party responsiveness (Adams et al., 2009; Caughey & Warshaw, 2018; Steenbergen et al., 2007). The main difference is that instead of considering general ideological positions, we use parties' positions on specific policy proposals. In addition to the model presented in equation 2, we also report results for models with an interaction term between the lag party position and the electoral support. This enables us to see how the relation between the lagged and current party position is moderated by the electoral support on the last ballot. This provides a stronger test of the hypotheses formulated in the theoretical section as it verifies whether the responsiveness to the mean voters

is not moderated by the position parties took in previous ballots. Furthermore, the interaction enables us to differentiate the effect for progressive and conservative parties' positions, which enables us to verify that the effect is not driven by a single side of the ideological spectrum- In sum, the moderating effect between the lag-dependent variable and the independent variables provides a stronger test of our hypothesis ensuring that the variance between parties position overtime is moderated by the voters' position, which also tests for the non-linearity of the effect for progressive and conservative positions.

In the next section, we present the results of our analyses. The result section is organized into three consecutive parts. First, the results for the responsiveness of parties to the median voters are presented. Second, the analysis focuses on the parties' responsiveness to the Partisan voters. Finally, the results of parties' responsiveness to the relative Partisan voters are presented. In each part, we will plot the results of the two-way interaction.

Results

This section presents the results of the regression models. We first present and discuss the parties' responsiveness to the median voter, then discuss the results of the parties' responsiveness to the partisan voter, and finally, the results of the parties' responsiveness to the partisan relative to the median voter are presented.

Parties Responsiveness to the median voter.

According to the median voter theorem (Downs, 1957), parties maximize their electoral results when they are responsive to the median voter's position change. This means that the more the mean voter aligns with the conservative position on a ballot, the more parties should take up the conservative position on the next ballot. On the contrary, if the median voter does not support the conservative position on a ballot, then parties should be less likely to take a conservative position in later ballots. Table 2 presents the direct and moderator effect of the median voter's position on party positions.

The first model in Table 2 presents the direct effect of the median voters' support for the conservative position on a ballot at time $t-n$ on the probability of conservative party positions on a ballot at time t_0 . We see that there is a significant negative effect, meaning that parties tend to take less conservative positions on ballots when the median voters had stronger conservative stances in previous ballots. This goes against the median voter's theorem as we find out that parties tend to go against the median voter.

The results are similar in the second model in Table 2, which includes an interaction term

Table 2: Regressions results for the Median Voter

	Parties' conservative position at time t=0	
Parties' conservative position at time t=-n	2.723*** (0.042)	1.820*** (0.120)
Median voter's support for conservative position (Median voter)	-1.887*** (0.111)	-2.785*** (0.162)
Parties' conservative position at time t=-n x Median voter's support for conservative position (Median voter)		1.757*** (0.223)
Constant	-0.383*** (0.056)	0.008 (0.075)
Observations	16,068	16,068
Log Likelihood	-8,400.385	-8,369.221
Akaike Inf. Crit.	16,806.770	16,746.440
<i>Note:</i>	*p<0.05; **p<0.01; ***p<0.001	

between the parties and the median voter's position in a previous ballot. To analyze the results of the second model of Table 2, we plotted the predicted probabilities, and the results are presented in figure 3.

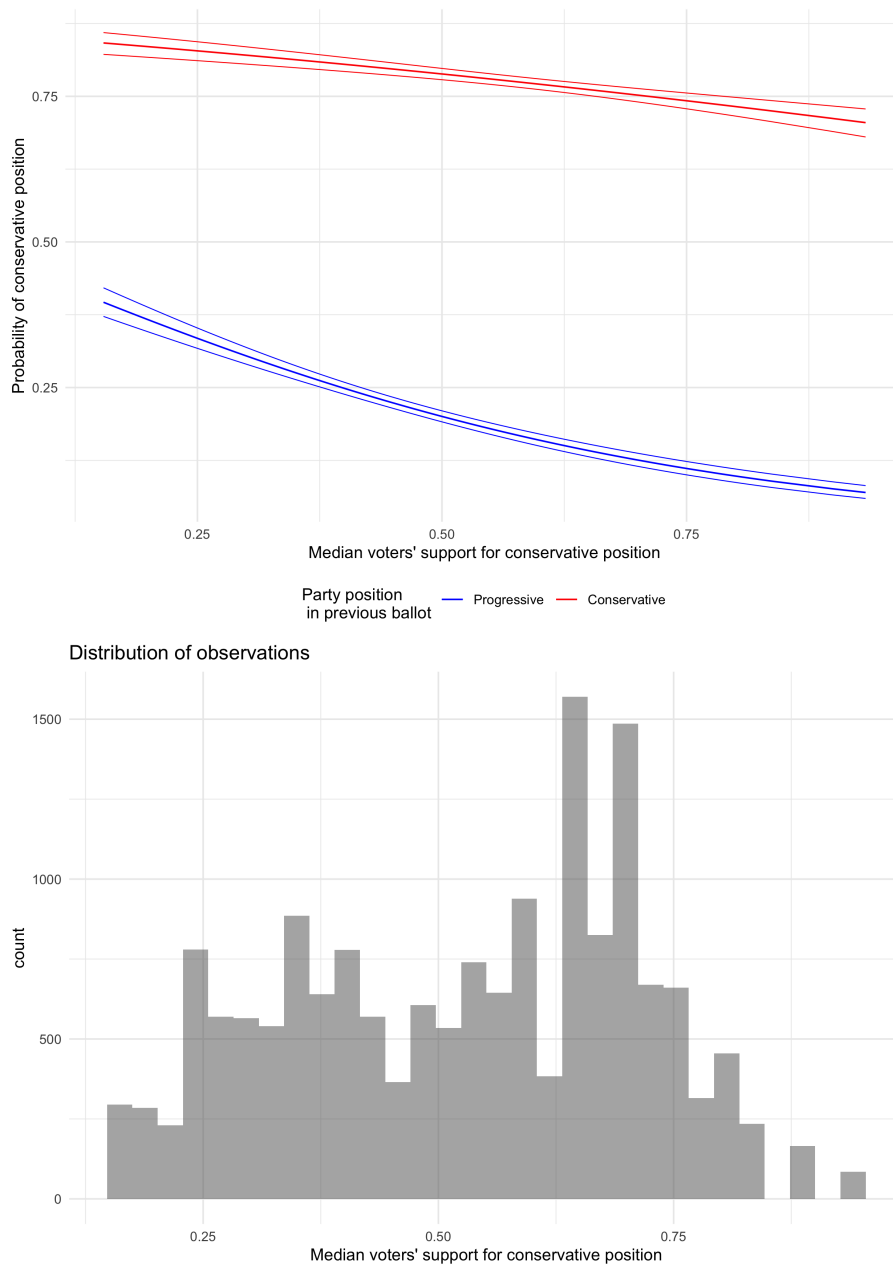


Figure 3: Parties' responsiveness to the median voter's position

Figure 3 confirms the results of the first model and shows that parties are not responsive to the median voter's position. If anything, parties seem to go in the opposite direction to the median voter. Indeed, we see that both for parties who previously had the progressive and the conservative position on a ballot, the support for the conservative position by the median voter lowers the probability of taking the conservative position. This result goes against the general assumption that parties will follow moves by the median voters to maximize their electoral gain in future elections. However, we argue that this does not mean that parties are not responsive to the electorate's position for electoral gain. Instead, we argue that parties will look at a specific segment of the electorate - the partisan voter - and balance their position to the one of the

median voters to take the position that represents their electorate more than the median voter - the partisan voter.

The Partisan Voter

We now turn to the analysis of parties' responsiveness to the partisan voters. The partisan voter represents the core electorate of the party. Empirically, these are the citizens who report identifying with one party. Strategically, parties may want to follow the partisan voter's position to keep their electorate for the next election. The median voter, even more in a multiparty system, takes into account many opinions that parties may not have an advantage to take into account. The best possible strategy for parties is to have the best appeal to voters who might vote for them. One way to estimate the position of this group of voters is to have a close look at the position of voters who already voted for you. Thus, to keep their current electorate and appeal to their potential electorate parties, they have an incentive to be more responsive to the partisan voter than the median voter. Table 3 presents the direct and moderating effect of the support for the conservative position by the partisan voter on the probability of the conservative party position on the following ballots.

Table 3: Regressions results for the Partisan Voter

	Conservative position at time t=0	
Conservative position at time t=-n	2.006*** (0.055)	2.925*** (0.121)
Support for conservative position (Partisan voter)	1.192*** (0.103)	2.119*** (0.148)
Conservative position at time t=-n x Support for conservative position (Partisan voter)		-1.802*** (0.208)
Constant	-1.617*** (0.043)	-1.919*** (0.057)
Observations	16,068	16,068
Log Likelihood	-8,483.916	-8,445.970
Akaike Inf. Crit.	16,973.830	16,899.940
<i>Note:</i>	*p<0.05; **p<0.01; ***p<0.001	

The results for the first model in Table 3 show that parties are responsive to the partisan voter. Indeed, we see that the more conservative the partisan voter is, the more likely it is that parties will take the conservative position in the following ballot. In the second model, we

also see a significant effect of the interaction between party position and partisan voter support for a conservative position at t-n. To discuss the moderating effect, we plotted the predicted probabilities and reported the results in Figure 4.

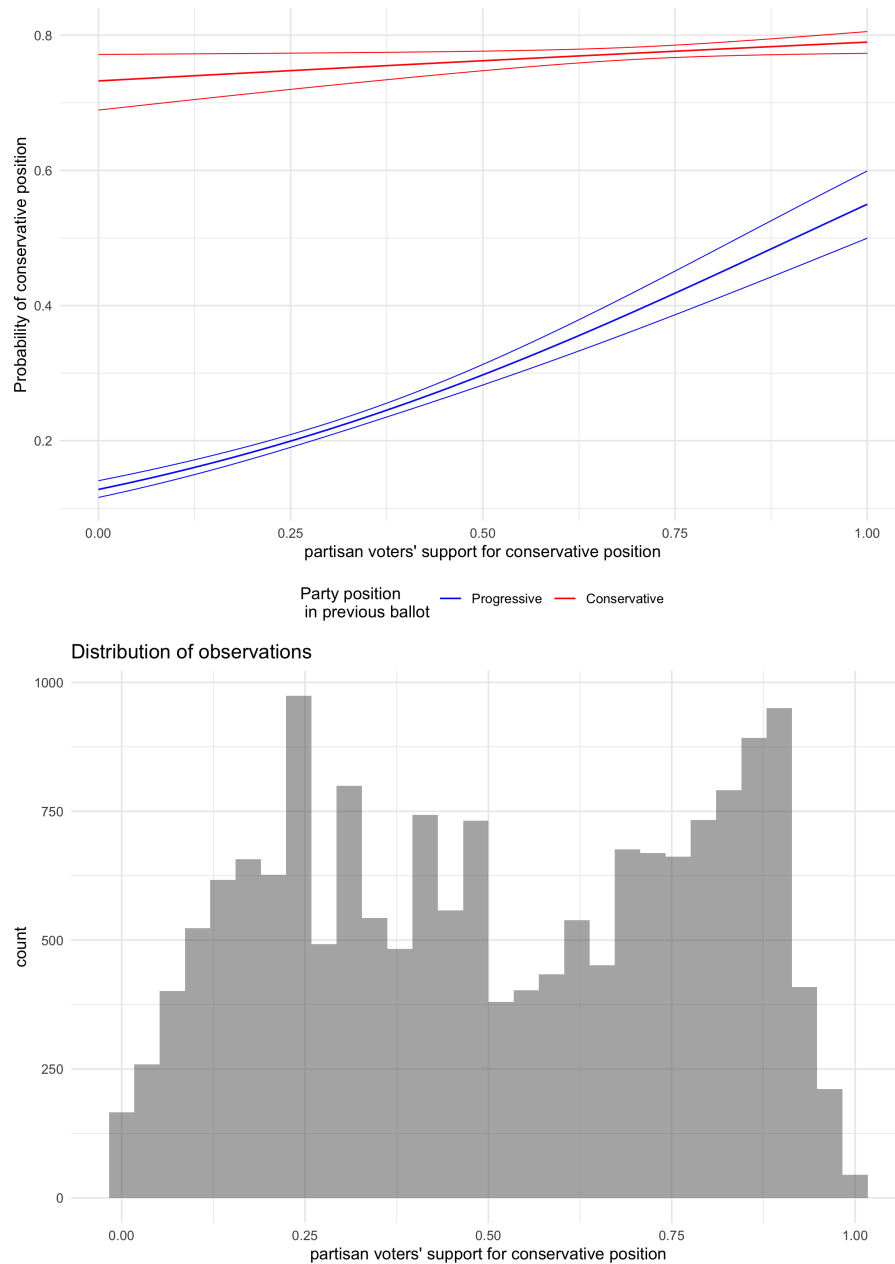


Figure 4: Parties' responsiveness to the partisan voter's position

Figure 4 shows that, contrarily to the median voter's position, parties are responsive to the partisan voter's position. Indeed, we see that parties are more likely to take the conservative position when their partisans support the conservative position in a previous ballot. This shows that parties are not unresponsive to electorate position shifts but that they tailor their responsiveness to parts of the electorate that are more likely to vote for them. In more general terms, these results also confirm that party responsiveness can be observed in different settings, such

as direct democratic position-taking.

The relative partisan voter

In sum, the two first parts of our analyses tend to disprove the median voter's hypothesis and confirm the partisan voter hypothesis. However, we argued that parties may consider the median voter in their strategy to position the relative partisan voter. The idea is that parties should try to represent their electorate better than any random voter. Thus, they may consider the position of the partisan voter compared to the median voter. In this case, when $n\%$ of the electorate - the median voter - supports a conservative position on a ballot, if $n+1\%$ of the partisan voter supports the conservative position, then the party takes the conservative position. On the opposite, if $n-1\%$ of partisan voters support the conservative position, then the party takes the progressive position in the next ballot. Although if $n=15$ or 85 , the side supported by the partisan voter is different, we argue that parties can disregard the side taken by their partisan and consider the side they are in compared to the median voter. Thus, parties may be responsive to the partisan voter relative to the median voter. This is what we call the relative partisan voter.

This section presents the results of the models with the relative partisan voter as the electorate of interest. First, Table 4 presents the results of the direct and moderating effect of the support for the conservative position by the relative partisan voter on the probability of conservative party position at time $t=0$. To consider the possible values of the independent variable for the relative partisan voter, we also control for the support of the conservative position by the median voter. Table 4 presents the results of the regressions.

In the first model in Table 4, we see that the support of the conservative position by relatively partisan voters has a positive and significant effect on parties' conservative position on ballots. Furthermore, we see that the median voters' conservative support has a negative and significant effect on the dependent variable. This indicates that parties tend to take a more conservative position when their electorate supports the conservative position in previous ballots.

To analyze the results of the second model, we turn to Figure 5, which plots the interaction between the party position and support for the conservative position by the relative partisan in a previous ballot on the current party position.

Table 4: Regressions results for the Relative partisan Voter

	Conservative position at time t=0	
Conservative position at time t=-n	1.068*** (0.062)	1.119*** (0.064)
Support for conservative position (Relative partisan)	5.428*** (0.171)	8.029*** (0.260)
Support for conservative position (Median voter)	-0.520*** (0.117)	-0.530*** (0.119)
Conservative position at time t=-n x		-5.345***
Support for conservative position (Relative partisan)		(0.343)
Constant	-0.231*** (0.057)	0.054 (0.060)
Observations	16,068	16,068
Log Likelihood	-7,825.244	-7,699.375
Akaike Inf. Crit.	15,658.490	15,408.750
<i>Note:</i>	*p<0.05; **p<0.01; ***p<0.001	

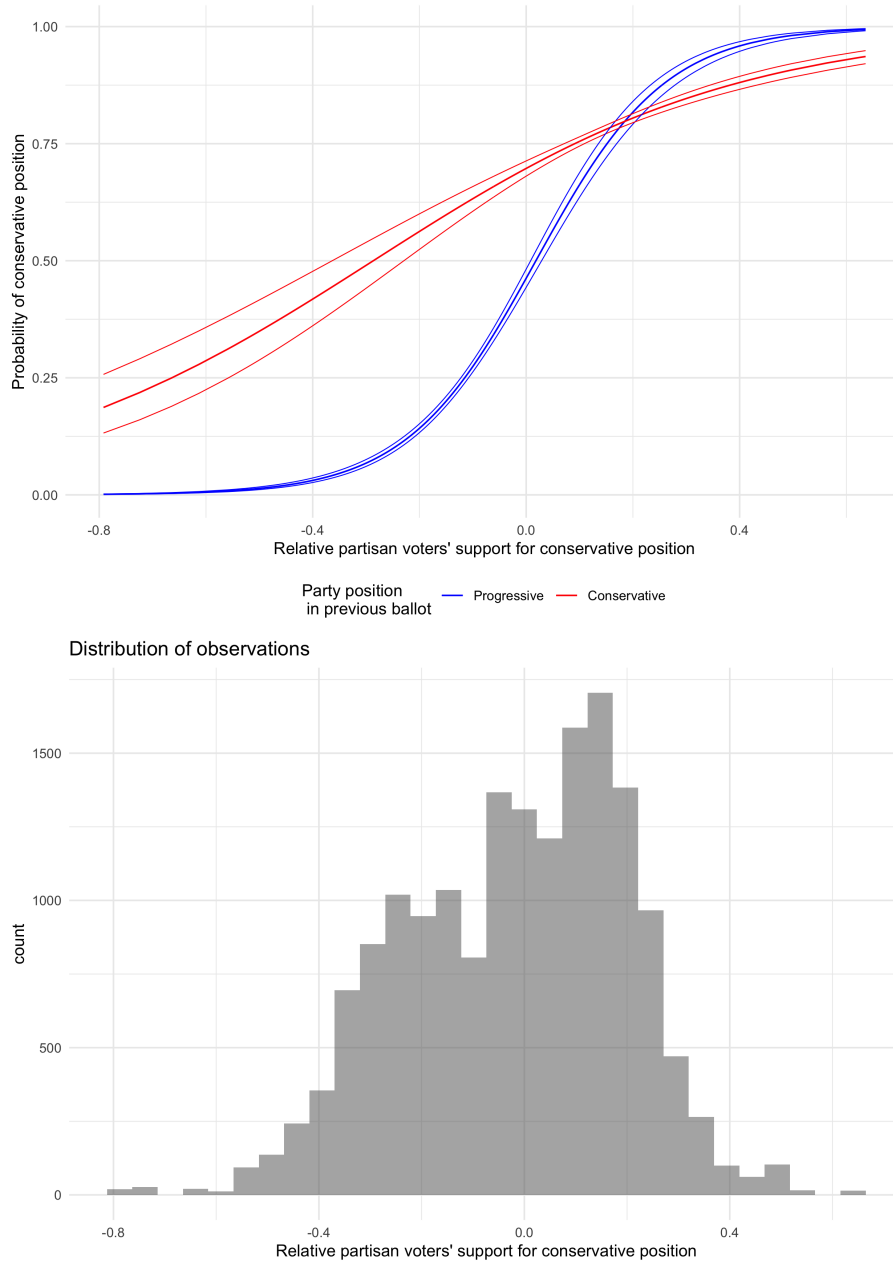


Figure 5: Parties' responsiveness to the partisan voter's position relative to the median voter

Figure 5 shows that the position of parties is substantially influenced by the relative partisan voter's position. Indeed, while parties tend to take the conservative position when their electorate supported more the conservative position than the median voter (positive value), the probability of this event gets substantially lower when the party voters supported the conservative position on a previous ballot than the median voter.

Overall, the results indicate that parties are not responsive to the mean voter, but select parts of the electorate that vote for them tend to follow their position. Moreover, we find that the relative partisan voter framework is most relevant to explain parties' positions. This means that parties not only look at where the majority of its partisan lean but weigh this with the

median voters as a benchmark to represent more of their supporters than the median voter. In sum, our analyses suggest that parties avoid the median voter’s position and use its position to position their electorate relative to its position.

Robustness tests

In addition to the results presented in the former section, we ran additional analyses to verify the robustness of our results. First, we replicated the analyses with different time lags - one and five years - to check whether our time frame was appropriate as time horizon parties take into consideration. Furthermore, given the myopic nature of humans, we would expect more recent ballots to have a stronger effect.

The results presented in tables and figures A1 to A3 in the appendix show that the results presented in the paper hold with different time lags. Indeed, our results indicate that even for the five year time frame, our results are confirmed. Second and in accordance to the myopic decision-making idea, we find that the effects are slightly stronger if we consider a one-year time frame only.

The second test relates to the function of the Green Party. When established, the Green Party was seen as a niche party that focused mainly on environmental issues. Importantly, several contributions highlight the fact that niche parties do not respond in the same way as mainstream parties to public opinion (Meguid, 2005, 2023) and react mainly to their own party electorate (Adams et al., 2006; Bischof & Wagner, 2017; Ezrow et al., 2011). It is thus fundamental to verify that the results we find in the paper hold when we remove the Green Party and consider only the mainstream parties. The results on the subsample excluding the Greens are presented in tables and figures A4 to A6 and show very similar results as those presented in the paper.

Taken together, these robustness tests show that the results presented in the paper hold with a limited selection of mainstream parties and with different time lags.

Conclusion

This paper asks what segments of the electorate parties are responsive to. While this is already rich literature on the topic, our study exploiting direct democracy in Switzerland sheds new light on parties’ responsiveness by analyzing to what degree the position-taking of parties is driven by the mean vs. the partisan voter in a dynamic setting with several observations per year. Not only can we study more short-term shifts in party positions in this setting, but our reliance on revealed behavioral measures of party positioning allows us to side-step many of the obstacles that plagued the literature so far.

Our findings indicate that also in this arguably hard test of party responsiveness - no direct gain of votes - we confirm the most recent literature that political parties are responsive to their own electorates' position shift but not the mean/median voter. In detail, our analysis shows that, in particular, in situations where the signal from the general electorate and the party voters disagree, parties value the party voter more. This is what we coin relative party voter responsiveness. Given that such instances are rather rare, they have not been the focus of the scholarly debate but, in our view, offer an even stronger test of the party electorate hypothesis.

However, more studies need to be done in other contexts to confirm this trend in a general manner. Although this paper uses reliable data to compare the position of parties and voters over a large number of issues and over 47 years, the analyses are limited to several dimensions. First, while the results are consistent across the five parties analyzed in the paper, different party types may still adhere to a different logic (Adams et al., 2006; Bischof & Wagner, 2017; Schumacher & Giger, 2018), but the range of parties analyzed might not have captured this variation. Second, this paper limits its analyses to a unidimensional political space while others analyze two or more dimensions (Koedam, 2021; O'Grady & Abou-Chadi, 2019), and some argue that party responsiveness occurs on issue dimensions (Giger, Bailer, Sutter, & Turner-Zwinkels, 2020; Schumacher & Giger, 2018). Finally, the analyses focus on responsiveness but leave out questions of congruence for the moment. However, as lamented by prominent scholars for a long, responsiveness does not directly imply congruence (see, e.g. Lax & Phillips, 2012b).

Finally, although the direct democratic context is expected to be the least likely case, it is not clear how it may affect the responsiveness of parties in general. For instance, Leemann and Wasserfallen (2016) found that the use of direct democratic institutions has a positive effect on the congruence between parties and voters. Thus, the use of direct democracy may enhance the responsiveness of political actors. Also, the specificity of the Swiss system that government participation is not dependent on position moderation might influence our results in the sense that the logic described by Ezrow (2008), for example, does not apply in this setting. Thus, the mean voter influence might be less pronounced in the Swiss case due to a lack of office-seeking motives for parties to engage in this type of behavior.

This paper nevertheless shows how parties' behavior is explained by their response to shifts in public opinion or, more precisely, partisan supporter shifts. Responsiveness occurs in specific segments of the electorate, and parties focus their attention on the position of voters who are likely to vote for them - the party voters. Given the more challenging setting in which this paper studies responsiveness, this can be seen as good news for the study of representation and hopefully encourages more work on responsiveness in novel circumstances.

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