Ideology or Issues? The Multidimensionality of Parties' Responsiveness to the Median Voter's Position Shift.

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#### Abstract

Studies analyzing parties' responsiveness have flourished in recent years. However, as we cannot know whether we measure the positions of voters and parties in similar dimensions, it is hard to draw definitive conclusions about parties' responsiveness. Furthermore, it is unclear how specific issues affect the relationship. This paper relies on the unique feature of Swiss Direct Democracy to measure the positions of parties and voters with a dynamic Bayesian IRT model. In this context, parties and voters position themselves on a large variety of policy proposals, making it possible to measure their position on the same latent space and a large variety of issues. Using the federalism feature and the fragmented party system of Switzerland, this paper then relies on a large cross-sectional time-series dataset. It provides robust evidence that variation in party vote recommendation during direct democratic campaigns is driven by issue-specific responsiveness.

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# Introduction

The responsiveness of political systems to voters' preferences is an essential feature of functioning democracies. It is typically argued that responsiveness happens indirectly, through election turnover, or directly when elites change positions to fit voters' preferences (Stimson, MacKuen, & Erikson, 1995). This originates from the spatial model of voting. It considers that parties and candidates are elected because they are close to the electorate's position (Downs, 1957). When voters send signals, political elites are expected to be responsive to them to increase their chances of (re)election. In sum, parties and politicians are expected to adapt their position directly to voters' preferences to avoid electoral backlashes.

Studies analyzing the responsiveness of political systems and actors have flourished over the last couple of decades (Adams, Clark, Ezrow, & Glasgow, 2004; Adams, Haupt, & Stoll, 2009; Bischof & Wagner, 2017; Caughey & Warshaw, 2018; Ezrow, De Vries, Steenbergen, & Edwards, 2011; Ofosu, 2019; O'Grady & Abou-Chadi, 2019; Simonovits, Guess, & Nagler, 2019; Spoon & Williams, 2017; Steenbergen, Edwards, & De Vries, 2007). Despite this extensive research, some elements of parties' responsiveness have yet to be addressed by this literature. One of the main challenges faced is reducing party positions and voters' preferences to meaningful dimensions. Scholars have first studied this responsiveness on the left-right ideological space (Adams et al., 2004, 2009; Ezrow et al., 2011). However, considering only a single dimension may trigger misleading conclusions (Schumacher & Giger, 2018; Schumacher, Van de Wardt, Vis, & Klitgaard, 2015). As a result, scholars have studied the responsiveness of parties and governments on more than one ideological dimension (Caughey & Warshaw, 2018; Koedam, 2021; O'Grady & Abou-Chadi, 2019). Others have focused on single issues or policies (Arnold, Sapir, & De Vries, 2012; Simonovits et al., 2019; Spoon & Klüver, 2014; Spoon & Williams, 2017; Williams & Spoon, 2015). As pointed out by Tausanovitch (2019, p.334), these studies consistently observe that these studies generally find that "More liberal states appear to have more liberal policies even after party is accounted for."

However, recent findings by Adams et al. (2019) show that we do not know whether we measure the liberalism of voters and parties on similar dimensions. In this paper, they acknowledge that studies analyzing the link between voters and parties are not necessarily using metrics that correlate between them. As a result, it is difficult to assess how parties

are responsive in Europe. At the end of the paper, Adams et al. (2019) suggest that new approaches to study party responsiveness to voters' positions should be developed.

This paper contributes to the literature on parties' responsiveness and provides a new approach by considering observational data on Swiss direct democracy. In this context, parties give vote recommendations to voters, who then make a voting decision on the same ballot, indicating the parties' position on policies to voters. The fragmented Swiss party system means that sub-national factions of political parties may take different positions than the national party. This paper analyses the positions of sub-national parties compared to the national party and investigates whether sub-parties respond to the sub-national electorates when voters in their constituency deviate from the national electorate. To do so, I use a dynamic Bayesian Item Response Theory (IRT) model based on parties position in direct democratic ballots to quantify the progressive/conservative direction of policy proposals and use the Comparative Agenda Project (CAP) expert coding of proposals to operationalize the dimensionality of ballots proposals. The paper tests whether voters' policy liberalism affects parties' positions and whether this effect is more substantial when proposals are on the same issue dimension.

Overall, the paper provides evidence that parties are responsive to voters' position and that this effect is stronger for proposals on the same issue dimension. This paper contributes to the literature on party competition by providing an original framework to study parties' responsiveness, operationalizes a common latent space between parties and voters, and provides evidence that parties' positions on political issues are the results of vote-seeking strategies that account for the multidimensionality of voters' preferences.

The following section presents the literature on parties and governments' responsiveness. Afterward, I present the data and the methods used in this paper before presenting the results of the analyses.

# Party issue responsiveness

The fundamental idea underlying the responsiveness of political actors lies in the spatial model of voting. Downs (1957) famously argued that citizens elect parties and candidates who are close to their ideological position. When voters indicate their position, it should trigger some form of responsiveness. This can occur indirectly or directly (Stimson et al., 1995). Indirectly, voters can choose their representatives in elections. This generates

renewed political bodies from time to time. Parties and politicians can also try to respond directly to these signals to avoid being replaced in the next election or, more generally, to maximize their chances of being (re-elected. Direct responsiveness aims to minimize electoral backlashes and maximize the electoral benefits of political elites by following voters' positions on political issues. If elected representatives are not directly responsive to the position shifts of the electorate, it is expected that elections will produce representative bodies that are closer to position the electorate: indirect responsiveness.

Studies on the direct responsiveness of political elites typically look at the response of government or political parties. In the US, scholars principally study the responsiveness of sub-national governments (Tausanovitch (2019, for a review see )). In Europe, studies generally focus on parties' responsiveness in cross-national designs (Adams et al., 2019). In both cases, the research either studies the responsiveness on ideological dimensions or specific issues. For instance, in the US, Caughey and Warshaw (2018) examines responsiveness on social versus economic dimensions. Alternatively, Simonovits et al. (2019) shows how the minimum wage level is influenced by the voters' preferences on the issue. In Europe, scholars have studied parties' responsiveness on one or more ideological dimensions (Adams et al., 2004; Ezrow et al., 2011; Koedam, 2021). Recently, O'Grady and Abou-Chadi (2019) analyzed party responsiveness on four ideological dimensions based on a method developed by Caughey, O'Grady, and Warshaw (2019). Furthermore, studies on party responsiveness in Europe also focus on single issues, namely the European integration (Arnold et al., 2012; Spoon & Klüver, 2014; Spoon & Williams, 2017; Steenbergen et al., 2007). These two traditions have a lot in common, especially if we consider that sub-national governments' responsiveness occurs even when controlling for partisanship (Caughey & Warshaw, 2018; Tausanovitch, 2019). This indicates that the reason for the responsiveness of sub-national governments is the adjustment of parties and elected representatives to the electorate's position. Thus, the adaptation of political systems to voters' preferences seems to be driven by parties and politicians.

The literature on party competition has yet to agree on the dimensions underlying the responsiveness of political systems. Considering the competition of parties on the issue dimension is not new. Downs (1957) argues that certain people give more weight to some issues than others. Achen (1978, p. 477) considered that representation should be measured "issue by issue." Petrocik (1996) showed that parties campaign on issues where they hold a comparative advantage. The issue ownership theory also argues that

voters choose parties or candidates because they are perceived as competent on important issues (Bélanger & Meguid, 2008). Finally, De Sio and Weber (2014) developed the issue yield model, which argues that parties compete by emphasizing policy issues. Overall, the literature overwhelmingly agrees that party competition is based on issues. It is thus surprising that the recent contribution of Adams et al. (2019) highlights the lack of empirical research that explores parties' responsiveness beyond the left-right axis and the European integration issue. This paper aims to fill this gap and study party responsiveness to voters' policy liberalism on issue dimensions.

Scholars have argued that the ideological position can be misleading when measuring representation. Schumacher et al. (2015) argue that moves in different dimensions in the opposite direction might cancel each other in a unidimensional space. Furthermore, similar shifts in the ideological position of parties and public opinion might not necessarily mean responsiveness in a unidimensional space. Also, Schumacher and Giger (2018) further argues that the unidimensional space does not consider issues that are not representative of the latent dimension. Thus, models focusing on a single ideological dimension are doomed to ignore low-salience issues. While these are important considerations for not using the ideological dimension to study party responsiveness, why should researchers study the issue dimension instead?

This paper argues that parties are more responsive to specific issue dimensions than the left-right spectrum for two main reasons. First, the spatial model of voting argues that parties receive votes from voters who are close to their position. By re-positioning themselves, parties should then be able to maximize their vote share. Downs (1957) recognizes that voters can associate different salience to different issues. Additionally, voters can also associate different positions with different issues. When parties face two electorates with different positions on different issues, they may maximize their vote share by considering this variation. By acknowledging the policy liberalism of the electorate on specific issues, parties can tailor their position on each of them. For instance, when parties receive more progressive signals on some issues and conservative others, they may adapt to each issue instead of taking cues for ideological shifts. This will result in a much more efficient adaptation to voters' preferences than taking cues from the ideological dimension.

Second, parties follow different goals Harmel and Janda (1994). Among others, they seek votes, which is the fundamental theoretical assumption of the party responsiveness literature. Because they are vote seekers, parties and politicians adapt their policy posi-

tions to voters' preferences to enhance their election chances. However, parties also are policy seekers. As a result, they have incentives to stand their ground and not back down on their policy position. It is largely recognized that parties' position can be resumed to a latent space of one or two dimensions - the left-right or the economic vs. cultural dimension. Nevertheless, if parties adapt their position as the result of a vote-seeking strategy, they won't change their overall ideological position. Indeed, as policy seekers, parties have incentives to hold their position when they do not need to move it. Thus, this paper argues that parties are responsive on issue dimensions, as it allows them to increase their electoral benefits and limit the policy cost of this responsiveness.

This paper relies on the Swiss case to test whether parties' responsiveness to voters' ideological position is clustered by issues. The aim is to test whether a subnational party takes a more conservative (progressive) position than its national counterpart when voters in its constituency take a more conservative (progressive) position than the national electorate. The Swiss political system contains two ideal characteristics to test parties' responsiveness to voters' positions.

First, Switzerland is a federalist country. Elections are organized at the sub-national level. Voters of these *Cantons* elect representatives at the national and the sub-national level. This triggers a fragmentation of the national party systems and creates 26 sub-national party systems (Ladner, 2001). These systems are similar in their composition, with similar party systems. However, voters' electoral context and position on issues vary among them. This variation in voters' positions should provide various vote-seeking incentives for sub-national parties. In order to gain votes, parties in progressive (conservative) cantons should take a more progressive (conservative) stance on issues than their national counterpart. Thus, the fragmentation of the Swiss party system is ideal to see whether the electoral incentives generated by voters' preferences in specific contexts trigger direct forms of responsiveness.

Second, the widespread use of national, direct democratic institutions in Switzerland enables me to compare the position of voters and parties on various issues. Indeed, parties communicate different vote recommendations to voters on each proposal, which indicate their positions on given policies during the political campaign that precedes the vote. Then, citizens in the whole country vote on the ballot on which parties positioned themselves beforehand. Furthermore, given the fragmented party system, cantonal parties also take positions on the national direct democratic ballots (Cappelletti & Dacorogna,

2014; Hug & Schulz, 2007). These positions can be the same as the national party's, but in some cases, they differ. This means that a national party can position in favor of the ballot, and a cantonal party can position itself against it - and vice versa. These party variations in positions on direct democratic ballots are the focal point of this paper. The aim is to see whether parties tend to take more progressive (conservative) positions on ballot proposals in ballots after voters in their constituency indicated a more progressive (conservative) position than the national electorate. Furthermore, the widespread use of direct democracy makes it possible to measure voters' and parties' positions over time on various issues.

This study focuses on cantonal median voters. However, it is not clear whether the median voter is important for the party. Studies have highlighted that the median voters are more important for niche parties than mainstream parties (Adams, Clark, Ezrow, & Glasgow, 2006; Bischof & Wagner, 2017). Thus, why would parties adapt to the median voter? This paper argues that, in most cases, they do not. Indeed, parties first take cues from the parts of the electorate that get them elected. It is unclear whether parties at the extreme would care for the median voters' position on issues. Nevertheless, the cantonal parties evolve in different electoral contexts. By analyzing how the difference in position between cantonal and national parties is influenced by the difference in their respective electorate, I aim to estimate whether parties take a more progressive position with a progressive electorate and a more conservative position with a more conservative electorate. Although parties may be mainly influenced by parts of the electorate that are likely to vote for them, a more progressive or conservative electoral context should trigger some form of response from the party competition. The position of partisan voters cannot entirely explain the difference in party position. Indeed, while parties have a clear, unified position on issues in most cases, there may sometimes be no ideal position for them to take. For instance, if the parties' electorate is split on issues, as no position is ideal for their electorate, they may turn to the median voter to know where it may withdraw the most electoral benefits. If the median voter indicates a more progressive/conservative position than the national average, the party should take the progressive/conservative position on the issue in the next ballot. This is also true for less centrist parties to some extent, as the difference between median voters in different cantons may indicate the relative position of their electorate compared to the party's electorate in other cantons.

To summarize, this paper argues that in most cases, parties do not care about the

median voters. However, when parties' position on an issue is unclear, parties cannot use the partisan voter to take a position enhancing their electoral benefits. Instead, they may look at the general electorate and take the position that is more likely to bring them electoral benefits. By studying the differences in position within parties, this paper also follows Adams et al. (2019, p.1241) suggestion" that scholars move away from analyzing generic 'party policy change,' and focus instead on specific types of party change." In this case, the specific types of changes are the differing positions between the cantonal and the national party. In this case, I argue that the relative cantonal party position - more progressive or more conservative than the national party - follows the relative position of the parties' electorate - when cantonal voters are more progressive or conservative than the national voters.

This paper relies on the Swiss case and its use of direct democracy, but is it too narrow for further generalization? Research on party cues highlights how party vote recommendation increases voters' consistency (Boudreau & MacKenzie, 2014; Colombo & Kriesi, 2017; Kriesi et al., 2005). Furthermore, it shows that party voters align with their party vote recommendation. Thus, the policy goal of parties is weakened if cantonal party factions take different positions on given ballots. This makes it less surprising that cantonal parties take different positions than their national counterparts only about 5% of the time. Thus, using variation between the positions of cantonal and national parties' position on direct democracy as a form of responsiveness is a hard test of the party responsiveness hypothesis. While parties can change their manifesto or communications to fit voters' preferences without many - if any - policy consequences, the different positions in national ballots may have a concrete effect on the outcome of the ballots at stake, leading to the adoption or rejection of laws constitutional amendments. The substantial impact of the position under study in this paper is more likely to trigger some form of policy cost than the adaptation of party manifestos during election campaigns. Under these conditions, I argue that the Swiss case provides a hard case for studying party responsiveness to the electorate.

In summary, this paper argues that parties are responsive to voters' positions on issues. First, because as vote-seekers, it allows parties to tailor their position to the specific issue preference of their electorate. Second, as policy seekers, the cost of changing positions on a variety of issues is higher than on one issue.

At first, the paper tests the effect of voters' ideology on cantonal parties' positions.

It is thus hypothesized that Parties take more progressive (conservative) positions than their national counterparts when their electorate indicated more progressive (conservative) positions in previous ballots (Parties' responsiveness hypothesis).

However, as party issue responsiveness is argued to better explain the phenomenon under study, it is also hypothesized that Parties take more progressive (conservative) positions on an issue than their national counterparts when their electorate indicated more progressive (conservative) position on the same issue in previous ballots (Parties' issue responsiveness hypothesis).

The next section presents the data in detail, including the operationalization of the indicators and the models used in the analyses. It also shows some results of the Bayesian Dynamic IRT used to operationalize the discrimination of ballot proposals. Finally, the results are presented and discussed.

## Data and Methods

This section presents the data and methods used to conduct the analyses. First, this paper relies on the Swissvotes dataset (Swissvotes, 2021). This data contains information on party vote recommendations in direct democratic proposals, cantonal party positions, and support of ballot proposals by the Swiss and the cantonal voters. Second, I used data from the Comparative Agenda's Project (CAP) <sup>1</sup>. It classifies all the Swiss direct democratic ballots into majortopics and subtopics. I used the majortopics classification to operationalize the issue dimension of the proposal. Finally, data from the Federal Office of Statistics on party strength in cantonal parliament were used to exclude observations where parties have had no seats in cantonal parliament <sup>2</sup>.

The Swissvotes data contains cantonal party positions since 1970, and the CAP experts' coding stopped in 2014. Thus, observations between 1965 - five years before the

<sup>2</sup>Publicly available data on party strength can be found on the Swiss Statistical Office website: https://www.bfs.admin.ch/bfs/fr/home/statistiques/politique/elections/parlements-cantonaux.assetdetail.14836234.html

<sup>&</sup>lt;sup>1</sup>The data used here were originally collected by Roy Gava, Pascal Sciarini, Anke Tresch and Frédéric Varone, with the support of Swiss National Science Foundation (grant number 105511-119245/1 and project 'The Mediatization of Political Decision Making,' sponsored as part of the National Center of Competence in Research 'Challenges to Democracy in the 21st Century'), and were distributed through the Department of Government at the University of Texas in Austin. Neither SNSF nor the original collectors of the data bear any responsibility for the analysis reported here.

first valid observation - and 2014 were selected. Then, only issues present on the ballot at least ten times were kept. From all the majortopics of the CAP data, ballots on the issues of Technology, Foreign trade, and Culture were excluded because they represent respectively 5, 1, and 6 ballot proposals out of nearly 400. Additionally, there was no proposal identified on the Public land issue. All other issues were represented with at least ten different proposals. This leaves 380 ballot proposals on 17 issues over 50 years.

#### Measuring the Ideological Direction of Ballot Proposals

The analyses aim to test whether or not when cantonal voters take progressive (conservative) positions on ballots, parties will take more progressive (conservative) positions in future ballots compared to the national party position. To measure voters' progressive (conservative) position on ballots, I use the relative support by cantonal voters of the progressive position of direct democratic votes. To estimate whether cantonal party sections take more progressive positions than the national section, I rely on the position they take during direct democratic ballots. However, to know if voters' support for ballots and party positions are progressive or conservative signals, I first need to estimate whether specific ballot proposals aim for progressive or conservative changes from the status quo. Indeed, if a ballot proposal aims at a progressive change, then supporting the ballot is associated with a progressive position. However, if a ballot proposal aims at a conservative change, then opposing the ballot is a progressive signal. In short, knowing the support for ballot proposals of parties and voters is not sufficient to test our hypotheses. I first need to estimate whether this support means a progressive or a conservative signal. Thus, operationalizing our main dependent and independent variables requires a detailed analysis of the ideological direction of the ballot proposals.

To know whether ballot proposals aim toward a conservative or a progressive change, I rely on a dynamic Bayesian Item-Response Theory model with national parties' position on ballot proposals as the outcome. If a party supports the ballot, the outcome is coded as 1, and 0 if it opposes the ballot. I consider the five largest parties of Switzerland - greens, socialist, centrist party, liberal party, and conservative party - which gives a precise overview of the evolution of the party competition space over time. The dynamic Bayesian IRT aims to estimate three latent parameters. The difficulty parameter is the constant for support of the ballot proposal. It indicates how difficult it is to support the proposal in the pool of actors in the analyses. The discrimination parameter indicates

how the ballot proposal discriminates the actors in the latent space. Finally, the ability parameter indicates the position of the actor on the latent space. Formally, the model can be written as:

$$Y_{ij} \sim Bernoulli(logit^{-1}(\theta_j b_i + a_i))$$
 (1)

Where  $Y_{ij}$  is the position of actor j on proposal i,  $a_i$  is the difficulty of proposal i,  $b_i$  is the discrimination of proposal i, and  $\theta_j$  is the position of party j in the latent space. The model employs a dynamic version, estimating  $\theta_j$  yearly, with the time trend following a random walk and  $\theta_{jt}$  being normally distributed and centered on  $\theta_{jt-1}$ . In essence, the model provides two crucial parameters: the positions of parties in the latent space over time with the parameter  $\theta_{jt}$  for cross-validation and the discrimination of the ballot proposal  $b_i$ , indicating its ideological direction. While the difficulty parameter is pertinent in the Bayesian IRT model, for the analyses, the difficulty of supporting the ballot is fixed with the general level of support in the Swiss population. In other words, the relative support of cantonal voters for ballot proposals already accounts for the level of difficulty in supporting the proposal in the general population. Figure displays the distribution of party positions on the latent space over time.

Figure shows the clear difference of position between the left parties - green (GPS) and socialist (SPS) - and the conservative party (SVP). It also shows that the centrist (CVP) and the liberal (FDP) parties are between the left and the conservative block, which is in line with the common knowledge of the party competition space. One additional aspect is the polarization we can observe between the left block and the conservative party. Indeed, the model shows that these parties are growing apart, which intensify from the 1990s onward. In a recent book, Sciarini (2023) shows the left-right position of voters and parties over time using post-electoral and candidate surveys. The results show a very similar trend, with the SPS and the GPS having increasing leftist positions and the SVP moving toward the right of the left-right space - which is especially true after 1991. Thus, not only do the results of the Bayesian IRT seem to place parties in the expected ideological block, but we also see that the polarization of actors observed in the model is also observed with other measurements (see Figure 6.5 and Figure 6.6, pp. 345-47 in Sciarini, 2023). In summary, the parameters  $\theta_{jt}$  from the Bayesian IRT model indicate that the results are plausible and in line with other measurements used in the field. We thus can operationalize our main dependent and independent variables using

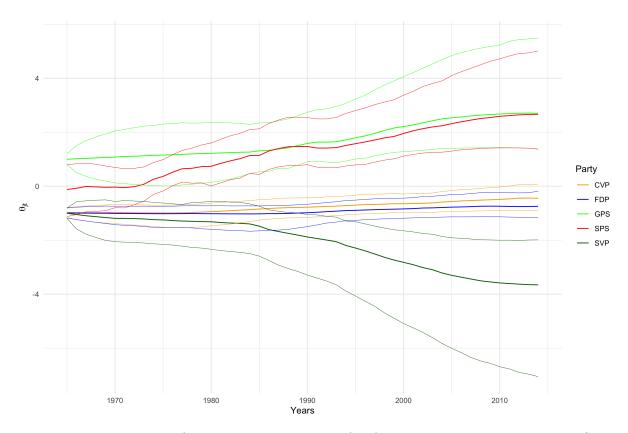


Figure 1: Distribution of the posterior estimate for  $\theta_j$  where j represents national Swiss political parties.

Positive values represent the progressive position and negative values represent the conservative position. The space between the two thin lines represents the values of draws from the posterior estimates between the  $2.5^{th}$  and the  $97.5^{th}$  percentile.

the discrimination parameter  $b_i$ .

The discrimination parameter  $b_i$  indicates the ideological direction of ballot proposals through the product  $\theta_{ji}b_i$ . As depicted in Figure , progressive parties have a positive value for the parameter  $\theta_j t$ , while conservative positions are associated with a negative value. This logic also applies to the discrimination parameter  $b_i$ . Indeed, if we multiply positive discrimination by a positive position, it indicates an increasing probability that a progressive party recommends supporting the ballot proposal. On the opposite, if we multiply a negative position by a negative discrimination, the product will be positive, meaning there is an increasing probability of voting yes for conservative actors. Thus, to know whether the ballot proposal aims at a progressive or a conservative goal, we need to have some certainty that the discrimination of the ballot proposal is positive or negative. To do so, I rely on the posterior estimate of the parameter  $b_i$  and consider it a progressive (conservative) proposal if 95% of the posterior draws are superior (inferior) to 0. Figure shows the distribution of the parameter  $b_i$  and the 95% credible interval of the posterior estimates.

Figure 2 shows that while many ballot proposals have discrimination parameters with 95% of posterior draws either above or below 0, some proposals have a discrimination score where the 95% posterior draws cross through 0. I focus the analyses on proposals that have a clear ideological direction (proposals in black in Figure ). For all other proposals, as we cannot be sure of the ideological direction of the ballot, it is not possible to assess whether support (opposition) means progressive or conservative signals. Overall, out of the 380 ballots classified in one of the 17 issue dimensions considered in this paper, 194 have clear ideological dimensions - i.e., 95% of posteriors under or above 0. Table A1 in the appendix displays the number of ballots for each issue dimension considered in the analysis.

In sum, the dynamic Bayesian IRT model allows the classification of ballots as progressive or conservative and quantifies the certainty of this classification. In the following sections, this classification is employed to operationalize the ideological direction of party positions and voters' support for popular ballots.

## 0.1 Opertionalization and modelization

The analyses rely on two dependent variables, which indicate whether the cantonal parties took a more progressive or conservative position than the national party in direct demo-

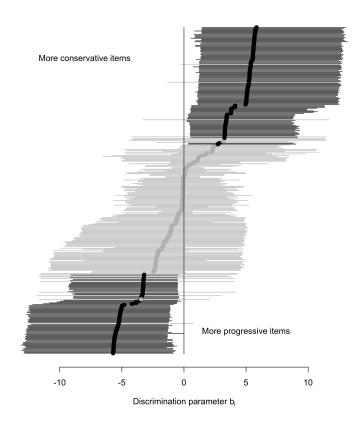


Figure 2: Distribution of the discrimination parameter parameter estimate  $b_i$ . Positive values represent progressive proposals and negative value means more conservative proposals. The error bars represent the values of draws from the posterior estimates between the  $2.5^{th}$  and the  $97.5^{th}$  percentile.

cratic ballots. The two dependent variables are important to differentiate as the analyses will only consider cases where parties had the possibility to take a more conservative or progressive position than their national counterpart. Indeed, if the national party takes the conservative position on a ballot, then cantonal sections of these parties can only take more progressive and not more conservative positions than the national party - and vice versa. The progressive position on a ballot is coded as 1 if parties support progressive proposals or oppose conservative proposals and 0 otherwise. The conservative position on a ballot follows the opposite logic and is coded as 1 if parties support conservative proposals or oppose progressive proposals and 0 otherwise.

The independent variable is the relative voters' support for the progressive position of a ballot proposal at t-n where n can be up to a five-year lag. To operationalize this variable, I first compute the difference between the cantonal vote share and the national for the ballot. Then, to know if this relative support is towards the progressive or the conservative position, I multiply the relative support by 1 for progressive proposals and -1 otherwise. This gives a continuous variable that takes positive values if the cantonal voters supported the progressive position more than the national voters and negative values if they supported the conservative position more than the national voters.

Finally, to test the *Parties' issue responsiveness hypothesis*, I consider the issue of ballot proposals. To do so, I rely on the major topics of the CAP expert coding with a total of 17 issue dimensions. Each ballot proposal is associated with one issue dimension, and I use this to create a binary variable indicating whether two ballots are on the same issue - 1 - or not - 0. Table 1 summarizes the operationalization of the variables used in the analyses.

The variables presented in Table 1 are the main variables used in our analyses. Our analyses simply test whether relative support cantonal voter's support for the progressive (conservative) position at t - n leads to a more progressive (conservative) position by parties at t = 0.

For our analyses, different important aspects have to be considered. First, the modeling needs to take into account this temporal dynamic. It is not possible to know  $\grave{a}$  priori which ballots influence each other. Indeed, when taking a position on a ballot proposal, parties may consider results for ballots in the last voting days, but they may look back in time to take cues from ballot results from several years. Thus, I create dyads of observations between ballots at time t and all the ballots in the five years before. This enables us

Table 1: Operationalization and function of variables included in the regression models.

Variables' name	Operationalisation	Function
Progressive party position	1 if party deviates to support	Dependent variable
	progressive proposals or to oppose	
	conservative proposals, $0$ otherwise	
Conservative party position	1 if party deviates to support	Dependent variable
	conservative proposals or to oppose	
	progressive proposals, 0 otherwise	
Electorates' relative support	Cantonal support - National support	Independent variable
for progressive position	for progressive proposal and	
	(Cantonal support - National support) * -1	
	for conservative proposals	
Related issue	1 if the majortopic of the	Moderating variable
	CAP is the same between ballots	
	and 0 otherwise	

to test whether the current party positions are influenced by past voter behavior in direct democratic ballots. This means that, for instance, a ballot on the first of January 1970 is paired with all ballots between the first of January 1965 and the thirty-first of December 1969. As robustness, we present in Appendix A the results for models considering ballots four, three, two, and one year before. The results show that the findings presented in the results section have different time specifications, which suggests that the results in the paper are not artificially created by the time frame chosen for the analyses.

Second, need to consider how the support for progressive positions in past ballots influences progressive and conservative positions of parties in future ballots. Indeed, the observations for the dependent variable are not independent of each other, and it is reasonable to assume that cantonal parties who take a more progressive position once are more likely to do so again in the future. Furthermore, as emphasized earlier, the position of parties can actually influence the results of the vote, meaning that if parties take more progressive positions, their electorate is likely more progressive on the issue as well. To control for the lack of independence between observations over time, the model includes a lag-dependent variable indicating whether the party took a more progressive and a more conservative position on the previous ballot.

Finally, the model needs to consider only cases where cantonal parties can take more conservative or progressive positions than the national party. Thus, for our model with the dependent variable on progressive (conservative) party positions, I exclude all cases where the national party section takes the progressive (conservative) position. When national parties take progressive positions on ballots, cantonal parties cannot take a more progressive position than the national party, and I thus exclude these cases from our analyses.

Once these aspects are considered, it is possible to formalize the model. We use logistic regressions with Progressive or Conservative positions as the outcome. In sum, the model aims to see how progressive or conservative cantonal party position on a ballot at time t is affected by the relative support for the progressive position by cantonal voters at time t-n where n can be all voting days in the five years before time t.

Finally, the paper includes different models. To test the *Parties' responsiveness hypothesis*, I do not include the related issue variable as a moderator and only include to test the *Parties' issue responsiveness hypothesis*. Second, for each hypothesis, I ran two regression models - one with the progressive parties' position as a dependent variable, which includes only cases where the national party did not take the progressive position, and one with the conservative party position as the dependent variable, considering only cases where the national party did not take the conservative position.

## Results

This section presents the results of four logistic regression models. It first presents the results for the direct effect of the relative cantonal voters' support for progressive positions in past ballots on the progressive and conservative parties' positions. Second, I present the results for the interaction effects between the relative support for progressive positions in past ballots and the issue dimension of the ballots on the progressive and conservative parties' positions. The results are presented with figures that indicate the predicted probability that a cantonal party takes a more progressive or conservative position than its national counterpart. The corresponding regression tables are presented in tables A2 to A5 in the Appendix. These tables also included results of models with different specifications, which are discussed in the robustness section.

This paper aims to test two hypotheses - the party responsiveness hypothesis and the parties' issue responsiveness hypothesis. To test the party responsiveness hypothesis, the models estimate the effect of the relative support for the progressive position by the

cantonal population at time t-n on the progressive and conservative parties' position at time t. For the parties' responsiveness hypothesis, we expect that more support for the progressive position of ballots increases the probability of progressive party position and decreases the probability of conservative party position. Figure 3 presents the results of these analyses.

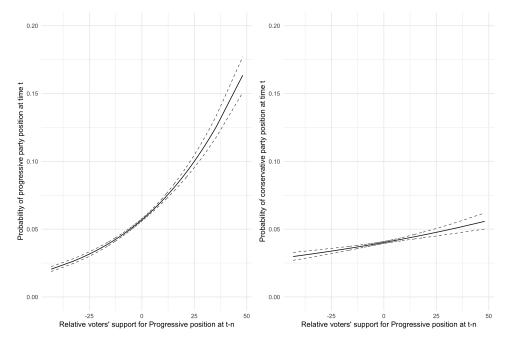


Figure 3: Direct effect of relative support for the progressive position of ballots at time t-n on the probability of progressive and conservative parties' position in ballots at time t.

On the left side of Figure 3, we see that more support for the progressive position in past ballot proposals in a canton increases the probability of the cantonal party taking a more progressive position than the national party. This is in line with the expectation as we see that parties tend to take more progressive in the direction of their electorate's relative position in the previous ballot, which is more progressive than the national electorate's position. On the right side of the figure, however, we see that more support for progressive positions in past ballots is associated with more conservative parties' positions. This result goes against the parties' responsiveness hypothesis, as parties seem to be more likely to take a more conservative position than the national party when their electorate is more progressive than the national electorate. Thus, Figure 3 only partially verifies the parties' responsiveness hypothesis. Indeed, although we find that parties are responsive on the progressive side of the ideological spectrum, we find opposite evidence for the conservative side of the spectrum.

The second part of the analysis tests the parties' issue responsiveness hypothesis. To verify this hypothesis, results should indicate that parties are more likely to take a more progressive position than the national party on ballots after cantonal party voters take a more progressive (conservative) position than the national electorate when ballots are on the same issue dimension. In sum, results should indicate that parties are more likely to take more progressive positions when their electorate supports the progressive position of ballots on the same issue. On the contrary, parties should be more likely to take a more conservative position when their electorate opposed the progressive position of past ballots in the same dimension. Figure 4 presents the results of the interaction between the relative support for the progressive position in past ballots and the issue dimension of ballots on the probability that cantonal parties take a more progressive and conservative position than the national party.

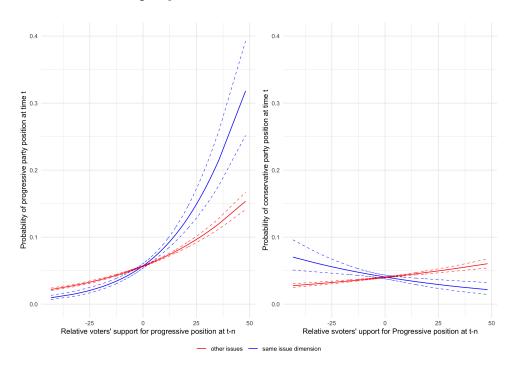


Figure 4: Effect of the interaction between the issue dimension of ballots and the relative support for the progressive position of ballots at time t-n on the probability of progressive and conservative party positions in ballots at time t.

The left side of Figure 4 shows the effect of the interaction between the relative support for progressive proposals in past ballots and the matching issue dimension on the probability that the parties take a more progressive position than the national party on present ballots. The results indicated that parties are more likely to take more progressive positions on ballots when support for the progressive position in past ballots is high. In

addition, Figure 4 shows that this effect is stronger for past ballots that are on the same issue dimension. The right side of Figure 4 shows a similar tendency for conservative parties' position. Indeed, we see that while parties seem to take the opposite direction than the electorate for ballots on other issues, for past ballots on the same dimension, the results show that less support for a progressive position in past ballots on the same dimension increases the probability that cantonal parties take a more conservative position on the ballot at time t. Thus, while the results do not indicate strong evidence that supports the parties' responsiveness hypothesis for conservative positions, this changes when considering the issue dimension of ballots.

Overall, the analyses show that there is only limited support for the parties' responsiveness hypothesis. While there is clear evidence of responsiveness toward the progressive side of the ideological spectrum, the results are not as clear for the conservative side. If anything, the first part of the analysis shows that parties take more conservative and progressive positions when support for the progressive position in past ballots is high. Thus, the parties' responsiveness hypothesis is only partially verified. In the second part of our analysis, however, there is evidence that parties follow the relative position of their electorate for ballots on similar issue dimensions. In this case, parties take more progressive positions when the electorate supports the progressive position on the ballot with the same issue dimension and conservative positions when their electorate does not support the progressive position in past ballots on the same issue.

In sum, the results presented in the analyses find limited support for the parties' responsiveness hypothesis while finding consistent support for the parties' issue responsiveness hypothesis. This suggests that parties' responsiveness to the median voter is not a unidimensional but a multidimensional phenomenon. Parties' responsiveness to the median voters' position is clustered by the issue at stake, and looking at responses at the ideological levels may be misleading when the issue dimension is not considered.

## 1 Robustness

To validate the results presented in the previous section, several additional analyses have been made. First, I estimated the same four models presented in the analyses with different specifications - fixed effects and time-trend. Second, I replicated the analyses with different time lags. The previous section represents a quite large time frame - up

to five years before the ballot at time t. We replicated these analyses with different time frames - one, two, three, and four years before the ballot at time t - to verify that the results presented are consistent with different time lags. Finally, I provide additional analyses showing some evidence against the reverse causality hypothesis - meaning that parties are simply more progressive/conservative on issues because the population is consistently more progressive. Although the latter would still mean large congruence between parties and voters, we argue here that we show parties' responsiveness to the median voter.

First, tables A2 to A5 show the replication of the results presented in the paper with different specifications. In these tables, the first model is the model presented in the paper - with no fixed effect and no time trend. The second model includes fixed effects for cantons, parties, and issues for the models with the interaction between the issue dimension and the relative support for the progressive position of ballots. Finally, as shown in Figure 1, there is a clear dependency between the time and the position of parties. Thus, in the third model, we interact parties' fixed effects with the time trend to take this interdependency into account. Table A1 and Table A2 show the results for the direct effect of support for progressive proposals on progressive and conservative parties' positions, respectively. For progressive parties' positions, we find similar results and show that more support for progressive proposals increases the probability that parties will take a more progressive position than the national party with all different specifications. For conservative parties' positions, the results indicate that there is no significant effect of support for a progressive position on the probability that parties take a more conservative position than their national counterpart. Thus, although results presented in the paper indicate that more support for the progressive position increases the probability that parties take a more conservative position than the national party in future ballots - which goes against our hypothesis - this result does not hold when we include fixed effects. In short, we confirm that support for progressive proposals has a direct effect on the probability of parties taking more progressive positions but that there is no effect on conservative positions. Then, Table A3 and Table A4 show the results for the interaction effect between the issue dimension and the support for progressive position on the probability of parties taking more progressive/conservative positions. These results are similar to the one presented in the paper with all specifications, both for progressive and conservative parties' positions. This strengthens the results presented in the paper and shows that parties are more responsive to the issue dimension than to the more general

ideological dimension.

Second, we provide analyses with different time frames between support for the progressive position of ballots at time t-n and the positions of parties on ballots at time t. All the results presented in Tables A6-A9 conform to the most restrictive specification presented in Tables A2 to A5. They include all fixed effects as well as the interaction between parties' FE and the time trend. Tables A5, A6, and A7 show the results for the direct effect of support for the progressive position and show no consistent effect with different time lags - neither on progressive nor on conservative parties' positions. On the other hand, Tables A8 and A9 present the results for the models, including the interaction between the issue dimension and the support for the progressive proposal, and show a consistent effect of the interaction on the probability of parties taking more progressive and conservative positions. For progressive positions, we see that the interaction term is positive and significant with all different time frames. For conservative positions, the interaction is always negative but not significant. Indeed, for the time frame of two and three years, the coefficient of the interaction is not significant but goes in the right direction. These results show that parties' responsiveness to public opinion is empirically clearer on the issue dimension than on the ideological dimension.

Finally, our analyses show that voters' support for the progressive position of popular ballots influences the progressive and conservative positions of parties. Although the models presented include lag-dependent variables to control for reverse causality, it could be that parties deviate from the national sections in the progressive direction when cantons are more progressive and in the conservative direction for more conservative cantons. In this case, the paper would still indicate congruence between parties and voters but not necessarily responsiveness. I provide two descriptive analyses - on the dependent variables and the independent variable. First, Figure A1 shows that for each canton, voters indicated both progressive and conservative positions over time. Second, Figures A1 and A2 show that in all the cantons, we can observe parties taking more progressive and conservative positions than their national counterparts. The variation of the dependent and independent variables indicates that it is unlikely that parties can only be congruent with voters during the time considered in the analysis - 1965 to 2014. During this time, all cantonal voters indicated progressive and conservative positions and all canton parties took more progressive and conservative positions than their national counterparts.

In sum, our robustness section confirms the analyses presented in the previous section

and shows that results consistently show support for the *parties issue responsiveness* hypothesis but no consistent support for the *parties responsiveness* hypothesis. Furthermore, given the variation we observe in our dependent and independent variables, the reverse causality is unlikely, meaning that our results indicate that parties issue responsiveness to voters' support for the progressive position in former ballots.

# Conclusion

This study aims to contribute to the understanding of parties' direct responsiveness to citizens' political positions. It argues that parties have more incentives to adapt to voters' issue preferences than to their ideological position. With a design based on Swiss direct democracy, it shows that between 1965 and 2014, positions from cantonal parties were influenced by issue voting of cantonal voters in past ballot proposals. These results are the first to show that parties issue responsiveness is better suited to understanding how public opinion affects the structure of party competition.

Despite this, the results also show that, in general, party sections in more liberal states - Cantons - take more liberal positions. This echoes studies on both sub-national responsiveness in the US (Tausanovitch, 2019) and studies in Europe (Adams et al., 2019). The results suggest that, to a large extent, parties take more cues than those specific to the issue dimension. Thus, do parties respond more to voters' positions on specific issues? Arguably, yes. However, although the paper finds strong evidence that voters' issue preferences are crucial to understanding parties' responsiveness, it does not completely discard the effect of ideology.

Furthermore, it is difficult to know if parties are considering more specific policy issues to adapt to voters' preferences. In a recent publication, Pinggera (2020) shows that party issue emphasis follows party voters' welfare priorities. This means that within the social welfare issues, parties also differentiate between old-age pensions and unemployment benefits based on the party voters' priorities in these policies. Thus, while this paper shows that voters affect more party positions on these 17 issue dimensions, taking even more specific policy domains into account could potentially further enhance our understanding of this phenomenon.

While scholars have studied responsiveness on multiple ideological dimensions (Caughey & Warshaw, 2018; Koedam, 2021; O'Grady & Abou-Chadi, 2019), in this paper, we only

look at proposal discrimination on a single ideological dimension upon which ballots are classified in different topics. However, considering multiple ideological dimensions of discrimination in the proposals could also bring interesting findings. For instance, Caughey and Warshaw (2018) finds that responsiveness is greater on social than on economic issues. It could well be that considering the discrimination of ballot proposals would highlight different dynamics of responsiveness in different ideological dimensions of policy proposals.

The study uses the Swiss direct democracy to test both the party responsiveness and the party issue responsiveness hypotheses. Although the paper argues that considering cases where cantonal parties take different positions than national parties during direct democratic campaigns as a hard test for party responsiveness, the use of direct democracy may increase the cues parties can take from voters on specific issues compared to democracies without these institutions. Indeed, Leemann and Wasserfallen (2016) show that congruence increases with the use of direct democratic institutions. Thus, based on their argument, while the analyses of the paper provide a hard test for the party responsiveness hypothesis, the use of direct democracy could enhance the responsiveness of parties in general. Furthermore, Besley, Coate, et al. (2008) argue that ballot initiatives help citizens to *unbundle* the issue dimension. This means that citizens are more able to accurately combine party and issue positions. This may also enhance the vote-seeking incentives that parties have to respond specifically to the issue of the position of voters. Overall, while within the direct democratic context, differences between national and cantonal party positions are a hard test for party responsiveness, the context may generally increase the phenomena of this study.

Finally, the results indicate that parties are more responsive on the progressive side than on the conservative side. This might be caused by the general party competition space analyzed in the paper. Indeed, other contexts, including center-left parties, may find different effects in the progressive and conservative directions. Thus, I argue that the multidimensionality of parties' responsiveness should be carefully studied in other contexts to test whether this difference is dependent on the party competition space or not.

Besides these limitations, the study provides strong evidence in favor of the party issue responsiveness framework. It is, nevertheless, still not clear if the issue dimension considered is sufficiently specific to capture accurately the effect of voters' preference on party issue position, but it shows that the consideration of these issues increases the effect of public opinion on party position. In future studies, researchers should try to see if, as suggested by Pinggera (2020), parties also discriminate their response within these issues. Additionally, taking the multiple dimensions of item proposals may highlight other dynamics between parties and voters. Finally, studies outside of the Swiss context should be conducted to see if the party issue responsiveness framework is more adapted because of the direct democratic context or if these results can be generalized to the whole literature on parties' responsiveness.

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