Voting in multi-level systems:
Ticket splitting in Austria

Katrin Praprotnik
Danube University Krems
katrin.praprotnik@donau-uni.ac.at

Flooh Perlot
University of Graz
florian.perlot@uni-graz.at

Abstract. Governance in modern European societies is multi-level governance. Citizens vote on their national, sub-national and European level. While we know that multi-level governance hampers political accountability, studies have shown that some citizens do evaluate and ultimately vote differently depending on the political level. This poses the question that we aim to address in this paper: Which factors explain different voting decisions at national and regional elections? In answering this question, we look at the case of Austria. Within the project Austrian Democracy Lab (ADL), we conduct bi-annual mass surveys among the Austrian population with a sample of about 4.500 respondents per wave. Based on the fourth wave of our survey, which was explicitly designed to look at voting-decisions at the regional and national level, we examine three hypotheses in binary logit models: First, we expect prospective considerations will be taken into account and look at *Party position estimates* of regional and national parties. Second, we elaborate on the political *Self-placement of voters*. We hypothesize that voters who define themselves as being more centrist are also more open to vote for different parties at different elections. Finally, we consider *Partisan attachment* as a limiting factor for ticket splitting. Our results show the expected effects of party position estimates and partisan attachment. The influence of political self-placement seems to vary between people positioning themselves further left or right.

Introduction

Most of today's European democracies are representative democracies. In a given period, citizens have the right to vote for political parties that will be responsible for the great bulk of public policy during their time in office. Additionally, most of today's European democracies are multi-level democracies meaning that citizens chose not one, but several legislatures and ultimately governments. Each layer of governance holds political power and directly influences people's everyday lives. Due to the key position of elections in legitimating political authorities, it comes as no surprise that the political science literature has devoted much attention to voting behavior in general (e.g. (Fisher, et al. 2017) and split-ticket voting more specifically (e.g. (Burden und Helmke 2009).

Following Burden and Helmke (2009), "a ticket is split if voter l votes for a party j in contest r and votes for party ~j in some other contest". This definition subsumes both horizontal and vertical ticket splitting. Horizontal ticket splitting refers to the selection of different parties at the same political layer. Vertical ticket splitting occurs when voters choose different political parties at different political layers. The seminal studies in that respect come from the United States and their analyses of straight- and split-voters at presidential and congressional elections (Campbell und Miller 1957, M. P. Fiorina 1996). Over the last decades, however, scholars have begun to add more European cases as well. These studies focused on horizontal splitting in mixed electoral systems that allow voters to cast both a candidate and a party vote (Johnston and Pattie 2002, Moser and Scheiner 2009, Gschwend, Johnston and Pattie 2003, Gschwend and Van der Kolk 2006). With respect to vertical ticket splitting, studies looked at ticket splitters between national and subnational as well as European elections (Elklit and Kjaer 2009, Van Aelst and Lefevere 2012, Willocq and Kelbel 2018, Sanz 2008, Heath, et al. 1999, Rallings and Thrasher 2005, Lohmann, Brady and Douglas 1997).

In this paper, we aim to extend the literature on split-ticket voting in two ways. First, by examining a new European case of vertical ticket splitting in national and sub-national elections. Second, by elaborating on the theoretical framework of spatial voting- (A. Downs 1957, Hotelling 1929, Enelow and Hinich 1984) and policy balancing-theory (M. P. Fiorina 1996, 1988, 1981, Alesina and Rosenthal 1996). In order to explain the research question why voters vote differently depending on the

political layer, we argue that a difference between party position estimates at the national level and those at the state level will render a split ticket more likely. The effects will be especially large, when voters position themselves at the ideological center (i.e. and have more viable options for switching) as well as when partisan attachment is low (i.e. and have no strong allegiance to their national vote choice). Following the theoretical section, we present our case selection. The data come from a mass survey among citizens in Austria that we conducted in autumn 2019 (N=4,506). Being interested in vertical ticket splitting, we asked respondents about their vote choice in the previous national election that were held a few weeks ago and their intended voting decision at a fictional regional election. We analyzed their decision using binary logistic regression models. The results confirm that increased differences in party position estimates as well as partisan dealignment increases the chances of casting a split ticket. Voter centrism, however, has not the expected effect but seems to vary between people on the political left and right. The last section concludes.

Spatial voting- and policy balancing-theories

Elections provide citizens with the chance to select their future representatives based on their political programs. This corresponds to the classic party mandate model meaning that parties have different political programs, voters are able to distinguish between these programs, and ultimately the party enacts this program (Committee on Political Parties, American Political Science Association 1950, Ranney 1954, Roberts 2010, McDonald and Budge 2008). In order to make meaningful political choices, they need to select parties that represents their views best. Spatial voting theory (A. Downs 1957, Hotelling 1929, Enelow and Hinich 1984) holds that parties are aligned on a political dimension, such as the left-right dimension. Based on this concept, the literature on correct-voting has examined voting decisions (Lau and Redlawsk 1997, Lau, Andersen and Redlawsk 2008). They argue that people vote correctly if they vote for parties that are ideologically closest to themselves. Looking at sixty-nine elections in 33 democracies, they found that indeed 72.3 percent (s.d. 10.6 per cent) vote correctly (Lau, Patel, et al. 2014, 252).

In multi-level settings, political parties are organized vertically. Each layer has its own political personnel and program. The differences within a political party is

further enlarged due to the differences in political competencies and, consequently, their different appearance in public. The differences in personnel, programs, competencies and policy salience might result in different evaluations of policy positions by the citizens.

In our first hypothesis, we argue that different party position estimates at the national and sub-national level will render split-ticket voting more likely.

> *H1. The greater the difference of party position estimates between the national and the state level, the higher the chances of split-ticket voting.*

Extending the theory of spatial voting to an institutional structure, Fiorina (1996, 1988, 1981) and Alesina & Rosenthal (1996) have argued that some voters in the United States prefer divided party control of government to unified control. The authors claim that especially moderate voters, who perceive the Republican and the Democratic Party as polarized on a one-dimensional policy space, will favor a division in partisan control of the Presidency and Congress. These moderate voters expect the need for political compromise to result in moderate policies that are closer to their ideal point than under situations of unified control of government. Consequently, they will split their ticket strategically in congressional and presidential elections.

The policy-balancing theory triggered many empirical studies on the U.S. case and their results confirmed a relevant amount of intentional split-ticket voting (Garand and Lichtl 2000, Carsey and Layman 2004, Lacy and Paolino 1998, Mebane Jr. 2000, Lacy, Niou, et al. 2019) but see (Sigelman, Wahlbeck and Buell Jr. 1997, Burden and Kimball 1998). For example, Lewis-Beck and Nadeau (2004, 101) showed that one fifth of the American electorate do deliberately split their votes.

The argument of strategic balancing travels to European multi-party systems (Carman and Johns 2010, Rallings and Thrasher 2003, Gschwend and Leuffen 2005, Kedar 2006). In multi-level settings, voters may use their sub-national vote to balance the federal government. Of particular interest to the present study, is Kedar's (2006) analysis of the German case. He examined vertical ticket splitting in national and sub-national elections. Even in such a federalist context, the results confirmed a strategic use of state elections to balance federal power.

We examine the effect of voter centrism in our second hypothesis:

H2. The closer a voter's self-placement to the political center, the higher the chances of split-ticket voting.

In contrast to Fiorina's (1996) findings on moderate voters, however, European studies revealed that ticket splitting is more common among voters with low levels of partisan attachment both in horizontal (Gschwend and Leuffen 2005, Carman and Johns 2010, Gschwend 2007, Riera and Bol 2017, Karp, et al. 2002) and vertical settings (Rallings and Thrasher 2003). Other recent studies in the U.S. contradicted the previous finding on moderates as well and provided support for indifferent (Davis 2015) or ambivalent (Mulligan 2011) individuals with higher likelihoods of casting as split ticket.

Thus, in addition to hypothesis 2 on voter centrism, we test the following hypothesis 3 on partisan attachment:

H3. If voters do not hold strong partisan attachments, the higher the chances of split-ticket voting.

Data and method

For our analysis, we use a dataset from the fourth wave of the (bi-annual) *Demokratieradar* (democracy radar, under the lead of the Austrian Democracy Lab).[1] This wave dealt mainly with the topic of federalism in Austria. Fieldwork was conducted between November and December 2019. It relied on a combined telephone and online sample of 4.506 respondents living in Austria.[2]

---

[1] The Austrian Demoracy Lab (ADL) analyses the state of democracy in Austria using different quantitative and qualitative instruments such as the mass survey democracy radar. For detailed information see www.austriandemocracylab.at.

[2] The decision to combine a telephone and an online survey was taken to allow for comparisons between the different survey methods in another analysis beyond this paper. Additionally, the Demokratieradar oversamples young people, a group that should be easier to reach online than by telephone.
The telephone sample (2.506 telephone interviews, resident population in Austria starting at the age of 16) used random sampling from contacts from the public telephone book and random digit dialling. Quotas were defined for sex, age, formal education and region in Austria, once those quotas were reached no more respondents in those categories were interviewed. The online survey (2.000 interviews, resident population from 14 to 69) was based on a quota sample from an existing database of a market research firm with about 120,000 contacts total. The sample was based on quotas for sex, age, education and region.

We combined both samples and applied weights to correct for the intentional overrepresentation of young people and the overrepresentation of people with higher formal education in the telephone sample. Some minor adjustments were also made concerning the regional and professional distributions.[3]

Dependent variable

Our dependent variable shows if people would vote in an upcoming fictional regional election for the same party they voted for in the past federal election or not (similar to (Kjaer 2020).[4] Data on the past federal voting decision – which was the federal election ("Nationalratswahl") on September 29th 2019, about one month prior to our fieldwork – comes from a recall question in the survey (open ended, coded during the field work). We construct the voting intention on state level from two questions: First, which party would the respondent choose in case of a regional election next Sunday. If the person stated that he/she was unsure, we asked about the party he/she was most likely to pick nevertheless. As we asked about the last federal election and a fictional regional election, we treat the events as non-concurrent.

People not naming a party in either one of the elections were excluded from the analysis, as well as respondents declining to answer. People stating that they voted for Jetzt/Liste Pilz in the federal election were also excluded, as this party stopped their work after they failed to make the necessary threshold for parliament. As the voting decision of 2019 is the basis of the variable, all respondents who were not eligible as voters then are omitted.

These definitions leave us with two groups: 491 persons or 17.4 percent were identified as ticket splitters, while 2,334 or 82.6 percent said they would vote for the same party (see Table 1).

Table 1: Ticket splitters

	Cases	Share (%)
Splitters	491	17.4
Non-Splitters	2,334	82.6

---

[3] The weighting process used a design weight to correct for the intentional oversampling of young people. After that, post-stratification weights were applied iteratively to move the sample closer to the population (based on current census data from Statistics Austria). The variables used for weighting were age, education & sex, occupation, profession and degree of urbanisation of the hometown of the respondent and age & sex. The minimum weight was 0.26, the maximum weight 5.5. See the Appendix for unweighted results.

[4] The full list of questions can be found in the Appendix A.1.

Compared to recent data from other European countries, the proportion of ticket splitters is low. For example, Berg and Oscarsson (2020, 520) reported 31 percent ticket-splitters in the 2018 concurrent national and regional elections in Sweden. Kjaer (2020, 470) presented Danish data on non-concurrent regional elections and a hypothetical national election in 2017 and found 28 percent of ticket-splitters. Most likely, the highest proportion of party members in Austria compared to other European countries explains this lower rate (van Biezen and Poguntke 2014, 209).

Independent variables

Corresponding to our three hypotheses, we used three independent variables to explain ticket splitting as well as several control variables (see Table 2 for a descriptive overview).

Difference in party position estimates. To assess differences in party position estimates on federal and state level (H1), the respondents were asked to rate the political position of the party they voted for in the last federal election on a scale from 0 (far left) to 10 (far right). Additionally, they had to rate the same party on regional level. Taking the absolute difference between those two scales shows, how people view the party position on regional and federal level. This variable ranges from 0 (no difference) to 10 (highest possible difference). Although the left-right scale is regularly criticized in the literature, the comparative work by Dalton et al. (2011, 216) has shown that it remains an important shortcut for voters and that they have the ability to handle such a scale.

We chose the subjective assessment of party positions over other estimates for several reasons:[5] First, we are looking for an explanation of individual behavior, and therefore, the personal perception of the parties in question is relevant. As we are using the difference between two ratings, whether those ratings are objectively right or wrong should have no impact on the analysis. Second, this approach allows us to calculate the individual difference of party perception for each respondent instead of a mean for each party. The variable is also not affected by votes for different parties on federal and state level. Finally, expert party position estimates recent enough are not available.

---

[5] We ran a robustness test comparing a party position divergence measure based on average party position estimates from the whole sample (Hooghe and Stiers 2017). It showed that a higher difference was making ticket splitting more likely and did not change the overall result of our other independent variables. Comparing it to a sample amongst people with higher education (Dasonneville et al. 2019) produced almost identical results.

The calculation of the difference revealed that 64 percent rated the party both on federal and state level identical, 22 percent saw a difference of one point, 8 percent a difference of 2 points and 3 percent a difference of 3 points, with the rest of the few remaining answers showing a higher difference. Grouping the variable by non-splitters/splitters shows an average difference in party position estimates for non-vote-splitters of 0.59 and for vote splitters of 0.77.

Table 2. Descriptive statistics

	Cases	Range	Mean	SD
Party position estimate	2,728	0-10	0.62	1.09
Voter centrism	2,708	0-5	1.53	1.53
Partisan attachment	2,824	0-1	0.93	0.25
Controls				
Female	2,824	0-1	0.51	0.50
Age	2,824	16-87	47.64	17.21
Higher education	2,824	0-1	0.32	0.47
Political interest				
Very interested	2,812	0-1	0.34	0.47
Somewhat interested	2,812	0-1	0.48	0.50
Somewhat not interested	2,812	0-1	0.13	0.34
Not interested at all	2,812	0-1	0.05	0.21

Source: Perlot et.al (2019).
Note: Cases exclude missing data from the dependent variable. The mean of a dichotomous variables represents the percentage of cases coded as 1.

Voter centrism. As with the party ratings, respondents were also asked to place themselves on a left-right scale ranging from 0 (far left) to 10 (far right). We used this response to measure how far or close respondents were to a neutral stance (5). We set the difference absolute, ranging from 0 (no difference, meaning the respondent placed him/herself at the political center) to 5.

Partisan attachment. Different studies have shown that the attachment to a political party limits the likelihood to split tickets (Willocq and Kelbel 2018, Gschwend 2007, Rallings and Thrasher 2003). The variables to measure partisanship vary in form and scale. In our case, we used a binary indicator derived from the question on a possible voting behavior in the future at the national level. The question allowed respondents to name any party they wanted, to decline, to vote invalid or abstain altogether or to say that they did not know. All respondents who named a party in the first place were coded as 1 (has partisan attachment), all other respondents were coded as 0. While this variable cannot grasp the strength of partisanship, it can

differentiate between people who have a clear voting intention and those unsure, the former having – in our view – a certain attachment to this party.[6]

Controls

We included *Female*, *Age* and *Education* in our models as these are the commonly used socio-demographic control variables in previous studies. Their effects, however, seem to be negligible or inconclusive at best. With respect to Female, studies on ticket splitting in vertical elections found no effect (Carrubba und Timpone 2005, Clark und Rohrschneider 2009, Willocq and Kelbel 2018, Riera and Bol 2017). With respect to Age, some studies reported that older people are more likely to switch (Carrubba und Timpone 2005, Clark und Rohrschneider 2009), while others found the opposite (Willocq and Kelbel 2018, Riera and Bol 2017). With respect to Education, there is evidence that people that are more educated are more likely to switch (Clark und Rohrschneider 2009, Willocq and Kelbel 2018, Riera and Bol 2017).

Furthermore, we controlled for *Political interest* and expect that more interested people are more likely to split their ticket (but see (Willocq and Kelbel 2018)). Political interest is measured on a four-point Likert scale, ranging from very interested to not interested at all. Missing cases were excluded.

---

[6] As this variable is based on a question concerning federal elections, we also tested our models with a variable aimed at a state election and with a combination from these two variables, which did not change the outcome essentially.

Analyses

We present three models for each of the independent variables as well as one combined model (see Table 3). Starting with the difference in Party position estimates (H1), the model shows a significant effect in a way that a higher difference in the estimate makes vote splitting more likely. Partisan attachment (H3) also has a significant effect: Respondents with an attachment to a party are less likely to split their ticket vertically. Voter centrism however shows no comparable influence. These results hold in the combined model as well. We therefore regard H1 and H3 as satisfied, while H2 (Voter centrism) is not supported by our data.

Concerning the control variables, Age and Education have (partly) a significant effect. Younger people are more likely to split their vote, as are people with higher education. Female and Political interest do not influence the result of our model significantly.

Table 3: Explaining vertical split-ticket voting in Austria for non-concurrent elections

	Party position estimates		Voter centrism		Partisan attachment		Combined model	
	OR	z	OR	z	OR	z	OR	z
Party position estimates	1.14***	(0.004)					1.16***	(0.002)
Voter centrism			0.96	(0.281)			0.98	(0.548)
Partisan attachment					0.24***	(0)	0.21***	(0)
Control variables								
Female	0.95	(0.602)	0.98	(0.837)	0.99	(0.933)	1.02	(0.859)
Age	1.00	(0.176)	1.00	(0.153)	0.99*	(0.062)	0.99*	(0.099)
Higher education	1.21	(0.111)	1.24*	(0.06)	1.29**	(0.024)	1.26**	(0.044)
Political interest								
Very interested				*Reference*				
Somewhat interested	1.12	(0.348)	1.11	(0.392)	1.07	(0.561)	1.07	(0.583)
Somewhat not interested	1.02	(0.915)	1.01	(0.943)	0.96	(0.822)	0.91	(0.605)
Not interested at all	0.93	(0.789)	0.90	(0.735)	0.73	(0.272)	0.71	(0.273)
Pseudo-R2 (McFadden)	2,718		2,700		2,812		2,652	
N	0.007		0.005		0.032		0.038	

Note: Binary logistic regression models: Dependent variable=1/ (ticket-split) / 0 (no ticket-split) between a real and a fictitious non-concurrent election; OR=Odds Ratio: Values above one indicate a higher, values below one indicate a lower probability to split the ticket; z=z-statistic; * p<0.10, ** p<0.05, *** p<0.01. Data weighted, see Appendix A.2 for unweighted data.

Looking at the effect sizes can help to get a better understanding of the influence of our variables (see Figure 1). Here the strongest effect can be found for Partisan attachment: Holding all other variables at their mean or mode, respondents without partisan attachment are about three times as likely to split their vote than people who have (some) attachment to a party. The effect of Party position estimates is not much behind: Someone who rates both the federal and the state party the same (difference = 0) has a probability of about 13 percent to change parties between our (real and fictious) elections. Someone who thinks the parties differ completely on those levels has a probability of about 38 percent to cast a different vote. Of course, this would be an extreme case. If we pick a value of 2 for the difference (which is the 3rd quantile of our data on difference, excluding all zeros), the probability would be about 17 percent. As shown in the model results, in our case Voter centrism seems to have almost no effect at all.

Figure 1: Effect sizes of the combined model
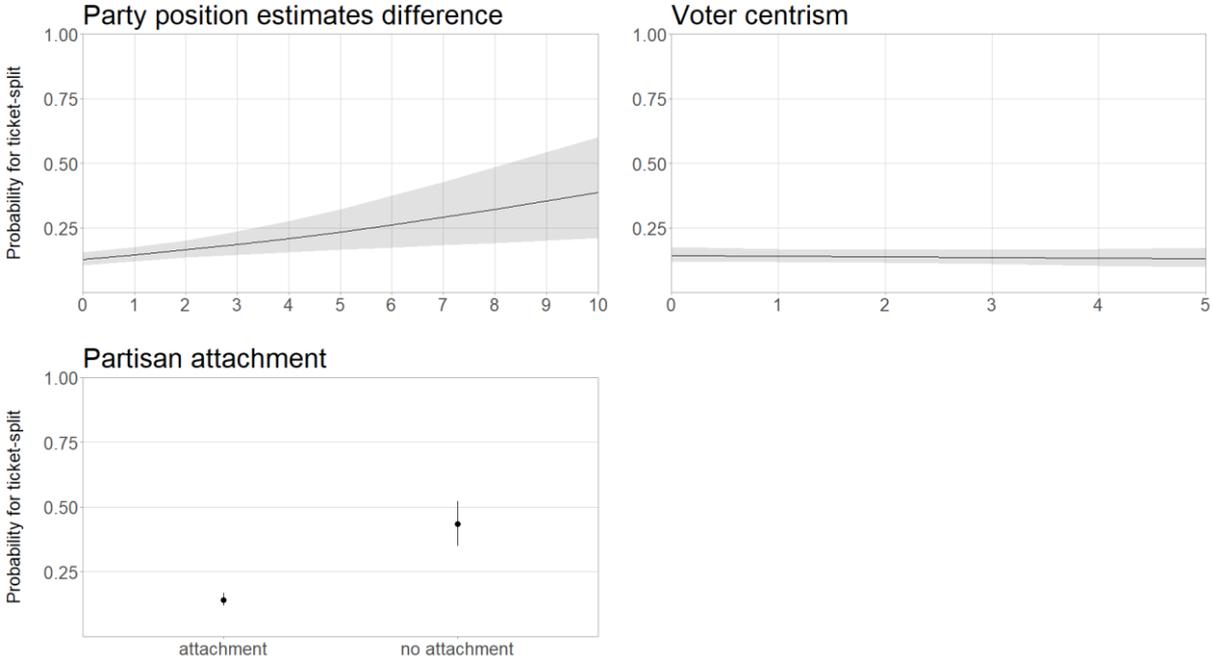
Note: The plots show the results of the Combined model, each plot varies one of the independent variables. All other variables are held at their mode or mean.

To further examine the missing effect of Voter centrism, we reran our models using another operationalization of this variable. Recall that we calculated voter centrism as

the absolute difference from the (numeric) center of a scale ranging from 0 to 10, leaving us with a range from 0 (no difference, meaning the respondent placed him/herself at the center) to 5. This approach captures the difference itself, but does not reflect if respondents placed themselves more to the left or the right of the political spectrum. To differentiate accordingly, for each respondent we calculated the difference of the self-placement from the political middle, now coded as 0. This variable ranges from -5 to +5 and is u-shaped, therefore we included an additional quadratic term in the regression model.

This change renders the voter centrism effect significant (both the linear as well as the quadratic term in the single model and the linear effect in the combined model; see Appendix A.4 for the complete results). Opposite to our hypothesis, the effect is not highest among respondents in the political center, but for people placing themselves further left (with the highest probability for someone with a value of -3; see Figure 2). After that the probability decreases a little as it extends further to the left, as well as towards the center and especially to the right. To give some perspective on the size of the effect: Someone placing him/herself at -3 (medium left) has a probability of 16.5 percent to split the vote, someone at +5 (far right) only of about 7.4 percent (all other variables held at their mode or mean).

One explanation for this result could be that there are more parties to choose from on the left than on the right. Calculating the mean of the placement of all parties available in our question on the fictional state election, there are five parties with a left score (below 5 on the scale from 0 to 10) and only two with a right score (FPÖ, ÖVP; not counting "other"). People placing themselves more to the left have therefore more options which seems to make a vote split more likely. Vice versa we see that voters calling themselves "right" hold on to their party more strictly – maybe not only, but also because there are fewer alternatives.

Figure 2: Probability to split the vote: Voter centrism
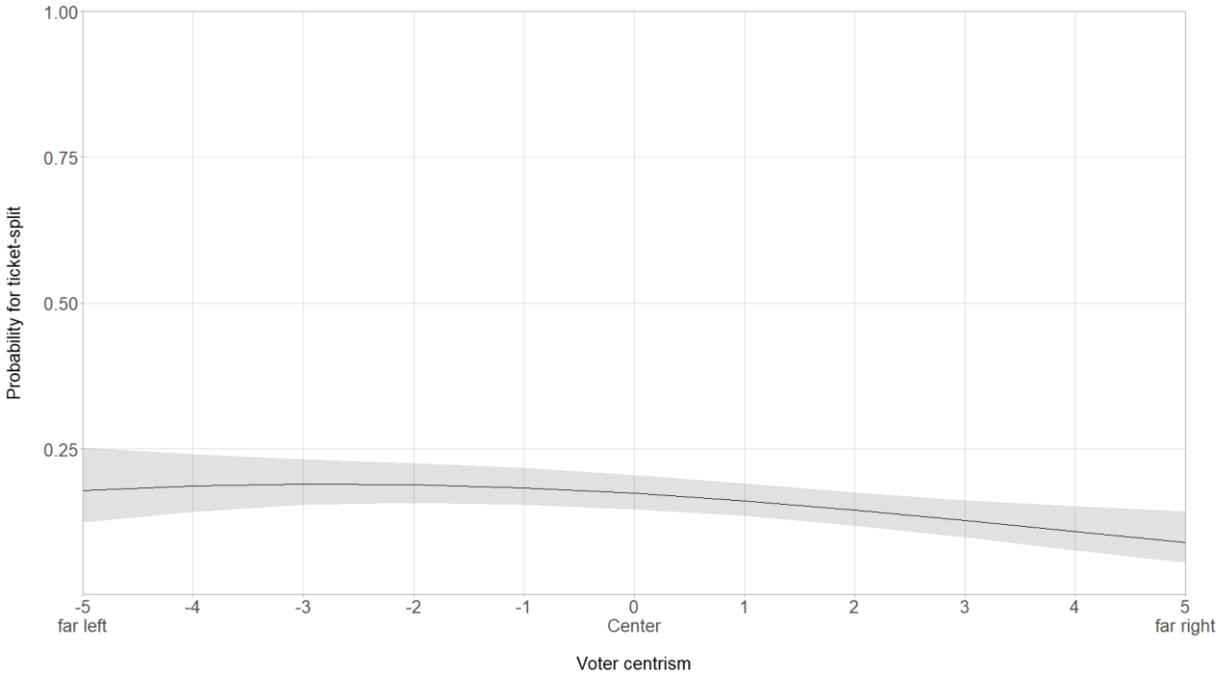
Note: All other variables held at their mode or mean; plot based on the voter centrism model. See Appendix A.5 for a plot of the combined model.

We also used a similar approach to enhance the Party position estimates difference. Originally calculated to range from 0 to 10, we changed it to reflect a (perceived) position more to the left of a state party (in theory going as far as -10) as well as a position more to the right (going up to 10, with 0 again showing no perceived difference between federal and state party). Again, we included a linear version of the variable and a quadratic term. Both the model for Party position estimates difference and the combined model show a significant effect of the quadratic term (see Appendix A.4 for the model). Looking at the corresponding plot, we can see that a perceived deviation of the state party to the right increases the likelihood of split ticket voting (namely picking another party on state level) more than a perceived deviation to the left (see Figure 3). Note however that the case numbers at the edges of the plot are very low, as also the confidence intervals indicate.

Figure 3: Probability to split the vote: Party position estimates difference to the left/right
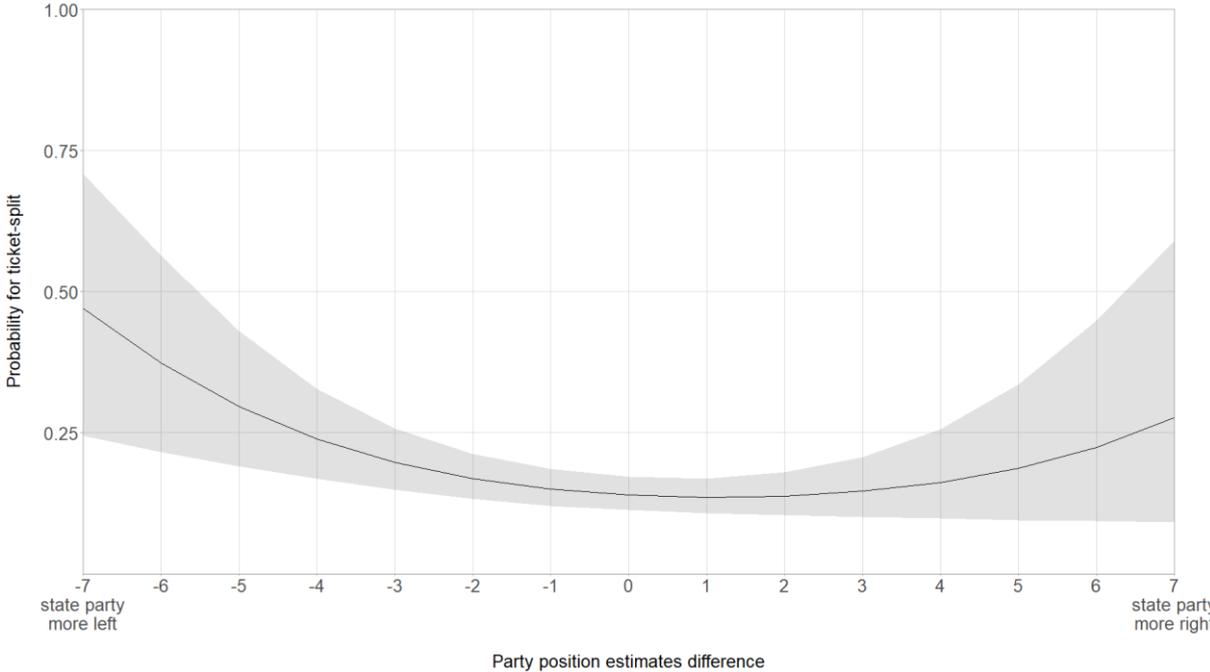
Note: As there are no cases with values >7, we limit the scale to -7/+7. Cases below -7 were recoded to -7. Plot based on combined model.

Conclusion

Which factors explain split-ticket voting in multi-level democracies? In order to answer this research question, we examined the case of Austria and compared recent voting behavior at a national election with the voting intention at a fictional sub-national election. In doing so, we added a new case to the literature on split-ticket voting that is still dominated by the American case. Furthermore, we contributed to our understanding of voting behavior at different contests by extending the spatial voting-theory. We drew on the literature of correct voting and expected to see higher chances of split ticket voters among those that perceive greater divergence between their party at the national and sub-national level. This new argument was tested next to the effects of voter centrism and partisan dealignment that we derived from the policy balancing-theory.

Our multivariate analyses confirmed that differences in party position estimates across political layers positively affects voters' willingness to cast a split ticket. The

15

same effect can be found with respect to partisan dealignment, while we do not find an effect of voter centrism – at least as long we do not distinguish between deviations to the left and to the right of the political spectrum. In the latter case, we can observe a (small) effect, increasing the probability that people placing themselves more to the left split their vote. We attribute this result on the higher number of available parties in the left field.

These results have important implications for our understanding of political representation in multi-layered democracies with respect to both voters and parties. Some voters do perceive differences within political parties depending on the political layer and these differences have relevant consequences for their voting behavior. Concerning parties, the results should strengthen the self-confidence of sub-national actors. Their political behavior is relevant in forming voters' opinion irrespective the often-claimed dominance of the national level. They have all reasons to choose strategically whether to follow their national party or to behave in more or less stark opposition to it. This finding is reason enough for political scientist to strengthen efforts in research on sub-national parties. Furthermore, partisan dealignment is an increasing phenomenon across countries that obviously leads not only to electoral volatility in general, but split-ticket voting more specifically. As voters become more volatile in their decisions, political parties need to increase their efforts in convincing them that they are the best in representing their interests. Finally, an increase of split-ticket voting linked to the number of parties running might be a specific characteristic of multi-party-systems.

The previous analyses have shown that our theoretical arguments are supported by the data. Despite these promising findings, there is room for future research that could address the three shortcomings of the present study. First, we compare voting decisions from a real national and a fictional sub-national election. It would have been interesting to see whether the results remain stable if we had had national and sub-national elections at the same time. This, however, is uncommon for the case of Austria as national and sub-national elections most seldom converge (and especially not in all regions). Second, due to the available dataset we measure party attachment as binary. A more nuanced scale might provide more insight in the strength of this influence. Third, our study is built on a single case that allows for testing a new theoretical argument empirically, but is limited with respect to geographical scope and therefore, generalizability. We would expect to see similar effects in other Western

European countries with federalist structures and proportional voting systems. The fact that we did not find an effect of voter centrism on split ticket voting is one empirical argument for this claim. Since similar European countries such as Sweden or Denmark report even higher levels of ticket splitters, we would even expect that our effects of cross-level party position estimates difference and partisan dealignment increase in these settings. This expectation, however, is subject to future research.

Literature

Alesina, Alberto, and Howard Rosenthal. "A Theory of Divided Government." *Econometrica*, 1996: 1311-1341.

Arceneaux, Kevin. „The Federal Face of Voting: Are Elected Officials Held Accountable for the Functions Relevant to Their Office?" *Political Psychology*, 2006, 27 Ausg.: 731-754.

Beck, Paul Allen, Lawrence Baum, Aage R. Clausen, und Charles E. Smith. „Patterns and Sources of Ticket Splitting in Subpresidential Voting." *American Political Science Review*, 1992: 916-928.

Beer, Samuel H. „Federalism, Nationalism, and Democracy in America." *The American Political Science Review*, 1978: 9-21.

Berg, Linda, und Henrik Oscarsson. „The Swedish regional elections 2018." *Regional & Federal Studies*, 2020: 511-524.

Burden, Barry C., and David C. Kimball. "A New Approach to the Study of Ticket Splitting." *American Political Science Review*, 1998: 533-544.

Burden, Barry C., und Gretchen Helmke. „The comparative study of split-ticket voting." *Electoral Studies*, 2009: 1-7.

Campbell, Angus, und Warren E. Miller. „The Motivational Basis of Straight and Split Ticket Voting." *American Political Science Review*, 1957: 293-312.

Carman, Christopher J., and Robert Johns. "Linking coalition attitudes and split-ticket voting: The Scottish Parliament elections of 2007." *Electoral Studies*, 2010: 381-391.

Carrubba, Cliff, und Richard J. Timpone. „Explaining Vote Switching Across First- and Second-Order Elections. Evidence From Europe." *Comparative Political Studies*, 2005: 260-281.

Carsey, Thomas M., and Geoffrey C. Layman. "Policy Balancing and Preferences for Party Control of Government." *Political Research Quarterly*, 2004: 541-550.

—. "Policy Balancing and Preferences for Party Control of Government." *Political Research Quarterly*, 2004: 541-550.

Chandra, Kanchan. „Why voters in patronage democracies split their tickets: Strategic voting for ethnic parties." *Electoral Studies*, 2009: 21-32.

Clark, Nick, und Robert Rohrschneider. „Second-Order Elections versus First-Order Thinking: How Voters Perceive the Representation Process in a Multi-Layered System of Governance." *European Integration*, 2009: 645-664.

Committee on Political Parties, American Political Science Association. *Toward a More Responsible Two-Party System.* New York: Rinehart & Company, 1950.

Dalton, Russell J., David M. Farrell, und Ian McAllister. *Political Parties and Democratic Linkage: How Parties Organize Democracy.* Oxford: Oxford University Press, 2011.

Dassonneville, Ruth, Fernando Feitosa, Marc Hooghe, Richard R. Lau, und Dieter Stiers. „Compulsory Voting Rules, Reluctant Voters and Ideological Proximity Voting." *Political Behavior*, 2019: 209-230.

Davis, Nicholas T. „The Role of Indifference in Split-Ticket Voting." *Political Behavior*, 2015: 67-86.

Downs, Anthony. *An Economic Theory of Democracy.* Harper: New York, 1957.

Downs, William M. „Accountability Payoffs in Federal Systems? Competing Logics and Evidence from Europe's Newest Federation." *Publius: The Journal of Federalism*, 1999: 87-110.

Elklit, Jørgen, and Ulrik Kjaer. "Split-ticket Voting in Times of Sub-national Government Reorganisation: Evidence from Denmark." *Scandinavian Political Studies*, 2009: 422-439.

Enelow, James M., und J. Melvin Hinich. *The Spatial Theory of Voting: An Introduction.* Cambridge: Cambridge University Press, 1984.

Fearon, James D. „Electoral Accountability and the Control of Politicans: Selecting Good Types versus Sanctioning Poor Performance." In *Democracy, Accountability. and Representation*, von Adam Przeworski, Susan C. Stokes und Bernhard Manin, 55-97. Cambridge: Cambridge University Press, 1999.

Ferejohn, John. „Accountability and Authority: Toward a Theory of Political Accountability." In *Democracy, Accountability, and Representation*, von Adam Przeworski, Susan C. Stokes und Manin Bernhard, 131-153. Cambridge: Cambridge University Press, 1999.

Fiorina, Morris P. *Divided Government.* 2. Needham Heights: Allyn & Bacon, 1996.

—. *Retrospective Voting in American National Elections.* Yale: Yale University Press, 1981.

Fiorina, Morris. „The Reagan Years: Turning to the Right of Groping Toward the Middle?" In *The Resurgence of Conservatism in Anglo-American Democracies*, von Barry Cooper, Allan Kornberg und William Mishler, 430-460. Durham: Duke University Press, 1988.

Fisher, Justin, Edward Fieldhouse, Mark N. Franklin, Rachel Gibson, Marta Cantijoch, und Christopher Wlezien. *The Routledge Handbook of Elections, Voting Behavior and Public Opinion.* Oxon/New York: Routledge, 2017.

Garand, James C., and Marci G. Lichtl. "Explaining Divided Government in the United States: Testing an Intentional Model of Split-Ticket Voting." *British Journal of Political Science*, 2000: 173-191.

—. "Explaining Divided Government in the United States: Testing an Intentional Model of Split-Ticket Voting." *British Journal of Political Science*, 2000: 173-191.

Grofman, Bernard, William Koetzle, Michael P. McDonald, und Thomas L. Brunell. „A New Look at Split-Ticket Outcomes for House and President: The Comparative Midpoints Model." *The Journal of Politics*, 2000: 34-50.

Gschwend, Thomas. „Ticket-splitting and strategic voting under mixed electoral rules: Evidence from Germany." *European Journal of Political Research*, 2007: 1-23.

Gschwend, Thomas, and Dirk Leuffen. "Divided We Stand - Unified We Govern? Cohabitation and Regime Voting in the 2002 French Elections." *British Journal of Political Science*, 2005: 691-712.

Gschwend, Thomas, and Henk Van der Kolk. "Split Ticket Voting in Mixed Member Proportional Systems: The Hypothetical Case of The Netherlands." *Acta Politica*, 2006: 163-179.

Gschwend, Thomas, Ron Johnston, and Charles Pattie. "Split-Ticket Patterns in Mixed-Member Proportional Election Systems: Estimates and Analyses of Their Spatial Variation at the German Federal Election, 1998." *British Journal of Political Science*, 2003: 109-127.

Healy, Andrew, und Neil Malhotra. „Retrospective Voting Reconsidered." *Annual Review of Political Science* 16 (2013): 285-306.

Heath, Anthony, Iain McLean, Bridget Taylor, und John Curtice. „Between first and second order: A comparison of voting behavior in European and local elections in Britain." *European Journal of Political Research*, 1999, 35 Ausg.: 389-414.

Hooghe, Marc, und Dieter Stiers. „Do reluctant voters vote less accurately? The effect of compulsory voting on party-voter congruence in Australia and Belgium." *Australian Journal of Political Science*, 2017: 75-94.

Hotelling, Harold. „Stability and Competition." *Economic Journal*, 1929: 41-59.

Johnston, Ron J., and Charles Pattie. "Campaigning and split-ticket voting in new electoral systems: the first MMP elections in New Zealand, Scotland and Wales." *Electoral Studies*, 2002: 583-600.

Karp, Jeffrey A., Jack Vowles, Susan A. Banducci, und Todd Donovan. „Strategic voting, party activity, and candidate effects: testing explanations for split voting in New Zealand's new mixed system." *Electoral Studies*, 2002: 1-22.

Kedar, Orit. „When moderate voters prefer extreme parties: Policy balancing in parliamentary elections." *American Political Science Review*, 2005: 185-199.

—. „How voters work around institutions: Policy balancing in staggered elections." *Electoral Studies*, 2006: 509-527.

Key, Valdimer O. *The Responsible Electorate.* Cambridge: Belknap Press, 1966.

Kjaer, Ulrik. „The 2017 Danish regional elections and the victorious parliamentary parties." *Regional & Federal Studies*, 2020: 461-473.

Lacy, Dean, and Philip Paolino. "Downsian Voting and the Separation of Powers." *American Journal of Political Science*, 1998: 1180-1199.

—. "Downsian Voting and the Separation of Powers." *American Journal of Political Science*, 1998: 1180-1199.

Lacy, Dean, Emerson M.S. Niou, Philip Paolino, und Robert A. Rein. „Measuring Preferences for Divided Government: Some Americans Want Divided Government and Vote to Create it." *Political Behavior*, 2019: 79-103.

Ladd, Everett C. „Public Opinion and the 'Congress Problem'." *The Public Interest*, 1990: 57-67.

Lau, Richard R., David J. Andersen, und David P. Redlawsk. „An Exploration of Correct Voting in Recent U.S. Presidential Elections." *American Journal of Political Science* 52, Nr. 2 (2008): 395-411.

Lau, Richard R., Parina Patel, Dalia F Fahmy, und Robert R. Kaufman. „Correct Voting Across Thirty-Three Democracies: A Preliminary Analysis." *British Journal of Political Science*, 2014: 239-259.

Lau, Richard R., und David P. Redlawsk. „Voting Correctly." *American Political Science Review*, 1997: 585-598.

Lewis-Beck, Michael S., und Mary Stegmaier. „Economic Determinants of Electoral Outcomes." *Annual Review of Political Science* 3 (2000): 183-219.

Lewis-Beck, Michael S., und Richard Nadeau. „Split-Ticket Voting: The Effects of Cognitive Madisonianism." *The Journal of Politics*, 2004: 97-112.

Lohmann, Susanne, David W. Brady, and Rivers Douglas. "Party identification, retrospective voting, and moderating elections in a federal system: West Germany, 1961-1989." *Comparative Political Studies*, 1997: 420-449.

Manin, Bernhard, Adam Przeworski, und Susan C. Stokes. „Elections and Representation." In *Democracy, Accountability, and Representation*, von Adam Przeworski, Susan C. Stokes und Bernhard Manin, 29-54. Cambridge: Cambridge University Press, 1999.

McDonald, Michael D., and Ian Budge. *Elections, Parties, Democracy. Conferring the Median Mandate.* Oxford: Oxford University Press, 2008.

Mebane Jr., Walter R. „Coordination, Moderation, and Institutional Balancing in American and House Elections." *American Political Science Review*, 2000: 37-57.

Moser, Robert G., and Ethan Scheiner. "Strategic voting in established and new democracies: Ticket splitting in mixed-member electoral systems." *Electoral Studies*, 2009: 51-61.

Moser, Robert G., und Ethan Scheiner. „Strategic Ticket Splitting and the Personal Vote in Mixed-Member Electoral Systems." *Legislative Studies Quarterly*, 2005: 259-276.

Mulligan, Kenneth. „Partisan Ambivalence, Split-Ticket Votung, and Divided Government." *Political Psychology*, 2011: 505-530.

Ostrom, Vincent. *The Political Theory of a Compound Republic. Designing the American Experiment.* 3. Lanham: Lexington Books, 2007.

Pappi, Franz Urban, und Paul W. Thurner. „Electoral behaviour in a two-vote system: Incentives for ticket splitting in German Bundestag elections." *European Journal of Political Research*, 2002: 207-232.

Perlot, Flooh, Andrea Hermann, Katrin Praprotnik, Daniela Ingruber, und Christina Hainzl. „Demokratieradar Wave 3 - Attitudes on federalism." Krems/Graz, 2019.

Pitkin, Hanna F. *The Concept of Representation.* Berkeley, Los Angeles, London: University of Claifornia Press, 1967.

Przeworski, Adam, Susan C. Stokes, und Bernhard Manin. *Democracy, Accountability, and Representation.* Cambridge: Cambridge University Press, 1999.

Rallings, Colin, and Michael Thrasher. "Explaining Split-Ticket Voting at the 1979 and 1997 General and Local Elections in England." *Political Studies*, 2003: 558-572.

—. "Not All 'Second-Order' Contests are the Same: Turnout and Party Choice at the Concurrent 2004 Local and European Parliament Elections in England." *The British Journal of Politics and International Relations*, 2005: 584-597.

Ranney, Austin. *The Doctrine of Responsible Party Government: Its Origina and Present State.* Urbana: The University of Illinois Press, 1954.

Riera, Pedro, and Damien Bol. "Ticket-splitting in mixed-member systems: on the importance of seat linkage between electoral tiers." *West European Politics* 40, no. 3 (2017): 584-597.

Roberts, Andrew. *The Quality of Democracy in Eastern Europe. Public Preferences and Policy Reforms.* Cambridge: Cambridge University Press, 2010.

Rodden, Jonathan, und Erik Wibbels. „Dual accountability and the nationalization of party competition: Evidence from four federations." *Party Politics*, 2010: 629-653.

Roscoe, Douglas D. „The Choosers of the Choices? Voter Characteristics and the Structure of Electoral Competition as Explanations for Ticket Spliting." *The Journal of Politics*, 2003: 1147-1164.

Sanz, Alberto. „Split-ticket voting in multi-level electoral competition: European, national and regional concurrent elections in Spain." In *The Multi-Level Electoral System of the EU*, von Cees Van der Eijk und Hermann Schmitt, 101-136. Mannheim: Connex, 2008.

Schakel, Arjan H., und Charlie Jeffery. „Are Regional Elections really 'Second-Order' Elections?" *Regional Studies*, 2013: 323-341.

Sigelman, Lee, Paul J. Wahlbeck, and Emmett H. Buell Jr. "Vote Choice and the Preference for Divided Government: Lessons of 1992." *American Journal of Political Science*, 1997: 879-894.

—. "Vote Choice and the Preference for Divided Government: Lessons of 1992." *American Journal of Political Science*, 1997: 879-894.

Stiers, Dieter, Marc Hooghe, und Silke Goubin. „Are 16-year-olds able to cast a congruent vote." *Electoral Studies*, 2020: 1-14.

Van Aelst, Peter, and Jonas Lefevere. "Has Europe got anything to do with the European elections? A study on split-ticket voting in the Belgian regional and European elections of 2009." *European Union Politics*, 2012: 3-25.

van Biezen, Ingrid, and Thomas Poguntke. "The decline of membership-based politics." *Party Politics*, 2014: 205-216.

Van der Eijk, Cees, und Broer Niemöller. „Design Issues in Electoral Research: Taking Care of (Core) Business." In *Electoral Behaviour: Debates and Methodology*, von Kai Arzheimer und Jocelyn Evans, 281-298. Los Angeles: Sage, 2008.

Wagner, Markus, David Johann, und Sylvia Kritzinger. „Voting at 16: Turnout and the quality of vote choice." *Electoral Studies*, 2012: 372-383.

Waldahl, Ragnar, und Bernt Aardal. „The Accuracy of Recalled Previous Voting: Evidence from Norwegian Election Study Panels." *Scandinavian Political Studies* 23, Nr. 4 (2000): 373-389.

Willocq, Simon, and Camille Kelbel. "Splitting Votes, Splitting Hairs? Rationale for Split-Ticket Voting at the Federal, Regional, and European Elections of May 2014 in Belgium." *Publius. The Journal of Federalism*, 2018: 664-685.

Appendix

Table A.1. Survey items used in the multivariate models

Variable	Operationalization in the models	Question wording	Original values
Dependent variable: ticket splitters	binary (0/1), 0=no ticket split	Which party did you vote for [in the federal election 2019]?	ÖVP, SPÖ, FPÖ, NEOS, Jetzt/Liste Pilz, Greens, others, invalid, did not vote, no answer
		Let's stay for a moment with your state: If there would be state elections next Sunday, which party would you vote for?	ÖVP, SPÖ, FPÖ, NEOS, Liste Pilz/Jetzt, Greens, KPÖ, Liste Fritz, LBL/Liste Burgenland, Team Kärnten/Köfer, other, none, would not vote, would vote invalid, don't know at the moment
		[If you don't know at the moment,] Which party would you vote for most likely?	ÖVP, SPÖ, FPÖ, NEOS, Jetzt/Liste Pilz, Greens, KPÖ, Liste Fritz, LBL/Liste Burgenland, Team Kärnten/Köfer, other, none, would not vote
Party position estimates	numeric (0-10), 0=no difference	In politics, people often talk about left and right. Where would you place the party you voted for in the federal election 2019 at the time of the election? 0 means far left, 10 means far right.	0-10, no answer
		Lets stay with the party you voted for in the federal election, but think about this party in your state. Where would you place this party in your state between left and right?	0-10, no answer

Partisan attachment	binary (0/1), 1=has partisan attachment	Whether you are eligible to vote or not: If there would be a federal election next Sunday, which party would you vote for? [If you don't know at the moment,] Which party would you vote for most likely?	ÖVP, SPÖ, FPÖ, NEOS, Jetzt/Liste Pilz, Greens, KPÖ, other, none, would not vote, would vote invalid, don't know at the moment ÖVP, SPÖ, FPÖ, NEOS, Jetzt/Liste Pilz, Greens, KPÖ, other, none, would not vote
Voter centrism	numeric (0-5), 0=center position	In politics, people often talk about left and right. Where would you place yourself? 0 means far left, 10 means far right.	0-10, no answer
Female	binary (0/1), 0=male	Your sex?	male, female, no answer
Age	numeric (16-87)	How old are you?	open ended
Higher education	binary (0/1), 0=no higher education	Your highest education?	Compulsory school, Apprenticeship, Intermediate technical/vocational school, Academic secondary school and higher technical and vocational school, University
Political interest	very interested (reference), somewhat interested, somewhat not interested, not interested at all	Turning to politics, all in all, are you very interested in politics in Austria, somewhat interested, somewhat not interested or not interested at all?	very interested, somewhat interested, somewhat not interested, not interested at all, no answer

Table A.2: Explaining vertical split-ticket voting in Austria – unweighted data

	Party position estimates		Voter centrism		Partisan attachment		Combined model	
	OR	z	OR	z	OR	z	OR	z
Party position estimates	1.13***	(0.006)					1.14***	(0.005)
Partisan attachment					0.24***	(0)	0.22***	(0)
Voter centrism			0.98	(0.588)			0.99	(0.832)
Control variables								
Female	0.96	(0.677)	1	(0.964)	0.99	(0.954)	1.02	(0.837)
Age	1	(0.163)	1	(0.147)	0.99*	(0.09)	0.99	(0.105)
Higher education	1.17	(0.139)	1.19*	(0.098)	1.25**	(0.034)	1.22*	(0.061)
Political interest								
Very interested				Reference				
Somewhat interested	1.08	(0.494)	1.08	(0.521)	1.05	(0.663)	1.04	(0.75)
Somewhat not interested	0.95	(0.797)	0.97	(0.854)	0.92	(0.615)	0.87	(0.459)
Not interested at all	1.11	(0.703)	0.96	(0.901)	0.91	(0.73)	0.85	(0.582)
Pseudo-R2 (McFadden)	0.005		0.003		0.029		0.033	
N	2,718		2,700		2,812		2,652	

Note: Binary logistic regression models: Dependent variable=1/ (ticket-split) / 0 (no ticket-split) between a real and a fictitious non-concurrent elections; OR=Odds Ratio: Values above one indicate a higher, values below one indicate a lower probability to split the ticket; z=z-statistic; * p<0.10, ** p<0.05, *** p<0.01.

Table A.3: Explaining vertical split-ticket voting in Austria – Voter centrism left/right

|	Voter centrism		Combined model	
	OR	z	OR	z
Party position estimates			1.17***	(0.001)
Partisan attachment			0.21***	(0)
Voter centrism	0.93***	(0.006)	0.92***	(0.002)
Voter centrism²	0.98*	(0.059)	0.99	(0.112)
Control variables				
Female	0.96	(0.73)	1	(0.977)
Age	1	(0.214)	1	(0.138)
Higher education	1.19	(0.134)	1.2	(0.114)
Political interest				
Very interested		Reference		
Somewhat interested	1.11	(0.411)	1.06	(0.637)
Somewhat not interested	1.03	(0.887)	0.91	(0.621)
Not interested at all	0.95	(0.857)	0.74	(0.33)
Pseudo-R2 (McFadden)	0.008		0.064	
N	2,700		2,652	

*Note: Binary logistic regression models: Dependent variable=1/ (ticket-split) / 0 (no ticket-split) between a real and a fictitious non-concurrent elections; OR=Odds Ratio: Values above one indicate a higher, values below one indicate a lower probability to split the ticket; z=z-statistic; * p<0.10, ** p<0.05, *** p<0.01.*

Table A.4: Explaining vertical split-ticket voting in Austria – Party position estimates difference left/right

	Party position estimates		Combined model	
	OR	z	OR	z
Party position estimates	1.05		1.06	(0.152)
Party position estimates²	1.02**		1.03**	(0.014)
Partisan attachment			0.21***	(0)
Voter centrism			0.98	(0.609)
Control variables				
Female	0.94	(0.561)	1.01	(0.904)
Age	1	(0.166)	0.99*	(0.095)
Higher education	1.2*	(0.1)	1.28**	(0.036)
Political interest				
Very interested		Reference		
Somewhat interested	1.11	(0.38)	1.06	(0.625)
Somewhat not interested	1.01	(0.966)	0.89	(0.559)
Not interested at all	0.92	(0.773)	0.69	(0.245)
Pseudo-R2 (McFadden)	0.008		0.068	
N	2,718		2,652	

Note: Binary logistic regression models: Dependent variable=1/ (ticket-split) / 0 (no ticket-split) between a real and a fictitious non-concurrent elections; OR=Odds Ratio: Values above one indicate a higher, values below one indicate a lower probability to split the ticket; z=z-statistic; * p<0.10, ** p<0.05, *** p<0.01.

Figure A.5: Probability to split the vote: Voter centrism
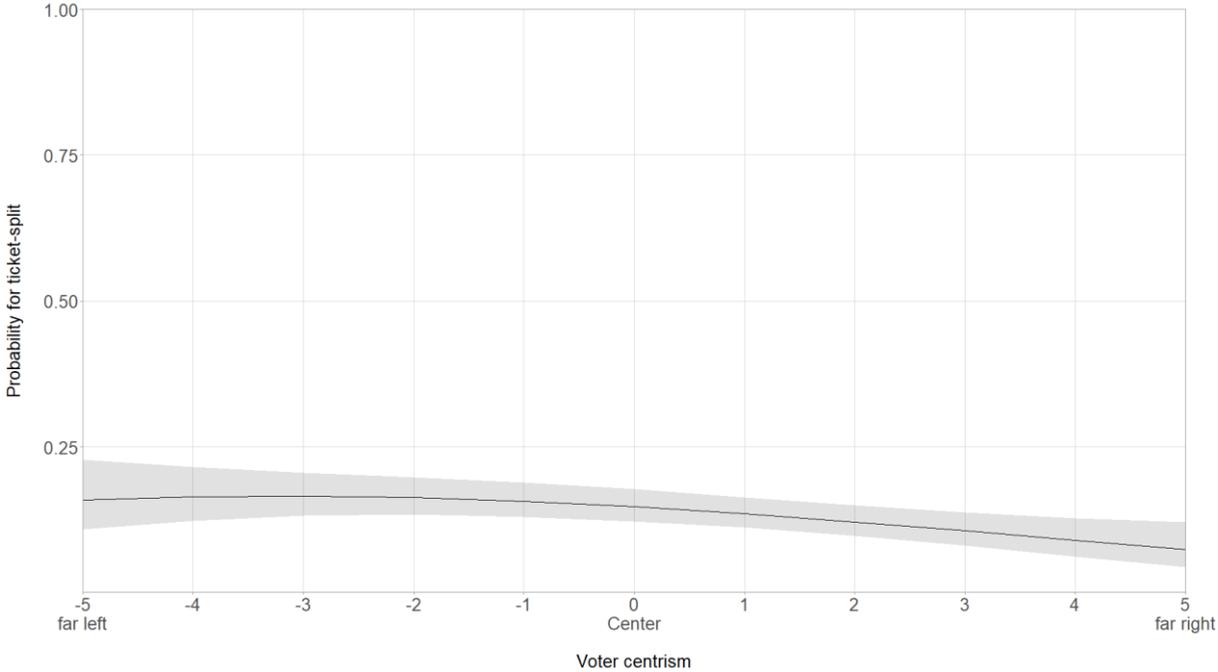
Note: Plot based on the combined model.