Mandate type, electoral safety, and defections from the party line. The conditional mandate divide in the German Bundestag, 1949–2013

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Abstract

Research on mixed electoral systems provides inconclusive findings on the question whether members of parliament (MPs) elected in single-member districts are more likely to vote against the party line than MPs elected via closed party lists. This article rejects both the hypothesis of a general “mandate divide” and the competing claim that contamination effects completely wash out behavioral differences. Instead, we argue that electoral incentives to defect are stronger for a specific type of MP—those who run only in a district *and* are electorally insecure. Statistical analyses of roll call votes in the German Bundestag covering more than 60 years support this “conditional mandate divide” against alternative hypotheses. These findings suggest a more nuanced view on electoral system effects in mixed electoral systems and highlight the importance of electoral competition for incentivizing MPs to side with district demands if those conflict with the party line.

Keywords

electoral safety, legislative behavior, mixed electoral system, party unity, roll call votes

Introduction

How do electoral system incentives affect the propensity of members of parliament (MPs) to deviate from the party line in legislative voting? A substantial body of literature argues that MPs elected in candidate-centered systems, such as single-member districts (SMD) and open party lists, are more likely to vote against their party than MPs elected under party-centered rules such as closed-list proportional representation (PR) (Carey, 2007; Coman, 2015; Depauw and Martin, 2009; Hix, 2004; Sieberer, 2010). While this argument is theoretically straightforward, empirical results are ambiguous. Cross-country studies show mixed and often substantively weak effects of electoral rules on legislative behavior (Coman, 2015; Depauw and Martin, 2009; Sieberer, 2006). Methodologically, these studies are plagued by the problem of confounding because they have insufficient statistical power to adequately control for all potentially relevant factors at the country level.

In response, scholars have turned to mixed electoral systems that combine SMD and PR tiers in a single country. Even though this approach holds many potential confounders constant, its validity is disputed. Some praise mixed electoral systems as a quasi-experimental setting that allows scholars to isolate the causal effect of electoral rules and thus to identify a ‘mandate divide’ in legislative behavior (e.g. Lancaster and Patterson, 1990; Moser and Scheiner, 2004; Stratmann and Baur, 2002). Others argue that the simultaneous presence of two tier leads to ‘contamination’ and mixed systems thus provide different institutional incentives compared to pure systems (e.g. Bawn and Thies, 2003; Crisp, 2007; Ferrara et al., 2005; Manow, 2015). Empirical studies of mixed electoral systems yield inconclusive findings across countries and over time. Some studies indeed find more defection by district MPs compared to list MPs in Germany (Sieberer, 2010; Stratmann, 2006), Hungary (Olivella and Tavits, 2014), and Russia (Kunicova and Remington, 2008; Thames, 2001). However, no systematic differences are found for the same countries during other periods (Haspel et al., 1998; Ohmura, 2014b;

Thames, 2005), for Italy (Ferrara, 2004), South Korea and Taiwan (Rich, 2014). A few studies even report higher defection by list MPs (Clark et al., 2008; Crisp, 2007; Jun and Hix, 2010).

This paper studies roll call voting behavior in the German Bundestag – the oldest prototype of mixed electoral systems – over the period 1949–2013. It makes two main contributions to the literature. On the theoretical level, we argue that electoral system effects in mixed electoral systems do not affect all MPs equally, but are contingent on the degree of electoral vulnerability (see also Andre et al., 2015b). In particular, we postulate a ‘conditional mandate divide’ that is confined to those MPs who run only in the district tier *and* face tough electoral races. These MPs have stronger incentives to cater to local voters or the local party organization, possibly also in opposition to the parliamentary party group line. By contrast, all other MPs tend to follow the party line to secure their reelection and further career advancement. Empirically, we analyze the full voting history of the Bundestag and thus provide a far more comprehensive picture than previous studies have portrayed. We model MPs’ voting behavior using both random effects (RE) and fixed effects (FE), models which allow us to control for observable confounders as well as unobservable characteristics of MPs.

Our empirical analysis rejects the two most common claims from previous research on mixed electoral system: Neither do we find general behavioral differences between MPs based on the type of mandate they hold (what we call the ‘general mandate divide hypothesis’), nor do MPs act alike irrespective of the tier they were elected in (‘general contamination hypothesis’). Instead, we find evidence in line with the conditional mandate divide hypothesis: Depending on the statistical model used, the odds that a district MP who faces a tough reelection race without running as dual candidates defects from the party line are between 1.4 and 1.5 times that of a dual candidate facing an equally tough race. By contrast, no effect is found for high electoral safety. Thus, the degree of electoral competition is a

crucial intervening variable in understanding the effects of electoral systems on legislative behavior.

The next section discusses competing claims on the effect or non-effect of electoral systems on deviating voting behavior in parliaments and develops our theoretical argument for a conditional mandate divide. The third section introduces the German case and presents the modeling strategy as well as the data used. The empirical analysis in the fourth section first replicates the most recent study that found evidence for a general mandate divide (Sieberer, 2010) for all legislative periods from 1949 to 2013. Afterwards, we test hypotheses on the conditional mandate divide that take the type of candidacy (in district only, on party list only, or dual candidate in both tiers) and the level of electoral safety into account. The fifth section concludes by discussing the broader implications of our findings.

Theory and hypotheses: The mandate divide, contamination and electoral safety in mixed electoral systems

For decades, electoral system incentives have served as a core explanatory factor for legislative behavior (for a recent review see André et al., 2014). Coined on voting behavior in legislatures, the theoretical argument is straightforward: Legislators can be conceptualized as agents of different, potentially competing principals and are expected to act in line with the demand of that principal who is most important for securing their current and future personal goals, in particular reelection and career advancement (Carey, 2007, 2009; Hix, 2002). At least in parliamentary democracies, the most important principal is the MP's political party because it strongly influences reelection chances via candidate selection and acts as core gatekeeper for advancement to higher offices (Kam, 2009; Müller, 2000; Müller and Strøm, 1999). While party leaders occasionally have incentives to accept some dissent by MPs,

especially on less consequential votes (Coman, 2012; Stecker, 2015), party leaders generally do expect members to vote with the party line. The dominant role of parties explains very high and stable levels of party unity in legislative voting (Coman, 2015; Sieberer, 2006).

However, depending on the electoral system, voters emerge as additional principals because they can directly influence MPs' electoral fortunes (Carey, 2007; Sieberer, 2010). Various studies have classified electoral systems with regard to the incentives they provide for MPs to seek personal votes, i.e. electoral support that is tied to them personally rather than to their party (André et al., 2016; Carey and Shugart, 1995; Mitchell, 2000; Shugart, 2001). Despite some differences in detail, these classifications agree that MPs elected via plurality election in single-member districts (SMD) have stronger incentives to seek personal votes than MPs elected from closed party lists in proportional representation (PR) systems.¹ Thus, MPs have stronger incentives to align their legislative behavior with the wishes of their local constituencies, which can be conceptualized as either local voters or local party branches that are often in charge of candidate selection in the district. The demands of these local principals may differ from those of the party leadership, be it because local voters and party branches are ideologically different from the national party (Bräuninger and Debus, 2012; Rodden, 2010) or because local actors seek locally targeted benefits ('pork', see e.g. Lancaster and Patterson,

¹ Most classifications assume that SMD systems provide more personal vote seeking incentives than closed-list proportional representation systems (see André et al. (2016: Table 1). By contrast, Carey and Shugart (1995) treat the two systems as structurally equivalent because SMDs provide voters with only one vote and no means to choose between different candidates of the same party. However, SMD systems provide lower personal vote incentives compared to closed-list PR in multimember districts because the value of personal reputation decreases with district magnitude in systems without intra-party competition.

1990; Stoffel, 2014b).² In the context of strong and ideologically relatively cohesive parties, competing demands by MPs' two main principals – the national party leadership on the one hand and their local constituency on the other – should be the exception rather than the rule. However, they are bound to occur occasionally thus putting MPs under cross-pressure (Carey, 2007; Sieberer, 2010). At least in some of these situations, MPs may side with their districts in pursuit of individual reelection goals. Therefore, everything else equal, MPs elected in single-member districts should be more likely to diverge from the party line than MPs elected from closed party lists. Applied to mixed electoral systems that combine an SMD tier and a PR tier, this argument leads to the general mandate divide hypothesis that has been tested in most studies of mixed electoral systems:

H1 ('general mandate divide hypothesis'): MPs elected in the SMD tier ('district MPs') are more likely to defect from the party line than MPs elected in the PR tier ('list MPs').

However, this hypothesis assumes that the incentives in the tiers of a mixed electoral system are equivalent to those in pure systems. This assumption has been challenged by authors who point to a 'contamination' between the tiers (Bawn and Thies, 2003; Crisp, 2007; Ferrara et al., 2005; Manow, 2015; Rich, 2014). According to this view, the incentives of MPs in mixed systems are systematically different from those in pure systems. For one, party leaders have incentives to coordinate the behavior of their MPs irrespective of the tier in which they were elected to achieve common goals inside and outside of parliament. This includes for example the demand to support the party line in legislative voting and to act as a representative for

² Roll call data does not provide any information on the underlying rationale of MPs so that we cannot study empirically whether observed dissent is driven by ideological concerns or the demand for pork and whether MPs are responsive to local voters or the local party elite.

local constituencies even if the MP gained his or her mandate via the party list. Secondly, in many mixed systems MPs can run as candidates in both tiers, and such dual candidates may pursue a mixed strategy rather than systematically favoring one principal over the other. Based on this contamination argument, many studies do not expect any behavioral differences between MPs based on the tier they are elected in:

H2 ('general contamination hypothesis'): District MPs and list MPs do not differ in their propensity to defect from the party line.

In recent years, the debate has started to go beyond the strict dichotomy of mandate divide vs. contamination. Instead of assuming that electoral incentives affect all MPs equally, scholars have looked more closely at the question which MPs are more or less likely to be affected by contamination and, in reverse, for which MPs electoral incentives effectively differ within a mixed electoral system. Two variables feature particularly prominently in this respect.

First, dual candidacies are often portrayed as a source of contamination because candidates running in both tiers have incentives to hedge their bets by pleasing both principals irrespective of the tier in which they are ultimately elected (e.g. Bawn and Thies, 2003; Ferrara et al., 2005; Manow, 2015). However, while dual candidacies occur frequently in many mixed systems, they are not ubiquitous. If contamination occurs through this mechanism, we should still observe behavioral differences between those MPs who run only in the SMD or the PR tier (Ohmura, 2014b). This leads to the following hypothesis based on candidate type:

H3 ('general candidate type hypothesis'): Pure district MPs (i.e. those district MPs who are not dual candidates) are more likely to defect from the party line than pure list MPs (i.e. those list MPs who are not dual candidates).

Second, the effect of electoral incentives on vote defection should depend on an MP's electoral vulnerability (Andre et al., 2015b; Ohmura, 2014b). In general, MPs whose reelection prospects are safe have few reasons to defect. Antagonizing the party leadership is not necessary from a reelection point of view and may be harmful with regard to further promotions that are usually controlled by the party. The same is true for electorally insecure list MPs whose reelection prospects in the closed-list PR tier only depend on their list position, which is granted by the party, and the party's overall electoral performance. By contrast, district MPs from marginal districts depend on every local vote for reelection and may thus have incentives to cater to demands from the district even if this means voting against the national party line. In mixed electoral systems, this effect should be limited to pure district MPs who have no safety net in case they lose the district race.³ This leads to the following hypothesis:

H4: ('reelection safety hypothesis') Pure district MPs who are electorally vulnerable are more likely to defect from the party line than electorally safe pure district MPs.

The arguments on electoral safety and contamination through dual candidacies lead to a more nuanced theoretical expectation of behavioral differences between MPs based on electoral system incentives. Low electoral safety should increase the propensity of district candidates to

³ Arguably, not all dual candidates enjoy an effective safety net because their chances in one of the tiers are very low. This is the case for dual candidates with unfavorable list positions (e.g. because their party dominates the district races in the state and thus wins few or no PR seats as historically the Bavarian CSU or the SPD in Bremen) and dual candidates without realistic chances of winning a district (e.g. most dual candidates from minor parties). In the empirical analysis, we address this problem by controlling for dual candidates reelection chances in the additional tier in which they were not elected.

defect, but not that of list candidates. Furthermore, this effect should only occur for district MPs who do not run as dual candidates. Taken together, these arguments yield our central ‘conditional mandate hypothesis’:

H5 (‘conditional mandate divide hypothesis’): Pure district MPs who are electorally vulnerable are more likely to defect from the party line than electorally vulnerable dual candidates and pure list MPs; however, there is no difference between the groups for high levels of electoral safety.

Case selection, modeling strategy and data

We test these competing hypotheses using roll call vote data from the German Bundestag in the period 1949–2013. The Bundestag uses the oldest mixed electoral system at the national level established in 1949 and is often regarded (and copied) as a prototype (Saalfeld, 2005; Scarrow, 2001). (About) Half of the members of the Bundestag are elected in single-member districts whereas the other half gain their seats via closed-list PR in (currently sixteen) multimember districts (the German states).⁴ The overall distribution of seats is proportional to the national share of PR-tier votes for parties who reach at least 5 percent of the national vote (or win three districts). Despite minor changes, the basic electoral system rules have been stable over time, allowing political parties and individual MPs to gain a deep understanding of the institutional mechanisms (for details on the German electoral system see e.g. Saalfeld, 2005; Zittel, 2017). This stability provides excellent conditions for studying the effects of electoral system rules on legislative behavior.

⁴ Since 1953, voters cast separate votes in each tier. In 1949, a single vote per voter was counted twice to allocate first the district mandate and afterwards the list seats at the state level.

The German case is also interesting because previous empirical research – analyzing relatively short periods of time – produced different findings regarding electoral system effects on legislative voting. One recent study found more defection by district MPs during the period 2005–2009 and has frequently been cited as evidence for a mandate divide in Germany (Sieberer, 2010). While a similar difference was also observed for the period 1990–1994 (Stratmann, 2006), other studies find no systematic differences for the periods 1957–1965 (Dishaw, 1971), 2002–2013 (Ohmura, 2014b), 2009–2013 (Zittel and Nyhuis, 2018), and 2013–2017 (Bauer-Blaschkowski and Mai, 2019) and ascribe this finding to contamination between the tiers. A few studies even detect a reverse effect with more defection by list MPs occurred in 1953–1957 (Dishaw, 1971; Rueckert and Crane, 1962). One study covering the years 2002–2013 addresses the role of electoral safety and found – contrary to the hypothesis advanced above – that pure district MPs defect more often the better their reelection prospects are (Ohmura, 2014b).

However, these findings are difficult to compare because they cover different time periods and employ different variable specifications and modeling approaches (see Table A-1 in the Appendix). Our longitudinal dataset allows us to cover a much longer time period and thus to control for time-specific factors such as the topical agenda of individual legislative periods, different government coalitions, and the frequency of roll call votes.⁵

⁵ The Bundestag only decides by roll call if requested by a party group or five percent of all MPs. Thus, roll calls are a non-representative sample of all votes (Sieberer et al. (2018). However, there is no apparent reason why the selection of RCVs should affect district and list MPs differently; we thus expect no bias in the effect of mandate type (see Sieberer (2010: 490). Nonetheless, we control for the frequency of roll calls in the analyses below.

We test for electoral system effects in two steps. First, we replicate Sieberer's (2010) analysis that found evidence for a general mandate divide in the period 2005–2009 separately for all electoral periods. In a second step, we pool our data over the entire period of observation.

To make optimal use of the information available, we employ disaggregated data on how an individual MP voted on each roll call vote (see Sieberer, 2010 and following this example Bauer-Blaschkowski and Mai, 2019; Ohmura, 2014b). In comparison to more aggregated approaches such as measuring the number of times an MP defects from the party line during a legislative period (Stratmann, 2006; Zittel and Nyhuis, 2018), this procedure allows us to control for vote-specific characteristics such as policy area, which prove to be important predictors of defection and vary considerably over time.

The binary dependent variable in all models is coded 1 whenever an MP's vote (yes–no–abstention) deviates from the position taken by the majority of his or her party. Non-participation (distinct from abstention) in a vote is treated as missing data.⁶ Free votes, in which at least one party group waived party discipline, are excluded from the analysis.⁷

We use two different conceptualizations of mandate types to capture the different arguments on contamination. The first variable codes the tier, in which an MP ultimately gained his or her mandate (1 for district MPs, 0 for list MPs), in line with the general mandate divide hypothesis. The second variable treats dual candidates (irrespective of the tier they are

⁶ A comprehensive study of roll call voting until 1990 shows that non-participation is not related to defection on other roll calls and thus does not seem to constitute a milder form of dissent (Saalfeld (1995: 73–77).

⁷ Free votes were identified based on contemporary newspaper articles; see Ohmura (2014a).

ultimately elected in) as third type in addition to ‘pure district MPs’ who only ran in an SMD and ‘pure list MPs’ who only ran on a party list.

We capture electoral safety with an established indicator of reelection prospects in both tiers (Stoffel, 2014a; Stoffel and Sieberer, 2018). For each tier of the electoral system, the measure estimates the predicted probability that an MP is reelected in the upcoming elections given his or her previous district performance or list position, his or her party’s previous electoral performance and as well as time- and district-specific conditions captured via a random effects framework. The scores of this variable are measured on a universal probability scale and are thus directly comparable across the two tiers (see Appendix for details). In our analyses, we use an MP’s reelection prospects in the tier s/he was elected in (i.e. in the district for district MPs and in the PR tier for list MPs) and, for dual candidates, as an additional variable the reelection prospects in the additional tier s/he ran in. We rescale the variables to the range of -0.5 to 0.5 so that a value of 0 indicates a fifty-fifty chance of reelection.

The analyses control for several variables whose omission could bias the estimates of the electoral system variables we are theoretically interested in. In the replication study, we follow Sieberer (2010) in including variables that indicate whether an MP holds an executive or parliamentary leadership office⁸, the policy area of the vote (dummy variables for economic policy and foreign policy with all other topics as baseline category) as well as party fixed effects. In the subsequent models that pool observations across legislative periods, we also include the government status of an MP’s party (as government MPs are often assumed

⁸ We consider the positions of chancellor, minister, and junior minister as executive offices, and president/vice-president of the Bundestag, chair/vice-chair of a parliamentary party group, chair/vice-chair of a permanent committee and party whip (*parlamentarischer Geschäftsführer*) as parliamentary leadership offices.

to have stronger incentives to follow the party line), his or her gender, his or her seniority measured as years since first elected to the Bundestag (both as linear and squared terms to capture a possibly curvilinear effect), a dummy variable identifying incumbent MPs (because newcomers may be more likely to defect), the number of roll call votes taken during the respective legislative period, the seat share of the government parties (because narrow margins make defection more costly), and fixed effects for electoral periods that capture time-specific variation in defection that cannot be ascribed to the systematic variables in the model. All variables are taken or constructed from the BTVote datasets (Sieberer et al., 2018).

Even after controlling for these observable confounders, it is plausible to expect that MPs differ in their propensity to defect from the party line due to person-specific factors, especially their personal ideological position. Unfortunately, we lack measures for personal ideology.⁹ However, as we have multiple observations per MPs, we can address this problem statistically by modelling MP-specific differences in voting. Conceptually this can be done with either random effects (RE) or fixed effects (FE) models, both of which have particular strengths and weaknesses (see, e.g., the discussion in Bell and Jones, 2015 versus Allison, 2009).

RE models capture MP-specific differences via person-specific random intercepts that are drawn from a normal distribution. RE models use all available information (i.e. variation in the behavior of individual MPs over time as well as variation between MPs), can include explanatory variables that are stable within MPs, are statistically more efficient, and readily

⁹ Obviously, we cannot infer ideology from the roll call record if we want to explain voting behavior on roll calls. Measures based on MP surveys are only available for a small subset of MPs. Plenary speeches do not lend themselves to inferring MPs' ideological positions in the German context because access is highly constrained by the party leadership (Proksch and Slapin (2015)).

yield quantities of interest such as predicted probabilities. However, they make the crucial assumption that the random intercepts are independent of all explanatory variables in the model. This assumption is problematic if unmeasured MP-specific factors influence the type of mandate an MP holds, e.g. because an ideologically extreme candidate cannot secure access to the party list and thus runs as pure district candidate. In this case, the estimated electoral system effect would be biased because it partly picks up differences in personal ideology.

By contrast, the FE model, analyzes only variation within MPs and thus automatically controls for all time-invariant MP-characteristics, irrespective of whether they are correlated to other variables in the model (Allison, 2009). Thus, if we follow the standard assumption that an MP's individual ideology is stable over time (e.g. Gerring, 1997; Jost et al., 2008; Poole and Rosenthal, 1997), the FE model effectively addresses the selection problem discussed above. From a causal inference perspective, the combination of MP-specific fixed effects and controlling for time-variant confounders ('selection on observables') provides a clear identification strategy for the causal effect of mandate type within our observational data analysis (Keele, 2015).¹⁰ As a downside, the FE model is statistically less efficient because the fixed effects absorb a substantial share of variation (Allison, 2009). Furthermore, for logistic regression models, the FE model estimates *conditional* fixed effects and cancels group-specific intercepts out of the index function (Chamberlain, 1980). Thus, we cannot

¹⁰ Note that we treat the data as observational and do not claim that the mixed electoral systems constitutes a quasi-experiment as early research did (e.g. Moser and Scheiner (2004); Stratmann and Baur (2002)).

obtain estimates for the fixed effects themselves and consequently cannot estimate quantities of interest such as predicted probabilities and marginal effects.¹¹

The first analysis using disaggregated data to study the mandate divide in Germany used the RE approach because it was confined to a single legislative period in which mandate type was time-invariant and thus the effect of interest was not defined in a fixed effects model (Sieberer, 2010). Subsequent research on one or few legislative periods followed this lead (Bauer-Blaschkowski and Mai, 2019; Ohmura, 2014b). Thus, these studies hinge on the assumption that ideology is not correlated with mandate type. Our longitudinal dataset for the first time allows both the RE and the FE approach. In the following analyses, we first use the random effects approach to ensure comparability with previous research and to provide more intuitive ways of assessing effect sizes. Afterwards, we test the robustness of our results with fixed effects models that identify the key causal effect of interest more precisely.

Findings

The general mandate divide hypothesis: A replication of Sieberer (2010)

Figure 1 shows the estimated logit coefficients of holding a district mandate for each electoral period using the random effects model with party dummies (model 4 in Sieberer 2010).¹²

While we can replicate the positive effect that Sieberer found for the 16th legislative period

¹¹ We could estimate predictions based for fixed effects set to zero, but lacking information on the values and distribution of the fixed effects, there is no way to know whether these estimates are substantively meaningful.

¹² The full estimation results are provided in Table A-2 in the Appendix. All random effects models were estimated in Stata 15.1 using the `melogit` command.

(LP), this finding proves to be exceptional. In the 15th LP, a positive coefficient very similar to that of the 16th LP narrowly misses statistical significance. However, in almost all other periods, district and list MPs do not systematically differ in their propensity to defect from the party line at conventional levels of statistical significance. Minor exceptions are the 2nd and 6th LP during which, contrary to theoretical expectations, district MPs were actually *less* likely to defect. Note, however, that the second legislative period was exceptional due to a split within the Liberals and few roll calls were held in the sixth legislative period. Overall, it is fair to say that our longitudinal analysis suggests the sixteenth LP studied in Sieberer (2010) to be an outlier.¹³

¹³ We also replicated the specification that includes government status instead of the party dummies; see Table A-3 in the Appendix. This specification yields similar results. In particular, we only find a statistically significant ($p < 0.05$) positive effect for district MPs in LP 16. Statistically significant negative effects are found in eight LPs. However, the model above indicates that these effects are mostly due to party differences.

Figure 1: The effect of holding a district mandate on vote defection by legislative period

Unstandardized logit coefficient of the variable 'District Mandate' with 95% confidence interval. Specification (4) from Sieberer 2010 including dummy variables for parties.

The conditional mandate divide hypothesis: Candidate type and electoral safety

In this section, we test the general mandate divide and the general contamination hypotheses against the idea of a conditional mandate divide that depends on electoral safety. Our longitudinal dataset reduces the impact of time-specific and possibly extraordinary conditions and allows us to control for variables that only or mostly vary between LPs.

We estimate three different model specifications to assess our hypotheses. Model 1 tests for behavioral differences between all MPs elected in SMDs and all MPs elected in the list tier and thus assesses the ‘general mandate divide hypothesis’ (H1) against the ‘general contamination hypothesis’ (H2). Model 2 takes contamination via dual candidacy into account and distinguishes three types of MPs – pure district MPs, dual candidates, and pure list MPs – to test the ‘general candidate type hypothesis’ (H3). Model 3 addresses the role of electoral

safety by including the reelection prospects of MPs both in the tier they were elected in and, for dual candidates, the additional tier they ran in. This allows us to test the ‘reelection safety hypothesis’ (H4) as well as the ‘conditional mandate divide hypothesis’ (H5).¹⁴

As logit coefficients are hard to interpret in interactive specifications with random components, we present our empirical findings in terms of the quantity of interest, i.e. the probability that an MP defects from the party line in a roll call vote. Furthermore, our interpretations of the results focus on substantive effect size rather than statistical significance because the latter is not a very demanding test given our large sample. Full estimation results are available in Table A-4 in the appendix.

Figure 2 shows average predicted probabilities of a dissenting vote along with 95 percent confidence intervals for the different types of mandate and, in models 3, for three analytically interesting levels of electoral safety: Reelection prospects of 50% (i.e. an MP facing a fifty-fifty chance of success), 75% (i.e. a comfortable margin) and 100% (i.e. virtually safe reelection). All other variables and random effects in the models are held at their observed values (Hanmer and Kalkan, 2013).¹⁵

¹⁴ Models 1 and 2 use data on 925,143 individual voting decisions taken by 3,530 MPs between 1949 and 2013. Due to missing data on reelection prospects (see Stoffel and Sieberer (2018), model 3 contains only 782,720 votes by 2,923 MPs in the period 1957 to 2013. Estimating models 1 and 2 on this restricted sample yields similar results (see Table A-5 in the Appendix).

¹⁵ The predictions include MP-level random effects that are estimated using empirical Bayes means.

Figure 2: Predicted levels of vote defection by mandate type

P.D. = Pure district; D.C. = Dual candidate; P.L. = Pure list

Average predicted probability of defection with 95% CIs.
Other variables held at their observed values.

First of all, the predicted probabilities show that defection levels are very low in the

Bundestag with predicted probabilities of about 2 percent. This finding is not surprising given

the strong role of parties in the Bundestag (Schüttemeyer, 1994). However, similarly high levels of party voting are observable in other parliamentary democracies (Carey, 2007; Coman, 2015; Sieberer, 2006) and did not prevent the lively debate on whether remaining variation can be explained by electoral system incentives.

On this account, our analysis finds no evidence for the hypotheses that propose general effects of the mandate type on all MPs irrespective of reelection prospects. Against H1, model 1 shows that district MPs do not defect more often compared to list MPs – they are even minimally less likely to vote against the party line. Taking dual candidacies into account, model 2 also fails to find the difference between pure district MPs and pure list MPs that is expected by H3. The predicted probability of defection neither differs between these two groups nor between them and the largest group of dual candidates. Thus, these initial models seem to support the contamination thesis (H2).

However, the picture changes when we take both reelection prospects and candidacy type into account. According to model 3, the likelihood that pure district MPs defect from the party line strongly depends on their electoral safety. As expected by the ‘reelection safety hypothesis’ (H4), the average predicted defection probability is 79 percent higher for a pure district MP with a 50 percent chance of reelection (defection probability 2.94%) compared to a pure district MP with certain reelection (defection probability 1.63%). As expected, we only find weak effects of electoral safety on the behavior of dual candidates and pure list MPs.

Furthermore, the data provides clear support for the ‘conditional mandate divide hypothesis’ (H5). In situations with unclear reelection prospects, pure district MPs are 48 percent more likely to defect than dual candidates (defection probability 1.99%) and even 65 percent more likely to defect than pure list candidates (1.78%). Also as theoretically expected, the three

types of MPs do not differ in their voting behavior if their reelection is very likely or almost certain.¹⁶

Figure 3 further clarifies these finding by displaying the marginal effects of being a pure district candidate (left panel) and being a pure list candidate (right panel) compared to the baseline category of dual candidates across the range of reelection probabilities. It shows that running solely in a district is associated with higher defection for all but the most electorally secure MPs (i.e. up to a reelection probability of about 90 percent). By contrast, the voting behavior of pure list candidates is statistically indistinguishable from dual candidates with the exception of a weak positive effect for those MPs with virtually certain reelection.

¹⁶ For dual candidates, model 3 also includes their electoral safety in the additional tier they ran in but were not elected (i.e. the PR tier for dual candidates elected in a district and vice versa). This variable has a significant negative effect, i.e. dual candidates who enjoy an effective safety net via the other tier are less likely to defect from the party line.

Figure 3: The marginal effect of candidate type on vote defection by reelection probability (based on Model 3)

Marginal effect of type of candidature with 95% confidence intervals, based on model 3.

While our analysis focused on the effect of electoral system incentives, a brief look at some control variables is interesting to put the electoral system effects into perspective. Consistent with previous findings, we find that MPs holding leadership positions in parliament and in the executive are less likely to defect from the party line (Bauer-Blaschkowski and Mai, 2019; Ohmura, 2014b; Sieberer, 2010; Zittel and Nyhuis, 2018). We also find lower defection by government MPs compared to opposition MPs (see Bauer-Blaschkowski and Mai, 2019; Sieberer, 2010; Zittel and Nyhuis, 2018; for a different finding see Ohmura, 2014b). The coefficients for model 3 (Table A-4 in the appendix) show that holding an executive office has by far the strongest effect, whereas the effects of government status and parliamentary

offices are roughly similar to the effect of being a pure district candidate with a fifty-fifty chance of reelection.¹⁷

Robustness test: Fixed effects regression models controlling for potential selection effects

The random effects models reported above hinge on the assumption that unmeasured MP-specific characteristics such as ideology are unrelated to mandate type. This section tests whether our findings hold when using an FE model that relies purely on variation within MPs. The FE model analyzes how a specific MP's propensity to defect from the party line changes when he or she is elected to the Bundestag via a different type of mandate conditional on his or her electoral safety (due to the interaction effect). For example, the main effect of the variable 'pure district MP' now reports the effect of the same MP being elected in the SMD without running in the PR tier compared to being elected as dual candidate assuming a very close election (remember that the electoral safety variable is coded 0 for a reelection probability of 0.5). This stronger identification strategy via MP fixed effects (to eliminate confounders that are time-invariant in MPs) and conditioning on relevant time-variant confounders in the model justifies interpreting the estimated coefficients as causal effects.

Figure 4 compares the estimated coefficients from fixed effects and random effects models based mostly on the specification of model 3 reported above.¹⁸ There are slight differences to

¹⁷ Due to the interactive specification and the centering of the electoral safety variable at a reelection prospect of 50%, the coefficient of the variable 'pure district candidate' (0.42 in model 3) captures the effect of holding this type of mandate for MPs with a fifty-fifty chance of reelection. The other coefficients are -1.29 for executive officeholders, -0.33 for legislative officeholders, and -0.52 for government status.

¹⁸ The fixed effects models were estimated in Stata 15.1 using the xtlogit command.

the original RE model presented in the previous section because the time-invariant variable gender as well as observations for MPs who never defect from the party line have to be dropped for estimating the FE model. The RE model in Figure 4 is estimated with the same specification and sample as the FE model. Full estimation results and equivalent coefficient plots for model specifications 1 and 2 are provided in Table A-6 and Figures A-1 and A-2 in the appendix.

Figure 4: Comparison of estimation results from random effects and fixed effects model (Model 3)

Logit coefficients with 95% confidence intervals based on model 3.
Specification includes fixed effects for parties and legislative periods (not shown)
Both models estimated on the specification and estimation sample of the fixed effects model.

Figure 4 demonstrate that the FE and RE specifications yield the same substantive findings. The size and statistical significance of the coefficients for our key variables on candidate type and electoral safety are very similar. The only notable difference is that electorally insecure pure list MPs defect significantly less often than dual candidates in the FE model whereas this difference missed conventional levels of statistical significance in the RE model. This finding

is in line with our general theoretical argument because such MPs are totally dependent on their parties for reelection and thus have particularly strong incentives to toe the party line.

As the conditional FE model does not yield meaningful predicted probabilities or marginal effects, we have to rely on the less intuitive odds ratios to compare substantive effects between the FE and RE models. In the FE model, the odds of defection by a pure district candidate with a reelection probability of 50 percent are 1.38 times those of a dual candidate with the same reelection prospects. The respective odds ratio is 1.45 in the random effects model based on the same specification and estimation sample (i.e. the model reported in Figure 4) and 1.52 in the original RE model reported above a model 3. These differences indicate that the RE model may slightly overestimate the causal effect of mandate type due to its use of variation between MPs in estimating the effect. However, the differences are substantively small and, as indicated by the overlapping confidence intervals, may be due to chance. Overall, the fixed effects model also support our claim that running as a pure district MP has a causal effect on vote defection for electorally insecure MPs. Furthermore, it suggests that the random effects approach used for estimating this effect in previous research yields substantively valid results.

Conclusion

This article used roll call votes in the German Bundestag over a period of more than sixty years to revisit the question whether different modes of election affect the propensity of MPs to defect from the party line. To our knowledge, this constitutes the most comprehensive longitudinal study of this question in any mixed electoral system. In contrast to previous findings for specific periods (Sieberer, 2010; Stratmann, 2006), our longitudinal analysis finds no evidence that MPs elected in SMDs are generally more likely to defect from the party line

than their colleagues elected via closed party lists. However, we find support for our ‘conditional mandate divide hypothesis’ that takes contamination due to dual candidacies and the effect of electoral safety into account: Controlling for a host of confounding factors and unmeasured MP-specific characteristics such as personal ideology, MPs who run only in the SMD tier and face uncertain reelection prospects are substantially more likely to break party discipline in voting than either dual candidates or MPs who run only in the PR tier. Such a difference is not observable for electorally safe MPs.

These findings have broader implications for the debate on contamination effects in mixed electoral systems, the relevance of electoral vulnerability for legislative behavior more generally, and the substantive importance of electoral system effects in legislative voting.

First, our analysis suggests a more nuanced view on electoral system effects in mixed electoral systems. At least in high-profile activities such as legislative voting, the claims that district and list MPs in general act differently and that contamination completely washes out behavioral differences between MPs from different tiers both seem overdrawn. Instead, the different electoral incentives only play out under specific circumstances that have to be specified theoretically and isolated empirically.

Second, we identify electoral safety as a crucial variable that conditions electoral system effects. While a few studies included this factor for short time periods (Ferrara, 2004; Herron, 2002; Ohmura, 2014b; Olivella and Tavits, 2014), its omission may explain at least some of the contradictory findings in the literature. Thus, future research should explore the conditional mandate divide hypotheses in other mixed electoral systems beyond Germany. Furthermore, electoral vulnerability has also been shown to affect legislators’ constituency-oriented behavior in pure electoral systems (Andre et al., 2015b; Heitshusen et al., 2005), indicating that our findings are not specific to mixed systems.

Third, our analysis highlights that we have to distinguish between the individual and the aggregate level when interpreting the substantive size of electoral system effects. Our statistical models show that such effects can be quite substantial for specific types of MPs – for electorally insecure pure district MPs the effect of mandate type is even larger than that of holding a parliamentary leadership office. However, the degree to which such effects are relevant at the aggregate level depends on the number of MPs facing these specific incentives. At least in the German case, this number is very small. Only 1.3 percent of all observations in model 3 come from pure district MPs with a reelection probability below 75 percent. Even if these MPs behave substantially different from others, their number is too small to make much of a difference at the aggregate level. This small share also explains why analyses that do not take electoral safety into account fail to detect behavioral differences.

So why should we care about electoral system effects that are relevant only for a small subset of MPs and thus rarely affect aggregate patterns of behavior? Our answer is twofold. For one, improved theoretical and empirical understanding of the conditions under which electoral system effects occur allows us to assess the importance of this crucial institutional variable for legislative processes and outputs – even if the conclusion may be that their relevance is low. Second, our findings give reasons to expect that the effect of electoral incentives may become more important in the future. Our analysis shows that their aggregate impact crucially depends on electoral competition. Even usually loyal MPs sometimes prioritize district demands over party demands in legislative voting if district races are competitive and parties do not have (in pure SMD systems) or use (in mixed electoral systems allowing dual candidacies in a close-list PR tier) other means to shield MPs against electoral defeat in the district. Trends of partisan dealignment and increased levels of electoral volatility that are observable in many democracies tend to decrease electoral safety and should thus put additional strain on parties' ability to uphold unity in legislative voting, both in mixed

electoral systems like Germany and probably even more so in pure SMD systems (Andre et al., 2015a).

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