



Micromotives of Vote Switchers and Macrotransitions: The Case of the Immigration Issue in a Regional Earthquake Election in Germany 2018

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Abstract Which issue-related motives underlie voters' decision to switch parties at the polls? Do switchers stick to the newly chosen party, or do they oscillate in a short-term way at intermediate elections? Relying on the behavioral theory of elections, we assumed aspiration-based voting of boundedly rational voters. We elicited issue-related switch and stay motives in an open-ended survey question format to identify the individual dominant aspirational frame. We traced the respondents' voting trajectories over three consecutive elections, including two state (2013 and 2018) elections in Bavaria (Germany) and one German federal election (2017). We focused on one of the most polarizing and salient issues in these elections, namely immigration. The case of reference is the 2018 Bavarian state election. Here, the incumbent majoritarian center-right party Christian Social Union tried to deter the entry of the right-wing populist party Alternative for Germany by adapting to it on

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the immigration issue in tone and position. The selected case allows assessment of the impact of issue-based adaptive behavior of the incumbent party at the level of the voters' switch or stay choices. We estimated the direction and number of voter flows for two interelection sequences of different lengths between different types of polls (federal and state). Our transition estimates are based on the hybrid multinomial Dirichlet model, a new technique integrating individual-level survey data and official aggregate data. Our estimates uncover substantial behavioral differences in the immigration issue public.

Keywords Switching motives · Open-ended question · Hybrid multinomial Dirichlet model · Federal elections in Germany · Bavarian State election 2018 · Right-wing populist parties

Mikromotive von Wechselwählern und Makrowanderungen: die Rolle des Einwanderungsthemas bei einer regionalen Erdrutschwahl in Deutschland 2018

Zusammenfassung Welche themenbezogenen Motive liegen der Entscheidung der Wähler zugrunde, die Partei an der Wahlurne zu wechseln? Bleiben die Wechselwähler bei der neu gewählten Partei, oder oszillieren sie bei Zwischenwahlen kurzfristig? Auf der Grundlage der „Behavioral Theory of Elections“ gehen wir von einer aspirationsbasierten Wahlentscheidung begrenzt rationaler Wähler aus. Es werden themenbezogene Wechsel- und Bleibemotive in einem offenen Umfrageformat erhoben, um den individuell dominanten Aspirationsrahmen zu identifizieren. Wir verfolgen das Wahlverhalten der Befragten über drei aufeinanderfolgende Wahlen, darunter zwei Landtagswahlen (2013 und 2018) in Bayern (Deutschland) und eine Bundestagswahl (2017). Dabei konzentrieren wir uns auf eines der am stärksten polarisierenden und salienten Themen bei diesen Wahlen, nämlich die Zuwanderung. Anwendungsfall ist die bayerische Landtagswahl 2018. Hier versuchte die amtierende Mitte-Rechts-Partei CSU, den Einzug der rechtspopulistischen Partei AfD zu verhindern, indem sie sich in der Zuwanderungsfrage in Ton und Position an sie anpasste. Der ausgewählte Fall ermöglicht es, die Auswirkungen des themenbezogenen Anpassungsverhaltens der alleinregierenden Partei auf der Ebene der Wechsel- und Bleibeentscheidungen der Wähler zu bewerten. Wir schätzen die Richtung und den Umfang der Wählerströme für zwei unterschiedlich lange Sequenzen zwischen verschiedenen Wahlgängen (auf Bundes- und Landesebene). Unsere Schätzungen der Wechselwähler basieren auf einer neuen Technik, die Umfragedaten auf individueller Ebene und offizielle Aggregatdaten integriert, dem Hybrid-Multinomial-Dirichlet-Modell. Unsere Schätzungen decken erhebliche Verhaltensunterschiede in dem *Issue Public Immigration* auf.

Schlüsselwörter Motive der Wechselwahl · Offene Frage · Hybrides Multinomiales Dirichletmodell · Bayerische Landtagswahl 2018 · Rechtspopulistische Parteien

1 Introduction

Which individually salient issue-related motives provoke voters to switch parties? And do different macrotransitions result from such individually varying perceptions? Finding answers to these questions is essential for party elites to adequately adapt to heterogeneous compositions of public opinion and the resulting complex inter-election dynamics, insofar as parties are interested in which topics voters care about to such an extent that they leave a party. Individual voters deciding to leave a party because of unfulfilled aspirations regarding an issue they consider to be urgent may accumulate as large electoral losses.

Given that modern societies are conglomerates of segments with heterogeneous issue-related aspirations, the respective voter transitions may not only differ in size across segments, but they may also exhibit completely different flow directions. The literature on voter transitions so far has never disaggregated global flows to topic-related partial flow matrices. We call such issue-related segments *issue publics* and propose focusing on a particularly polarizing and salient issue in Germany since 2015: immigration, which we will term *immigration issue public*.

The application is exemplified for a subnational election, the 2018 state election in Bavaria. This election is one of the few cases in proportional voting systems in which we observe a majoritarian single party incumbent—the Christian Social Union (CSU). After heavy losses in the preceding 2017 federal election, the ruling CSU adapted to the right-wing populist party Alternative for Germany (AfD) to prevent its entry to the Bavarian parliament and to avoid further outflows. Given this adaptive move regarding the immigration issue and its exceptional politicization, we expect the transition matrix of this numerically largest issue public to differ substantially from the remaining population.

For the objective of this study, we implemented a new survey instrument that directly elicits reasons for the revealed switching behavior. We used open-ended survey questions to determine the resulting separate transition matrix. We estimated the macro–voter transitions with a recently proposed technique integrating survey data and official aggregate data, the so-called *hybrid multinomial Dirichlet model* (Klima et al. 2019). Our results show that strongly diverging flows characterize the voter transitions in the *immigration issue public*. Moreover, we demonstrate that despite the CSU preventing further outflows in this issue public to the AfD compared to the 2017 federal election, these regains with the 2018 state election were exceeded by heavy losses to other parties such as the Greens. Our design and results have important implications for parties' campaign strategies. In the presence of heterogeneous voter transitions, disaggregated tables should be the basis for the systematic adaptation of platforms.

The next section outlines the challenges of determining heterogeneous voter transitions. Then, a theoretical approach for the understanding of vote switching is provided. Next, we justify our case selection, derive our data collection design, and introduce an innovative estimation approach for our original database. Finally, we present the results and discuss their implications.

2 Global and Partial Issue-Related Voter Transitions

Whether, why, and to which parties voters switch are key questions in electoral research. The extent of voter loyalty, just like the magnitude and direction of voter flows, is an essential indicator for the strategies that parties or candidates take. For example, Abou-Chadi and Stoetzer (2020) recently showed that parties adjust their positions to those parties they suffered the highest losses to. Losses of party shares can provide important information. They help understand whether the preceding performance and the position-taking of a party are globally *in sync* with the demands of their clientele, or whether relevant segments decide to exit (to other parties or abstention) because of a perceived deterioration of the political supplier (Hirschman 1970; Bendor et al. 2011). If parties knew the importance voters attach to specific issues and even their most preferred positions thereon, they could adapt their issue-related strategies more systematically. Our knowledge of this crucial aspect of voting is incomplete. We have insufficient insights into individual voters' concrete issue-related motives when switching to other parties or staying with the previous ones.¹

In an early contribution, Butler and Stokes (1974) study this question by examining those issues that lead to “short-term conversions,”² as they called voter transitions between consecutive elections in the United Kingdom. For example, they demonstrate that the approval of the statement that the Conservatives would be “more likely to keep immigrants out” led to 21% of former Labour voters switching to the Conservatives in 1970 (Butler and Stokes 1974, p. 307). Himmelweit et al. (1981, p. 98) argue that changes in party preferences in the period 1964–1974 in the British electorate were attributable to changes in favoring or disfavoring statements on trade unions and comprehensive schools. In a more recent study based on a multiwave panel, Preißinger and Schoen (2016) identify relative effects of attitudinal changes on nuclear energy and the European Union debt crisis, compared to candidate evaluations on the probability of vote switching. For the preelection period of the 2017 German federal election, Mader and Schoen (2019) show that an increasing distance on the immigration issue toward the Christian Democratic Union (CDU) led to an increased probability of switching to the AfD.

In sum, these studies make valuable contributions to our understanding of how samples react on average in a regression design. However, these analyses are highly aggregated, lumping all flows (out, in) together regardless of the flows between specific parties. Some studies are also selective by focusing on voter flows for selected pairs of parties. Usually, they estimate the relative impact of issue positions or changes thereon on the probability of switching. However, describing a complete interelection transition matrix for flows between all relevant party pairs (including the “party” of the abstainers) has fallen out of sight in the scientific debate. We are also missing studies examining the possibility of hidden heterogeneous flow patterns underneath the global transitions that could thwart party strategies in complex multiparty systems. We argue that the heterogeneity of such flows is driven by salient,

¹ For general overviews on voter transition research, see Schoen (2003), Dassonneville et al. (2015), and Klima et al. (2016, 2019).

² See Chapter 12 of the 1974 edition. The first edition was published in 1969.

politicized, and polarizing issues where parties under extreme uncertainties make adaptive moves (see Bendor et al. 2011). In the following, we provide a theoretical perspective to derive our empirical design.

3 A Framework of Vote Switching and Loyalty in Multiparty Systems

We will relate to general theories to describe and explain vote switching and loyalty. An early contribution by Hirschman (1970) expects *voice* (complaints) or *exit* over *loyalty* when a consumer or member of an organization perceives a substantial degradation of the performance of the product or organization. We have only scant insights on voters' internal thresholds to leave³ and no knowledge of the concrete causes of dissatisfaction leading them to leave. One of the most general and parsimonious theories to explain voter transitions is the *behavioral theory of elections* by Bendor et al. (2011). Here, boundedly rational voters are considered to have some implicit or explicit aspirational standards when assessing the parties and forming choice probabilities to stay or leave. These aspirational standards are "mental representations" of the choice situation: "The representational feature is a threshold, variously called an aspiration level or a reference point, that partitions all possible payoffs into two subsets: good and bad" (Bendor et al. 2011, p. 11). Accordingly, the inclination of the voter to stay with a previously chosen party or to leave changes.

This is a different assumption as compared with the *spatial theory of voting*, in which voters are assumed to have well-defined preferences and preference orderings (for an overview, see Thurner 1998, 2000). Bendor et al. (2011) instead suppose voters to have low political information and knowledge, but—and this is the essential value of this approach—retrospective voters are easily able to punish negatively evaluated incumbent parties and candidates. This is in line with Key's (1966) retrospective voting approach. It is more modern and complex, as it has a fully fledged formal outline. It is more general, as it includes the possibility that under specific conditions, voters may also look forward and consider positions and promises of the whole political supply side. As an alternative, one could also refer to the perspective of the *unified theory of party competition* as proposed by Adams et al. (2005) or Thurner (1998, 2000). But their extended versions of spatial voting center on forward-looking voters, adding retrospective performance assessments or party identification as biases. Therefore, we consider the Bendor et al. (2011) approach to be the most suitable as a general theoretical approach for our context, i.e., voters deciding to stay or to leave. The authors suggest a framework that allows researchers to combine retrospective and prospective spatial voting using a weighted additive function (see Bendor et al. 2011, pp. 121–124), which we slightly modify for the

³ Mummolo et al. (2021) argue that the limits of a conditionally conceived partisan loyalty are reached when voter preferences on salient and critical issues are persistently disregarded by the party.

case of multiparty systems and heterogeneous weights for the retrospective versus the prospective part:

$$q_{ij,t} = \mu_i p_{ij,t} + (1 - \mu_i) I_i(\text{C, S, FW, FDP, G, L, AfD})$$

q denotes the probability that voter i chooses party j in election t . It is a combination of a retrospective vote propensity $p_{ij,t}$ weighted by $\mu_i \in (0,1)$ varying across voters. This component captures voters' issue-related experiences with the incumbent party or parties and the longstanding issue-related reputation and competencies of other parties. The indicator function I_i captures the prospective part and takes the value of 1 if one of the considered parties—CSU (C), Social Democratic Party (SPD; S), Free Voters (Freie Wähler; FW), Free Democratic Party (FDP), Greens (G), the Left (L), AfD—is least distant according to a one-dimensional issue-related spatial utility function, or $1/n$ if the voter is indifferent between n least distant parties.

The combination of retrospective and prospective evaluations is especially valuable for multiparty systems in which the voter leaving a nonincumbent party has to make a reasoned choice. In this approach, parties are also boundedly rational and acting under enormous uncertainties regarding how voters react. Parties are “adaptive organizations that compete in a sequence of elections” where “winners satisfice (the winning party in period t keeps its platform in $t+1$), while losers search” (Bendor et al. 2011, p. 52). We argue that a major uncertainty arises from the imperfect and incomplete knowledge on heterogeneous voter transitions below the surface of aggregated global voter transitions.

Bendor et al. (2011) assume that voters compare the payoffs over the whole electoral period with their internal aspiration standard. Here, we provide a new aspect to this literature by arguing that temporally closer elections, despite occurring at different levels, constitute another important evaluation benchmark. According to Bendor et al. (2011), incumbent parties in particular adapt after observing losses. We argue that this could be the most recent losses in national or subnational elections. Similarly, voters observe other voters' most recent behavior in related contexts, and they consider parties' intermediate performance and strategies. Thus, when voting at different levels of elections, they may adjust their aspirations and vote propensities in a more short-term way. Additionally, behavioral incentives of second-order elections (see Reif and Schmitt 1980) may, for example, lead to a higher degree of protest voting for new populist right-wing parties in lower-level state elections.

This abstract theory is voluntarily non-explicit which subjective mental aspirations are activated. The authors argue that the mental aspirations are “not directly observable” (see Bendor et al. 2011, p. 11). We propose to empirically elicit the subjective dominant operational frame of the aspirations guiding stay-or-leave decisions. For this objective, we suggest using a survey instrument that directly asks for the *reason to switch* and the individual *most important political issue for the stay decision*. The use of an open-ended question is suitable given the exceptional involvement of voters in highly salient and polarizing issues. When a party's issue stances and performance are perceived as dissonant with a voter's aspiration, the decision to leave should allow a survey respondent to indicate a reason. The

implications of such an exceptional issue involvement have been discussed in the literature on so-called issue publics (Krosnick 1990; Thurner 2000; Kim 2009). Members of issue publics hold strong, emotional, cognitively elaborated, and often extreme stances on particular issues. An established technique to identify the “members” of such issue publics has been the direct elicitation of the attribution of personal importance to a specific political issue by an open-ended question on the most important political problem a country is facing (Krosnick 1990). To our knowledge, there is no such equivalent in the context of vote switching that relies on open-ended survey questions asking about switching motives.

In the following, we propose a design that directly asks respondents of a large-scale survey for the underlying reason when they reveal a vote switch; it also asks them to indicate the most important political issue for a stay decision. Such an approach has several advantages. First, it allows comparison of macrotransition patterns across segments with different focal mental aspirations, as well as the ability to assess whether numbers and directions of switches differ across segments. This is crucial for party strategists because they usually only observe aggregated global flows at the surface without detailed knowledge of the underlying streams. Second, by investigating the same issue public at intermediate elections, it becomes possible to learn about the nuanced adaptive dynamics of aspiration-based voting—for example, whether voters leave for a new populist party to teach the incumbent party a lesson and then return to it, or whether they stay with a new populist party and thereby contribute to institutionalizing such protest parties.

4 Case Description and Expectations

In the following, we describe a case in which the voters’ reactions to the strategy of an incumbent center-right party adapting to a right-wing populist party can be observed in a nutshell: the 2018 state election in Bavaria and the specific role of the immigration issue therein. Right-wing populist parties often provide polar positions on immigration (Art 2011). The behavioral reactions of previous voters of an incumbent center-right party in such a situation should depend on how this party responds to the imminent newcomer. In her investigation of reactions of established parties to new challengers, Meguid (2008) distinguishes the following strategies: A *dismissive* strategy downplays the importance of an issue, and the established parties maintain their positions. The *accommodation* strategy implies that a party adjusts toward the position of the new challenger and puts the issue aggressively on the agenda. An *adversarial* strategy also contributes to increasing the salience of the issue, but here the party distances itself from the polar position of the new party.

The German party system (Saalfeld and Hornsteiner 2014) had two major incumbent center-right parties in the observed period 2013–2017/2018: the Christian Democrats, consisting of the CDU and the CSU. Since 2013, these parties have been confronted with the entry of a new right-wing populist party, the AfD. This party started initially as a European Union–skeptical party and, by 2015, had turned into a mainly immigration-hostile party. In the 2017 German federal election, the CDU

and the CSU were incumbents in a coalition with the SPD and incurred substantial losses (CDU: -7.4 percentage points; CSU: -10.5 percentage points in Bavaria).

The CSU is a conservative regional party that held a majority government in Bavaria for most of the post-World War II period (1966–2008, 2013–2018). It maintains an alliance with its *sister party*, the CDU, based on the agreement that the CSU runs for office in Bavaria only, whereas the CDU competes in the remaining 15 (city) states. The CSU chose the *accommodative strategy* to avoid losing its single-party government status in Bavaria in the 2018 state elections. By contrast, the CDU and Chancellor Merkel in the Federation decided to appeal to a socially more heterogeneous clientele and to secure the formation of coalitions with center-left parties. Contrary to the CDU, the CSU in 2015–2018 rejected a repositioning to the left on the issue. It began to emphasize the issue, sharpened the tone, and repositioned to the right and toward the AfD (see Fig. 1). Figure 1 shows the perceived mean values of the major parties on the immigration issue at the occasion of the 2017 German federal election.

We observe that the CSU was perceived as more rightist than the CDU and the FDP. Interestingly, the distribution of voter perceptions is bimodal, with modi in the center and on the right.

If we assume spatial proximity voting behavior of switchers in an activated aspiration frame “immigration,” then the following expectations can be stated: If the CSU further converges toward the AfD, then those to the left of the CSU position would desert to one of the leftist parties (Greens, Left, SPD) or to the FDP or the FW, provided the distance to the respective party becomes smaller than the new

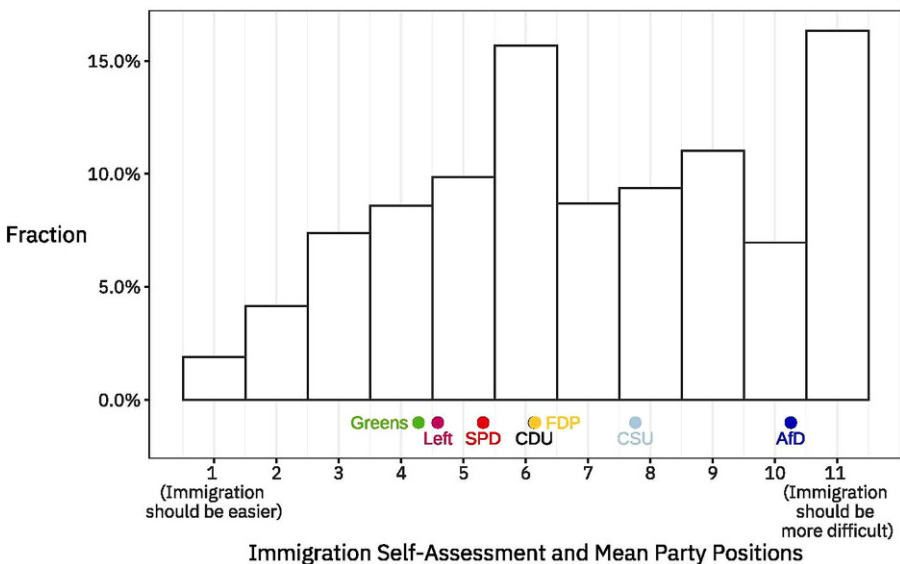


Fig. 1 Average perceived party positions and distribution of voters on the immigration scale in the 2017 German federal election. *SPD* Social Democratic Party, *CDU* Christian Democratic Union, *FDP* Free Democratic Party, *CSU* Christian Social Union, *AfD* Alternative for Germany. (Data source: German Longitudinal Election Study 2019)

distance to the CSU. The FW is a genuine Bavarian phenomenon of an antiurban and anticenter party (see Saalfeld and Hornsteiner 2014, p. 81), with immigration positions that have been somewhat more moderate than the CSU's but probably more to the right than those of the FDP. Former CSU voters to the right of the repositioned CSU will either stay with their party or leave for the AfD, provided that the distance to this party is smaller than the one to the CSU. But as a consequence of this adjustment to the right, the point where voters become indifferent between the CSU and the AfD shifts to the right, and we should thus also observe voters from the AfD (e.g., at the occasion of the 2017 federal election) migrating back to the CSU.

Survey results of public opinion on immigration in Germany and Bavaria have oscillated, but the issue has remained *the* top issue since 2015⁴. This applies to the federal election in 2017 and to the period before the 2018 Bavarian state election (infratest dimap 2018, p. 30). There was a remarkably fierce and open controversy between party leaders Angela Merkel (CDU) and Horst Seehofer (CSU) on the adequate strategy on immigration before the federal election in September 2017. The tonality of the intra-Union dispute was even exacerbated by the successor in office, Markus Söder, after the resignation of Seehofer as Bavarian Minister-President in December 2017. This replacement was a consequence of the heavy losses of the CSU of more than 10 percentage points in this 2017 German federal election. In his subsequent function as a Federal Minister of the Interior, Seehofer tried to implement—at least in the first year of his office—a more restrictive migration policy from within the federal cabinet—under the eyes of Chancellor Merkel. The conflict escalated up to the point that Seehofer threatened in 2018 to implement the rejection of refugees already registered in other European countries by using an ultimatum. Merkel responded in return with the threat to dismiss the Minister of the Interior. This would have implied the withdrawal of the CSU from the federal government coalition.

The demand by the CSU for an upper limit of refugees was occasionally shared by more than 50% of the German population, according to a YouGov survey in September 2017.⁵ Nevertheless, during spring and summer 2018, surveys estimated the CSU's shares down to less than 40%, some even to 33%. Given that the CSU had adjusted to migration positions of the right-wing AfD in 2017, the “left-wing” faction of the CSU argued that this tactical move was not useful but even detrimental: The CSU would lose much more than they would win.

The immigration issue thus played a vital role in both election campaigns, the 2017 federal election and the 2018 Bavarian state election. It demonstrates the enormous uncertainties that party elites face. In the 2018 Bavarian state election, the CSU again lost 10.5 percentage points and thereby forfeited its single-party governmental majority. Its coalition partner at the federal level, the SPD, lost another

⁴ https://www.forschungsgruppe.de/Umfragen/Politbarometer/Langzeitentwicklung_-_Themen_im_Ueberblick/Politik_II/#Probl1

⁵ <https://www.welt.de/politik/deutschland/article169364209/Mehrheit-der-Deutschen-will-Obergrenze-fuer-Fluechtlinge.html>

11.0 percentage points.⁶ However, in the 2018 Bavarian state election, the AfD obtained a slightly smaller share (10.2%) compared to its results in the previous 2017 federal election (12.6% in the Federation, 12.4% in Bavaria). Thus, contrary to the expectations for a second-order election (Reif and Schmitt 1980), we do not observe a further expansion of this right-wing populist party in the state election. On the other hand, we see an enormous increase of the Green Party to 17.6%, i.e., it improved by 9.0 percentage points. The FW also achieved small increases (from 9.0 to 11.6). Because the FW also took rather immigration-skeptical stances in its electoral manifesto, we expect outflows to this party, too.

Was the immigration issue essential for the losses of the CSU? Did the party avoid higher outflows to the AfD by converging to it? Or was this success achieved or overcompensated by higher flows to left suppliers? This would be evidence that its accommodative strategy was not successful.

In sum, the 2018 Bavarian state election constitutes a crucial example in which a center-right incumbent party converges to a right-wing populist party to prevent its parliamentary entry. Because the incumbent government here consisted of only one party, the design allows assessing whether such a move improved its electoral chances or whether outflows of moderate voters intensified.

What expectations can we formulate given our theory and described case? Suppose large segments indicate a salient issue as the reason for their switch or stay decision. In that case, the incumbent party should be mainly affected since it bore responsibility in the last period. With regard to the CSU, this applies both to the 2017 federal and the 2018 Bavarian state election. The 2018 state election offers the possibility to separate the impact of a salient aspiration standard (the handling of the immigration issue) with regard to a single incumbent.

Given the immigration crisis, and since the right-wing populist party AfD became a single-issue challenger, being focused on immigration, there should be substantial differences in the number and direction of flows in the salient *issue public immigration* compared with the outflows in the remaining subset of voters. The open question is how much the differences are compared to the patterns in the remaining population.

The incumbent party's movement toward the AfD on migration policy should, *ceteris paribus*, induce former voters of the CSU who were located to the left of its immigration position to vote for a left-wing party if the perceived distance to this party became the least-distant one. It is an open question which of the left parties were perceived as a credible alternative in this regard and to what extent.

Finally, given that the incumbent CSU continued and even intensified its convergence to the AfD on immigration after the heavy losses in the 2017 federal election, we expect that there should be no further increases in the losses toward the AfD in the 2018 state election.

⁶ <https://www.cnn.com/2018/10/15/berlin-hit-by-a-political-earthquake-after-bavarian-election-shakes-major-parties.html>

5 Method

The exact determination of individual vote switching and global voter transitions between all pairs of relevant parties in a multiparty system is a complex undertaking. In an eight-party system including the abstention option, 64 directed flows and loyalty shares need to be determined. There are only a few methodical contributions to this important research area (for an overview, see Klima et al. 2016, 2019). Early procedures compare losses and gains of parties in many territorial units, for example, in all communities or districts. Suppose one observes a strong statistical relationship between the losses of one party and the gains of another party. In that case, one could—under quite restrictive assumptions (Goodman 1953)—estimate the underlying extent of dyadic flows between these parties. The advantage of such an approach, based on administrative aggregate data for many territorial units, lies in the availability of objective information about the behavior of nonvoters, who tend to be strongly underreported in surveys. Underreporting of abstention also flaws the estimation of transition between parties. By contrast, aggregate administrative data come without errors. The challenge with using this type of data, however, is the risk of ecological fallacy, well known since the 1950s (Robinson 1950). We cannot infer the relationships at a higher level of aggregation to a lower level, such as the individual, without very restrictive assumptions (e.g., constancy of relations across all territorial units).

The current predominant research strategy in estimating voter transitions is survey based. In a panel design, the same persons are contacted in consecutive elections and asked for their individual vote decisions. The advantage of the panel design is that recall bias (Himmelweit et al. 1978) and adjustment biases, which usually occur when respondents are asked to memorize previous party choices, are avoided. The major disadvantages of such repeated surveys are the much higher costs and small sample sizes: The initial sample often decreases dramatically so that too few respondents remain to estimate detailed voter transition matrices validly. In contrast, by using recall questions (Dassonneville and Hooghe 2017) in which respondents are asked to remember their voting behavior in the previous election(s), the researcher avoids expensive multiple contacts of respondents. However, the time that elapses between two interesting elections, usually 4 or 5 years, can make memorizing difficult for the respondents. Moreover, the indicated current party preference is often extrapolated to the past (Himmelweit et al. 1978). Therefore, there is a risk of overestimating the number of loyal voters. The assessment of which strategy is superior remains inconclusive so far: Both panel-based and recall-based approaches exhibit flaws. In sum, the determination of vote switching and aggregate voter transitions, especially in multiparty systems like the ones in most European countries, requires new methodical avenues that overcome the deficits of the existing ones.

This article relies on a recently developed innovative method to estimate macro-voter transitions in which the advantages of administrative data and survey data are systematically combined in a Bayesian approach (Klima et al. 2019). We briefly introduce the so-called *hybrid multinomial Dirichlet model* (HMDM),

which we use to estimate the voter transitions in our context.⁷ The method consists of two different components combined in a statistically consistent way. The starting point is an ecological inference model that is augmented by georeferenced individual data, which are integrated into the respective aggregate data for territorial units.

Ecological inference models have long been used, starting with the basic Goodman linear regression (Goodman 1953). Such models rely exclusively on cheap and easily available ecological (aggregate) data to estimate the relationship of interest. In our application case, this relationship is the individual decision at different elections, i.e., in t and $t + I$. The unobservable individual decisions sum up to observable aggregate losses and gains. Thus, a major disadvantage of this approach is that there is no direct observation of the relation of interest at the individual level. Therefore, any aggregate correlation is prone to the well-known “ecological fallacy” (Robinson 1950), i.e., an incorrect inference from data at one level to data at a lower level. King’s method (1997) constitutes a new development in the context of ecological inference for 2×2 tables, as he tried to determine lower and upper bounds for the risk of such ecological fallacies. He and his coauthors advanced more adequate distributional assumptions (King et al. 1999), culminating in the multinomial-Dirichlet model (Rosen et al. 2001) for the ecological inference for tables larger than 2×2 , i.e., $R \times C$ tables.

The HMDM model takes up a second seminal contribution by Wakefield (2004), who proposed a data augmentation method based on georeferenced individual-level data. Such models are called hybrid models because of the blending of two different data types. To avoid double counting of interviewed individuals, Wakefield proposed subtracting georeferenced interviewed individuals from the respective aggregate data. Hybrid models have the strength that individual data capture the relation of interest directly, while the still-used aggregate data ensure that objective information is available, especially on abstainers but also on gains and losses of all parties in many units.

The HMDM model we use is an extension of the $R \times C$ ecological inference model (Rosen et al. 2001) to a hybrid model by combining it with the idea of Wakefield (see Klima et al. 2019). It can be applied to voter transitions in multiparty situations like German or Bavarian elections. The HMDM model is a hierarchical Bayesian model based on Markov chain Monte Carlo principles for its estimation. Assume that there are R parties in the 2013 election and C parties in the 2018 election, and election results for all considered N territorial units (e.g., constituencies, municipalities) are available. The observed election results at the territorial unit can then be considered as the respective cross-tabulated margins of these $R \times C$ voter transition tables. However, we are interested in the unobserved inner cells of these tables, i.e., the combination of individual choices in t and $t + I$.

The first level of the HMDM model describes the relationship at the lowest level—in our application case, the municipality level. Given that individual data are available, they can be summarized in a separate table in which the rows are the choices in 2013 and the columns represent the choices in 2018. Here, the inner cells can be observed in addition to the margins. A multinomial distribution is assumed for

⁷ A more detailed presentation is provided in the online appendix.

each row, with the choice in 2018 depending on the choice in 2013. The parameters of the multinomial distribution represent the transition probabilities and are typically β -coefficients, with subscripts specifying the choices in 2013 and 2018.

For the aggregate data, a similar table can be constructed, but with unknown inner cells. Following the Wakefield approach, these margins are corrected by subtracting the margins of the individual-level data. While it is impossible to specify row-wise distributions for the individual-level data, it is possible to specify a distribution for the second election result depending on the first election using the transition probabilities. For the second election, it is assumed that the election results follow a multinomial distribution with parameters θ :

$$\theta_{\text{CSU2018},i} = \sum_{r=1}^R \beta_{r,\text{CSU2018},i} \cdot \frac{(N_{r,i} - M_{r,i})}{(N_i - M_i)}$$

Note that each θ is the weighted sum of the individual transition probabilities. The HMDM model assumes that the transition probabilities in the aggregate and individual data in a municipality are identical. If no individual data are available, only the aggregate and the multinomial distribution for the second election can be considered.

Because such a model could not be estimated as for each territorial unit $(R - 1) \times (C - 1)$ β parameters would be necessary, ecological inference models typically require additional assumptions capturing similarities between the territorial units. The basic Goodman regression assumes constant β parameters over all territorial units. The HMDM model is less restrictive by assuming a common Dirichlet distribution of the β parameters of a row:

$$(\beta_{\text{CSU2013},\text{CSU2018},i}, \dots, \beta_{\text{CSU2013},\text{NV2018},i}) = \text{Dirichlet}(\alpha_{\text{CSU2013},\text{CSU2018}}, \dots, \alpha_{\text{CSU2013},\text{NV2018}})$$

The α 's are the parameters of the Dirichlet distribution, which are global and not specific to territorial units. The assumption of the Dirichlet distribution ensures that the transition probabilities sum up to 1.

The third and final level of the model defines the hyperpriors. This distribution specifies the prior knowledge presupposed for a specific transition. The HMDM model assumes a Γ distribution with parameters λ_1 and λ_2 :

$$\alpha_{\text{CSU2013},\text{CSU2018}} = \Gamma(\lambda_{1,\text{CSU2013},\text{CSU2018}}, \lambda_{2,\text{CSU2013},\text{CSU2018}})$$

This distribution can take either cell-specific parameters or equal prior knowledge for all cells. Based on this model, we can estimate the voter transitions.

Given the estimated global transition table, we calculated individual interview weights for the respondents in a second step. Here, we designed a multistep weighting approach. We used our knowledge about the sampling procedure to weight the interviews at the county (*Regierungsbezirk*) level, followed by a step in which we introduced separate weights for the *Regierungsbezirke*. The final weights resulted by comparing the raw voter transitions using the weights from the first two steps

and the Bavarian-wide voter transition estimated from the HMDM model. Because the weights allow reproduction of the voter transition estimated with the HMDM model, it is also possible to estimate transitions for specific subgroups. Our weighting procedure is similar to an approach applied by infratest dimap to correct the collected individual-level data using aggregate data (election results) based on iterative proportional fitting. While infratest dimap can only use marginal information, our approach allows accounting for cell-specific information and, therefore, leads to more informative weights (and estimates based on them) than an iterative proportional fitting algorithm using election results as known margins.

6 Data

Following the statistical model, we relied on two data sources: (1) administrative aggregate data at the level of 2056 Bavarian communities and (2) computer-assisted telephone interviews in 70 dialing-code areas (10 per constituency).⁸ For 334 municipalities, we have a total of 3809 interviews, including valid vote intentions and vote recalls for the 2013 and 2018 Bavarian state elections. The average number of interviews in these areas is $N=40$. We identified switchers and stayers based on the vote intention for the party list (second vote). This guarantees comparability with survey companies such as infratest dimap, which also relies on the second vote for its voter prediction and transition estimations.

To elicit the individually salient motive for switchers, we implemented a follow-up filter question in our questionnaires. Comparing current vote intention and previous vote choice according to the recall question, it becomes possible to identify switching voters. These switchers were asked the follow-up question, “You are indicating a different decision today than 5 years ago. Could you please provide one or two reasons for this?” All respondents were asked the question, “Which political issue most influenced your voting decision in today’s state election?” The immigration issue public (IIP) is composed of those respondents indicating all words relating to migration, immigration, asylum, or refugees.⁹

The well-known difficulty of adequately representing nonvoters in election surveys is also apparent in our study. The proportions of nonvoters are underestimated (2018: 7.5%; 2017: 4.0%; 2013: 5.5%) just as the vote shares of the AfD (2018: 3.3%) so that a clear bias exists for those voter segments. To overcome these biases and improve the estimation of voter transitions, we combined the individual data with information-rich administrative election results within the HMDM (Klima et al. 2019). For the transition tables, we considered the following parties: CSU, SPD, FW, Greens, FDP, the Left, and the AfD (not running for office in 2013). All other parties were combined into the category “Others.” We also accounted for nonvoters (NV) to capture mobilization effects of the contested immigration issue.

⁸ The telephone interviews were carried out by the Center for Market Research at the University of Passau and the Social Science Telephone Lab at the LMU Munich.

⁹ See the online appendix for more details. In the online appendix we also include voter transitions for the second largest issue public related to environmental questions.

7 Results

We first looked at the global voter transitions between the 2013 and the 2018 Bavarian state elections, including the whole electorate. Second, we focused on the subset of those respondents indicating the immigration issue, either by stating immigration as one of the most important issues for their voting decision or as the reason for their 2018 vote switching. We estimated a separate transition matrix for this IIP and compared its flows to the ones of the remaining electorate. Third, we assessed the recalled choices at the 2017 federal election as an additional benchmark to investigate whether the moves away from the incumbent CSU had already occurred at the first-order election in 2017 or whether there had been rather short-termed mobilization processes in the year before the Bavarian state election in 2018 in the IIP.

7.1 Global Voter Transition Matrix for the 2013–2018 State Elections in Bavaria

Many different criteria can induce loyalty or exit based on adaptive aspirations the individual voters may have in mind (Bendor et al. 2011). Global voter transition matrices are useful for the parties as a composite performance measure, although they could disguise manifold overlaid flows that potentially work in opposite directions. For brevity, we present only the respective percentages. Table 1 shows the estimated voter transition rates between the 2013 and 2018 Bavarian state elections. The estimated loyalties vary between 79.0% (Greens) and 44.0% (SPD), with the incumbent CSU defending 69.9% of its former stock. When considering the largest transitions to other parties, both the CSU and SPD lost above all to the Greens. Surprisingly, the incumbent party CSU was reduced only by 2.8% in favor of the AfD. Much larger outflows are observed to the FW (8.3%) and the Greens (10.6%).

In the case of the SPD, almost a quarter of its voters in 2013 voted for the Greens in 2018—substituting it now as the major party of the left. Like the FDP (13.0%), the FW (14.0%) lost mostly to the CSU. That result and the mobilization of former

Table 1 Estimated voter transition rates between the 2013 and 2018 Bavarian state elections

2013	2018								
	CSU	SPD	FW	Greens	FDP	Left	AfD	Others	NV
CSU	69.9	1.0	8.3	10.6	1.4	0.8	2.8	1.8	3.3
SPD	8.4	44.0	3.0	22.3	6.2	3.5	2.1	2.3	8.1
FW	14.0	2.3	64.6	2.6	2.6	2.0	6.6	2.2	3.1
Greens	2.9	2.9	1.8	79.0	2.8	6.3	1.0	1.7	1.6
FDP	13.0	2.2	8.2	5.8	61.4	2.1	2.1	2.4	2.8
Left	4.2	2.4	2.1	6.2	4.3	60.7	8.0	3.7	8.4
Others	23.9	1.2	3.2	2.6	4.7	2.3	26.9	32.8	2.4
NV	5.6	0.5	3.6	4.9	1.3	0.6	10.9	3.2	69.4

Rows represent the 2013 voter decision, while columns represent the 2018 decision. The presented numbers are the shares of the 2013 voters with the corresponding 2018 decision. Example: 69.9% of the CSU voters in 2013 voted again for the CSU in 2018, while 10.6% voted in 2018 for the Greens

CSU Christian Social Union, SPD Social Democratic Party, FW Free Voters, FDP Free Democratic Party, AfD Alternative for Germany, NV nonvoters

nonvoters demonstrate that we also have to account for inflows to the incumbent CSU (5.6%) when assessing its overall campaign. Among the former nonvoters, it is evident that the AfD benefited essentially from the higher turnout: 35.6% of all nonvoters in 2013 who voted for a party in 2018 did so in favor of the AfD.

These global results contribute to the ongoing discussion about the effectiveness of the CSU to avoid outflows to the radical right. It is obvious that the general transitions to the AfD have been kept low, that previous nonvoters (5.6%) have been successfully mobilized, and also that there were remarkably higher losses to the Green Party. However, we doubt that it is sufficient to assess the incumbent's strategy on immigration by looking at the global transitions. In the following, we show that such a perspective is much too coarse and that it hides remarkable latent heterogeneities below the surface.

7.2 Issue Public–Related Voter Transitions: The Case of the Immigration Issue

Fine-grained, issue-related transition analyses provide a precise revelation of the impact of salient issue motives of switchers and stayers. The immigration issue had overwhelmingly dominated the German discourse since the immigration crisis in 2015 and has been kept high on the agenda. In July 2018, more than 50% in Bavaria indicated immigration to be the most important political problem. However, this value oscillated¹⁰, and without knowledge of intraindividual aspirations, it was extremely difficult for party elites to choose appropriate strategies.

Following the concept of issue publics, which accentuates highly involved and polarized parts of the electorate focusing on an individually salient issue, we propose to operationally define the respective issue public as those indicating the immigration issue—either by stating immigration as the most important issue for their voting decision, or explicitly as the switching reason. We expect the members of the IIP to exhibit exceptionally “strong attitudes.” The activation of such a frame of aspiration should dominate the assessment of a party. Attitudes toward a restrictive immigration policy can be positive or negative. Therefore, a party adapting to a more restrictive stance may induce voter losses in different directions. The observable electoral behavior reveals the otherwise unobservable loyalty–exit calculus of the voters. This leads to the following specific questions: Did previous voters of the CSU stay with the party, thereby accepting its polarization strategy as credible? To what degree did they exit toward the AfD, indicating that they instead believed a new populist political supply? Or did they leave toward the Green Party because position-taking and tonality of the CSU had been considered repellent? Our perspective allows us to zoom into the balance sheet of gains and losses given a specific campaign strategy of an incumbent majoritarian party and given a crucial, prevalent issue in a voter's mind.

We employed a multistage weighting procedure to ensure representative insights about the size of the IIP as outlined in the methods section. Based on this, we estimate the immigration-related issue public to amount to 21.1%. This procedure

¹⁰ <https://www.br.de/nachrichten/bayern/bayertrend-september-18-csu-and-spd-auf-historischem-tiefstand,RE5eyel>

Table 2 Estimated voter transition rates between the 2013 and 2018 Bavarian state elections in the immigration issue public (IIP) and for all other voters (AOV)

2013	2018								
	CSU	SPD	FW	Greens	FDP	Left	AfD	Others	NV
CSU—AOV	73.0	1.0	7.5	9.7	1.3	0.5	0.9	2.1	4.0
CSU—IIP (23.4%)	59.7	1.1	10.7	13.6	1.9	2.0	9.1	0.9	1.1
SPD—AOV	7.9	44.9	3.2	22.9	6.3	3.3	0.2	2.3	8.9
SPD—IIP (20.5%)	10.5	40.8	2.3	19.8	5.6	4.2	9.6	2.3	4.9
FW—AOV	12.0	1.4	71.2	2.1	3.3	0.0	3.3	2.9	3.9
FW—IIP (19.9%)	23.6	6.2	44.5	5.2	0.0	0.0	20.5	0.0	0.0
Greens—AOV	2.1	3.1	1.4	79.7	2.7	7.1	0.0	2.1	1.8
Greens—IIP (17.7%)	6.7	1.9	3.7	76.0	3.0	2.5	5.9	0.0	0.4
FDP—AOV	11.4	2.4	8.2	5.0	63.5	2.6	0.8	3.0	3.1
FDP—IIP (19.8%)	19.7	1.2	8.2	9.2	52.9	0.0	7.5	0.0	1.4
Left—AOV	1.3	0.0	3.1	6.6	0.0	69.6	4.3	2.7	12.4
Left—IIP (30.2%)	11.1	0.0	0.0	5.9	14.7	44.9	17.2	6.1	0.0
Others—AOV	21.7	1.7	2.9	3.7	0.0	4.1	10.0	51.8	4.2
Others—IIP (42.9%)	26.9	0.6	3.7	1.2	10.9	0.0	49.3	7.5	0.0
NV—AOV	4.8	0.7	4.4	5.1	0.9	0.3	6.3	3.0	74.5
NV—IIP (17.0%)	9.6	0.0	0.0	3.5	3.0	1.7	33.1	4.4	44.7

Rows represent the 2013 decision, while columns represent the 2018 decision. For each party, the values for all other voters (AOV—upper row) and the immigration issue public (IIP—lower row) are presented. The numbers in parentheses give the share of voters for this party consisting of the IIP members
 CSU Christian Social Union, SPD Social Democratic Party, FW Free Voters, FDP Free Democratic Party, AfD Alternative for Germany, NV nonvoters

makes it possible to present for the first time the issue public–based estimates of voter transitions for those primarily concerned about the immigration issue and to compare them directly with matrix entries for the remaining sample (*all other voters* [AOV]) (see Table 2).

Comparing the respective columns of the subrows 1 and 2 in each main row (separated by lines) uncovers somewhat dramatic and otherwise hidden differences. It shows that the CSU can keep only 59.7% of its 2013 stock compared to 73% in the remaining sample. The estimate for the overall sample is 69.9%. In the IIP, the party loses 9.1% to the AfD, whereas the loss in the remaining sample is only 0.9%. These results are consistent with our first and second expectations. It is the incumbent party with its adaptive move that bears the heaviest losses in the issue public, and the pattern of inflows and outflows in the IIP is completely different. By contrast, the minus in favor of the Greens is 13.6—but the difference compared to the rest of the sample is small (3.9 percentage points). The latter estimates quantify our third expectation.

At first glance, the results indicate that the strategy of the CSU on the immigration issue resulted in larger outflows to the Greens (by those feeling repelled by the CSU’s convergence to the AfD) as compared those to the AfD (seeing it as the more radical and/or credible alternative). However, we also have to account for issue-induced inflows to the CSU and differences when comparing it with the remaining

sample. Note that the incumbent mobilizes substantially higher inflows from nearly all other parties and from the former nonvoters when comparing the IIP with all other voters. In sum, it can be demonstrated that the accommodative strategy of the CSU was only partially effective with regard to the AfD. The inflows from the CSU alone would not have secured the AfD to surpass the entry threshold. Balancing inflows and outflows, the incumbent lost both in the IIP segment (4.4%) and with AOV (3.2%) according to our calculations.

To understand the successful entry of the AfD, we propose considering their inflows from other nonincumbent parties as well. Concerning former voters of other marginal parties (mostly radical right-wing), the AfD recruits nearly 50%, compared with only 10% in the remaining sample. The effective mobilization of nonvoters by the AfD can be seen by an attraction of 33.1% in the IIP, compared with 6.3% in the remaining sample. The dramatic mobilization effectiveness of the AfD becomes even more visible when we calculate the percentage of previous nonvoters in 2013 opting for a party in 2018: Nearly 60% of these voted for the AfD, and 20.5% of previous FW voters joined the AfD in 2018 in this issue public. The internal divisions related to immigration also become very evident in the case of the SPD: 20.5% of all SPD voters in 2013 indicated immigration as the most important issue, and 59.2% of them did not vote for the SPD again in 2018. This party's former voters went mostly to the Greens (about 20%), but also to the AfD (9.6%). Although the Left was the party with the most adversarial strategy concerning the AfD, 17.2% switched from the utmost left to the extreme right, indicating that the left–right dimension is not able to capture the impact of the immigration issue.

7.3 Immigration Issue Public–Related Voter Transitions 2013–2017–2018: Selected Voting Profiles

In the following, we argue that research into voters' switching behavior should carefully seek the appropriate benchmark when assessing the impact of past party performance and prospective strategies on voter flows. To diagnose whether the outflows from the incumbent in the IIP at the occasion of the 2018 state election had already reached an upper limit in the preceding first-order election, the 2017 federal election, we include this election in the analysis. However, it could be that a process of bandwagoning started, i.e., voters were converted or mobilized because of the observation of previous gains of parties. We used the behavior in the previous German federal election in September 2017 as a second yardstick to assess the impact of the incumbent party's strategy. The immigration issue is the responsibility of the Federation, and the CSU was again part of the federal government after the 2017 federal election. We have described previously that the CSU in Bavaria intensified its adjustment strategy toward the AfD after its heavy losses in the 2017 federal election. It took personnel actions by removing the party leader. The salience of the immigration issue remained unchanged in the campaign to the 2018 election, and the question arises as to how members of the IIP reacted to the new electoral status quo and the follow-up party competition. Had the transition away from the Bavarian incumbent already reached a ceiling in the 2017 federal election, or did the outflows continue to increase at the state election 1 year later?

Table 3 Sequential voting profiles at the individual level for the immigration issue public: a selection

SE 2013	FE 2017	SE 2018	Type	% of 2013 voters	% of 2013/2018 voters	% of 2018 voters
CSU	CSU	CSU	Loyal CSU	43.76	73.35	50.44
CSU	AfD	AfD	Persistent exit to AfD	6.00	66.13	9.44
CSU	AfD	CSU	Exit AfD at FE and return	4.54	7.61	5.23
CSU	CSU	AfD	Second-order exit to AfD	2.51	27.65	3.95
CSU	CSU	FW	Second-order exit to FW	6.56	61.45	33.04
CSU	Greens	Greens	Persistent exit to Greens	0.28	2.07	0.78
CSU	Greens	CSU	Exit Greens at FE and return	0.24	0.39	0.27
CSU	CSU	Greens	Second-order exit to Greens	10.37	76.46	28.71
NV	AfD	AfD	Persistent mobilization of NV by AfD	23.70	71.67	34.41
NV	AfD	NV	Protest at FE and second-order abstention	13.01	29.11	27.08
NV	NV	AfD	Bandwagoning AfD	5.33	16.11	7.73

Example for the first profile: CSU—CSU—CSU: 43.76% of all CSU voters in the 2013 SE stated they voted CSU in the following two elections. Of those who voted CSU in the 2013 and 2018 SEs, 73.35% said they also voted CSU in the 2017 FE. Of the CSU voters in the 2018 SE, 50.44% also voted for the CSU in both preceding elections

SE state election, FE federal election, CSU Christian Social Union, AfD Alternative for Germany, FW Free Voters, NV nonvoters

We implemented a design allowing us to estimate the precise interelection transitions between two different types of elections. They are presented in Table 3. We focused mainly on the incumbent party, CSU, and the AfD as senders and receivers of flows. It can be demonstrated that the loyalty rates for the ruling majority party, CSU, were even lower when considering the combined sequence of elections: 43.76% (type: loyal CSU). Many voters left for another party or opted to abstain, either persistently, or they came back. For example, 4.54% of the CSU voters in 2013 left for the AfD in the 2017 federal election but returned to the CSU in the 2018 state election (type: exit AfD at federal election and return). By contrast, 27.65% of all voters switching from the CSU to the AfD in the 2018 state election still voted for the CSU in the 2017 federal election. We interpret this as a second-order election exit in which voters still stuck to the CSU in the federal election but ventured to vote for the entry of the populist right-wing party in the Bavarian assembly.

By contrast, 66.13% of voters switching to the AfD from the CSU in the 2018 state election had already voted for the AfD in 2017. A large shift in the IIP also occurred from the CSU—CSU segment to the FW. It appears the FW was seen as an intermediate and viable alternative in the 2018 state election regarding this issue. Interestingly, major transitions from the CSU to the Greens in this issue public occurred only in the 2018 state election, accounting for 10.37% of the 2013 share. It seems that the intensified adjustment strategy of the CSU led to this major melt away and to a protest against the CSU's position-taking and tone on the immigration issue. Finally, we would like to complement the differentiated picture by referring to the mobilization effectiveness of the AfD: 23.7% of previous nonvoters were persistently converted to vote for the new party, 13.01% voted only once in the 2017

federal election and then returned to abstain, and 5.33% of abstainers in the 2013 state and the 2017 federal elections turned out to vote in 2018.

In sum, using this perspective we are able to uncover quite complex, so far hidden streams under the subsurface of interelection transitions. The CSU was able to win back losses to the AfD in the federal election, i.e., nearly 4.5% of those having left the party intermediately in 2017. On the other hand, the escalation in positions and style caused major additional outflows in this issue segment toward the Greens in the state election in 2018, which exceeded the gains back from the AfD by around 5 percentage points. Thus, according to our fourth expectation, the outflows toward the AfD were stopped, but at the price of very high losses to the Greens and the FW.

8 Conclusion and Outlook

Our selected case and design allow analysis of how voters behave when a center-right party adjusts its strategy facing a highly salient and politicized issue like immigration, and more specifically when such a party converges to new right-wing populist parties with emphasis on tone and position-taking. Challenged by the success of right-wing and anti-immigration populist parties in many Western party systems, established center-right parties are interested in deterring these parties' entry or at least minimizing their vote shares. Despite existing literature on complex party strategies (e.g., Meguid 2008), party repositioning (e.g., Adams and Somer-Topcu 2009; Abou-Chadi and Stoetzer 2020), and the average impact of selected determinants of vote switching in regression designs (e.g., Schoen 2003; Dassonneville et al. 2015), the issue-related macrodynamics of vote switching have not been investigated so far. We subject this fundamental question to close scrutiny by identifying the switching behavior of those voters for which the immigration issue was paramount. An understanding of the behavioral impact of this issue is of essential relevance, as it proved to be the major driver for the formation of populist right-wing populist parties in many Western countries (Art 2011).

As expected, macrotransitions for the IIP are very different, particularly hitting the incumbent party. The 2018 Bavarian state election is of particular interest for scholars of party behavior and elections. The regional mass integration party CSU faced turmoil due to a sudden new critical issue cross-cutting established cleavages and the challenge of a new party competitor. The party decided to stick to its credo formulated by its famous State Premier Franz Josef Strauss in 1987: "To the right of the CSU there must be no democratically legitimized party."

In line with Adams and Somer-Topcu (2009) and Abou-Chadi and Stoetzer (2020), our results indicate that the CSU converged toward the right-wing challenger. The CSU recorded heterogeneous outflows toward the Greens, the FW, and the AfD. Compared to the previous 2013 state election, the overall losses were higher to the Greens than to the AfD. Focusing more specifically on the issue public of those highly mobilized by the immigration issue, our insights are sharpened. If one accounts additionally for the respective outflows toward the Greens and the FW, it can be concluded that the campaign strategy of the CSU had unintended adverse effects—despite the mobilization of a large number of previous nonvoters.

Campaigning the immigration issue constitutes an enormous challenge for center-right parties because the overall balance sheet of inflows, outflows, and stock-keeping has to be optimized. Our results also demonstrate that the AfD benefited from quite heterogeneous inflows from conservative and leftist parties, making the assumption of a single left–right dimension of party competition questionable.

The analysis of voter transitions allows the precise determination of punishment and gratification relationships at the global and issue-related levels. Future studies should pay more attention to the distribution of directly accessible motives for vote switching and consider different transitions for such subpublics. Voter transitions research deserves to be at the core of electoral research given its scientific potential.

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Conflict of interest P.W. Thurner, A. Klima, H. Küchenhoff, I. Maurer, S. Mang, M. Walter-Rogg, T. Heinrich, T. Knieper, and J. Schnurbus declare that they have no competing interests.

References

- Abou-Chadi, Tarik, and Lukas F. Stoetzer. 2020. How Parties React to Voter Transitions. *American Political Science Review* 114(3):940–945. <https://doi.org/10.1017/S0003055420000155>.
- Adams, James, and Zeynep Somer-Topcu. 2009. Policy Adjustment by Parties in Response to Rival Parties' Policy Shifts: Spatial Theory and the Dynamics of Party Competition in Twenty-Five Post-War Democracies. *British Journal of Political Science* 39(4):825–846. <https://doi.org/10.1017/S0007123409000635>.
- Adams, James, Samuel Merrill, and Bernard Grofman. 2005. *A Unified Theory of Party Competition: A Cross-National Analysis Integrating Spatial and Behavioral Factors*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511614453>.
- Art, David. 2011. *Inside the Radical Right: The Development of Anti-Immigrant Parties in Western Europe*. New York: Cambridge University Press. <https://doi.org/10.1017/CBO9780511976254>.
- Bendor, Jonathan, Daniel Diermeier, David Siegel, and Michael Ting. 2011. *A Behavioral Theory of Elections*. Princeton: Princeton University Press.
- Butler, David, and Donald Stokes. 1974. *Political Change in Britain: Forces Shaping Electoral Choice*. London: Macmillan.
- Dassonneville, Ruth, and Marc Hooghe. 2017. The Noise of the Vote Recall Question: The Validity of the Vote Recall Question in Panel Studies in Belgium, Germany, and the Netherlands. *International Journal of Public Opinion Research* 29(2):316–338. <https://doi.org/10.1093/ijpor/edv051>.
- Dassonneville, Ruth, André Blais, and Yves Dejaeghere. 2015. Staying With the Party, Switching or Exiting? A Comparative Analysis of Determinants of Party Switching and Abstaining. *Journal of Elections, Public Opinion and Parties* 25(3):387–405. <https://doi.org/10.1080/17457289.2015.1016528>.
- German Longitudinal Election Study. 2019. *Nachwahl-Querschnitt (GLES 2017)*. GESIS Datenarchiv, Köln. ZA6801 Datenfile Version 4.0.1, <https://doi.org/10.4232/1.13235>.

- Goodman, Leo A. 1953. Ecological Regressions and Behavior of Individuals. *American Sociological Review* 18(6):663–664. <https://doi.org/10.2307/2088121>.
- Himmelweit, Hilde T., Marianne Jaeger Biberian, and Janet Stockdale. 1978. Memory for Past Vote: Implications of a Study of Bias in Recall. *British Journal of Political Science* 8(3):365–375.
- Himmelweit, Hilde T., Patrick Humphreys, Marianne Jaeger, and Michael Katz. 1981. *How Voters Decide. A Longitudinal Study of Political Attitudes and Voting Extending Over Fifteen Years*. London: Academic Press. <https://doi.org/10.1086/228105>.
- Hirschman, Albert O. 1970. *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States*. Cambridge: Harvard University Press.
- infratest dimap. 2018. *Wahlreport Landtagswahl Bayern 2018: Eine Analyse der Wahl vom 14. Oktober 2018*. Berlin: infratest dimap/Gesellschaft für Trend- und Wahlforschung.
- Key, V.O. 1966. *The Responsible Electorate*. Cambridge: Belknap Press.
- Kim, Young M. 2009. Issue Publics in the New Information Environment: Selectivity, Domain Specificity, and Extremity. *Communication Research* 36(2):254–284. <https://doi.org/10.1177/0093650208330253>.
- King, Gary. 1997. *A Solution to the Ecological Inference Problem: Reconstructing Individual Behavior from Aggregate Data*. Princeton: Princeton University Press.
- King, Gary, Ori Rosen, and Martin A. Tanner. 1999. Binomial-beta Hierarchical Models for Ecological Inference. *Sociological Methods and Research* 28(1):61–90. <https://doi.org/10.1177/0049124199028001004>.
- Klima, André, Paul W. Thurner, Christoph Molnar, Thomas Schlesinger, and Helmut Küchenhoff. 2016. Estimation of Voter Transitions Based on Ecological Inference: An Empirical Assessment of Different Approaches. *Advances in Statistical Analysis* 100(2):133–159. <https://doi.org/10.1007/s10182-015-0254-8>.
- Klima, André, Thomas Schlesinger, Paul W. Thurner, and Helmut Küchenhoff. 2019. Combining Aggregate Data and Exit Polls for the Estimation of Voter Transitions. *Sociological Methods & Research* 48(2):296–325. <https://doi.org/10.1177/0049124117701477>.
- Krosnick, Jon A. 1990. Government Policy and Citizen Passion: A Study of Issue Publics in Contemporary America. *Political Behavior* 12(1):59–92. <https://doi.org/10.1007/BF00992332>.
- Mader, Matthias, and Harald Schoen. 2019. The European Refugee Crisis, Party Competition, and Voters' Responses in Germany. *West European Politics* 42(1):67–90. <https://doi.org/10.1080/01402382.2018.1490484>.
- Meguid, Bonnie. 2008. *Party Competition between Unequals: Strategies and Electoral Fortunes in Western Europe*. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511510298>.
- Mummolo, Jonathan, Erik Peterson, and Sean Westwood. 2021. The Limits of Partisan Loyalty. *Political Behavior* 43:949–972. <https://doi.org/10.1007/s11109-019-09576-3>.
- Preißinger, Maria, and Harald Schoen. 2016. It's Not Always the Campaign—Explaining Inter-election Switching in Germany, 2009–2013. *Electoral Studies* 44:109–119. <https://doi.org/10.1016/j.electstud.2016.08.001>.
- Reif, Karlheinz, and Hermann Schmitt. 1980. Nine Second-order National Elections—A Conceptual Framework for the Analysis of European Election Results. *European Journal of Political Research* 8(1):3–44. <https://doi.org/10.1111/j.1475-6765.1980.tb00737.x>.
- Robinson, William S. 1950. Ecological Correlations and the Behavior of Individuals. *American Sociological Review* 15(3):351–357. <https://doi.org/10.2307/2087176>.
- Rosen, Ori, Jiang Wenxin, Gary King, and Martin Tanner. 2001. Bayesian and Frequentist Inference to Ecological Inference: The RxC Case. *Statistica Neerlandica* 55:134–156. <https://doi.org/10.1111/1467-9574.00162>.
- Saalfeld, Thomas, and Margret Hornsteiner. 2014. Parties and Party Systems. In *Developments in German Politics*, ed. Stephen Padgett, William E. Paterson, and Reinmut Zohnhöfer, 78–102. Basingstoke: Palgrave Macmillan. https://doi.org/10.1007/978-1-137-30164-2_5.
- Schoen, Harald. 2003. *Wählerwandel und Wechselwahl: Eine vergleichende Untersuchung. Studien zur Politikwissenschaft*. Wiesbaden: VS Verlag für Sozialwissenschaften. <https://doi.org/10.1007/978-3-322-80478-5>.
- Thurner, Paul W. 1998. *Wählen als Rationale Entscheidung. Die Modellierung von Politikreaktionen im Mehrparteiensystem*. München: Oldenbourg. Scientia Nova.
- Thurner, Paul W. 2000. The Empirical Application of the Spatial Theory of Voting in Multi-Party Systems with Random Utility Models. *Electoral Studies* 19(4):493–517. [https://doi.org/10.1016/S0261-3794\(99\)00025-6](https://doi.org/10.1016/S0261-3794(99)00025-6).
- Wakefield, Jonathan. 2004. Ecological Inference for 2x2 Tables. *Journal of the Royal Statistical Society* 167:385–445. https://doi.org/10.1111/j.1467-985x.2004.02046_1.x.