









All (electoral) politics is local? Candidate's regional roots and vote choice

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ABSTRACT


Many authors argue that candidates are more popular among voters from their own region. Two potential explanations have been suggested: voters' identification with their home region, and the representation of regional interests. The information on candidates' residence can be transmitted to voters in different ways, the most easily accessible way being information printed on the ballot paper. However, most studies on "friends and neighbour voting" use aggregate data. Studies that rely on individual level data usually put respondents in hypothetical situations and confront them with synthetic candidates, reducing their realism. To bridge this gap and to test the effect of providing information on the candidates' residence, we use data from a survey experiment to analyze voters' responses to ballot paper information on the regional background of real candidates in the 2014 European election in Germany. We find that voters in an open list PR election are more likely to support regional candidates if ballot paper information on the candidates' geographic background helps them to do so. The appeal of personal ties is a stronger explanation for vote preference than the one based on regional interests.

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Introduction

Candidates' individual characteristics have a considerable influence on vote choice. Voters often return incumbents into office, support good-looking

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individuals, evaluate males differently than females, and prefer candidates from their home region. The scholarly literature has examined such “personal vote-earning attributes” (Shugart, Valdini, and Suominen 2005), that, in some cases, are printed on ballot papers and provide voters with “ballot-paper cues” (Kelley and McAllister 1984). Most of the studies that examine the effects of such candidate characteristics, however, rely on aggregate constituency data (e.g. Frensdreis and Tatalovich 2021; Schulte-Cloos and Bauer 2021) and therefore cannot directly assess voters’ reactions to this type of information. Studies using experimental survey data (e.g. Campbell et al. 2019) have an important advantage: they can address counterfactual behaviour, as they allow to test how voters would have voted if they had been informed (or had not been informed) about candidate characteristics. In this paper, we contribute to this latter literature with an original experimental design where one half of a random sample of German voters is provided ballot paper information about the (real) characteristics of (real) candidates while the other half of voters do not receive such information before asking them to report their vote choice.

We focus here on the effect of one particular candidate characteristic: the candidates’ geographic background. This particular candidate characteristic can be of paramount importance in electoral contests, especially in federal countries like Germany. German voters identify with their *Land* of residence to a high degree (see A 4a) and are therefore susceptible to respond to geographical cues. This is particularly true since parties field candidates from all over Germany in the election we analyze. Thus, there is a specific incentive to express support for regional candidates. Following the literature on friends and neighbours voting (Key 1949), we want to know whether, to what extent, and why candidates’ regional ties affect vote choice and support for individual candidates. We make use of an original online experiment, *Euro-VotePlus* (EVP) (Laslier et al. 2015), implemented by researchers affiliated with the *Making Electoral Democracy Work* project (Blais 2010). In the experiment, conducted at the time of the 2014 European Parliament (EP) election, subjects were invited to take part in an online simulation of the EP election. A randomization was introduced that presented half of the German participants with information on the candidates’ *Land* of residence while the other half was not exposed to this information. Thus, the experiment manipulates the salience of information about candidates’ regional residence. This design allows us to draw conclusions about the effect of regional ties on vote choice. We show that voters indeed prefer regional candidates and are more likely to vote for them in open list PR elections if ballot paper information on candidates’ geographical background helps them to do so. Furthermore, additional candidate and voter characteristic variables in the data set allow us to examine two alternative explanations of friends and neighbours voting. Following Frensdreis and Tatalovich (2021), we distinguish

a socio-psychological explanation building on voters' regional identification and an instrumental explanation highlighting the representation of regional interests. We find the explanation emphasizing voters' identification with their region to be more plausible. This result supports earlier findings presented by Campbell et al. (2019), Frensdreis and Tatalovich (2021) as well as Schulte-Cloos and Bauer (2021) and raises the question of why identification is more important than instrumental considerations.

Candidate characteristics and vote choice

Candidate characteristics serve as a voting cue that allows voters to take a meaningful decision under conditions of limited information (Lupia 1994). Since the acquisition of knowledge about parties and candidates running in an election and their programmes is costly (Downs 1957), many voters refrain from collecting all the relevant information. In order to be able to take an informed decision, voters rely on "informational shortcuts" or "cues" (Popkin 1994) that enable them to take meaningful decisions. Following Brockington's (2003) "low information theory" of voting, originally designed to examine ballot position effects, we can distinguish three types of cues that voters may use. Primary cues are based on voters' active research during the campaign, secondary information is available on the ballot itself while tertiary information like order effects and deference to the status quo come into play when the first two types of cues are exhausted. In that sense, candidate traits can be understood to be primary and, depending on the ballot paper design, secondary cues.

Two developments significantly increase the importance of candidate characteristics as determinants of vote choice: the increasing personalization of political races (Colomer 2011; Karvonen 2010) and electoral reforms that establish proportional representation (PR) electoral systems with open lists (Renwick and Pilet 2016). Open lists allow voters to support individual candidates with preference votes and thereby introduce an element of personalized competition within parties which is isolated from partisan considerations. Therefore, open list elections are an ideal testing ground to examine the impact of candidate characteristics beyond party membership on vote choice. For this reason, the following analyzes concentrate on candidate characteristics in open list elections.

Beyond party affiliation as a particularly prominent candidate characteristic, several "personal vote earning attributes" (PVEA) (Shugart, Valdini, and Suominen 2005) (for an overview also see Campbell and Cowley 2014; Cutler 2002) have been shown to impact on vote choice. The list includes incumbency (see Gelman and King 1990 for a classic account and Hainmueller and Kern 2008; Mackenrodt 2008; Manow and Flemming 2011 for Germany), list position (Faas and Schoen 2006; Marcinkiewicz and Jankowski 2014), a

candidate's non-political professional background (McDermott 2005), her academic (Mackenrodt 2008; Schneider and Tepe 2011) or honorary titles (Kelley and McAllister 1984), a candidate's race (McDermott 1997, 1998), her gender (Golder et al. 2017), as well as physical attractiveness (Rosar, Klein, and Beckers 2008). Last but not least, candidates' geographical background has been shown to be an important determinant of the vote (for a recent summary see Frensdreis and Tatalovich 2021).

In the remainder of this contribution, we focus on this latter candidate characteristic. Studies of the geographic determinants of vote choice go back to Key's (1949) friends and neighbours hypothesis. In the 1980s, Garand (1988) as well as Lewis-Beck and Rice (1983) demonstrated that presidential candidates, just like British MPs (Arzheimer and Evans 2012), indeed benefit from a considerable geographic bonus.

Like the US primaries in which Key (1949) first identified a friends and neighbours effect, the Irish single transferable vote system as well as open list PR allow researchers to concentrate on the impact of candidate characteristics beyond party membership. In both cases, there is convincing empirical evidence supporting the impact of candidates' geographical location on the vote (Jankowski 2016; Marsh 2007). In addition to these observational studies, experiments demonstrate an important impact of geography, again void of partisan orientations (Campbell and Cowley 2014). Candidates' geographical background thus seems to play a major role in vote choice, especially when voters have to choose among candidates within the list of a single party where partisan preference as a main driver of vote choice falls away. These insights are summarized in our first hypothesis:

Geography Hypothesis

Voters are more likely to support candidates from their home region than candidates who come from other regions, regardless of other potentially influential candidate characteristics.

Some of these candidate characteristics are more easily available to voters than others. Many candidate characteristics are communicated during the campaign, in personal encounters or in the media. All these cues are primary information in the sense of Brockington's (2003) "low information theory" of voting and require some effort on the part of voters prior to election day. Secondary cues are more easily accessible information on candidate characteristics which are provided on the ballot paper. The most important of these secondary cues are the name of a candidate and her party affiliation. While party affiliation informs voters about the candidate's fundamental values and policy positions, the name usually transmits the candidate's gender – and potentially her ethnic background. In addition to party affiliation and name, such secondary "ballot paper cues" (Kelley and McAllister

1984) can include candidates' academic or noble titles and their occupation. Furthermore, the candidates' place of residence may be included on the ballot paper. All ballot paper information can be thought of as highlighting the importance or salience of some particular candidate characteristic to the voter. We assume that such secondary information can significantly impact upon vote choice and thus analyze whether and to what extent the provision of ballot paper information on candidates' place of residence increases the effect of geography on the vote.

Ballot Information Hypothesis

Voters who receive ballot paper information on the candidates' regional affiliation are more likely to support candidates from the same region than voters who do not receive such information.

Let us now shed light on the question of why candidates' geographic background plays an important role in vote choice. In a recent contribution, Frensdreis and Tatalovich (2021) summarize the friends and neighbours debate and identify two different causal mechanisms that potentially account for voters' willingness to support candidates on geographic grounds: an instrumental explanation that relies on voters' desire to realize particular regional interests and a socio-psychological explanation that argues in favour of an emotional sentiment of geographic belonging and identification.

In his original contribution, Key (1949, 112) argues in favour of the socio-psychological identity explanation and suggests that electoral "localism is apt to decline in significance in the face of the divisive effects of a politics of substance", namely a competitive two-party system based on socio-economic cleavages. Geography based identification with a candidate operates "independently from an increased frequency of contact or any strategic-instrumental considerations" and has a positive effect on the vote: in first-past-the post races even non-competitive local candidates fare better than non-local ones (Schulte-Cloos and Bauer 2021). Given that such non-competitive candidates stand no chance to win a seat, voters' preference for these candidates can be interpreted as a non-instrumental voting pattern where strategic voting and the desire to avoid wasting one's vote play no particular role. It points to the existence of an "in group" effect based on geographic considerations. If geography helps voters to identify with candidates, we expect voters from regions with high levels of regional identification to be more likely to vote for regional candidates and more so if they receive ballot paper information on the candidates' geographic background.

Regional Identification Hypothesis

Voters in regions with higher levels of regional identification are more likely to support candidates from their home region than voters in other regions. Ballot paper information on the candidates' residence reinforces this effect.

It can also be shown that friends and neighbours voting at the aggregate level is stronger in areas with higher shares of less educated voters (Frendreis and Tatalovich 2021). Frendreis and Tatalovich interpret this finding as support for the social-psychological explanation of geography-based voting. However, as the authors note, in order “to provide more conclusive evidence” for the proposition that cue-taking and friends and neighbour voting are “symptomatic of [disinterested] electorates [...], researchers need to employ a research design that uses individual voters as the unit of analysis” (Frendreis and Tatalovich 2021, 1446). We thus assume that low levels of political knowledge at the individual level correlate to a higher propensity of regional voting.

Political Knowledge Hypothesis

Politically less knowledgeable voters are more likely to support candidates from their home region than more knowledgeable voters. Ballot paper information on the candidates’ residence reinforces this effect.

If the second, instrumental explanation is more plausible, an instrumental desire to represent and implement particular regional interests may be at the core of voters’ propensity to support regional candidates at the ballot box. Lewis-Beck and Rice (1983, 552) argue that besides “the psychological satisfaction of identification with a president who is more like our ‘friends and neighbours’ [...], we might hope that as president he would remember ‘the folks back home’ when distributing federal largess”. Indeed, representatives’ localness is linked to a surplus in public spending. Locals in Norway’s regional councils, for example, help to increase funding for their respective municipality (Fiva and Halse 2016). In line with these accounts, we conceptualize instrumental motivations for a geographic vote as purely self-centred.¹

If geographic voting matters because of the representation of regional interests, the effect of geography should be amplified by a candidate’s incumbency status. Incumbents have an established record of constituency service and legislative activity, and they have personnel at their disposal to take care of their constituents and their interests (Fiorina 1989). Hainmueller and Kern (2008) summarize the findings on incumbency advantage in Germany and show that much of it can be traced back to constituency service and ombudsperson-type behaviour – activities instrumental voters should reward. In turn, parties tend to deny renomination to candidates who fail to represent the interests of their constituencies. We therefore expect that incumbents should be better able to attract regional votes

¹Indeed, one could argue that voters living in regions with higher levels of local identification care more than others about what happens to their region as compared to the rest of Germany. The reason why they support local candidates might then be to foster the prospects of their region. This explanation would combine instrumental motives and a particular attachment to one’s region. Our definition therefore emphasises the self-centred character of instrumental geographic voting.

from instrumental voters who decide on interest-based grounds – but admit that this is an only indirect conceptualization of instrumental voting.

Incumbency Hypothesis

Voters are more likely to support candidates from their home region than candidates who come from other regions, especially if the candidates are incumbents. Ballot paper information on the candidates' residence reinforces this effect.

While the example from Norway, based on observational data at the aggregate level, suggests that voters indeed value particular behavioural patterns of candidates, individual-level experiments come to less clearcut conclusions. Campbell et al. (2019) argue that if local roots serve as an indicator for office holders' future behaviour, the impact of local roots should decline when direct information on candidates' behaviour is available. Testing the effect of representatives' "behavioural localism" in two experiments they find that geography still has notable effects on vote choice even if voters are provided information on candidates' engagement in constituency service, their interpretation of their role as representative, and their ideology. Localism, the authors conclude, is not (solely) driven by instrumental considerations but (also) stems from socio-psychological identification. Testing the hypotheses above can thus help to shed light on an ongoing debate.

Data and analysis

The data we use to examine these hypotheses comes from the *EuroVotePlus* experiment that we present in the following section. We then proceed with our empirical analysis of whether candidates' geographic background helps them to win additional votes in their home region, an experimental assessment of the extent to which ballot paper information on the candidates' place of residence reinforces this effect, and an analysis of why this is the case.

The EuroVotePlus experiment

The *EuroVotePlus* survey experiment was conducted in the context of the 2014 election to the European Parliament. In the following, we focus on the effects of candidates' place of residence and ballot paper information for German EP election voters. The German EP election provides a particularly suitable institutional context to test whether regional candidates really attract more votes than other candidates. Usually, German parties present separate lists for each *Land* in national elections. Therefore, all candidates live in their respective region. In EP elections, however, parties are free to choose whether they present a single national or 16 regional *Land* lists. In

the 2014 EP election all parties except the Christian Democrats decided to present national lists. Most German voters were therefore confronted with party lists that did not follow the usually applicable rule of regionalization. If the geographic background of individual candidates on a party list has an influence on vote choice, this should be particularly visible in elections where national lists with candidates from different regions are presented.² Official ballot papers (see A1 for a sample) provide information about name, academic or noble titles, and occupation of the candidates, as well as their city and *Land* of residence.

The EVP project took place right before the 2014 EP elections and was designed to examine how voters behave under different electoral rules (see Laslier et al. 2015). The multilingual website offered extensive explanations on three PR electoral systems used for EP elections in the European Union member states: closed list PR, open list PR, as well as a system that combines cumulative voting and panachage. Following these explanations, participants were asked to participate in a simulated online vote. By submitting a consent form, they became part of the sample under investigation. They were invited to vote on the original lists that parties presented in the 2014 EP election in their country, using the three electoral systems. Finally, subjects were directed to a questionnaire asking about sociodemographic information and evaluations of the three different electoral rules. The website opened on 4 May 2014; participation was open to everybody and was advertised through social and traditional media by academic colleagues in all EU member states. All in all, 534 visitors who declared to be eligible to vote in Germany participated in the online vote.

In the following, we focus on those 383 German voters for whom information is available on all relevant survey items. The online open list election is inspired by the EP electoral system employed in Latvia. Latvian voters first choose the party they will vote for. The party tallies determine how many seats each party gets. The voter can then either cross out individual candidates on the chosen list or endorse them by adding a “+” to their names. These preferential votes define who, on the list, is elected. The online ballot simulated this electoral system with positive and negative preferential votes by first asking voters to vote for a party. Voters then had the opportunity (but no obligation) to either cast a negative vote by selecting “zero points” or to add a preference vote by selecting “two points” for each candidate. The default setting on the online ballot was one point for each candidate on the list. EP elections in Germany are an ideal testing ground for conducting an experiment using preferential voting schemes. In federal

²In addition, EP election is referred to as “second order elections” (Reif and Schmitt 1980). The second order character of EP elections might reinforce the effect of candidate characteristics if voters are less interested, collect less information on what is at stake in the election, and rely more on ballot paper cues.

(and many *Land*) elections, the two-vote system allows voters to personalize their vote. This is not possible in European elections where voters have a single vote for a closed party list. Furthermore, most German voters are accustomed to open lists which are used in local elections in all but three (North-Rhine Westphalia, Saarland, Schleswig-Holstein) *Länder*. The experiment thus introduces a well-known element of personalization in an election that officially lacks this possibility.

German visitors to the web site were asked to vote on the original lists that German parties presented for the 2014 EP election. Compared to the hypothetical candidates that Campbell et al. (2019) presented to voters in their vignette experiments, the use of original lists and candidates increases the experiment's realism. Voters' choice is thus motivated by real world preferences and results are likely to reflect outcomes in similar authentic elections.³ The online ballot displayed the official party label for each list and candidates were presented in the order that they appeared on the official party lists. In the case of the Christian Democrats, 55 candidates (this matches the length of the Social Democrats' list) were randomly drawn from the 16 *Land* lists that CDU and CSU actually presented. The order of the lists on the simulated ballot was randomized for each participant.⁴

The party lists were manipulated to create an experiment about the effects of ballot paper information. There were two versions of each ballot – one with and one without information on the candidates' regional ties. Half of the German ballots provided information about each candidate's *Land* of residence (the "info" group) while this information was suppressed for the other half of respondents (the "no info" group). We operationalize a candidate's geographic proximity to a voter by coding whether both come from the same *Land*. In addition to this randomized ballot paper information, the online ballot provided the basic candidate information that is available on the original ballot papers (first and last name, academic and noble title), leaving out occupation.⁵ By comparing the two groups we can better understand the impact of geographic information on vote choice. Given the design of the online open ballot, we expect to find positive votes will be given to candidates from the same *Land* as the voter and negative votes will be given to candidates from other regions (*Geography Hypothesis*), especially when geographic information is provided (*Ballot Information Hypothesis*).

³Note that this realism might come at the cost of validity. Given that we rely on real candidates (instead of fictitious), we cannot randomize their geographical background, and hence we cannot ensure that this geographic background is independent from other unobserved characteristics like their quality as politicians.

⁴Randomisation of list order and random composition of the CDU/CSU list might have frustrated some participants and influenced their behaviour.

⁵Occupation is left out in order to be able to concentrate the following analyses on geographic cues. See A1 for a sample of the original ballot paper and A2 for a screenshot of the online ballot used in the experiment.

Results

The result of the online vote differs from the official result of the 2014 European election in Germany (see A3). While the Christian Democrats won the most votes in the official election, in the online vote the Social Democrats were the largest vote-getter with almost 32% of the votes, closely followed by the Greens. The Christian Democrats only received 9%. This obvious sample bias does not, however, pose a problem for our analysis since it is entirely based on an element of experimental randomization in the online survey. Furthermore, empirical evidence shows that preferences for geographically proximate candidates tend to be unaffected by partisanship (Collignon and Sajuria 2018).

In the following analyzes, we only consider those lists that received at least ten votes in the online experiment, which leaves us with eight lists with a minimum of twelve and a maximum of 55 candidates. 34% of voters made use of the opportunity to cast at least one negative vote while 77% endorsed at least one candidate with a positive vote. We therefore note that voters took advantage of the options offered by the open list rules.

In order to examine our hypotheses on the combined effect of candidates' regional roots and ballot paper information on vote choice, we define the 14,838 potential candidate choices as our units of analysis. These observations are nested in 383 voters who chose between eight party lists. We first calculate the share of positive and negative votes for regional and non-regional candidates. Among the potential 14,838 candidate evaluations that participants face, we observe 1,493 positive and 921 negative votes in total (see Table 1).

Table 1 clearly shows that candidates who reside in the same *Land* as the voter receive substantially more positive and fewer negative votes than their colleagues without regional roots. In particular, the share of positive votes more than doubles for regional as compared to non-regional candidates, increasing from 9% to more than 20%. At the same time, regional candidates receive fewer negative votes than non-regional candidates. We propose a preliminary twofold interpretation of these findings. First, the amount of positive votes for regional candidates lends support to our *Geography Hypothesis* on voters' preferences for regional candidates. Second, a preference for

Table 1. Share of candidate votes by candidates' regional roots.

		Regional candidate: no	Regional candidate: yes	Total
Negative vote	N	874	47	921
(0 points)	%	6.3	5.2	6.2
Default setting	N	11,750	674	12,424
(1 point)	%	84.3	74.5	83.7
Positive vote	N	1,309	184	1,493
(2 points)	%	9.4	20.3	10.1

geographically proximate candidates not only translates into positive votes for these candidates, but voters who prefer regional candidates also try to block non-regional candidates by actively withdrawing their support through the use of negative votes.

But can these observed differences between regional and non-regional candidates be traced back to the ballot paper treatment that randomized whether participants were provided with information on the *Land* of residence of each candidate? When we look at the shares of positive and negative votes in the two treatment conditions (see [Tables 2](#) and [3](#)), we observe that the share of positive votes for regional candidates in the group with ballot paper information (27%) is roughly double the vote share for regional candidates in the group without ballot paper information (14%). There is also evidence that non-regional candidates get more negative votes when voters receive the ballot paper information; their share increases from 6 to 8%. Again, the results show that voters support regional candidates with positive votes and try to prevent the election of candidates from other regions through negative votes. Interestingly, we also note that voters seem to recognize and support regional candidates when there is no ballot paper information. Even without such information, the share of positive votes for regional candidates is substantially higher than for non-regional candidates, increasing from 10 to 14%. All these findings provide support for our *Geography Hypothesis* on the positive impact of candidates’ regional roots and for the *Ballot Information Hypothesis*.

Does the importance of geography hold in the face of voter and candidate heterogeneity? To answer this question, we estimate a multinomial logit model predicting each experimental subject’s probability of casting a positive, neutral, or negative vote. The default option on the online ballot was one vote for every candidate on the chosen list and this serves as reference category. The main independent variables are the candidates’ geographic background (1 if she is from the voter’s *Land*, 0 otherwise), a variable indicating whether the experimental subject got ballot paper information on the candidates’ *Land* of residence (0/1), and an interaction between the candidates’ geographic background and treatment variables. Variables to analyze the *Regional Identification*, *Political Knowledge*, and *Incumbency Hypotheses* describe whether the candidate is an incumbent (0/1), and – at the voter level – political knowledge derived from a quiz asking 5 questions

Table 2. Positive votes by candidates’ regional roots and treatment condition.

		Ballot paper info: yes	Ballot paper info: no
Regional candidate	N	121	63
	%	27.2	13.7
Non-regional candidate	N	559	750
	%	8.4	10.3

Table 3. Negative votes by candidates' regional roots and treatment condition.

		Ballot paper info: yes	Ballot paper info: no
Regional candidate	N	25	22
	%	5.6	4.8
Non-regional candidate	N	552	322
	%	8.3	4.4

regarding the 2014 EP election (0 = min, 5 = max) as well as whether the voter resides in East Germany, our proxy for strong regional identification (0/1).

Additional control variables are the candidate's position on the list (ranging from 1 to 55), her gender (0 = male, 1 = female), and whether she has an academic (0/1) or noble (0/1) title. At the voter level, we control for self-declared interest in politics (0 = min, 10 = max), gender (0 = male, 1 = female), and the party voted for.⁶ Standard errors are clustered at the voter level.

Model 1 in A14 shows the results of the multinomial logistic regression. We observe that regional candidates receive more positive votes than non-regional candidates. Also, incumbents attract more positive votes than non-incumbents. Furthermore, we assume that the effect of a candidate's geographic background interacts with ballot paper information on the candidate's place of residence. This is why we add an interaction term in Model 2 to estimate the impact of geography moderated by the ballot paper information on the candidates' *Land* of residence. Based on this model, we predict the probability of receiving a positive or a negative vote for regional and non-regional candidates among experimental subjects who did not receive information about candidates' geographic background. The predicted probability of a non-regional candidate obtaining a positive vote is 9%. For candidates with regional roots, it increases to 14%. The probability of receiving a negative vote amounts to 5% for both regional and non-regional candidates. We thus can confirm our result from the bivariate comparisons above: voters prefer regional candidates and are able to spot them even in the absence of ballot paper information on the candidates' residence. This supports the *Geography Hypothesis*. At the same time, there is no substantial difference in negative votes when there is no ballot paper information.

Figure 1 presents the results of the multinomial logistic regression as changes in the probability of casting positive or negative votes for regional as compared to non-regional candidates. In addition to candidates' geographic background, it also distinguishes between experimental subjects who did or did not receive ballot paper information about the candidates' regional roots. Let us first inspect the voting patterns of those subjects who did not receive ballot paper information (see the upper part of Figure

⁶The questionnaire is documented in A13.

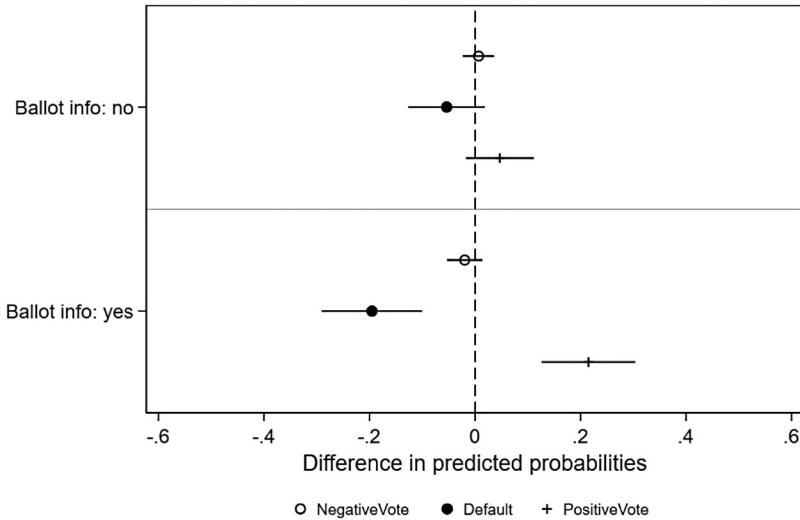


Figure 1. Regional voting and ballot paper information. Note: Based on multinomial logistic regression model (2) from Table A14.

1). We observe no statistically significant differences in positive or negative votes for regional candidates. Thus, the difference of 4 points in positive votes reported above is not significant.

When voters receive ballot paper information on candidates’ *Land of residence* (see lower part of Figure 1), the picture gets much clearer. The probability of a positive vote for a regional as compared to a non-regional candidate markedly increases by 21 points. This corresponds to an overall probability of casting a positive vote for regional candidates of 26%. We thus find support for the *Ballot Information Hypothesis* and evidence for the importance of secondary information in elections (Brockington 2003).

In order to address the question of why geography matters for vote choice, we estimate multinomial logistic regressions with three-way interactions that combine the impact of candidates’ regional roots conditional on the treatment and the additional candidate and voter characteristics of interest.⁷ This allows us to estimate the impact of voters’ regional identification and political knowledge as well as incumbency on vote choice relative to regional roots and ballot paper information.

⁷See A5 in the Online Appendix for full models. Note that interaction models have to interpreted with precaution (Hainmueller, Mummolo, and Xu 2019). This caveat specifically applies to three-way interactions that we use here. However, for the base model and its two-way-interaction (Model 2 in Table A14 in the Online Appendix), we can exclude lack of common support, one of the two problems Hainmueller, Mummolo, and Xu (2019) refer to. As Tables 2 and 3 above show, we base our estimates on a sufficient number of observations in all categories of our dependent variable and sufficient variation in the treatment.

Note that the variables available to test the plausibility of the socio-psychological identification and the instrumental explanation for the impact of geography on vote choice do not directly tap into the relevant theoretical concepts. We use *Incumbency* as an approximation for instrumental voting. *Political Knowledge* and *Regional Identification* both operationalize voting based on socio-psychological motivations. While we can directly measure voters' *Political Knowledge*, the data set we use contains no item on participants' *Regional Identification*. Instead, we rely on a highly suitable proxy for identification. In many countries, voters from some regions who share common characteristics, like distinct historical experiences or a regional language – such as Quebeckers in Canada, the Scottish in Britain, the Corsicans in France or Germans from the five Eastern *Länder* – display particularly high levels of regional identification. The five East German *Länder* are characterized by a particular political culture: the willingness to cooperate in solidarity games (Brosig-Koch et al. 2011) as well as social trust (Rainer and Siedler 2009) are lower in the East. Additionally, willingness to invest in strong personal ties such as close friends and family members is more pronounced than that to engage in weaker ties like club membership (Boenisch and Schneider 2013). We assume that this particular East German political culture leads to higher levels of regional identification in East Germany than in the West. This assumption is supported by survey data scrutinizing identification with different levels of state administration (local, regional, and national) in Germany (see A4a and A4b). However, given the approximate character of our measurements and operationalisations, our assessment of the socio-psychological and instrumental explanations for geographic voting remains exploratory.

Let us first examine the socio-psychological identity explanation for the impact of geography on vote choice (see Figure 2). In support of our *Regional Identification Hypothesis*, voters with from East Germany – for whom we have shown that they identify strongly with their region – are more likely to support regional candidates than voters from the West. However, this effect is not statistically significant for voters who did not receive candidate residence information on the ballot. Once subjects obtain this information, the likelihood of positive votes markedly increases for voters with high and low levels of regional identification, but the increase is more important in the group of strong identifiers in East Germany. At the same time, strong identifiers are also more likely to actively block non-regional candidates through negative votes, but they only use this option when ballot paper information removes every uncertainty about the regional roots of the candidates. We can thus conclude that geographic belonging is an important determinant of regional candidate voting. This supports earlier findings presented by Campbell et al. (2019), Frensdreis and Tatalovich (2021), as well as Schulte-Cloos and Bauer (2021).

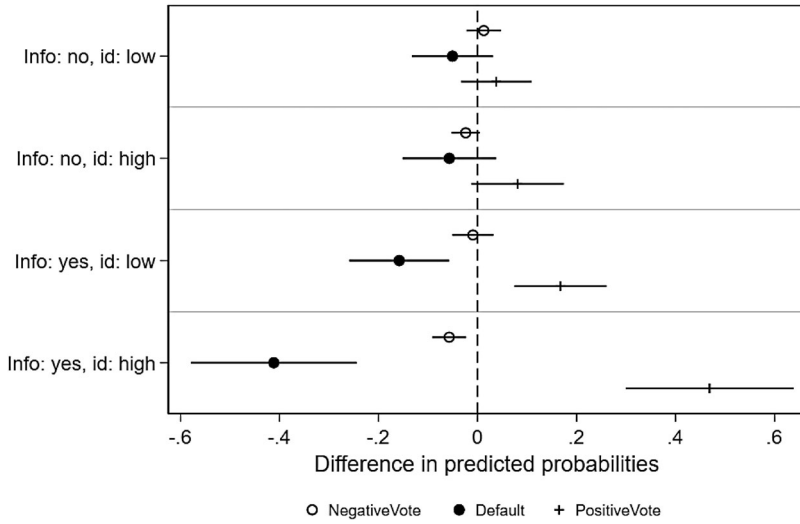


Figure 2. Determinants of regional voting: regional identification. Note: Based on multinomial logistic regression model (1) from A5.

In line with the argument proposed by Frenreis and Tatalovich (2021), our *Political Knowledge Hypothesis* is based on the idea that more knowledgeable voters should depend less on socio-psychological identity cues since they have more information to draw upon when determining their vote choice.

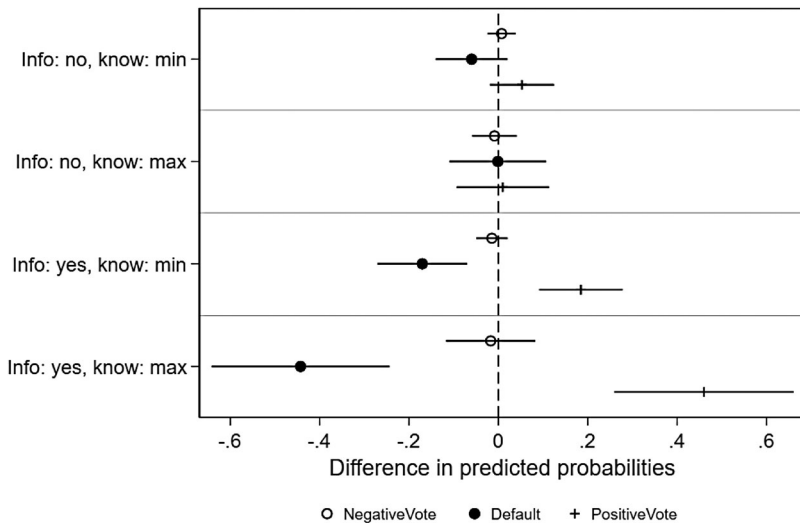


Figure 3. Determinants of regional voting: political knowledge. Note: Based on multinomial logistic regression model (2) from A5.

As compared to less knowledgeable voters, they should therefore rely less on geography as a driver of vote choice. Figure 3 shows that this is not true.⁸ While there is no impact of candidates' geographic background when voters do not receive ballot paper information, voters in the information group always support their regional candidates with positive votes, regardless of their level of political sophistication. The crucial difference between more and less politically knowledgeable voters is the strength of this effect. More sophisticated voters are considerably more likely than their less knowledgeable counterparts to use positive votes to boost the result of regional candidates. We expected less knowledgeable voters to rely more heavily on ballot paper cues but find the opposite.⁹ We thus reject the *Political Knowledge Hypothesis*. This finding also contradicts earlier results from Fren dreis and Tatalovich (2021) and their conclusion that there is a link between voters' low education level and their likelihood to rely on identity based geographic voting. Even if our measure of individual political knowledge, based on a quiz on EP elections, is not directly comparable to Fren dreis and Tatalovich's (2021) levels of formal education at the aggregate level, we propose an alternative interpretation. If we assume that more knowledgeable voters tend to be more instrumental on average, our result would not be evidence against the socio-psychological identity explanation for geographic voting but instead a hint that an instrumental account might be plausible.

This leads us to an examination of the second potential explanation for geographic voting, voters' instrumental motivations. It states that voters actively seek the realization of regional interests. In the *Incumbency Hypothesis* we suggested that voters who care about the representation of regional interests should be more likely to support regional incumbents with an established record in constituency service. In support of this hypothesis, Figure 4 shows that geography matters for incumbents even if there is no information on candidates' residence on the ballot ($p = .06$). This effect is substantially reinforced by the ballot paper information, but voters who obtain this information actually vote for incumbents and non-incumbents in roughly the same proportions. Incumbency thus does not make a difference any more once there is information on the candidates' regional residence. A notable, albeit only marginally significant, difference between incumbents and non-incumbents in the ballot paper information condition is that non-incumbents are affected by negative voting ($p = .14$) where voters penalize non-regional

⁸In order to better represent the impact of political knowledge graphically, we dichotomise the variable: 0 = political knowledge low (0 to 3 correct answers to five survey questions on EP elections), 1 = political knowledge high (4 or 5 correct answers). Compared to other European participants in the *EVP* survey, Germans score relatively low on the five-point knowledge scale (see A6).

⁹Less knowledgeable voters might use positive and negative votes to a lesser extent than the more knowledgeable ones. In that case, the observed effects would then be due to a higher likelihood to cast preference votes (both positive and negative) among more knowledgeable voters. This, however, is not the case in the *EVP* sample. For a detailed discussion see A12.

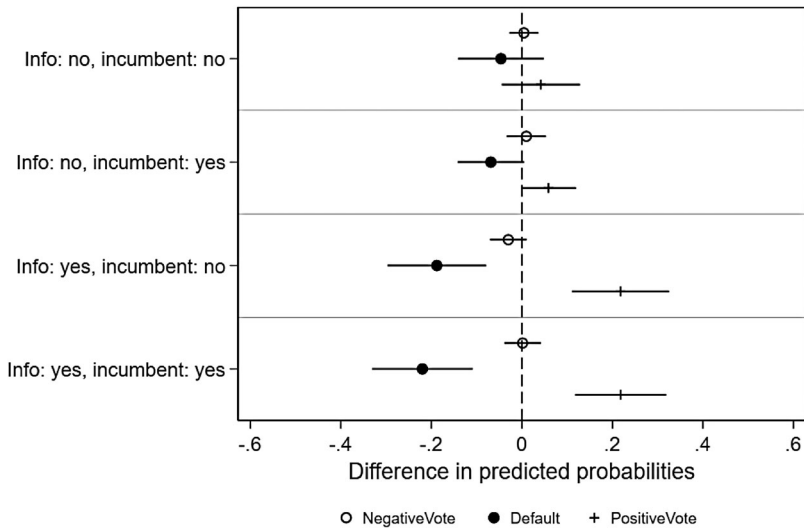


Figure 4. Determinants of regional voting: incumbency. Note: Based on multinomial logistic regression model (3) from A5.

candidates to give additional support to the ones they prefer. Incumbency thus protects candidates against negative voting from other regions. Non-regional incumbents seem to be attractive to voters because of their prominence beyond their home region and their activities in the outgoing parliament even if these activities did not explicitly benefit the voter’s region. In line with Schulte-Cloos and Bauer (2021) this is evidence against a purely self-centred instrumental explanation of geographic voting.

Conclusion

This paper addressed the question of whether and how voters use candidates’ geographic background as information shortcut when they decide for whom to vote. The *EuroVotePlus* online voting experiment produced data well-suited to examine geographic effects on the vote. The data contains a simulated open list proportional representation election and allowed voters to cast positive as well as negative votes for each individual candidate on their party’s list. The experimental treatment in the online survey provided half of the voters with information about the regional affiliation of individual candidates on the original party lists used in the 2014 European election in Germany but suppressed this information for the other half. We hypothesized that voters would prefer regional candidates over candidates from other regions (*Geography Hypothesis*) and that voters who receive ballot paper information on candidates’ regional background would be more likely to do so than voters who did not receive this information (*Ballot Information*

Hypothesis). We find supportive evidence for the latter only. Regional candidates attract positive votes but only if voters saw information about the candidates' regional affiliation on their ballot.

Investigating in more detail why geography matters for vote choice, we found evidence for the socio-psychological explanation, voters' regional identification. The most direct evidence for the importance of voters' regional identification is the strong impact of geography on voters who strongly identify with their region and obtain ballot paper information on candidates' regional roots. We also find that voters with higher levels of regional identification are more likely to cast negative votes for candidates who are from another region. The use of negative votes underlines the purposefulness of these voters. Voters thus seem to give an additional boost to their "friends and neighbours" candidates – but only if they are provided with information about the candidates' regional affiliation on the ballot. When this information is missing and voters are not sure about candidates' regional background they apparently refrain from penalizing individual candidates. These findings lend support to recent previous results presented by Campbell et al. (2019), Frenreis and Tatalovich (2021), and Schulte-Cloos and Bauer (2021) on the importance of socio-psychological identification as main driver of geographic voting.

At the same time, we cannot trace back this socio-psychological reaction to low levels of political knowledge. Rather, we find the opposite: more knowledgeable voters tend to rely more on ballot paper cues than less knowledgeable ones. Even if results are not directly comparable because of different knowledge and education measures, this finding contradicts Frenreis and Tatalovich (2021).

These observations point to four conclusions: First, voters prefer regional incumbents over those from another *Land* and support them with positive votes to a considerable extent. Second, ballot paper cues on individual candidates' geographic background have the expected effect and significantly reinforce support for regional candidates. Third, respondents who strongly identify with their region use negative votes to block candidates from other regions to give an additional boost to regional candidates if ballot paper cues facilitate this task. Finally, with regards to the question of why voters vote for regional candidates, we find more compelling support for the explanation that draws upon socio-psychological identification and less so for the one that builds on the importance of regional interest representation. While we are confident regarding the persuasiveness of the first two conclusions because they are entirely based on experimental randomization, the latter two are more exploratory in character given that we have to rely on proxies to operationalize and measure the competing concepts of socio-psychological identification and instrumental voting.

In a broader sense and regarding the “classical dilemma” (Pitkin 1967, 215) of political representation, we arrive at a cautious conclusion that takes into account the limited data availability for this study. Based on our finding regarding the importance of regional identification in vote choice and the recent literature on geographic voting that points in the same direction, we believe that voters select representatives who resemble them in descriptive terms but do not want them to pursue the constituency’s interests in detriment of the rest of the country.

Potential limitations to the generalisability of our results that we should note are the second-order character of EP elections as well as the use of an open list ballot in an election that is usually held with closed lists. Both elements might increase participants’ predisposition to react to candidates’ geographic background. This and the lack of direct measures of geographic identification and instrumental voting open up the field for future research. It would be useful to replicate our study in the context of a first-order election where voters are used to open list ballots and to include items that directly tap into geographic identification and instrumental voting.

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Data availability statement

Replication Data and Syntax are available at Harvard Dataverse, <https://doi.org/10.7910/DVN/HLVXRM>.

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