

A Service of



Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre

Giebler, Heiko; Weßels, Bernhard

Article — Accepted Manuscript (Postprint)

If You Don't Know Me by Now: Explaining Local Candidate Recognition

German Politics

Provided in Cooperation with:

WZB Berlin Social Science Center

Suggested Citation: Giebler, Heiko; Weßels, Bernhard (2017): If You Don't Know Me by Now: Explaining Local Candidate Recognition, German Politics, ISSN 1743-8993, Routledge, London, Vol. 26, Iss. 1, pp. 149-169, https://doi.org/10.1080/09644008.2016.1182502

This Version is available at: https://hdl.handle.net/10419/250901

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



This article was published by Taylor and Francis in German Politics, Vol. 26 (2017), Iss. 1, pp. 149-169, (2016/06/15): http://dx.doi.org/10.1080/09644008.2016.1182502.

If You Don't Know Me by Now: Explaining Local Candidate Recognition

HEIKO GIEBLER and BERNHARD WEßELS

For the personal vote to be cast in a meaningful way it is a minimal condition that voters recognise candidates. However, from earlier studies we know that there is huge variation in the number of candidates recognised. Little to nothing is known about candidate recognition and its determinants. This study explores the sources of candidate recognition from three different angles: candidates; citizens; and context. Furthermore, it enables the distinction of campaign-related from other factors. A unique multi-level within-subject design was set up for the analyses of the 2013 German Federal Election to ensure a meaningful validation of our theoretical framework. Our results suggest that, indeed, many factors lead to recognition but as well that earlier studies overestimated the effects of political interest or incumbency status. Moreover, we show that a good campaign makes a difference for recognition — as does the context in which it takes place.

INTRODUCTION

Why it is relevant to know what triggers candidate recognition? There are at least three reasons. The first reason relates to the normative ideas behind an electoral system like that of the Federal Republic of Germany. A second reason is the connection between recognition and the vote. Third, knowledge about the factors contributing to candidate recognition is very limited – not only in Germany.

Turning to the first point, candidate recognition has 'long been used in surveys to test political knowledge'.¹ It seems plausible that candidate recognition may be necessary in order to be prepared to make a reasonable choice — reasonable in the sense of the normative core of each specific electoral system. However, to which degree candidate knowledge is necessary certainly depends on the character of choices and, thus, the electoral system. Holding a representative elected in the district accountable or making a reasonable choice between candidates to be elected by personal vote in the first place requires, at least, the recognition of individual candidates. Hence, candidate recognition can be described as the necessary and minimal condition of accountability in majoritarian electoral systems.

Furthermore, research from various countries and types of elections shows a strong relationship between candidate recognition and vote choice. This has been shown for the USA, Britain and even Germany. Results seem to support that recognition contributes to a reasonable choice because only with recognition there is evaluation. Thus, there is a relationship between candidate recognition and the vote which in general

terms fits to the idea of a personal vote and the normative expectations regarding the mechanism of accountability and representation.

The third reason to investigate candidate recognition is that little to nothing is known about the factors that are conducive for candidate recognition. The German case constitutes no exception to this rule. Although there is much more research in and about the USA and Great Britain because of their majoritarian electoral systems, clear and systematic knowledge is not available for those countries either. As candidate recognition plays an important role both in constituency-level accountability and as a personal vote choice, this situation is not satisfying. This contribution aims at increasing our knowledge about the genesis of candidate recognition by using a unique combination of data from a candidate survey and two election surveys of the 2013 German Federal Election to explore the whole variety of factors that matter in prior research on candidate recognition – from candidates' characteristics and campaign efforts to citizens' characteristics and campaign perceptions to contextual factors of the district.

The article is organised as follows: section two gives an overview of earlier studies explaining candidate recognition and introduces three different blocks of explanatory variables: candidate-related; voter-related; and context-related. Next, we present our data sources as well as the measurement of variables used, and the design of our empirical analyses. The results section is divided into three parts: we start with some descriptive findings which are followed by an in-depth discussion of our causal model. We complete this section by presenting the relative importance of each block of explanatory variables. The article concludes by summarising our findings, discussing them in relation to earlier studies, and putting them into context in terms of the function of candidate recognition in democracies. We show that conceptualising the sources of candidate recognition in a more encompassing way as well as applying an appropriate estimation model is not just fruitful but necessary.

THEORETICAL BACKGROUND: EXPLAINING CANDIDATE RECOGNITION

As Pattie and Johnston wrote almost two decades ago, much is known about the electoral consequences of local campaigns, but the impact of local campaigns on voters' knowledge of candidates and parties still has to be discovered.² This certainly is a result of undervaluing the relevance of local candidates and campaigns. Even in single-member district systems like the USA, for a long time, electoral research did not figure that candidate recognition was of particular relevance. In *Voting*, the seminal book of Berelson and colleagues, the demand was that 'the democratic citizen is [...] supposed to know [...] what alternatives are proposed, what the party stands for'³ and in Downs' *Economic Theory of Democracy* the need to know about alternatives was acknowledged, but seen as party-centred: '[t]hus before he can make a voting decision, a voter must acquire for example information about the date of the election, the number of parties running, their names, and voting procedure'.⁴ Research regarding candidate recognition as political knowledge relevant for political choices has developed slowly and due to the insight that local and personalised campaigning may matter. As Norris summarises, 'name-recognition is a significant indirect indicator of broader awareness of electoral choices, [...] and it is

important as a minimal criteria before citizens can evaluate the record of elected members'.5

In Germany, it took even longer until local campaigning gained attention. This was partly due to the general impression of researchers on electoral systems and voting behaviour that voters in the constituency choose candidates almost completely according to party labels and not according to personal campaign efforts, personal performance or other individual characteristics of the candidate. That this view was only partly true, if at all, was shown by an analysis of Klingemann and Weßels pointing out that satisfaction with constituency work and performance in the parliament contributed considerably to the choice made with the personal vote.⁶ They found that the difference in personal vote share of candidates perceived as performing poorly compared to candidates performing very well was 17.5 percentage points. Since then, the ignorance concerning local candidates has vanished and research on local campaigning in Germany receives more and more scholarly attention.⁷

The mixed-member proportional electoral system of Germany allocates half of the 598 parliamentary seats by list votes and half by personal first-past-the-post voting. The mixedmember electoral system is the result of a compromise in the parliamentary council in 1948 between those favouring a pure proportional system and those favouring a majoritarian electoral system.8 The combination of the two visions of liberal democracy implies that the actors, that is, the represented and the representing, cope with two different normative ideas and different demands at the same time. 9 In a majoritarian electoral system, citizens elect individual politicians in single-member districts. In a proportional electoral system, citizens elect representatives by voting for party lists and parties determine by candidate selection how those lists are composed. The link between citizens and representatives differs clearly between the two procedures. The mandate in the majoritarian model is given to a person and this person is held accountable in the next elections for her performance. In the proportional model, the mandate is given to a party and the party is held accountable in the next elections.¹⁰ Thus, voters have to generate different types of accountability: person-oriented in the majoritarian, party-oriented in the proportional model. But although there is more information available on parties than on individual constituency MPs, even the party-oriented accountability mechanism is not always easy to apply as, for example, research on economic voting has shown.11

Factors contributing to an informed personal vote, however, are manifold. A logical precondition is certainly the recognition of the candidate. This may again depend on a set of factors as complex as that for an informed personal vote. Personal characteristics and campaign efforts of the candidates may be relevant as well as the personal characteristics of the voters and their individual exposure to campaign efforts as well as the particular local context in the constituency. In the literature, positive findings can be found on all three general aspects: candidate-related, voter-related and context-related, although all three have been rarely included in one analysis.

The general theoretical frame or the model of candidate recognition thus considers three explanatory blocks of factors: candidate-related; voter-related; and context-related. The two actor-related blocks are further divided into (a) factors linked to personal characteristics and (b) campaign-related factors. Regarding candidates, these latter factors include campaign efforts; regarding voters, campaign exposure (see

FIGURE 1 A MODEL OF CANDIDATE RECOGNITION

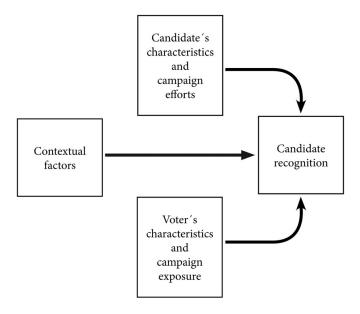


Figure 1). Thus, three general blocks of variables, two of them split into sub-blocks, will be considered in our analysis.

Regarding candidate-related factors, the first aspect are candidates' personal characteristics. In general, so-called personal vote-earning attributes informational shortcuts can be the birthplace or electoral experience of the candidate.¹² More generally, the local ties of a candidate may contribute to her recognition as well as her electoral profile in terms of experience or even success with candidacy. If asked for their preference, 17.8 per cent of German voters said they like to see a representative to be of the same generation, 22.4 per cent of the same social class and 24.4 per cent of the same region.¹³ It is important to note that incumbency may only be a proxy for other factors connected or even leading to incumbency. Research shows that incumbency adds little to recognition if factors like visibility, evaluation advantages and media access of candidates are controlled for.¹⁴ In their normal vote analysis, Goldenberg and Traugott did therefore not include incumbency in their model predicting deviations from normal vote because its contribution was effectively captured by the other variables in the model.¹⁵ Thus, electoral experience of a candidate may stand as an indicator for more general advantages or disadvantages that might make her known or to be made known by others like by endorsements of interest groups.

Second, general efforts of the candidates and, at election times, specific campaign efforts are of relevance. Research on campaign effects on candidate recognition is rare in comparison to the rich literature on campaign effects on voting. However, Pattie and Johnston found for Britain, that intensity of local campaigning is associated with improved knowledge of the voters referring to who is standing for election in a constituency. The relationship between campaign efforts and citizens' learning as well as candidate recognition has been confirmed for the USA by Wolak, who found that name

recognition increases with campaign effort.¹⁷ For Germany, however, Gschwend and Zittel could show a strong impact of campaign exposure but no significant effects of campaign intensity, campaign content or campaign organisation.¹⁸

The effect of campaign efforts on electoral success depends on resources. Research results suggest that money, time, the size of the team and media access matter a lot - the more of these resources, the higher the chance of electoral success.¹⁹ As direct evidence on candidate recognition is limited, these findings on the relevance for electoral success are analogously transferred to the recognition of candidates. The close relationship between candidate recognition and vote choice makes such an expectation not too farreaching. Goldenberg and Traugott concluded in their book on the USA that 'a campaign's net effect on individual voters' choices is a consequence of whether the voters recognise one or both opponents and how evaluations of them compare'.20 Even in experimental studies and field experiments at the local level in the USA, the strong effect of candidate recognition on candidate support could be shown.²¹ In Great Britain, Pattie and Johnston found that 'electors who know the identity of a party's constituency candidate are more likely to vote for that candidate than are electors who do not know the candidate's identity'.22 Last not least for Germany, Gschwend and Zittel could confirm that candidate recognition - they coined it 'cognitive personalisation' - had a rather large effect on the personal vote in the 2009 German Federal Election.²³

However, recognition is not a one-sided process. Whether campaign efforts get through to the voters may depend on citizens' characteristics and whether campaign efforts of candidates have succeeded in reaching citizens, which may again depend on citizens' characteristics. Goldenberg and Traugott found that the likelihood of candidate recognition rises if citizens are attentive to campaign news and better educated.²⁴ Furthermore, Wolak showed that general political knowledge and campaign interest matter as well.²⁵ Gschwend and Zittel confirmed for Germany the effect of political knowledge.26 Thus, a general political interest, following the (local) news, a certain degree of political knowledge and the discussion of politics are conducive for candidate recognition. All the mentioned factors may contribute to an increased likelihood of campaign exposure; that is, to getting actually in touch with parties or candidates by different means. Goldenberg and Traugott stressed that any campaign activity reaching citizens such as rallies, coffee klatches, mailings and ads contributed to increased candidate recognition.²⁷ However, the effects of campaign exposure may be conditioned by partisanship. The degree of campaign exposure does not matter for candidate recognition of voters highly identifying with the party of the candidate. but it matters a lot for voters without party identification.²⁸ In the US case, however, campaign exposure showed to have a persistent effect on candidate recognition even under the control of the strength of partisanship.²⁹ Additionally, the ability to recognise a candidate might also be a function of general mobilisation and attention levels. Knowing a candidate's name already long before or still long after Election Day should be more difficult than close to the election.

Finally, the specific district context can certainly have an impact on candidate recognition. One aspect is to which degree a district can be described as 'personal and local'. Rural electoral districts or those in smaller towns differ considerably from those in the big cities or city conglomerates. Anonymity is higher in highly populated districts. Geographically, the size of such a district will be smaller, but high population

density will make a community-like personalisation of politics at the local level unlikely. A second contextual aspect is the general political climate or ideology prevailing in the district. If a particular party has the sympathy of most voters in a district, it may well be that its candidate will be more recognised than the others. A similar mechanism may be at work at the candidate level. If only one or two candidates get most of the votes or if many candidates have more or less the same share of the votes, it makes a difference for the need to recognise candidates. If there is hegemony in the district, efforts for recognising as many candidates as possible do not pay off from a cost–benefit perspective.

Review of research shows that candidates' and voters' characteristics as well as contextrelated factors clearly play a role in explaining candidate recognition. Voters' characteristics seem to be most important. However, also campaign-related factors matter a lot. This can be taken as a positive message: evidence suggests that local campaigning can make a difference. Thus, local campaigning and its reception may play a crucial role in providing the necessary conditions of personalisation and the personal vote that, to be meaningful, should both be dependent on candidate recognition. However, prior studies do not allow a full picture and may have run the risk of overestimating the impact of certain factors, for example political interest or incumbency, as they did not consider a comprehensive set of explanatory factors or were not able to do so by data limitations. Furthermore, most research designs do not or cannot take care of the hierarchical structure of the complex set of factors, quite often because of the lack of comprehensive data. In particular, most studies do not have integrated voter- and candidate-level data. Research often concentrated on either voters' characteristics or campaign characteristics, did not deal with these two levels at the same time or only in an under-complex manner. A complete and integrated analysis of the factors of candidate recognition and their relation is necessary in order to understand and evaluate better the state of accountability and to identify how it can be improved. This is what our study provides.

DATA, METHODS AND MEASUREMENT

Conducting our study makes it necessary to link data taken from a mass survey, an elite survey and contextual data. Fortunately, the German Longitudinal Election Study (GLES; http://www.gles.eu) provides all the necessary data and means to link the different study components. We use the combined pre- and post-election cross-sectional dataset30 for information on candidate recognition, campaign exposure and other characteristics of the citizenry.31 Data on candidates and their campaign efforts are taken from the GLES candidate survey that also provides all information needed on the contextual level.³² We had to delete all candidates of the 'Alternative for Germany' (AfD) and the Pirate Party because the voter surveys only asked about the recognition of candidates running for CDU/CSU,33 SPD, FDP, the Left or the Greens. Obviously, we also had to delete all candidates only running on party lists. All in all, we cover 233 of 299 constituencies and, after dropping all cases with missing values, we ended up with 3381 citizens and 478 candidates.34 The parties covered in this study put forth 1194 constituency candidates which means we cover more than 40 per cent – a very impressive figure if we consider the problems often

accompanying elite surveys. Linking citizens and candidates results in 6841 citizencandidate combinations. The structure of the data is hierarchical and there are various ways to address this. Unfortunately, earlier studies on the determinants of candidate recognition, while making a valid conceptual contribution, applied insufficient constraints to their empirical models in terms of clustering which sheds doubts on the reliability of their results.³⁵ We apply a three-level structure with candidates nested in citizens nested in constituencies. In other words, we set up a within-subjects design on the lower levels. Each individual (citizen) is compared against her baseline allowing the researcher to control for unobserved individual characteristics which are estimated as the level-two random intercept. By asking the same individual about the recognition of all candidates running for major parties, we can assess, for each individual, how candidate-specific factors (for example, exposure to a candidate's campaign or campaign resources) affect the probability to recognise the specific candidate. At the same time, we can estimate the constant effect of a citizen's characteristics on candidate recognition (e.g. political knowledge) and the effect of constituency characteristics, like the level of electoral competition. As our dependent variable is binary (recognised candidate yes/no), we ran a three-level logistic regression with unconstrained random intercepts. Log-likelihood ratio tests as well as the respective Intra-Class Correlation Coefficients of 0.54 for level two (citizens) and 0.33 for level three (constituencies) support our model specification.

The measurement of our dependent variable is very much straightforward. In both pre- and post-election surveys respondents were asked to report all candidates by name as well as their party affiliation.³⁶ Interviewers had a pre-coded list of names for the constituency where the interview took place and were told to accept abridgements. We deem a candidate to have been recognised if a respondent was able to recall name and party affiliation.

As we have argued above, candidate recognition has many sources. To save space for the analysis, we provide all information on the variables used in our analysis in Table A1 in the appendix.

RESULTS

We argue that candidate recognition is affected by different blocks of factors belonging to different subjects and objects. In addition, we claim that we can deal with all these factors simultaneously due to a unique multi-level dataset, in contrast to prior studies which either could not include all factors due to data and design limitations or did not provide fully satisfying models of candidate recognition. Before going into the model explaining candidate recognition, the relevance of district representation and, thus, candidates and their recognition is discussed on the basis of some descriptive figures. This includes first insights into the distribution of our dependent variable. It is followed by the presentation of results from the causal analysis. This section ends with an analysis of the explanatory power of the different blocks of explanatory factors; that is, candidate-, voter- and context-related.

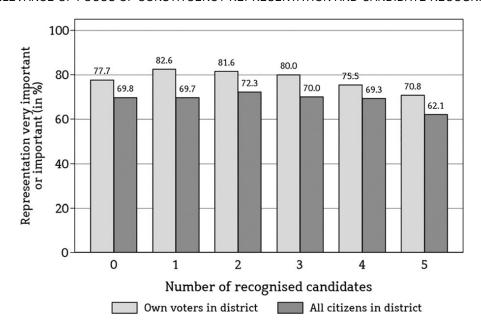
Descriptive Results

Above, arguments have been made regarding the relevance of candidate recognition given the normative ideas of vote choice and representation embedded in the German electoral system. The institution of a personal vote resulting in a representative responsible for a district does not just result from an idea of the inventors of the electoral rules but finds strong support within the electorate (Figure 2). About 80 per cent of the voters regard it as important or very important that an MP elected in the district represents her voters in the district, about 70 per cent that she represents all voters in the district. These perceptions are quite independent from the fact whether voters recognise their own candidates in the district.

Candidate recognition depends in part on the visibility of the candidates that may – beyond their party's national popularity – have to do with the fact of whether a candidate served the constituency during the term before the election. This would imply very different chances for being recognised depending on the candidate's party. The Christian Democrats, for example, held 72.9 per cent of all 299 constituency mandates before the 2013 Federal Election, the Social Democrats 21.4 and the Left 5.4 per cent. The Greens held only one mandate, the Liberals none. On this background, it comes as a surprise that while recognition is clearly skewed in favour of the two bigger parties with the higher proportions of district mandates the difference is much less pronounced than incumbency would suggest. A total of 47.4 per cent of the voters recognised candidates of the Christian Democrats, only a little less those of the Social Democrats and about 20 per cent knew candidates of the Liberals, the Left and the Greens. This is clearly an indication of the importance of other factors than incumbency and the sheer number of district mandates won by a party.

The results presented in Figure 3 confirm this expectation. In total, 62.7 per cent of the voters recognise at least one candidate, 42.4 per cent two or more, including a low proportion of 7.8 per cent recognising five candidates. These proportions of recognition may be regarded as too low for providing the preconditions for a reasoned

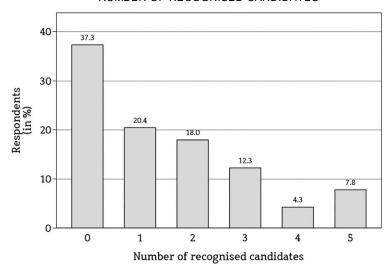
FIGURE 2
RELEVANCE OF FOCUS OF CONSTITUENCY REPRESENTATION AND CANDIDATE RECOGNITION



Originally published in:

German Politics, Vol. 26 (2017), Iss. 1, p. 156

FIGURE 3
NUMBER OF RECOGNISED CANDIDATES



choice between candidates and thus a reasonable personal vote. However, in a comparative perspective, these figures are not low at all. Although they are varying in their specific calculations, both Holmberg and Norris showed a medium to high rank of Germany's proportion of candidate recognition even compared to countries with plurality or majority systems.³⁷

Causal Model

Which factors enable citizens to recognise a constituency candidate? To answer this question, we estimated a three-level random intercept logistic regression. The results are presented in Table 1.38 Before going into detail, the first observation is that the large number of significant predictors underlines our argumentation on the manifold sources of candidate recognition.

On the lowest level, representing candidate-specific variables, findings suggest that it pays for candidates to try to get in touch with voters; those voters reporting that they had been contacted by a candidate keep that politician's name in mind better than others. The same is true if the respondent likes the candidate's party.

Turning to candidates' characteristics, we find the probability of recognition increases for candidates who already won a mandate in the prior election in comparison to new candidates. Having already run a campaign in 2009 but unsuccessfully does neither contribute positively nor negatively to recognition. Money and time spent during a campaign are highly relevant resources for a candidate if she wants to be recognised by citizens. The mere size of the campaign team can be neglected.

Neither campaign diversity, that is, using a large number of different campaign means, nor addressing local issues nor having media access increases the probability to be recognised for a candidate. The same is true for the campaign focus. It is not really relevant for recognition whether a candidate runs a campaign stressing herself as a person or stressing her party. What matters, however, is campaign style. The more classical the style is, for example, if the candidate uses canvassing or sends out letters and leaflets, the more successful it is in making a candidate known.

TABLE 1
MULTI-LEVEL LOGIT MODEL PREDICTING CANDIDATE RECOGNITION

Dependent variable: Candidate recognition

Candidate level (citizen-candidate combinations): N = 6841 Respondent level: N = 3381; Constituency level: N = 233

Respondent level: 14 = 5551, Constituting level: 14 = 255	
Candidate level	
Campaign contacts	.57*** [.04]
Party like–dislike	.28*** [.02]
	.20*** [.02]
Candidate profile (base category: did not run in 2009)	22 [47]
ran without winning a seat in 2009	23 [.17]
successful campaign in 2009	.90*** [.18]
Residence	19 [.17]
Endorsement	.03 [.13]
Time	.22** [.08]
Team	00 [.00]
Money	.02*** [.00]
Campaign diversity	.02 [.01]
Campaign style	1.01** [.35]
Campaign focus	.04 [.02]
Local topics	.03 [.19]
Media access	11 [.16]
Intercept	-12.08*** [1.50]
Respondent level Political interest Political knowledge Reading local newspaper Discuss politics Proximity to election Constituency level Party popularity Effective number of electoral candidates	.04 [.16] .66*** [.10] .80*** [.80] .50** [.15] .12*** [.03]
Population density	31** [.11]
Random part Error variance, respondent level Error variance, constituency level	4.28*** [.56] 4.22*** [.67]
Log-likelihood	-2,723.1
•	, -

Notes:

We present results as usual for multi-level models by sorting the independent variables based on their level of measurement. We ran a second model including a dummy variable differentiating between the pre- and postelections survey. There are no significant differences except that the variable measuring the proximity to the election becomes insignificant. The dummy itself is negative and significant at the 1 per cent level indicating that the probability to recognise a candidate is about 5.2 per cent lower if a respondent was interviewed after the election.

On the respondent level, all variables except political interest are crucial. A citizen with a higher level of political knowledge who reads at least one local newspaper and discusses politics has a much higher probability to recognise a candidate. Our finding on political interest is striking at first hand as most other studies on candidate recognition find a significant effect. Taking a second look, however, this is not surprising at all. First of all, we are able to measure citizens' characteristics in a more detailed way than the other studies. Political interest can be regarded as a summary measure of

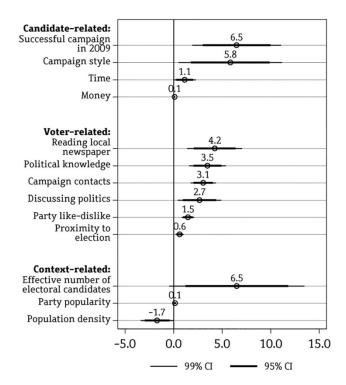
^{*}p < .05; **p < .01; ***p < .001; standard errors in brackets.

more specific indicators of political involvement like reading newspapers and discussing politics. Second, several studies presenting a significant effect of political interest on candidate recognition use insufficient estimation procedures. By neglecting the nested data structure, standard errors of higher-level predictors are deflated which then leads to only seemingly significant effects.

Finally, turning to the block of context-related factors, our model predicts a better chance to get recognised if the candidate's party is more popular in the constituency — even controlling for all other factors. Furthermore, citizens living in more urban and densely populated districts tend to not know electoral candidates. This is consistent with the argument on the anonymity of cities and a stronger communal orientation in less densely populated cities or villages. Political competition matters as well. As expected from the cost—benefit argument made above, investment in knowledge about candidates pays off only if there is no hegemony in the district. Consequently, the model predicts a positive effect of electoral competition: the higher the effective number of electoral candidates, the higher the probability for them to be recognised.

Substantive interpretation of logit coefficients is rather difficult. Therefore, we present the average marginal effect of a one-unit change in terms of probability changes for each predictor.³⁹ Figure 4 displays the marginal effects of those predictors which show at least significant on the 5 per cent level of confidence. The predictors are ordered by block (candidate-related, voter-related and context-related) and their effect

FIGURE 4
AVERAGE MARGINAL EFFECTS OF SIGNIFICANT PREDICTORS



size. In addition to the probability change, we present also the 95 and 99 per cent confidence intervals.

We calculate the baseline probability of recognising a candidate if all independent variables are set on their empirical mean. The predicted probability equals 5.7 percentage points. This helps us to evaluate the impact of each of the indicators because we can compare the respective effect to the baseline probability. The results show that if competition in the district increases by one effective electoral candidate chances to get recognised are more than doubled in comparison to the baseline probability. Having been a successful candidate in the 2009 election has the same effect. Switching from an all postmodern campaign style to an equally balanced campaign or from the latter to an all classic campaign increases the probability to get recognised by 5.8 percentage points. Reading a local newspaper or not (4.2) and discussing politics or not (2.7) have rather small effects while one additional point on the political knowledge scale increases the probability by 3.5 percentage points. Campaign contacts prove to have a very large effect: for each time a respondent was contacted by the candidate or her party, the model estimates an increase of 3.1 points, while the average number of such contacts is close to 2.5. The same can be said about the party like-dislike scale (1.5 for each increase on the 11-point scale). In contrast to earlier studies, we find rather small effects for campaign resources. Twenty-four hours of campaigning per week increase the probability by only 1.1 percentage points and spending an additional amount of E1000 on the local campaign only adds .1 percentage points. Interestingly, running for a popular party is also not very relevant because it needs a 10-percentage-point increase in the vote share to get recognised with a 1-percentage-point higher probability. Population density seems to play a more important role as the predicted probability decreases by 1.7 percentage points for each additional 1000 inhabitants per square kilometre - in other words, the difference between a rural and a rather urban constituency easily adds up to more than 10 points. Last but not least, we find a rather moderate effect of proximity to the election. As a oneunit change represents that the interview was conducted one additional week before or after the Election Day, a probability change of 0.6 is moderate at best.

Explanatory Power of Different Variable Blocks

All in all, the probability changes presented in Figure 4 further support our claim that candidate recognition depends on many factors and all explanatory blocks – candidate-related, voter-related and context-related – are not just helpful but also necessary. The remaining question is how important the different blocks of explanatory variables are in comparison.

The difficulty in answering this question is that there are no uncontested standard procedures in non-linear multi-level set-ups to calculate the contribution of a single independent variable or even a group of variables in regard to explanatory power. Hence, we have to develop a procedure to determine the relative contribution of each variable group. We do so by, first, standardising each non-binary independent variable by dividing it by two standard deviations following an approach by Gelman.⁴⁰ In a second step, we calculate the average marginal effect of a one-unit change for each independent variable identically with the calculation described above. We then add up all these marginal effects. This

probability change caused by our standardised independent variables if each of them increases by one unit. Finally, we sum up all marginal effects for indicators in a specific block or, as we distinguish the actor-centred blocks further by individual characteristics and campaign factors, sub-block and divide this number by the total probability change. In other words, we calculate the relative proportion of the total probability change for each group of variables. While these values should not be interpreted in absolute terms, we get the relative effect of each variable group in comparison to the other groups on candidate recognition.

Figure 5 depicts the relative effect of each group of variables. Obviously, there are differences in terms of relevance. However, the results emphasise – similar to the regression results in Table 1 – that none of the blocks should be neglected because all contribute considerably to candidate recognition. The effect of the least important subblock (candidate characteristics) is still more than one tenth of the overall effect of the model and larger than one-third of the most influential sub-block (citizen characteristics).

In relative terms, the most important explanatory block is voter-related. Adding the effect of campaign exposure and citizen characteristics results in roughly 50 per cent of the overall effect — with the latter constituting the most important group of independent variables. Second comes the block of candidate-related variables (characteristics and campaign effort) making up for 28 per cent, followed by context-related variables contributing a little more than one-fifth.

Contextual effects and campaign exposure of citizens have more or less the same effect on candidate recognition which emphasises the importance of contextual factors like competition. Clearly, campaign exposure, especially in terms of campaign contacts, should have a large effect on an individual's ability to recognise a candidate. However, our results also show that this ability is structured by the level of electoral competition – good news for accountability. What about the object of recognition, the candidates? Their characteristics have the smallest relative effect. This is notable because this explanatory block includes whether a candidate was an MP prior to the election or not, a characteristic which in prior research showed to be very important.

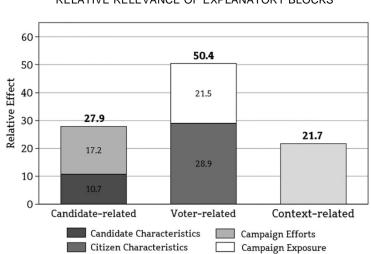


FIGURE 5
RELATIVE RELEVANCE OF EXPLANATORY BLOCKS

Here, with more detailed measures of campaign efforts, results show that these efforts are more important than the status or profile of a candidate. Campaign efforts account for about one-sixth of the overall effect. Showing more effort and choosing a favourable strategy can indeed make a difference because, as other studies have shown, recognition translates into a higher probability to get elected. Finally, if we only look to candidate- and voter-related factors and compare the overall effect of campaigns, the effect size of campaign-related variables is as big as of personal characteristics. Disregarding context, this means that local campaigning contributes about half of the effect for candidate recognition, which is 38.7 per cent of the overall effects.

CONCLUSION

Candidate recognition has found much less scholarly attention than the relationship of local campaigning and candidates' success. This emphasis on success neglects that an informed personal vote implies candidate recognition if the accountability mechanism in single-member districts and its normative idea of delegation is taken seriously. In the German case, the electoral system has implemented both visions of democracy: the proportionate-influence vision and the majority-control vision of democracy, the latter needing candidate recognition for accountability.

This analysis is an attempt to explain candidate recognition in full. Prior research falls short of an integrated analysis because of design restrictions or other shortcomings. Here, we made use of a unique data source combining candidate- and voter-related as well as context-related factors in a multi-level data structure which allows us to address questions concerning the impact of personal characteristics of candidates and voters, campaign characteristics and context in an integrated way. Analysing candidate recognition in the 2013 German Federal Election, our goal was three-fold: first, we wanted to offer an integrated perspective demonstrating the complexity of contributing factors and, thus, showing that none of the blocks of variables which can be found in research can be neglected. Second, we intended to identify the relative relevance of blocks of determinants and, third, by doing so, to come up with a yardstick as to which degree accountability mechanisms can be assumed in the personal vote.

In descriptive terms, results show that almost two-thirds of the citizens recognise at least one candidate knowing her name and party. Whether they do or not depends on factors relating to all three blocks of variables - candidate-, voter- and context-related. Out of 22 variables, 14 showed significant effects. The traditional way of explaining political knowledge - to which candidate recognition belongs - is looking at individual characteristics at the voter level. This one-sided perspective neglects that the supply-side may be relevant for citizens in order to decide whether they care or not. Moreover, supplyside efforts make it easier to acquire the necessary information – or not. At the same time, one may argue that the effect of supply-side efforts is conditioned or restricted by individual characteristics of the addressees. Results show in fact that the effect of voters' characteristics is the most important block of variables. However, we did not find any effect of political interest on recognition. We argue that this is the result of our more comprehensive set of predictors which encompasses several independent variables often subsumed in other studies under the label 'political interest'. Being informed and involved difference makes big but much less than is

half of the story. The campaign efforts of the candidates make a big difference, too, because they are also contributing to the big effect of campaign exposure at the voters' level. Characteristics of candidates matter less than expected. Comparable literature on personal voting finds an enormous effect of incumbency which we detected regarding candidate recognition in terms of statistical significance but not regarding size. That we did not identify such a strong effect has certainly to do with the fact that we measure campaign efforts with a more differentiated set of instruments indicating that incumbency may just be a proxy for a more complex set of factors. In contrast to Gschwend and Zittel who could not find significant effects of campaign intensity, campaign content or campaign organisation.41 we find significant effects of time and money. Again, differentiation seems to be the reason that in our integrated design we determine an effect which others could not observe, defining intensity, style and organisation basically all by money. However, effects of time and money seem to be small in our analysis in comparison to other factors. One may assume that all this helps to increase campaign exposure of citizens, which has a huge relative effect on recognition and does hold even under control of liking of the candidate's party. That the constituency context and, for accountability of major interest, the competitive situation of the candidates have a strong impact shows that it is relevant to consider all three blocks of variables in the explanation of candidate recognition.

That campaign-related factors play a major role among the relevant factors, contributing close to 40 per cent to the overall explanation, can be taken as a positive message: this is clear evidence that local campaigning can make a difference. Local campaigning and its reception are important for facilitating the necessary conditions of personalisation and the personal vote. It shows, at the same time, that holding politicians accountable by the personal vote can work given the fact that neither partisanship nor other characteristics of individual voters determine candidate recognition from the very beginning or even primarily.

In more general terms, our study illustrates the complexities of the democratic process. The working of core elements of modern democracy – elections and, as their result, representation – does not depend on political elites or citizens, not on the supply and demand side of politics alone. It depends on the interaction of these two groups as well as individual efforts and characteristics creating and interpreting these interactions. What is more, the democratic process does not take place in a vacuum but is strongly influenced by contextual factors. They facilitate or restrict different forms of information seeking, decision making and behaviour – also in the context of candidate recognition. Some might prefer parsimony when it comes to cause and effects in political science and they might be disappointed with our conclusion. However, we see these interdependencies and the subsequent complexity in a positive light because it represents the inherent logic of democracy. Its functioning depends on the actions and commitment of many and not just a few and the explicit corrective mechanism, free and fair elections, ensures adaptability to contextual changes.

DISCLOSURE STATEMENT

No potential conflict of interest was reported by the authors.

ABOUT THE AUTHORS

Heiko Giebler is a research fellow at the WZB Berlin Social Science Center, research unit 'Democracy and Democratisation', and he is working in the German Longitudinal Election Study (GLES). His research focuses on electoral behaviour, political parties, political elites and applied quantitative methods. Among others, he has published in the *British Journal of Political Science*, *Electoral Studies, European Political Science* and with Oxford University Press.

Bernhard Weßels is senior researcher at the WZB Berlin Social Science Center, research unit 'Democracy and Democratisation', and professor of political science at Humboldt-Universität zu Berlin. His main areas of interest are comparative political behaviour, attitudes and elections, interest intermediation and representation. He has widely published in these areas in journals like *Electoral Studies*, the *European Journal of Political Research*, *Acta Politica*, *Journal of Legislative Studies* and edited several books in these fields with Oxford University Press.

NOTES

- Pippa Norris, Electoral Engineering: Voting Rules and Political Behavior (Cambridge: Cambridge University Press, 2004), p.238.
- C.J. Pattie and R.J. Johnston, 'Party Knowledge and Candidate Knowledge: Constituency Campaigning and Voting and the 1997 British General Election', *Electoral Studies* 23/4 (2004), pp.795–819.
- 3. B.R. Berelson, P.F. Lazarsfeld and W.N. McPhee, *Voting: A Study of Opinion Formation in a Presidential Campaign* (Chicago, IL: University Press of Chicago, 1954), p.308.
- 4. A. Downs, An Economic Theory of Democracy (New York: Harper & Brothers, 1957), p.215.
- 5. Norris, Electoral Engineering, p.238.
- H.-D. Klingemann and B. Weßels, 'Political Consequences of Germany's Mixed-Member System: Personalization at the Grass-Roots?', in M.S. Shugart and M.P. Wattenberg (eds), *Mixed Member Electoral Systems: The Best of Both Worlds?* (Oxford: Oxford University Press, 2001), pp.279–96.
- 7. H. Giebler, B. Weßels and A.M. Wüst, 'Does Personal Campaigning Make a Difference?', in B. Weßels, H. Rattinger, S. Roßteutscher and R. Schmitt-Beck (eds), Voters on the Run or on the Move? (Oxford: Oxford University Press, 2014), pp.140–64; H. Giebler and A.M. Wüst, 'Campaigning on an Upper Level? Individual Campaigning in the 2009 European Parliament Elections in Its Determinants', Electoral Studies 30/1 (2011), pp.53–66; T. Gschwend and T. Zittel, 'Machen Wahlkreiskandidaten einen Unterschied? Die Persönlichkeitswahl als interaktiver Prozess', in R. Schmitt-Beck (ed.), Wählen in Deutschland. Special Issue 45 of Politische Vierteljahresschrift (Baden-Baden: Nomos, 2012), pp.371–92; T. Gschwend and T. Zittel, 'Do Constituency Candidates Matter in German Federal Elections? The Personal Vote as an Interactive Process', Electoral Studies 39 (2015), pp.338–49; A.M. Wüst, H. Schmitt, T. Gschwend and T. Zittel, 'Candidates in the 2005 Bundestag Election: Mode of Candidacy, Campaigning and Issues', German Politics 15/4 (2006), pp.420–38; T. Zittel and T. Gschwend, 'Individualised Constituency Campaigns in Mixed-Member Electoral Systems: Candidates in the 2005 German Elections', West European Politics 31/5 (2008), pp.978–1003.
- 8. S.E. Scarrow, 'Germany: The Mixed-Member System as a Political Compromise', in M.S. Shugart and M.P. Wattenberg (eds), *Mixed Member Electoral Systems: The Best of Both Worlds?* (Oxford: Oxford University Press, 2001), pp.55–69.
- 9. J.D. Huber and G.B. Powell, 'Congruence between Citizens and Policymakers in Two Visions of Liberal Democracy', *World Politics* 46/3 (1994), pp.291–326; G.B. Powell, *Elections as Instruments of Democracy: Majoritarian and Proportional Visions* (New Haven, CT: Yale University Press, 2000).
- 10. W.C. Müller, 'Political Parties in Parliamentary Democracies: Making Delegation and Accountability Work', European Journal of Political Research 37/3 (2000), pp.309–33.
- 11. C.J. Anderson, 'Economic Voting and Political Context: A Comparative Perspective', *Electoral Studies* 19/1 (2000), pp.151–70; R.M. Duch, 'Comparative Studies of the Economy and the Vote', in C. Boix and S.C. Stokes (eds), *The Oxford Handbook of Comparative Politics* (Oxford: Oxford University

- Press, 2009), pp.805–44; E. Parker-Stephen, 'Clarity of Responsibility and Economic Evaluations', *Electoral Studies* 32/3 (2013), pp.506–11; G.B. Powell and G.D. Whitten, 'A Cross-National Analysis of Economic Voting: Taking Account of the Political Context', *American Journal of Political Science* 37/2 (1993), pp.391–414; A. Wagner and H. Giebler, 'It's the Responsibility, Stupid! Determinanten der Verantwortlichkeitszuschreibung zwischen Europäischer Union und nationaler Regierung für die wirtschaftliche Lage', *Zeitschrift für Vergleichende Politikwissenschaft* 8/Supplement 2 (2014), pp.123–42.
- 12. M.S. Shugart, M.E. Valdini and K. Suominen, 'Looking for Locals: Voter Information Demands and Personal Vote-Earning Attributes of Legislators under Proportional Representation', *American Political Science* 89/2 (2005), pp.327–43.
- 13. H. Rebenstorf and B. Weßels, 'Wie wünschen sich Wähler ihre Abgeordneten? Ergebnisse einer repräsentativen Bevölkerungsumfrage zum Problem der sozialen Repräsentativität des Deutschen Bundestages', Zeitschrift für Parlamentsfragen 20/3 (1989), pp.408–24, p.416.
- 14. E.N. Goldenberg and M.W. Traugott, 'Congressional Campaign Effects on Candidate Recognition and Evaluation', *Political Behavior* 2/1 (1980), pp. 61–90.
- 15. E.N. Goldenberg and M.W. Traugott, 'Normal Vote Analysis of U. S. Congressional Elections', *Legislative Studies Quarterly* 6/2 (1981), pp.247–57, p.253.
- 16. Pattie and Johnston, 'Party Knowledge and Candidate Knowledge'.
- 17. J. Wolak, 'The Consequences of Concurrent Campaigns for Citizen Knowledge of Congressional Candidates', *Political Behavior* 31/2 (2009), pp.211–29.
- 18. Gschwend and Zittel, 'Do Constituency Candidates Matter'.
- 19. R.K. Carty and M. Eagles, 'Do Local Campaigns Matter? Campaign Spending, the Local Canvass and Party Support in Canada', *Electoral Studies* 18/1 (1999), pp.69–87; D. Denver, G. Hands and I. MacAllister, 'The Electoral Impact of Constituency Campaigning in Britain, 1992–2001', *Political Studies* 52/2 (2004), pp.289–306; T.M. Holbrook and A.C. Weinschenk, 'Money, Candidates, and Mayoral Elections', *Electoral Studies* 35 (2014), pp.292–302; R. Johnston and C. Pattie, 'Candidate Quality and the Impact of Campaign Expenditure: A British Example', *Journal of Elections, Public Opinion and Parties* 16/3 (2006), pp.283–94; R.J. Johnston and C.J. Pattie, 'The Impact of Spending on Party Constituency Campaigns at Recent British General Elections', *Party Politics* 1/2 (1995), pp.261–73; C.J. Pattie, R.J. Johnston and E.A. Fieldhouse, 'Winning the Local Vote: The Effectiveness of Constituency Campaign Spending in Great-Britain, 1983–1992', *American Political Science Review* 89/4 (1995), pp.969–83.
- E.N. Goldenberg and M.W. Traugott, Campaigning for Congress (Washington, DC: Congressional Quarterly Press, 1984), p.145.
- C.D. Kam and E.J. Zechmeister, 'Name Recognition and Candidate Support', American Journal of Political Science 57/4 (2013), pp.971–86.
- 22. Pattie and Johnston, 'Party Knowledge and Candidate Knowledge'.
- 23. Gschwend and Zittel, 'Do Constituency Candidates Matter'.
- 24. Goldenberg and Traugott, 'Congressional Campaign Effects'.
- 25. Wolak, 'The Consequences of Concurrent Campaigns for Citizen Knowledge of Congressional Candidates'.
- 26. Gschwend and Zittel, 'Do Constituency Candidates Matter'.
- 27. Goldenberg and Traugott, 'Congressional Campaign Effects'.
- 28. Gschwend and Zittel, 'Do Constituency Candidates Matter'.
- 29. Wolak, 'Consequences of Concurrent Campaigns'.
- H. Rattinger, S. Roßteutscher, R. Schmitt-Beck, B. Weßels, C. Wolf, A. Wagner, H. Giebler, I. Bieber and P. Scherer, Vor- und Nachwahl-Querschnitt (Kumulation) (GLES 2013) (Köln: GESIS Datenarchiv, 2014. ZA5702 Datenfile Version 2.0.0, 10.4232/1.12064).
- 31. Obviously, mixing pre- and post-election surveys is not completely unproblematic. However, we deem it more important to cover as many constituencies as possible and to catch as many citizens per constituency as possible. As both surveys use independent sampling procedures, both quantities increase tremendously if one uses the combined dataset. Moreover, and in contrast to, for example, party choice, we assume that candidate recognition is less biased by bandwagon effects.
- H. Rattinger, S. Roßteutscher, R. Schmitt-Beck, B. Weßels, C. Wolf, A. Wagner and H. Giebler, Kandidatenstudie 2013: Befragung, Wahlergebnisse und Strukturdaten (GLES) (Köln: GESIS Datenarchiv, 2014. ZA5716 Datenfile Version 3.0.0, 10.4232/1.12043).
- 33. Although the CDU and the CSU officially are two different parties, they do not compete against each other and are often described as 'sister parties'. The CSU only stands for election in Bavaria while the CDU runs in all other regions. Hence, we consider them to be interchangeable in the sense that we use information on the CSU (candidate) in Bavaria and the CDU (candidate) in all other regions.

- 34. We refrained from imputing missing values with the exception of the candidates' campaign budgets. Similar to mass surveys, money is a rather sensitive issue causing a larger quantity of missing information. Hence, we used a multiple imputation approach for all cases without missing values on any of the other variables in use. The latter, in addition to party dummies, were used as regular variables for the imputation procedure. We set up a multiple imputation procedure using verified party positions with 500 iterations for all parties not fulfilling the criteria described in step one. We applied a truncated regression for a continuous variable with a restricted range as the imputation equation. As a result, the imputed values have to be elements of the original range of empirical values. The imputed values for money spent are calculated as the mean of all 500 iterations. All in all, 52 values were calculated by this procedure. For a similar approach, see S.A. Banducci, H. Giebler and S. Kritzinger, 'Knowing More from Less: How the Information Environment Increases Knowledge of Party Positions', *British Journal of Political Science* (2015) available from http://dx.doi.org/10.1017/S0007123415000204 (accessed 23 May 2016).
- 35. Gschwend and Zittel, 'Do Constituency Candidates Matter'; Pattie and Johnston, 'Party Knowledge and Candidate Knowledge'.
- 36. Beyond the tense used in the questions, there were no differences between the pre- and post-election surveys. The original question translates as 'Do you remember the name and party affiliation of one or more electoral candidates in your constituency which stand for election at the Federal Election on 22 September 2013? Please, tell me the name as well as his or her party affiliation.'
- 37. S. Holmberg, 'Candidate Recognition in Different Electoral Systems', in H.D. Klingemann (ed.), *The Comparative Study of Electoral Systems* (Oxford: Oxford University Press, 2009), pp.58–70; Norris, *Electoral Engineering*.
- 38. As there is no valid equivalent to R2 values in non-linear multi-level set-ups, we calculated the ROC value for our model which basically looks at sensitivity and specificity values of estimations under varying cut-off conditions. See C.E. Metz, 'Basic Principles of ROC Analysis', Seminars in Nuclear Medicine 8/4 (1978), pp.283–98. The model results in an ROC value of .88 which represents a very good model fit.
- 39. In non-linear models, these probability changes depend on the values of all other independent variables in the model. Moreover, because we run a hierarchical model, they are also dependent on the cluster-specific intercepts. We decided to calculate the average marginal effect setting all other independent variables to their empirical mean controlling for the unequal size of clusters. For both higher levels in our model, the intercept variances are estimated with a mean of zero. We used this feature by estimating the average marginal effects for the 'average' citizen in the 'average' constituency represented by random intercepts of zero on both levels.
- 40. See A. Gelman, 'Scaling Regression Inputs by Dividing by Two Standard Deviations', *Statistics in Medicine* 27 (2008), pp.2865–73. Rescaling by two standard deviations makes a one-unit change of non-binary variables comparable to the effect of binary predictors. He also suggests subtracting the mean before the division. However, this is only necessary if a model includes an interaction which is not the case here.
- 41. Gschwend and Zittel, 'Do Constituency Candidates Matter'.

TABLE A1
VARIABLE DESCRIPTION AND MEASUREMENT

Variable name	Description	Measurement
Pre- and post-election su Dependent variable	urveys ^a	
Candidate recognition	Respondents were asked to report all names and party affiliations of candidates of the CDU/CSU, SPD, FDP, the Left and the Greens running in their district.	Dummy; 1 = candidate recognised, 0 = otherwise
Voters' characteristics		
Representational norm: own voters in district	Respondents were asked how important it was for them that an MP represents her voters in the district.	Dummy; 1 = very important, important, 0 = otherwise
Representational norm: all citizens in district	Respondents were asked how important it was for them that an MP represents all citizens in the district.	Dummy; 1 = very important, important, 0 = otherwise
Party like-dislike	Respondents were asked to rate all parties on a like-dislike scale.	11-point scale; 1 (strongly dislike) to 11 (strongly like)
Political interest	Respondents were asked to report their degree of interest in politics on a five-point scale.	Dummy; 1 = very strong, strong, 0 = otherwise
Political knowledge	Respondents were asked two questions about the electoral system applied in Federal Elections (threshold to win seats based on the proportional tier and which of the two ballots is more important for the electoral result).	Sum score; 0 (no correct answer) to 2 (both questions answered correctly)
Reading local newspaper	Respondents were asked about their media consumption, including a question on whether they read a local newspaper.	Dummy; $1 = yes$, $0 = no$
Discuss politics	Respondents were asked whether they discuss political issues with family members, friends or colleagues.	Dummy; $1 = yes$, $0 = no$
Voters' campaign exposu	re	
Campaign contacts	Respondents were asked to report all party-specific campaign contacts during the campaign. All in all, contact via 14 different means and instruments (ranging from e-mails to	Sum score of all means and instruments per party; 0 (no contact) to 14 (contacted via all means and instruments)
Proximity to election	canvassing) were measured. This indicator measures the absolute distance to the election date (22 September 2013)	Continuous measure in weeks rescaled so that low values indicate larger distance to election; $min = -13.14$, $max =14$

Continued

TABLE A1 CONTINUED.

Variable name	Description	Measurement
Candidate surveys ^b Candidates' characteris	stics	
Candidate profile	Respondents were asked whether they ran in the 2009 Federal Election and whether they won a seat.	Categorical measure; 1 = did not run in 2009, 2 = ran without winning a seat in 2009, 3 = successful campaign in 2009
Residence	Respondents were asked whether they were living in the constituency they were running in.	Dummy; $I = yes$, $0 = no$
Endorsement	Respondents were asked whether they were publicly endorsed by an organisation (e.g. trade unions, religious organisations or clubs).	Dummy; $1 = yes$, $0 = no$
Candidates' campaign	efforts	
Time	Respondents were asked how much time they spent for campaigning per week during the last month before the election.	Continuous measure in days; min = .08, max = 7
Team	Respondents were asked about the size of their individual campaign team.	Continuous measure; min = 0, max = 150
Money	Respondents were asked how much money they spent for their individual campaign.	Continuous measure in €1000; min = 0, max = 120
Campaign diversity	Respondents were asked to report all different means and instruments they used for their campaign.	Sum score of all means and instruments; 0 (no use of campaign means and instruments) to 20 (use of all campaign means and instruments)
Campaign style	Constructed variable to measure the campaign style in terms of classic and postmodern means and instruments.	Two sum scores were constructed, one for classic and one for post-modern means and instruments. Due to the different number of items used to construct the two scales, we rescaled both to values from 0 to 1. Campaign style is measured as the difference between classic and postmodern means and instruments; high values indicate the usage of more classic means and instruments; -1 (sole usage of postmodern means and instruments) to 1 (sole usage of classic means and instruments)
Campaign focus	Respondents were asked about the focus of their campaign in terms of attracting as much attention as possible to themselves or to their party	11-point scale; 1 (focus on party) to 11 (focus on candidate)
Local topics	Respondents were asked whether they emphasised any local topic during their campaign	Dummy; $1 = yes$, $0 = no$

Continued

TABLE A1 CONTINUED.

Variable name	Description	Measurement
Media access	Respondents were asked how often they featured in the media during the campaign on a five-point scale	Dummy; 1 = very often, often, 0 = otherwise
Contextual information ^b		
Party popularity	This variable measures party popularity as the average vote share (proportional ballot) of the 2009 and 2013 constituency result in percentage points	Continuous measure; min = 3.07, max = 55.2
Effective number of electoral candidates	This variable measures the effective number of electoral candidates based on the constituency ballot using the Laakso and Taagepera formula. ^c Only the electoral results for the CDU/CSU, SPD, FDP, the Left and the Greens are taken into account. Averages were calculated of the values for 2009 and 2013	Continuous measure; min = 2.17, max = 4.97
Population density	This variable measures population density in 1000 inhabitants per square kilometre for each constituency	Continuous measure; min = 38, max = 12842.9

Sources:

^aRattinger et al., *Vor- und Nachwahl-Querschnitt (Kumulation) (GLES 2013).*^bRattinger et al., *Kandidatenstudie 2013. Befragung, Wahlergebnisse und Strukturdaten (GLES).*^cSee M. Laakso and R. Taagepera, "Effective" Number of Parties: A Measure with Application to West Europe', *Comparative Political Studies* 12/1 (1979), pp.3–27.