

# Local policy preferences, competing principals, and strategic candidate ambiguity

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## Abstract

This paper investigates the notion that the content of candidate communication is strategic and thus predictable. Candidates are subject to multiple principals, most importantly to party headquarters and the local electorate. If the preferences of both principals conflict, candidates cannot voice policy positions without upsetting at least one of the two. It is argued that when candidates are faced with a communicative environment where the principals' preferences are not aligned, they are likely to voice ambiguous policy positions. The empirical evidence stems from a vote advice application of German candidates during the federal election of 2013. Based on the user inputs to the vote advice application, it is possible to generate preference estimates regarding individual policy proposals in the 299 electoral districts. The data also contain the structured policy positions of nominal candidates on a range of issues. The results indicate that there is indeed a systematic effect of the principals' preferences on candidate communication, in that non-aligned preferences increase the probability of ambiguous candidate statements.

Keywords: *Vote advice applications; Small-area preferences; Competing principals; Candidates; Germany*

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It is a central notion of modern political behavior that actors are strategic. Political actors systematically react to pressures, generating non-random behavioral patterns. The present paper argues that this argument can be extended to political communication, which is similarly constrained. Observing the pressures that operate on political actors, it is possible to make predictions regarding the *content* of actor statements, specifically the content of campaign communication. Building on the notion of competing principals (Carey, 2007, 2009), it is argued that candidates have to take the preferences of voters and party headquarters into account when voicing their policy profile on the campaign trail. Candidates are hard pressed to state their issue positions if their principals' preferences are not aligned. Faced with conflicting preferences, they should remain ambiguous in their policy positions in order not to upset either of their principals.

The argument is put to the test with empirical evidence from a vote advice application of German candidates for the *Bundestag* that was collected during the 2013 federal election campaign. The data contains structured policy positions of nominal candidates on a range of policy statements, allowing a large-n analysis of candidate communication. The data also contains evidence on the policy preferences of German voters. In a large-scale data collection project, all user inputs to the platform were recorded along with information on the district of origin. Voters were also invited to participate in a supplemental survey in order to collect, *inter alia*, their sociodemographic status in order to correct for imbalances in the data due to self-selection into the sample. Applying a model for estimating small-area policy preferences, the information can be used to produce a detailed account of issue preferences in the German electoral districts.

The paper thus makes two important contributions. First, it provides a unique data set on the policy preferences of German electoral districts. Two, it generates new insights into the behavioral incentives of candidates faced with principals that are of opposing mind. The work also speaks to a recent effort of scholars who have begun to investigate the benefits of vote advice application to study political behavior (Debus and Faas, 2013; Talonen and Sulkava, 2011). This paper hints at further uses of vote advice applications to capture small-area policy preferences and to analyze strategic communication in electoral campaigns.

# 1 Competing principals and ambiguous candidate position-taking

Ambiguous position-taking has long been recognized as an important feature of political communication. In his seminal work, Downs argues that it can be rational for political parties to take unclear stances in order to improve their electoral fortunes (Downs, 1957, 136). He suggests that there are conditions when keeping the voter guessing will raise a party's appeal by not alienating potential voters with unpopular positions. Relying on this insight in strategic non-position-taking, much scholarly attention has been devoted to delineating these conditions. In line with the Downsian legacy, research on the topic has remained predominantly formal (e.g., Alesina and Cukierman, 1990; Aragonès and Postlewaite, 2002; Aragonès and Neeman, 2000; Callander and Wilson, 2008; Chu and Niou, 2005; Dellas and Koubi, 1994; Glazer, 1990; Laslier, 2006; Shepsle, 1972).

The formal models typically invoke a situation where candidates select a position on an ideological scale, along with some distribution to express the public's uncertainty associated with the position. Little can be derived from these accounts on the specific conditions that make single ambiguous issue positions more or less likely. The shortfall of the formal models on ambiguous communication stems from their vague conceptualization of ambiguity. Lacking a proper definition of ambiguous behavior, it is difficult to make the theoretical contributions applicable for empirical research.

Ambiguity is an ambiguous concept. The literature frequently treats ambiguity as self-evident and invokes the term without clarifying what it entails. Ambiguity is in fact a multi-dimensional concept that needs to be explicated. It is possible to differentiate at least two dimensions of ambiguity – the *form* of ambiguity and the *scope* of ambiguity. Regarding *form*, ambiguity can come in the guise of a non-statement on a particular policy. Silence on an issue is often considered the quintessential form of ambiguous behavior as it leaves the voter with little to no information for making inferences on the candidate location in the ideological space. Nevertheless, ambiguity can also refer to vagueness when political actors make reference to an issue without providing any details on what goals they want to pursue or which measures they intend to take (Shepsle, 1972, 555). Making specific claims on both sides

of an issue is yet another, distinct form of ambiguity. Political actors generate uncertainty in the electorate on their policy ideals by voicing mutually exclusive points of view (Chu and Niou, 2005, 282).

In terms of *scope*, previous scholarship has focused predominantly on broad, ideological scales (e.g., Alesina and Cukierman, 1990; Aragonès and Neeman, 2000; Callander and Wilson, 2008; Rovny, 2012; Somer-Topcu, 2015). Ambiguity on ideological scales are rather a function of the receiver than of the sender as candidates can only remain ambiguous on single issues. Such *specific ambiguity* translates into uncertainty in the minds of voters about the candidate location in the ideological space. Distinguishing between ambiguity on specific statements and ambiguity on broad ideological scales, where the latter is a function of the former, illustrates the challenge of past research to generate specific predictions on factors that condition the probability of ambiguous candidate statements.

The empirical work on the subject of ambiguous candidate position-taking is comparatively underdeveloped. The most prominent strategy for measuring ambiguous candidate or party communication has been to assess it via the dispersion of candidate perceptions in voter surveys (Bartels, 1986; Campbell, 1983*a,b*; Rovny, 2012). The shortcoming of this measurement strategy is that it cannot investigate the causes of a wider or smaller distribution of location perceptions – non-statements, vague statements or contradicting statements. In fact, while several authors try to control for external factors, they cannot completely rule out the possibility that environmental factors influence the distributive properties of voter perceptions (Tomz and van Houweling, 2009, 86). Employing evidence from structured candidate policy positions, this study is thus one of the first to study candidate ambiguity as a sender-based property and also to consider ambiguous position-taking at the level of single policy proposals rather than on aggregated scales.

Parties in Western European democracies are the most important points of reference for candidates (Müller, 2000). They have numerous sanctioning mechanisms at their disposal to discipline renegade parliamentarians (Hazan, 2003; Sieberer, 2006). The party authority stems primarily from their influence on candidate nominations generally and on the drafting of electoral lists in particular. Moreover, parties are able to sanction legislators in daily parliamentary business, for example by withholding prestigious offices from unwieldy parliamentarians.

Candidates should thus align their communication with the preferences of party headquarters as an overly independent position-taking might backfire. From this perspective, the default for candidate communication should be to voice the policy positions of party headquarters.

The second important point of reference for candidate communication are the constituents. Candidates that run in majoritarian election systems should be careful not to voice policy positions that conflict with their voters. The observation that candidates are subject to multiple actors reflects the insights of the theory of competing principals (Carey, 2007, 2009). Carey argues that legislative behavior is a function of the cross-pressures that parliamentary actors are subject to, in this case the pressures from party headquarters and the electorate. The principal application of the theory is to explain legislative behavior (Carey, 2007; Faas, 2003; Hix, 2002; Lindstädt, Slapin and Vander Wielen, 2011; Sieberer, 2010, 2015; Tavits, 2010), but the propositions apply more generally. Candidates in majoritarian races are dependent on both types of actors and thus potentially face contradicting pressures when the principals' preferences are not aligned. Consequently, I hypothesize that faced with conflicting preferences, candidates are more likely to shirk in their position-taking in order not to upset either of their principals.

While the assertion is plausible that candidates take cues from preferences of party headquarters and voter preferences, it is not clear whether candidates in multi-party system take cues from the preferences of mean voters or rather from subsets of the electorate.<sup>1</sup> There is some evidence on the position-taking incentives in multi-party systems (e.g., Schofield, 2003, 2004), but the conditions for optimal policy profiles remain elusive and typically require auxiliary factors like candidate valences. This paper allows testing whether the mean voter preferences or preferences of subsets of the electorate influence candidate communication more greatly.

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<sup>1</sup>Although the candidate-constituency link was initially formulated for the median voter, the literature has focused on the position-taking effects of the preferences of the mean voter (e.g., Adams et al., 2006; Enelow and Hinich, 1982; Ezrow, 2011; Iversen, 1994; McKelvey and Patty, 2006; Schofield, 2007). In practice, there is little difference between the preferences of the median voter and the mean voter as long as voters' preferences are distributed symmetrically.

## 2 Candidates' policy positions and voter preferences

The principal data source for the research project stems from the vote advice application *Kandidatencheck* that was published by the website <http://www.abgeordnetenwatch.de> during the 2013 German federal election campaign. All nominal candidates were invited to take a survey and to indicate their policy positions on 24 items. The responses were made available in the form of a vote advice application, where voters could log on to the platform and take an identical survey to compare their policy preferences with the profiles of the district candidates. The response format of the survey was binary – agree/disagree –, but candidates could also label themselves as undecided on an item. Table 1 provides some statistics on the participation rates of nominal candidates in the survey, split up by all candidates (columns 2-4) and eventual parliamentarians (columns 5-7). The candidate coverage is fairly high, ranging from roughly between 80 percent to full participation. While there is no strong difference between all candidates and eventual parliamentarians in terms of participation, there is some variation by party. Christian Democrats were somewhat less likely to participate in the *Kandidatencheck* compared to candidates from left-leaning parties.

TABLE 1: Participation rates in *Kandidatencheck*

|           | Candidates |         |      | Parliamentarians |         |      |
|-----------|------------|---------|------|------------------|---------|------|
|           | Absolute   | Replied | %    | Absolute         | Replied | %    |
| CDU/CSU   | 299        | 242     | 0.81 | 290              | 234     | 0.81 |
| SPD       | 299        | 291     | 0.97 | 192              | 185     | 0.97 |
| FDP       | 298        | 253     | 0.85 | –                | –       | –    |
| Grüne     | 299        | 293     | 0.98 | 62               | 62      | 1.00 |
| Die Linke | 298        | 276     | 0.93 | 61               | 60      | 0.98 |
| Sum       | 1493       | 1355    | 0.91 | 605              | 541     | 0.89 |

The Table displays the participation rates in the *Abgeordnetenwatch* survey. Columns 2-4 display the participation rates among all nominal candidates, separated by party. Columns 5-7 display the participation rates among candidates that were successful in their electoral bids. The figures in column 5 are not identical to the sizes of the parliamentary party groups in the 18th *Bundestag* as the dataset only covers nominal candidates.

Selecting the undecided option is treated as an ambiguous policy position. Although this measurement does not match the concept of ambiguity perfectly, it does have several benefits. Potentially the greatest disadvantage is that candidate communication on a vote advice application is somewhat artificial compared to ambiguous position-taking on the campaign

trail where ambiguity can happen in numerous and subtle ways. Linked to this observation is the fact that an undecided position covers only one of several forms of ambiguous position-taking – a non-position. Conversely, the major advantage of the measure is that it allows capturing issue-specific and sender-based ambiguity.

The proposed measurement allows assessing candidate communication in a large-n analysis – something that is difficult to achieve otherwise. Among the few exceptions to this general rule are Milita, Ryan and Simas (2014) who hand-code candidate web appearances. Relying on hand-coding is fairly labor-intensive and the authors have to restrict themselves to two policy issues. Table 2 provides some summary statistics of the dependent variable in the research project.

TABLE 2: Summary of dependent variable

|            | Candidates   |             |             |              |             |
|------------|--------------|-------------|-------------|--------------|-------------|
|            | %            | Mean        | Min         | Max          | SD          |
| CDU/CSU    | 0.084        | 1.75        | 0.00        | 10.00        | 2.18        |
| SPD        | 0.040        | 0.97        | 0.00        | 8.00         | 1.56        |
| FDP        | 0.073        | 1.45        | 0.00        | 13.00        | 1.90        |
| Grüne      | 0.040        | 0.91        | 0.00        | 7.00         | 1.35        |
| Die Linke  | 0.017        | 0.39        | 0.00        | 7.00         | 0.88        |
| <b>Sum</b> | <b>0.048</b> | <b>1.07</b> | <b>0.00</b> | <b>13.00</b> | <b>1.67</b> |

The Table displays the relative frequency of ‘Undecided’ responses, separated by party. Column 2 presents the percentage of undecided responses across all statements and candidates from one party. Columns 3-6 display some candidate-specific statistics, the mean number of undecided responses (column 3), the minimum number of undecided responses (column 4), the maximum number of undecided responses (column 5) and the standard deviation (column 6). The bottom row presents the summary statistics for all parties. The figures were calculated after discarding observations where the party position was estimated to be ‘Undecided’ (see below on the estimation of the party position).

Inasmuch as this research considers structured choices for specific policy proposals, the data bears some resemblance to non-position-taking in the roll call world (e.g., Carson et al., 2004; Cohen and Noll, 1991; Rothenberg and Sanders, 2000). The difference between the two data sources, however, is that there are no immediate policy consequences at stake in position-taking on a vote advice application. Voicing a policy profile on a vote advice application is subject to fewer pressures from various interested parties. It is therefore a more natural form of candidate communication. The roll call based analysis that is most closely related to the interest of the present research is the work by Jones (2003). Relying on

survey evidence from interest groups that query MPs on their intended voting behavior on missed roll calls, the author can differentiate between explicit issue avoidance and accidental abstentions and can thus link constituency preferences and explicit issue avoidance.

This project assumes that a neutral position on a vote advice application signals a strategic unwillingness of the candidates to position themselves. It is possible, however, that the choice signals something other than strategic non-position taking. Instead, candidates might in fact be truly undecided on an issue or do not know what the policy proposal entails. This interpretation is unlikely for several reasons. One, the items on the vote advice application are selected to reflect some of the most salient aspects of the electoral campaign or the national political debate in the years prior to the campaign. Voters can thus reasonably expect candidates to have a position on these matters. Two, the items are formulated in a way to be accessible even to politically unsophisticated voters. It is therefore unlikely that candidates for the *Bundestag* would not be able to grasp the content of the policy statements. Three, and most importantly, candidates are provided with model responses from party headquarters. Thus, even absent any information on the issue in question, candidates could always rely on the fallback option of inputting the preferences of the party headquarters.

The central tenet of this paper is that candidate communication is dependent on both party headquarters and voters. To investigate the effect of diverging principals' preferences on the position-taking of candidates it is necessary to come up with estimates for the party position and voter preferences. The party position on each of the 24 items is captured from the candidate positions. Along with the structured response format, candidates could justify their selection with a short written statement. The model responses from the party headquarters also contain draft responses for the vote explanations. While many candidates disregard the model responses from party headquarters entirely, some do in fact copy both structured responses and written statements. Thus, whenever a specific written statement appears multiple times in the data, the statement was provided by party headquarters. The associated structured selection is treated as the party preference on the issue.<sup>2</sup>

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<sup>2</sup>It could not be verified in every instance whether it was the national party headquarter or one of the state-level party headquarters that provided the model responses. This is not too problematic, however, as the estimated party preferences coincide with the modal responses.

The second main variable for the ensuing investigation are the local voters' policy preferences. They were collected from the same data source as the candidates' policy profiles. In an extensive data collection effort, all user inputs to the *Kandidatencheck* were recorded. The data contains evidence on the policy preferences of roughly half a million voters along with geographic location on the same issues that candidates have positioned themselves on. After inputting their policy preferences, users were invited to participate in a supplemental questionnaire that collected information on the sociodemographic status of users, some additional policy preferences and the participants' vote intentions. Approximately 36,000 users of the *Kandidatencheck* have responded to the supplemental questionnaire. As the self-selected sample of users generates multiple imbalances regarding district coverage and sociodemographic status, the next section applies a recent model to estimate small-area policy preferences and correct for such imbalances.

### 3 Estimating the policy preferences of German electoral districts

There is a pronounced interest in the recent literature on the effects of small-area policy preferences on political outcomes (e.g., Gerber and Lewis, 2004; Kastellec, Lax and Phillips, 2010; Lax and Phillips, 2009*a*; Percival, Johnson and Neiman, 2009). Along with this research interest, several methodological contributions have recently attempted to estimate policy preferences of subnational geographical units (Ardoin and Garand, 2003; Berry et al., 2010; Brace et al., 2002; Lax and Phillips, 2009*b*; Park, Gelman and Bafumi, 2004; Rodden, 2010; Warshaw and Rodden, 2012). The principal challenge for estimating small-area policy preferences from survey data is the sparsity of the evidence on single electoral districts in ordinary-sized data sets.<sup>3</sup> While the data for the present analysis is comparatively large, there are two problems of the data source that need to be corrected for. One, there is a highly uneven coverage between the electoral districts.<sup>4</sup> Two, and more importantly, the self-selected sample leads to severe

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<sup>3</sup>One way to circumvent this problem in earlier contributions was to estimate ideological orientations of electoral districts from electoral results (Fleisher, 1993; Glazer and Robbins, 1985; Leogrande and Jeydel, 1997).

<sup>4</sup>In the extremes, the participation ranges from about 400 respondents in the district *Altmark* to more than 7,000 respondents in the district of *Berlin-Friedrichshain-Kreuzberg – Prenzlauer Berg Ost*.

imbalances regarding the sociodemographic status of the respondents. On average, the users are more male, younger, better educated and are more likely to vote for left-leaning parties.

Possibly the most wide-spread model in the recent literature on the small-area estimation of policy preferences is a multilevel model with poststratification (MRP; Gelman and Little, 1997; Park, Gelman and Bafumi, 2004; Warshaw and Rodden, 2012. In short, the multilevel component provides for a model averaging where the estimates for the less covered district are pulled towards the mean district preference. In the poststratification step, model predictions are generated for synthetic choosers, based on various combinations of sociodemographic markers. The small area preference estimates are generated by adding up the synthetic model predictions which are weighted by the actual frequency of the various combinations in the electoral districts.

The MRP model could be nicely applied to correct for the imbalances in the data at hand. However, the multilevel component of the model discards a lot of useful data that could inform the small-area estimates – the spatial interdependencies of the electoral districts. To include such information in a comprehensive model, Selb and Munzert (2011) have recently introduced a multilevel model that accounts for the spatial structure of the districts. Their model – along with a poststratification of the model outputs in the second step – will be applied here to perform the necessary estimations. The model assumes that an ‘Agree’ vote of respondent  $i$  in district  $j$  is given as

$$\Pr(y_i = \text{Agree}) = \text{logit}^{-1}(\alpha_{j[i]} + \phi_{j[i]}), \quad (1)$$

where  $\phi_j$  represents the constituency-specific deviation that is conditional on all other  $\phi_j$  in the immediate district neighborhood  $k \neq j$ .<sup>5</sup>

$$\phi_j | \phi_k \sim N \left( \frac{\sum_{k \neq j} w_{jk} \phi_k}{\sum_{k \neq j} w_{jk}}, \frac{\sigma_\phi^2}{\sum_{k \neq j} w_{jk}} \right) \quad (2)$$

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<sup>5</sup>All selections for the undecided category by the voters were discarded from the dataset. While the model could easily be extended to contain a third category, it is not obvious how the candidates’ position-taking calculus should be affected by a fraction of undecided voters.

$w$  in the above equation represents a  $J \times J$  adjacency matrix that takes on a value of 1 if a district  $k$  is a neighbor of district  $j$  and 0 otherwise. The district level model consists of a constant  $\alpha^0$ , a parameter for the logged district population density as well as a parameter for districts that were part of the former German Democratic Republic.  $v_j$  is a second, normally distributed district-level variance parameter that varies identically across all districts.

$$\alpha_j = \alpha^0 + \beta^{\text{density}} \log(\text{density}_j) + \beta^{\text{east}} \text{east}_j + v_j \quad (3)$$

$$v_j \sim N(0, \sigma_v^2) \quad (4)$$

As noted, beside the adjacency matrix for the spatial interdependencies, the model contains information on the population density and on districts in the former German Democratic Republic. Both parameters are estimated to improve the estimates of the district preferences. As rural and urban districts have markedly different preference profiles it is reasonable to include this parameter in order to downweigh neighborhood relationships between urban and non-urban districts. For similar reasons, districts in the Federal Republic of Germany (West) and the former German Democratic Republic (East) have had distinct politico-cultural trajectories in the recent past that are still observable in different policy preferences. Therefore, a neighborhood relationship between an Eastern and a Western district does not carry the same information as the neighborhood relationship between two districts from the same part of Germany. An alternative to estimating these additional parameters would be to modify the adjacency matrix. However, there is no obvious value to set the neighborhood relationships between such districts to – it is neither plausible to set neighborhood relationships between urban and rural or Eastern and Western districts to 0, as their preferences are not completely independent either. Nor is it plausible to set them to some arbitrary value between 0 and 1. Thus, estimating two dedicated parameters seems a cleaner solution to the problem.

To perform the poststratification of the estimates, several parameters are added to the model, capturing the sociodemographic variables that are used as weights. Specifically, the gender, age, education and vote intentions are included in the model.<sup>6</sup>

$$\Pr(y_i = \text{Agree}) = \text{logit}^{-1}(a_{j[i]} + \beta^{\text{male}} \text{male}_i + \beta^{\text{age}} \text{age}_i + \beta^{\text{edu}} \text{edu}_i + \beta^{\text{vote}} \text{vote}_i + \phi_{j[i]}) \quad (5)$$

It was argued that candidates in a multi-party setting might be more inclined to take position-taking cues from supporters, rather than from the district mean. There are several options to adopt the model from the previous paragraph to estimate the preferences of the subconstituencies. One, preferences of sub-publics could be estimated by generating estimates from the full model. This would mean generating preference estimates from a model that contains information from users that should be disregarded. Two, the data set could be split up by party supporters from the start in order to estimate models with the subset of voters. Unfortunately, this latter possibility is impossible to implement as the data set is too small to contain enough information to generate estimates for the minor parties in the party system.

Instead, it was decided to estimate the policy preferences of supporters of parties in either of the two ideological camps, i.e. supporters of right-wing parties in one model and supporters of left-wing parties in another. This choice has both a technical and theoretical appeal. Technically, it is preferable to base the estimates of the subconstituency only on voters from one ideological camp. Moreover, estimating preferences in one ideological camp provides enough data points in order to generate reasonable estimates and avoid too much smoothing due to data sparsity. Theoretically, it is plausible that candidates would not want to position themselves exclusively with regard to their own core voters but to extend their appeal beyond their core constituency while also not going to the extreme of taking cues from the overall median voter in the district.

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<sup>6</sup>The district baseline for the poststratification is provided by the Federal Electoral Officer. The age variable is set to five brackets – 18-25, 25-35, 35-60, 60-75, and 75+. Education is split into four categories – no education, Hauptschulabschluss, Realschulabschluss, Abitur and better.

## Schooling

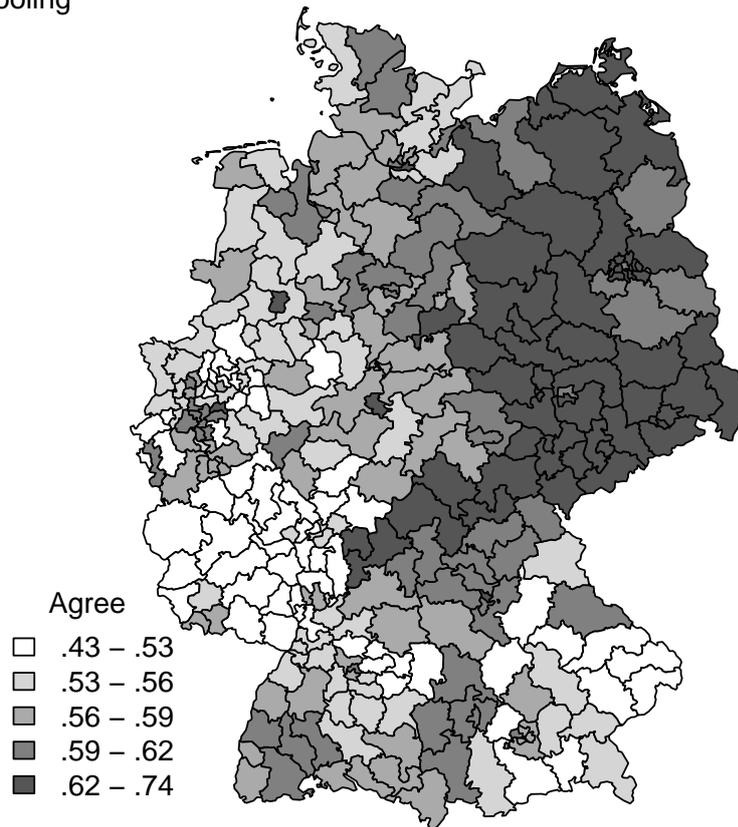


FIGURE 1: The figure displays the geographic distribution of responses among the participants to the item "Children should attend a common school – regardless of their origin and abilities." ["Kinder sollen grundsätzlich an einer gemeinsamen Schule unterrichtet werden – unabhängig von ihrer Herkunft und ihren Fähigkeiten."; translation D.N.]. Darker shades represent greater agreement with the item. The shadings were computed by calculating the relative agreement to the statement in the districts. The 299 values were broken into five evenly sized quantiles and shaded by membership to the groups.

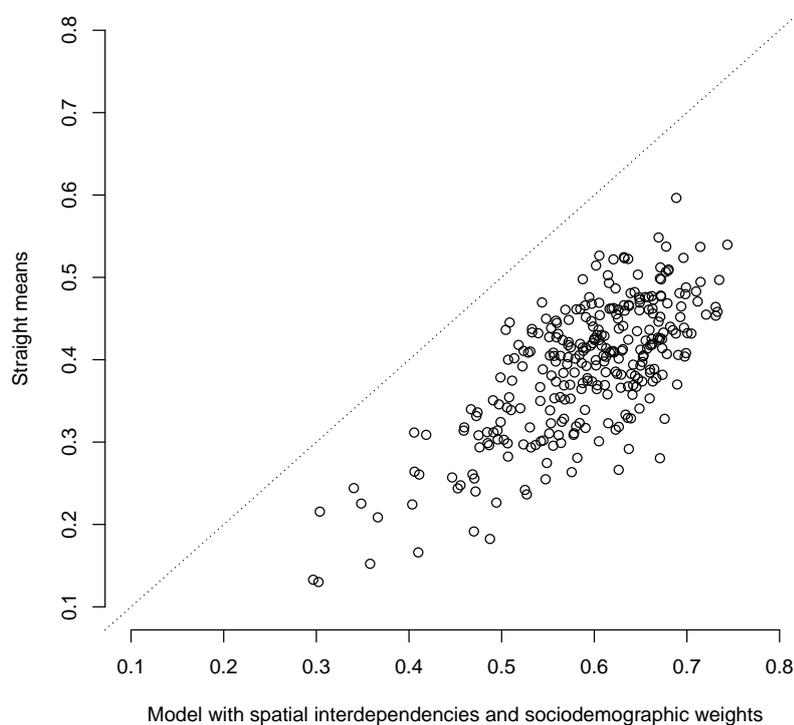


FIGURE 2: The figure displays the shift in the policy preferences of the electoral districts that is due to modeling the responses and weighting the predicted probabilities with the sociodemographic population parameters. The underlying data are the responses to the question on highway construction – “More money should be spent on highway constructions.” The x-axis displays the model predictions the y-axis displays the straight means from the complete data set.

As an example, Figure 1 presents the estimates from the full model after poststratification on one of the items in the data set. The policy statement read “Children should attend a common school – regardless of their origin or abilities”. The figure displays the estimated agreement with the item in the German electoral districts. The estimates were split up into five equally sized quantiles and shaded according to membership in the five categories. Darker shaded districts are estimated to exhibit a higher level of agreement with the item. The ordering of the districts are in line with prior expectations. Districts in the former German Democratic Republic (East) are estimated to be more favorable toward the item compared to districts in the borders of the former Federal Republic (West). Similarly, there tends to be a somewhat higher estimated agreement with the item in urban compared to rural districts. The districts that are least favorable to common schooling are those in the south-west (Rhineland-Palatinate) and South-East of Germany (Southern Bavaria).

Figure 2 displays the shifts that are introduced into the district preference estimates by applying the hierarchical model with spatial interdependencies and poststratification of the results for the item on highway construction which read “More money should be spent on highway construction”. The x-axis displays the estimates from the model; the y-axis displays the estimates when considering the straight means. Broadly speaking, the rank-ordering of the districts remains comparable after outputting and poststratifying the model estimates. However, there is a distinct shift toward greater agreement across all the districts. This effect is due to the upweighting of older, less educated and more conservative voters. Having generated estimates for the small-area preferences of German voters, the next section now turns to the question how these influence candidate (non-)position-taking.

## 4 Candidate position-taking under conflicting principals’ preferences

To estimate the effects of conflicting principals preferences, several hierarchical logit models were run where the binary candidate choice – ambiguous position or unambiguous position – is explained by the preferences of the party headquarters and the voters’ small area preferences.<sup>7</sup> The 24 candidate responses are nested in candidates.<sup>8</sup> Furthermore, I include party fixed effects in order to control for party idiosyncrasies and the incumbency status of candidates as a proxy for the familiarity of candidates with the issues. Although familiarity with the issues should not greatly influence candidate position-taking on the vote advice application (see section 3), I control for incumbency to exclude this possibility.

Table 3 presents the results from three such models. Model 1 includes the district preference – measured as the predicted agreement with the item – and the binary party position along with the incumbency status of the candidate. While the district preference is positively and significantly associated with the probability of making an ambiguous statement, the effect size is substantively small. There is no effect at all of the straight party position

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<sup>7</sup>Estimations were performed using version 1.0-5 of the lme4 package in R (Bates, 2005).

<sup>8</sup>There is a second obvious grouping factor – candidate responses could also be grouped into questions. The difference between the modelst that are displayed here and the cross-classified models are minor. I therefore opt to only display the simpler models with only one grouping level.

TABLE 3: Hierarchical logit models – Small-area preferences (Group: candidate)

|                                    | <i>Dependent variable:</i> |                      |                      |
|------------------------------------|----------------------------|----------------------|----------------------|
|                                    | Ambiguous position         |                      |                      |
|                                    | (1)                        | (2)                  | (3)                  |
| District agreement                 | 0.354***<br>(0.120)        | 1.921***<br>(0.178)  |                      |
| Supporter agreement                |                            |                      | 2.202***<br>(.156)   |
| Party: Agree                       | 0.062<br>(0.062)           | 1.753***<br>(0.155)  | 2.372***<br>(0.144)  |
| Incumbent                          | -1.041***<br>(0.119)       | -1.033***<br>(0.118) | -0.989***<br>(0.120) |
| Party: Agree * District agreement  |                            | -3.078***<br>(0.255) |                      |
| Party: Agree * Supporter agreement |                            |                      | -4.224***<br>(0.234) |
| (Intercept)                        | -2.528***<br>(0.135)       | -3.531***<br>(0.164) | -3.653***<br>(0.151) |
| Observations                       | 30,050                     | 30,050               | 30,050               |
| Log Likelihood                     | -5,228                     | -5,152               | -5,073               |
| Akaike Inf. Crit.                  | 10,473                     | 10,324               | 10,167               |
| Bayesian Inf. Crit.                | 10,548                     | 10,407               | 10,250               |

*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01  
Party fixed effects omitted from the table

on the probability of an ambiguous candidate position. Conversely, there is a negative and significant effect of the candidate incumbency status on position-taking behavior. We must thus conclude that candidate familiarity does in fact allow candidates to come up with a less ambiguous response to the policy statements.

Model 2 displays the same model with an interaction between the party and district preference. Now both indicators display a significant positive association with the probability of making an ambiguous statement while the interaction effect is strongly negative. Substantively then, if there is high agreement with an issue in the district and party headquarters also agree, there is a low probability of making an ambiguous statement due to the interaction effect. Similarly, if there is a high disagreement with a statement and the party headquarters also signal disagreement, candidates are predicted to make an unambiguous statement. If, however, there is disagreement between the two principals, the probability of an ambiguous candidate statement increases sharply.

The overall district preferences are replaced with the supporter preferences in model 3. There is a slight increase in the parameter sizes for the voter and party preferences. Particularly the interaction effect is notably greater in model 3 compared to model 2. The indicators of model fit indicate that the supporter preferences yield a better alignment of the model with the supporter preferences relative to those with the district preferences. Therefore, it has to be concluded that candidates do in fact take greater position-taking cues from supporters in their own ideological camp compared to the mean voter in the district. As will be elaborated in the next section, it cannot be ruled out that observing candidates taking greater position-taking cues from supporters rather than from district mean is driven by candidate misperception rather than to strategic considerations.

Figure 3 visualizes the elaborations from the previous paragraphs. It displays the predicted probability of an ambiguous candidate position from model 3 in table 3 across a range of values in the supporter agreement variable.<sup>9</sup> The solid line displays the predictions if the party agrees with a policy statement. As the supporter agreement moves from 0 to 1, the predicted ambiguity decreases from a little over 20% to approximately 5%. Thus, candidates do not fear to voice a clear position if their principals' preferences are aligned. Conversely,

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<sup>9</sup>Predictions were made for a non-incumbent Christian Democrat.

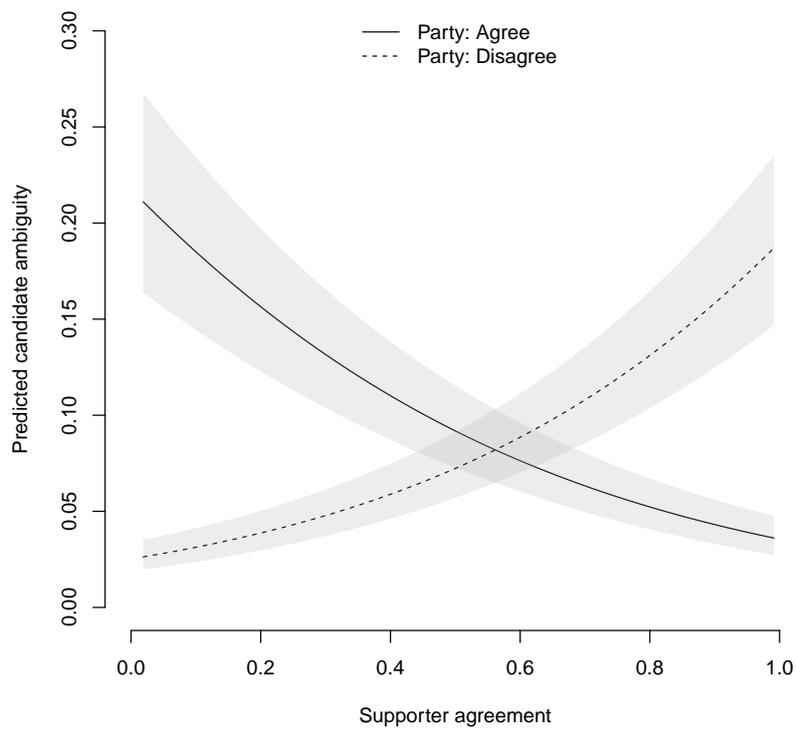


FIGURE 3: The Figure displays the predicted ambiguous candidate position-taking from model 3 in Table 3. The continuous line represents the predictions for candidate position-taking when the party agrees with a statement across a range of supporter preference values. Higher values mean greater agreement among supporters. The dashed line represents the predictions when the party disagrees. Both lines display the predictions for a non-incumbent Christian Democrat. The shaded areas represent the uncertainty around the point predictions. The uncertainty calculations only take into account the uncertainty of the fixed effects.

the dashed line displays the predictions if the party disagrees with a statement. Mirroring the previous comments, as the supporters increasingly agree with the statement, there is an increasing probability for the candidates to make an ambiguous statement.

## 5 Conclusion

Candidates are strategic when voicing positions. Faced with diverging preferences of multiple principals, candidates are hard pressed to communicate a policy profile without upsetting either of their principals (Carey, 2007, 2009). Candidates are thus well advised to shroud their policy positions in public statements. This research introduced an excellent data set to trace the position-taking calculus of candidates. Relying on information from a vote advice application, it is possible to generate evidence on the policy positions of most nominal rank-and-file candidates that ran for the German *Bundestag* in the federal elections of 2013. This study is therefore one of the first to be able to run a large-n analysis of sender-based ambiguity on individual policy proposals. Moreover, the vote advice application also yielded a rich data set on the policy preferences of German voters, along with their district of residence. This enabled the research to trace the links between candidate position-taking and voter preferences, by applying a recent method for estimating small-area preferences (Selb and Munzert, 2011).

Substantively, the research found that candidates are indeed more likely to voice ambiguous policy positions when their principals' preferences are increasingly not aligned. Moreover, it could be shown that candidates are more likely to position themselves with regard to sub-constituencies rather than with regard to the mean voter in the district. One aspect that could not be dealt with in this research was the question whether this greater reliance on the preferences of supporters is truly a strategic choice brought about by the multi-party competition or whether the position-taking is rather due to candidate misperceptions of voter preferences. Candidates typically attend numerous events in their electoral districts. During such events, they are more likely to come into contact with supporters than with the general electorate, for example in meetings that are organized by the local party. As Bayesian updaters, it is conceivable that candidates increasingly shift their perceptions

of the mean voter preference toward the mean supporter preference. This would suggest that candidates try to align their communication with the mean voters in the districts, but fail to individuate their true positions. One way to assess the degree of misperception in the candidate placements of voters in future research would be to query candidates in an additional private survey on their perceived location of the mean voter and mean supporter in their district. This would allow researchers to assess factors that drive misperceptions in the candidates' minds.

An increasing number of vote advice applications have been employed in recent electoral campaigns to inform voters about their choices (Cedroni and Garzia, 2010; Wagner and Ruusuvirta, 2012). Scholars have recently begun to investigate the possibility to apply them in empirical research on political behavior. The most important aspects of such research focuses on estimating party and candidate positions from vote advice applications (Debus and Faas, 2013; Talonen and Sulkava, 2011) and on the electoral effects of vote advice applications on electoral choices (Fivaz, Pianzola and Ladner, 2010; Ladner, 2012; Schultze, 2012; Schultze and Marschall, 2012; Walgrave, van Aelst and Nuytemans, 2008). This paper has provided some additional insights on how vote advice applications could be employed in future research to investigate the linkages between position-taking of political actors and voter preferences.

As the arguments on the effects of competing principals on the behavior of political actors are more generally applicable, it should be possible to make similar observations in other electoral campaign. Specifically, other vote advice applications could be employed to test the arguments that were put forth here. One necessary condition for the arguments to hold is that candidates need to be tied to a local electorate. This is to say that it should not be expected that the effect hold in pure list systems. In the latter circumstance, the dominant communication strategy for candidates should always be to align their communication with the preferences of party headquarters. Taking a broader perspective, the evidence in this research indicates that the theory of competing principals – which, so far, has been applied mostly to candidate behavior (Faas, 2003; Hix, 2002; Lindstädt, Slapin and Vander Wielen, 2011; Sieberer, 2010, 2015; Tavits, 2010) – is applicable more broadly and even covers the content of political communication.

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