



ARTICLE

# The Two Faces of Party Ambiguity: A Comprehensive Model of Ambiguous Party Position Perceptions

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## Abstract

Recent research on electoral behavior has suggested that policy-informed vote choices are frequently obstructed by uncertainty about party positions. Given the significance of clear and distinct party platforms for meaningful representation, several studies have investigated the conditions under which parties are perceived as ambiguous. Yet previous studies have often relied on measures of perceived positional ambiguity that are fairly remote from the concept, casting doubt on their substantive conclusions. This article introduces a statistical model to estimate a comprehensive measure of perceived ambiguity that incorporates the two principal factors: non-positions and positional inconsistency. The two-faces model employs issue perceptions in an item response framework to explicitly parametrize the perceived ambiguity of party positions. The model is applied to data from the Chapel Hill Expert Survey and subsequently associated with party characteristics that drive perceptions of party ambiguity. The results suggest that (a) there are notable differences between the proposed and competing measures, highlighting the need to be mindful of the intricacies of political information processing in research on perceptions of ambiguity and (b) involuntary ambiguity might be an underexplored explanation for unclear party perceptions.

**Keywords:** party positions; party perceptions; ambiguity; Chapel Hill Expert Survey; IRT

Elections are the principal mechanism in modern democracies for ensuring that governmental behavior reflects public preferences. The ideal of effective representation requires that citizens can choose between parties with clear and distinct policy profiles. This allows voters to select the competitor who best approximates their preferences. In practice, the standards of democratic theory and the responsible party model in particular are frequently violated: when party positions are perceived as vague, citizens are unable to evaluate the policies that parties might enact after the election, which risks misrepresenting citizens' interests.

Given the value of clear policy profiles for effective representation, it is not surprising that a number of studies have investigated the conditions under which party positions are perceived as vague. Previous research has frequently suggested that ambiguous position taking can be traced back to strategic behavior (Page 1976; Page 1978; Somer-Topcu 2015; Bräuninger and Giger 2016), where parties are assumed to deliberately blur their preferences in order to increase their electoral appeal, not least by exploiting common errors in voter information processing (Laslier 2006; Jensen 2009; Aragonès and Postlewaite 2002; Alesina and Holden 2008). To be sure, ambiguous position perceptions need not result from strategic party behavior, but can just as easily occur without intent, for example when different party factions voice inconsistent preferences, or when party messages are not amplified by the mass media. From the perspective of normative democratic

theory, it is rather inconsequential whether voters are unable to make policy-informed electoral choices because parties are not able or not inclined to communicate their preferences clearly.

While the recent emphasis on ambiguous party profiles reflects a valid concern in spatial models of politics, empirical research on the perceptual aspect of ambiguous position taking has often employed measures of positional ambiguity that are fairly remote from the concept. Scholars have frequently relied on the variability (Campbell 1983a; Campbell 1983b; Somer-Topcu 2015) and missingness of party placements on single-issue scales in surveys (Bartels 1986; Berinsky and Lewis 2007), or a combination of the two (Rozenas 2013). This article argues that a comprehensive measure of perceptual ambiguity should explicitly incorporate the two principal factors driving perceptual ambiguity – non-positions and positional inconsistency. This can be accomplished by inferring ambiguity perceptions from party placements on multiple issues. To trace this idea methodologically, we introduce an item response model that links latent policy platforms to perceived issue positions and explicitly parametrizes the ambiguity of policy platforms. The model thus yields party positions along with explicit estimates of perceived party ambiguity.

We apply the model to the Chapel Hill Expert Survey (Bakker et al. 2015), and obtain estimates for twenty-four European party systems for the years 2006, 2010 and 2014. A comparison with previous ambiguity measures demonstrates notable differences between direct survey questions and the proposed measure, highlighting the need to be mindful of the intricacies of political information processing in research on perceptions of ambiguity.

## The Perception Of Party Positions

### *Two Faces of Party Ambiguity: Non-Positions and Inconsistent Positions*

The foundational model of modern political analysis holds that political actors compete by advancing policy positions, and that voters select the alternative that best coincides with their own preferences (Downs 1957). Taking this model of political behavior as a point of reference, a number of contributions have questioned the extent to which this highly stylized account approximates political competition in the real world (Stokes 1963; Petrocik 1996; McDermott 1998). One dissenting point of view has been that, given ambiguous position perceptions, voters frequently face substantial uncertainty regarding the ‘correct’ choice from a spatial perspective.

Questioning the clarity of party positions and the resulting inability of voters to individuate the preferences of political actors is far from a mere academic exercise as it addresses a fundamental problem for the performance of democratic institutions. One of the central stipulations of the responsible party model requires that parties offer distinct – that is, *clear* and *unique* – policy platforms for voters to choose from (Ranney 1954; Castles and Wildenmann 1986); Adams 2001). While the divergence of policy platforms is a classic point of contention in the literature on party competition, positional ambiguity has only recently come into more widespread focus.

Even though the clarity of policy positions has received much less attention than competitive position taking, positional ambiguity has been an undercurrent in the literature since Downs (1957). Downs (1957, 136) argues that under certain conditions it can be advantageous for political actors *not* to take a position on some issues in order to avoid alienating potential voters. In line with this insight into strategic obfuscation, a number of contributions have attempted to delineate the conditions that make an unclear position appealing to parties. Various scholars have tried to link political elites’ position taking with voter preferences. For instance, several studies have provided evidence that dispersed voter preferences are associated with ambiguous position taking (Campbell 1983a; Jones 2003). In a similar vein, uncertainty about voter preferences (Glazer 1990), as well as gaps between the preferences of voters and political elites (Campbell 1983b; Milita, Ryan and Simas 2014) should lead political actors to voice more ambiguous policy profiles. Ambiguity can also be a viable communication strategy if it successfully exploits errors in voter information processing (Laslier 2006; Jensen 2009; Aragonès and Postlewaite 2002; Alesina and Holden 2008).

These accounts suggest that political actors consciously affect the clarity of their platforms by varying the level of precision in their campaign messages. In its most fundamental form, this can come in the guise of a non-message that provides voters with no information on party preferences. In a more subtle variant, parties can refer to an issue without specifying their intended course of action (Shepsle 1972, 555). Both variants can be subsumed under the heading of a *non-position* as one of the driving factors of ambiguous party perceptions. In addition to non-positions, several authors have argued that parties as collective actors can project ambiguous images if multiple individuals voice contradicting or *inconsistent* preferences (Bernauer and Bräuningner 2009; Gabel and Scheve 2007; Kam 2009, ch. 2).

While the literature has predominantly taken a strategic perspective on party positioning in the tradition of Downs, both faces of perceived ambiguity can be explained as *voluntary* or *involuntary*. Non-positions need not represent a conscious attempt on the part of parties to shirk, but they may result when party messages are not picked up and amplified by the mass media, such that the public simply does not receive available party messages. Likewise, inconsistent position taking can be an active party strategy to reach broader strata of the electorate, but it can also be an unintended consequence of different party factions battling over the direction of the party on an open stage.<sup>1</sup>

Both voluntary and involuntary explanations can plausibly lead to perceptions of party ambiguity, and we are agnostic as to whether one dominates the other. Instead, we are interested in the notion that both mechanisms – non-positions and inconsistent positions – are important, but distinct factors that explain the clarity of party position perceptions. Therefore, in order to assess perceived party ambiguity comprehensively, a measurement strategy should be mindful of both of these mechanisms.

Before moving on to discuss how party messages relate to perceptions of party positions, we wish to say a word about terminology. As the previous paragraph highlights, there are different messaging strategies and communication contexts that can increase or decrease the clarity of party positions. Since we are interested in a comprehensive sense of the uncertainty associated with perceived party positions, we employ ambiguity as a shorthand to indicate the overall uncertainty associated with party position perceptions.

### *Issue Messages and Platform Perceptions*

Having established the two main factors underlying ambiguous party perceptions, we now consider how party messages relate to public perceptions of party platforms. At a fundamental level, the public should make inferences about parties' ideological locations based on policy signals. This is to say that parties emphasize specific policies that allow voters to pinpoint their positions on latent scales. The relationship between specific policy messages and perceptions of latent party positions is crucial for analyses of perceptual ambiguity, as most research is interested in a comprehensive sense of party ambiguity – not least to reflect the many formal accounts on the subject, which have typically considered uncertainty on latent scales (Shepsle 1972; Chu and Niou 2005; Dellas and Koubi 1994; Laslier 2006; Aragonès and Neeman 2000). This article aims to generate a measure of perceptual ambiguity that integrates party perceptions on multiple issues into a comprehensive indicator, where the ambiguity measure should reflect both *non-positions* and *inconsistent positions*.

As a precursor, we expand on our notion of ambiguous party perceptions, which we define as the uncertainty associated with the latent party position. At the same time, parties only

<sup>1</sup>Although the discussion focuses on party perceptions, similar arguments can be advanced for individual actors. For instance, Chu and Niou (2005) point to the case of Taiwanese presidential candidate Lee Teng-hui who took specific, but mutually exclusive positions on the issue of unification with the Chinese mainland when speaking to different audiences, creating uncertainty among observers about his policy stance.

disseminate signals at the level of individual issues to the electorate. Therefore, the level of uncertainty regarding the latent party position should be considered an aggregate measure of the clarity of messages at the level of single issues. Given the aim of estimating a comprehensive measure of perceptual ambiguity, the uncertainty associated with the latent party position should capture both faces of ambiguity.

The extent to which perceptions of party platforms depend on campaign messages is subject to ongoing debate (Adams et al. 2011; Seeberg, Slothuus and Stubager 2017). Recent experimental research by Fernandez-Vazquez (2019) shows that party statements shape recipients' perceptions of parties' policy stances. Therefore, although observers are neither able nor willing to engage with all policy messages that parties issue during a campaign, the exposure to policy messages can shape perceptions. A subset of the received messages allows observers to form an idea about party preferences in a specific policy field. Based on the notion that policy preferences are systematically related via a low-dimensional latent space, a signal allows observers to infer party preferences in other policy fields (Enelow and Hinich 1982). For instance, a party message on an environmental policy would give observers a good sense of the party's environmental policies, but it would also enable observers to make a reasonable guess about its immigration policies. Therefore, a single policy message suffices to pinpoint a party's spatial location.

Two points are crucial in this abstract account of processing policy messages. First, more messages generally mean better inferences, with regard to both specific policies and latent ideological spaces. Making inferences from a message on environmental policies to party preferences on immigration matters is subject to considerable uncertainty, such that receiving an additional message on immigration policies dramatically increases observers' ability to pinpoint party preferences regarding immigration. Likewise, multiple messages from different policy fields allow observers to form an ever-clearer sense of where a party is located in the latent ideological space. Secondly, inferences are more error prone for some parties than for others. When parties' issue preferences are well aligned with conventional latent conflict spaces, making an inference from one policy field to another is easier than when their issue preferences do not align along conventional conflict dimensions – the problem of inconsistent policy preferences outlined above.

Moving from this rather stylized account of political information processing to processing political information in the real world, we should note that observers differ both in terms of their ability and willingness to process policy signals (Zaller et al. 1992). Hence, some observers not only process considerably more policy signals, but they are also able to draw more value from the signals they receive. We disregard individual differences in the ability to process policy signals, as our focus is not individual party perceptions but the aggregate perception of parties across observers. This is to say that, above and beyond individual differences in political information processing capabilities, parties systematically differ in terms of their ability or willingness to create an information environment that allows observers to pinpoint them in the ideological space.

Consider how these ideas might be reflected in the perceptual ambiguity of several typical cases. Single-issue and niche parties ordinarily do not voice preferences on all issues that make up the political discourse. Hence, while voters will have a clear understanding of where niche parties stand on specific issues, their silence on issues that are not vital to their platform will impede voters' ability to perceive these parties on a latent scale. In a similar vein, new party system entrants might struggle to receive media coverage, leading to uncertainty among the public regarding their issue stances. Both of these observations are best described as flowing from non-positions, voluntarily in the former and involuntarily in the latter case. By contrast, anti-system parties that voice issue stances inconsistent with conventional political conflict should similarly be perceived as more ambiguous. In these cases, however, the perceived ambiguity stems from the inability of observers to infer the latent party position from inconsistent policy signals.

The proposed conception of latent party position perceptions follows standard conventions in the literature (Enelow and Hinich 1981; Bartels 1986). Latent positions are characterized by a belief distribution over the latent scale, such that party platforms differ in both expectation

and variance. Two parties can hold the same position, but vary in their level of ambiguity. Parties' issue positions are directly linked to latent ambiguity. Unclear or conflicting issue stances result in increasing uncertainty regarding the latent party position, generating noise when observers try to extrapolate the party platform.

### Existing Measures Of Perceived Ambiguity

Existing measures of ambiguity perceptions are based on survey respondents' placements on single-issue scales. One strategy is to employ the variation of party placements on specific issues as an indicator of ambiguity. For example, Somer-Topcu (2015) uses the perceptual agreement score proposed by van der Eijk (2001) of parties' left-right placements to assess their broad-appeal strategies. Campbell (1983b) uses the standard deviation over a range of issues to study the effects of ambiguity on voting. Another line of research has employed survey respondents' non-responses as indicators of the uncertainty associated with the party position. Berinsky and Lewis (2007) followed Bartels (1986) and modeled *Don't know* answers as a function of sociodemographic characteristics to predict voter uncertainty about party positions.

Rozenas (2013) recently proposed a method to combine both sources, variability and missing values, to infer ambiguity from survey data. To capture variability, his model accounts for different item functioning between respondents by extending the scaling procedure introduced by Aldrich and McKelvey (1977) and interpreting the remaining variability as one source of ambiguity. The second source is integrated by modeling the missing entries as a function of ambiguity.

Importantly, all existing measurement approaches rely on placements on single-issue scales, which begs the question to what extent they capture the two faces of ambiguity. Therefore, we outline a statistical model in the next section which combines perceptions on a set of issues into a comprehensive measure of perceptual ambiguity.

### Statistical Model

Our statistical model of perceived ambiguity is based on a particular link between latent policy platforms, along with associated ambiguity, and position perceptions on single issues. In accordance with common latent space models in political science (Clinton, Jackman and Rivers 2004; Martin and Quinn 2002; Jessee 2009; Poole 1998), the position of party  $k \in (1, \dots, K)$  on issue  $j \in (1, \dots, J)$  by observer  $i \in (1, \dots, N)$  is expressed as a function of the policy platform  $x_k$ , a discrimination parameter of the policy-issue  $\beta_j$  and an issue-specific difficulty parameter  $\alpha_j$ :

$$y_{ijk}^* = \alpha_j + \beta_j x_k + \epsilon_{ijk}. \quad (1)$$

We further assume that party ambiguity, denoted as  $\eta_k$ , influences the magnitude of the stochastic error:<sup>2</sup>

$$\epsilon_{ijk} \sim N(0, \eta_k^2) \quad (2)$$

As most survey items ask observers to place parties on ordered rating scales, we rely on a variant of a rating scale model, where the observed scales are ordinal.<sup>3</sup> Respondents are expected to place party  $k$  in category  $t \in (1, \dots, T)$  if its position  $y_{ijk}^*$  on issue  $j$  is above a certain threshold  $\tau$ .

<sup>2</sup>It is possible to specify more general error variances by assuming that the error term further depends on the product of observer- and item-specific error variances (Hare et al. 2014):  $\epsilon_{ijk} \sim N(0, \eta_k^2 \sigma_j^2 \sigma_i^2)$ . As we focus on the magnitude of the party-specific ambiguity parameters, we employ a model variant where the other error variances are set to 1.

<sup>3</sup>Andrich (1982); Samejima (1969). The rating scale model relies on issue scales with identical numbers of categories. It is straightforward to extend the model to incorporate different numbers of categories per issue (Quinn 2004).

The observed outcome  $y_{ijk}$  is given as:

$$y_{ijk} = \begin{cases} 1 & \text{if } y_{ijk}^* < \tau_1 \\ t & \text{if } \tau_t < y_{ijk}^* < \tau_{t+1} \\ T & \text{if } y_{ijk}^* > \tau_T, \end{cases} \quad (3)$$

where the thresholds are placed under the ordering constraints  $\tau_1 < \dots < \tau_t < \dots < \tau_T$ . The probability that a respondent will place a party into a specific category on a specific issue can be derived analogously to the normal ogive version of the graded response model (Fox 2010, 14):

$$\Pr[y_{ijk} = 1] = \Phi\left[\frac{\tau_1 - \beta_j x_k - \alpha_j}{\eta_k}\right] \quad (4)$$

$$\Pr[y_{ijk} = t] = \Phi\left[\frac{\tau_t - \beta_j x_k - \alpha_j}{\eta_k}\right] - \Phi\left[\frac{\tau_{t-1} - \beta_j x_k - \alpha_j}{\eta_k}\right] \quad (5)$$

$$\Pr[y_{ijk} = T] = 1 - \Phi\left[\frac{\tau_T - \beta_j x_k - \alpha_j}{\eta_k}\right], \quad (6)$$

where  $\Phi(\cdot)$  is the normal cumulative distribution function. Note that the probability is determined by the party platform  $x_k$  and the ambiguity term  $\eta_k$ . Higher values of the party platform increase the likelihood that an observer will place a party into a higher category (assuming positive  $\beta_j$  values), whereas higher values in the ambiguity parameter decrease the impact of the party platform on placements, leading to more variance in perceptions.

The model thus allows for a stochastic interpretation of the two sources of ambiguity. Ambiguity can increase the level of disagreement between observers because of vague or non-positions, but also render a party's position less consistent with the latent scale for two reasons. First, a party with an unambiguous latent position should exhibit less variation in its perceived issue positions relative to a party with an ambiguous platform. Since ambiguity decreases the impact of the latent party position on the placement probability in a specific category, the likelihood that two observers will place a party in a similar category decreases for parties with a higher estimated ambiguity parameter. Secondly, the weaker relationship between a party's platform and issue positions due to increasing ambiguity makes issue stances less constrained by the underlying dimension. Consequently, a left-leaning party with a high ambiguity parameter might hold unexpected right-wing positions on immigration.<sup>4</sup>

It should be noted that the ambiguity conception expressed in the model goes well beyond the disagreement among raters. If our research interest lay only in the placement variability, it might be reasonable to rely on one of the more conventional ambiguity metrics (see previous section), such as the standard deviation of party placements. The ability to incorporate both factors at the same time distinguishes the model from competing metrics, ensuring a more comprehensive sense of party ambiguity.

We would also like to highlight our core interest in the model. Although our arguments speak to individual party perceptions, and although we employ individual-level data, our research focus is at the party level. We are interested in the perceived ambiguity associated with the parties as

<sup>4</sup>The second mechanism works in a similar way to unpredictable voters in ideal point analyses (Lauderdale 2010), where a higher error variance term makes ideal point estimates less predictive of vote choices. Our model differs from Lauderdale's (2010) as it considers multiple perceived positions on single issues, such that the error term can further capture the first source of ambiguity – disagreement among observers.

expressed in a single, comprehensive ambiguity parameter per party. From the focus on the perceived party ambiguity and the question of whether these party-level parameters differ between parties, it follows that individual perceptual idiosyncrasies and measurement errors at the individual level are less of a concern for our purposes. The estimated ambiguity parameters would only differ from 1 when the individual party placements follow patterns – that is, when placements are systematically more or less dispersed or when raters systematically choose more or less consistent placements.

In order to obtain parameter estimates for the model, we rely on a Bayesian estimation framework. It is well understood that the one-dimensional rating scale model as presented above is not identified (Fox 2010). First, the *location* of the metric needs to be fixed. This is achieved by transforming the difficulty parameters to have a mean of zero. We further place informative standard normal priors on the thresholds  $\tau_j \sim N(0, 1)$ , the untransformed difficulty parameters  $\hat{\alpha}_j \sim N(0, 1)$  and the platforms  $x_k \sim N(0, 1)$ . The standard normal priors help to identify the *scale* of the metric. To further identify the scale, we transform the discrimination parameters at each iteration  $m$  of the sampling scheme to have a product of 1. We do the same for the ambiguity term. This product constraint is similar to the strategy employed by Lauderdale (2010) to identify heteroskedastic error variances in item response models. It implies that the ambiguity estimates can only be interpreted relative to the other parties. Parties with values above 1 exhibit more ambiguous positions compared to those with values below 1. If all parties were subject to similar levels of ambiguity, the ambiguity term would be equal to 1 for all. The *direction* of the scale is defined by transforming all issues such that higher values indicate liberal positions, and by forcing all discrimination parameters to be positive using a log-normal prior  $\hat{\beta}_j \sim LN(0, 1)$ . For the untransformed ambiguity parameters  $\hat{\eta}_k \sim LN(0, 1)$ , we use the same prior distribution. We simulate the model using a No-U-Turn sampler as implemented in Stan (Hoffman and Gelman 2014; Carpenter et al. 2017).

## Simulation Study

This section tests whether the proposed model recovers plausible ambiguity estimates that reflect both mechanisms leading to ambiguous party perceptions: ambiguity due to non-positions and ambiguity due to inconsistent positions. We simulate data for three stylized scenarios to assess how distinct data generation mechanisms manifest in the ambiguity parameters. We randomly draw a series of party placements for a party system of six parties (A–F) on ten issues with an eleven-point scale each, ranging from 1–11. We simulate issue placements for thirty raters. For the clearly perceived parties, we simulate the issue placements using a normal distribution centered around a party-specific mean and a standard deviation of 1.5.<sup>5</sup> We run three variants for each scenario, where we replace one, two and three parties with ambiguous parties based on distinct data generation mechanisms.<sup>6</sup>

In the first – inconsistent – scenario, the issue perceptions for the ambiguous parties do not line up with the latent space. Specifically, we simulate issue placements for half of the issues by all thirty observers using a normal distribution with the ordinary party means (see footnote 7); the other half is simulated with draws from a normal distribution with means mirrored at the mid-point of the scale.<sup>7</sup> In the second – semi-vague – scenario, the issue perceptions for the ambiguous parties are drawn from a normal distribution with the ordinary means for half of the issues; the other half is simulated using a uniform distribution across the full range of the issue scales.

<sup>5</sup>We select parties with mean positions of 2, 3, 5, 7, 9 and 10 as a plausible scenario for a European multiparty system. The parties hold the same mean positions on all issues, which reflects an item response model in which the discrimination and difficulty parameters are the same for all items. The random draws are rounded to the nearest integer to mimic the actual empirical evidence.

<sup>6</sup>The parties to be replaced are Parties B, E and D.

<sup>7</sup>Half of the issues for Party B have a mean of 9, a mean of 3 for Party F, and a mean of 5 for Party D.

This scenario might be particularly fitting for the position perceptions of niche parties (Wagner 2012; Meyer and Wagner 2013; Meyer and Miller 2015). By focusing their efforts on a subset of issues, niche parties create reasonably clear perceptions of their positions on certain issues, while leaving observers in the dark for others. In the third – very vague – scenario, the issue perceptions for the vague parties are uniformly distributed for all issues.

Figure 1 provides the ambiguity estimates for the three scenarios. The model consistently recovers the ambiguous competitors in the party system – Party B in the scenario with one ambiguous party, Parties B and E in the scenario with two ambiguous competitors, and Parties B, E and D in the scenario with three ambiguous parties. Importantly, the model recovers the correct parties as ambiguous regardless of the specific underlying data generation mechanism, suggesting that the model picks up on both sources of party ambiguity.<sup>8</sup>

Note that we simulate the scenarios with comparatively few observations in order to stay as close as possible to the evidence underlying the empirical analysis presented below. Therefore, the distributions of the simulated issue perceptions are not smooth, such that the ambiguity parameters are not perfectly aligned within or across the scenarios. Consider as an example the ambiguity parameters for the non-ambiguous parties in the semi-vague scenario with one ambiguous party. Nevertheless, there is a clear difference between the nominally ambiguous and the non-ambiguous parties in each case. In sum, the results should strengthen our confidence in the model's ability to recover the different mechanisms that lead to ambiguous party perceptions.

### Party Positions In The Chapel Hill Expert Survey

The statistical model requires a set of raters who express their perceptions of parties' issue positions on comparable scales. While a general population survey with questions on party perceptions on multiple policy scales would be preferable, we rely on data from the Chapel Hill Expert Survey to ensure a sufficient number of issue placements. To infer from such an unrepresentative sample to party images among the general public, one would have to assume that expert perceptions are not systematically different from public perceptions, for instance when experts systematically disregard specific pieces of information that do not fit with their preconceived notions of party competition. But even without making any strong inferences from the expert survey to party perceptions among the general public, it is reasonable to assume that experts' inability to consistently locate certain parties in the ideological space suggests that the general public find it fairly difficult to determine their positions. It should also be reiterated that we are not interested in individual party perceptions but in aggregate perceptions of party positions, where observers systematically perceive some parties more clearly than others.

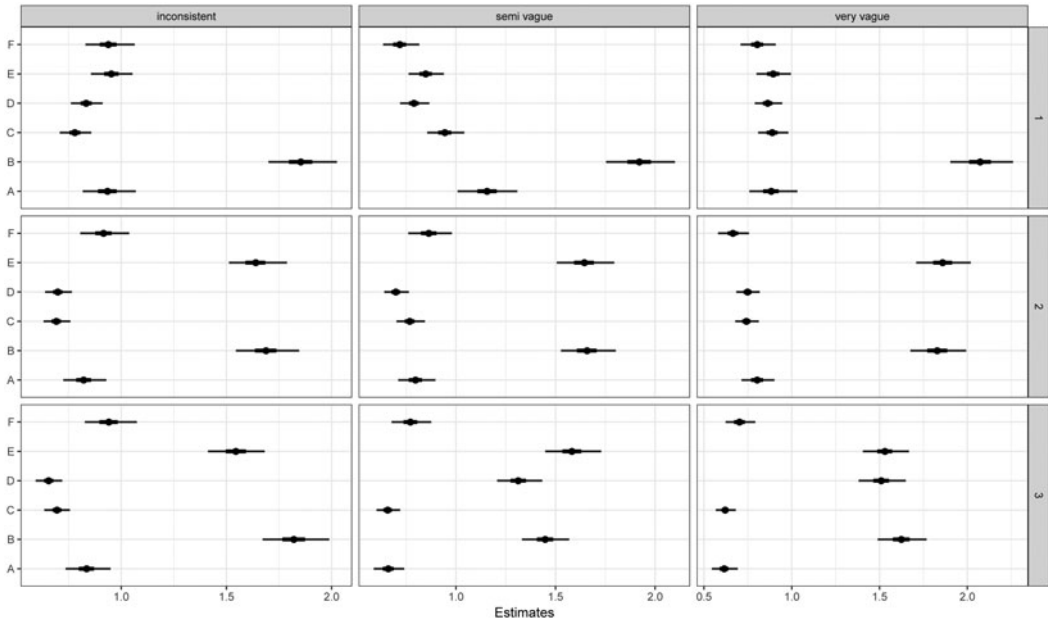
The Chapel Hill Expert Survey, fielded in the years 2006, 2010 and 2014, contains a battery of issue placements (Bakker et al. 2015). The items cover topics such as spending versus taxation, redistribution, immigration and the environment. There are eleven issues that are contained in all three waves.<sup>9</sup> An additional advantage of the Chapel Hill surveys is the possibility of running cross-country comparisons. The data include placements for 204 parties in twenty-four countries over the three time points.<sup>10</sup>

<sup>8</sup>The one exception to this general rule is the inconsistent scenario with three ambiguous parties (bottom left panel). While the model correctly identifies Parties B and E as ambiguous, it does not recover the ambiguity of Party D. This can be explained by the set-up of the models for the inconsistent scenario. We draw from a normal distribution with the ordinary party means for half of the issues and from a normal distribution with the mirrored mean value at the opposite end of the scale for the other half of the issues. Since the third ambiguous party in this scenario is centrist, mirroring the party position at the midpoint of the scale does little to increase the ambiguity of the party.

<sup>9</sup>The question wordings are provided in the online Appendix.

<sup>10</sup>We restrict our sample to parties that won at least 3 per cent of the popular vote in the previous election.





**Figure 1.** Ambiguity estimates from the simulation study.

Note: the figure depicts nine distinct scenarios. The column panels provide the estimates for the inconsistent scenario, the semi-vague scenario and the very vague scenario. The row panels vary the number of ambiguous parties in the party system.

The country experts, predominantly comprised of political scientists, were recruited by the project team on the basis of their case knowledge as evidenced by a political science PhD and their publication record. The majority of experts held a university position at the time of the survey.<sup>11</sup> Whereas the 2006 wave contains information from ten country experts on average for Western Europe and 8.4 experts from Eastern Europe with response rates of 51.3 and 35.7 per cent, respectively (Hooghe et al. 2010), the number of country experts has slightly increased in more recent iterations of the project (Bakker et al. 2015).

We estimate the model separately for each country-year combination, which allows us to identify variation across years and to analyze the stability of the estimates.<sup>12</sup> To gain a detailed understanding of the link between the data and the model results, we begin by discussing the estimates for the German party system in detail.

### *Party Platforms and Ambiguity in Germany*

The Chapel Hill Expert Survey contains information on the six major German parties – the Christian Democratic Union (CDU), the Social Democrats (SPD), the Free Democratic Party (FDP), Alliance '90/The Greens (GRÜNE), The Left (DIE LINKE) and the Christian Social Union in Bavaria (CSU). In addition, the expert survey asked respondents to place the emerging right-wing populist party Alternative for Germany (AfD) in the 2014 wave of the survey. The party system contains three catch-all parties – CDU, CSU and SPD – and four minor competitors – FDP, GRÜNE, DIE LINKE and AfD.

<sup>11</sup>Personal communication with the project team.

<sup>12</sup>We run four parallel chains with 3,000 iterations, discarding the first 1,500 as burn-in. We use random initial values, except for the discrimination and ambiguity parameters, which we initially set to 1. The chains converge relative quickly. All R-hat values are below 1.1, with effective numbers of parameter draws above 400.

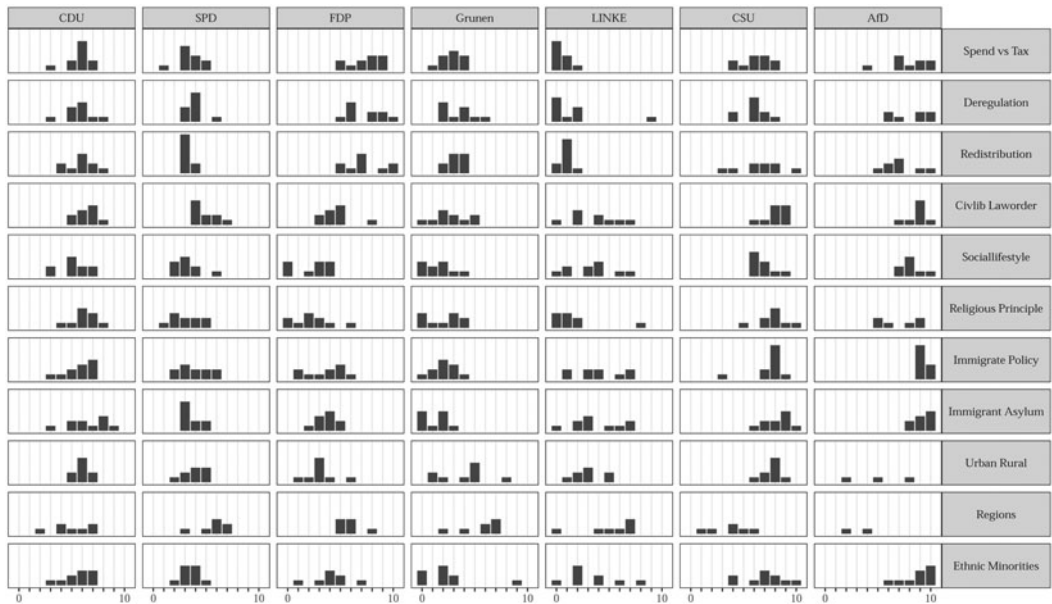


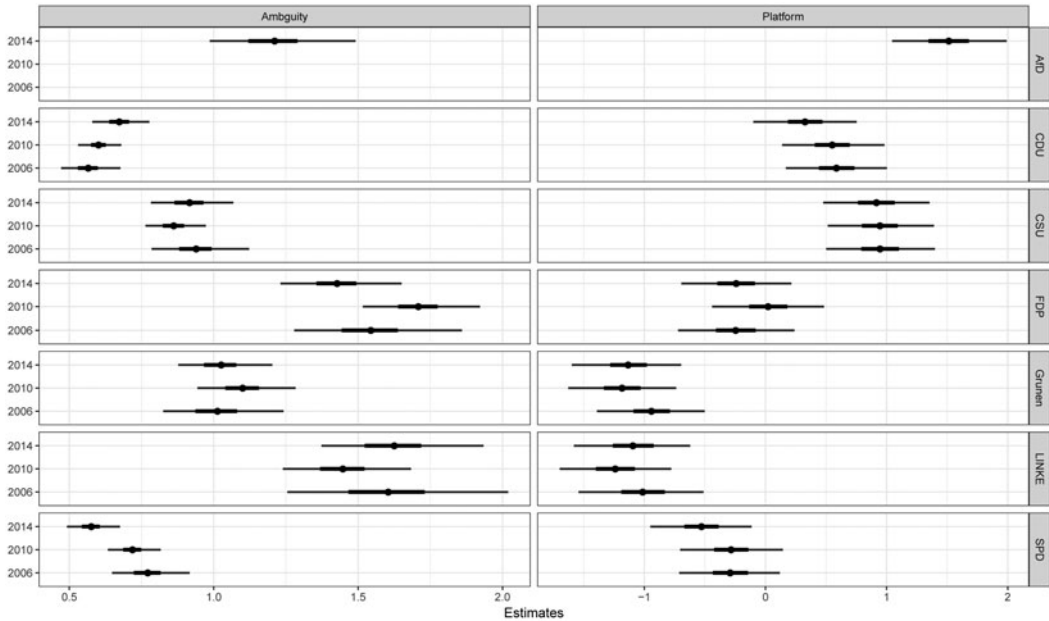
Figure 2. Party placements for Germany on eleven issues, Chapel Hill Expert Survey (2014 wave).

Note: the bars show the frequency with which experts have selected the categories. See the online Appendix for the question wordings.

The experts' issue placements for the 2014 wave are depicted in Figure 2. The placements tend to cluster around a common mean on most issues for the catch-all parties, while the smaller parties show more variation on some of the issues. For example, the perceived position of DIE LINKE on immigration issues varies considerably, as does the placement on religious principles for the FDP, or the Green Party on law and order. Yet the placements of the small parties are reasonably precise on single issues. For instance, there is little disagreement among experts with regard to the placement of DIE LINKE on issues like redistribution and taxation or for immigration policies in the case of the Greens. For the AfD, there is little uncertainty about their immigration policies, but strong disagreement on religious principles and redistribution. The clearest pattern can be observed for the CDU, for which the perceived positions scatter closely around a common mean. Similar distributions emerge for the SPD with little disagreement overall. Most issues reflect the parties' latent ideological positions such that, for example, DIE LINKE generally holds more economic interventionist positions than the FDP. Only the 'Regional' and 'Urban/rural' issues do not appear to discriminate well between the parties.

The non-systematic results are echoed when running the statistical model introduced above. The 95 per cent credible intervals from the posterior distribution of the ambiguity parameters for the three time points are provided in the left panel of Figure 3. The figure shows that the estimated ambiguity is larger for the small competitors GRÜNE, FDP, DIE LINKE and AfD than for the catch-all parties CDU, CSU and SPD. For instance, the FDP exhibits more than twice the level of ambiguity relative to the SPD and the CDU. What is more, the estimates appear relatively stable over time.

The right panels of Figure 3 provide the associated estimates for the latent position parameters. The order of the parameter values is in line with *a priori* notions of the German party systems. Specifically, the model discriminates well between the right-wing competitors – CDU, CSU and AfD – and their left-wing counterparts SPD, GRÜNE and DIE LINKE. As is common when employing a one-dimensional latent scale, the position estimate for the economically liberal FDP is in the center of the resulting space.



**Figure 3.** Party platform and ambiguity estimates for [Germany 2006, 2010 and 2014.

Note: the thick intervals represent the 50 per cent credible intervals; the thin lines indicate the 95 per cent credible intervals. The dots show the mean posterior draw.

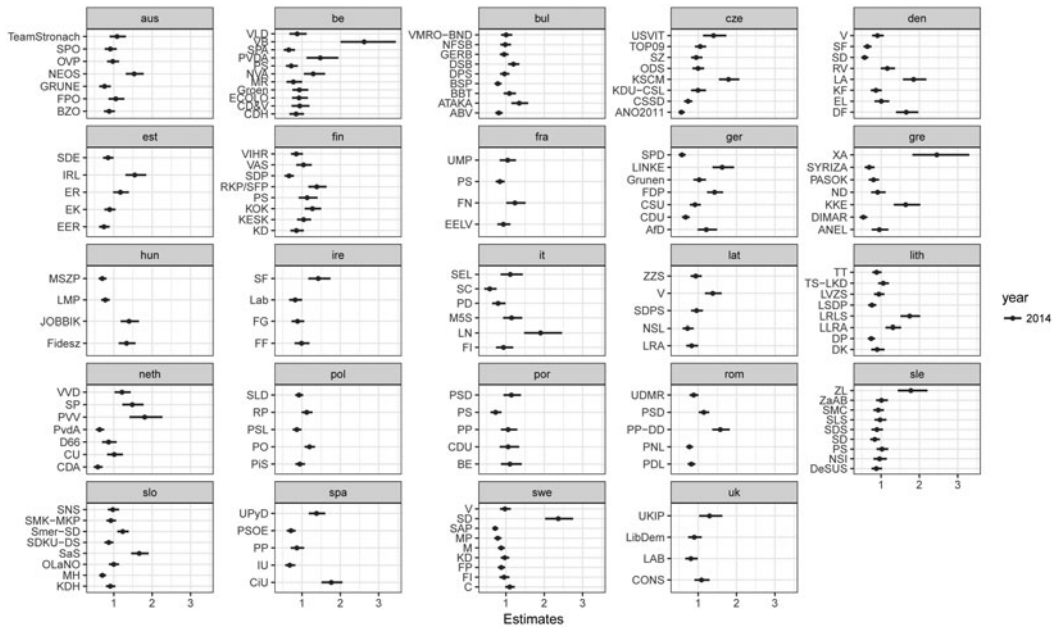
### Party Ambiguity in Twenty-Four European Party Systems

The ambiguity estimates for all twenty-four countries in the 2014 wave of the expert survey are presented in Figure 4.<sup>13</sup> The figure reveals a substantial amount of variation in most systems. Consider Belgium as an example, where the nationalist Flemish Interest exhibits the highest ambiguity parameter. Likewise, the Dutch right-wing and Eurosceptic Party for Freedom (PVV) stands out, as does Britain's UK Independence Party (UKIP), the French Front National (FN), the Sweden Democrats (SD), the Danish People's Party (DF) and Golden Dawn (XA) in Greece. But small left-wing and centrist parties frequently generate uncertainty regarding their platform as well. For instance, the Lega Nord (LN) in Italy, the Communist Party of Bohemia and Moravia (KSCM) in the Czech Republic, the People's Party for Freedom and Democracy (VVD), the Socialist Party (SP) in the Netherlands and the newly founded NEOS in Austria all exhibit comparatively large parameter estimates. Overall, these unsystematic findings echo the observation that smaller parties tend to be subject to higher degrees of ambiguity, as they generate more uncertainty regarding their positions on issues that are not at the heart of their platform.

### Comparison With Existing Measures

This section compares the model results with previous measures of perceived ambiguity. We first compare our measure to the disagreement among observers regarding party placements on a general left–right scale in the expert survey, both in the form of the standard deviation and

<sup>13</sup>The estimates for the 2006 and 2010 waves are presented in the online Appendix, along with the associated platform parameters.



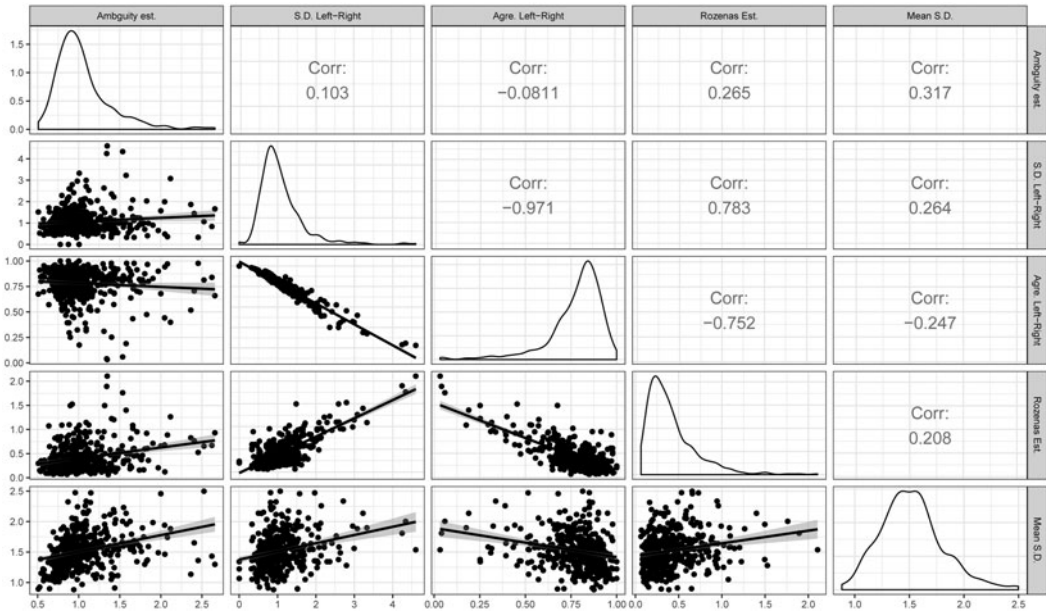
**Figure 4.** Party ambiguity in twenty-four European party systems estimated from the Chapel Hill Expert Survey (2014 wave). *Note:* the figure displays the mean estimates and 95 per cent credible intervals.

the agreement measure proposed by Van der Eijk (2001).<sup>14</sup> Figure 5 underscores that the revealed disagreement on such a latent dimension is fairly remote from our ambiguity measure. Both the standard deviation and Van Der Eijk’s agreement measure barely correlate with the model results. Figure 5 further suggests that the ambiguity estimate by Rozenas (2013) (see online Appendix), which additionally considers missing observations and different item functioning between the experts, is strongly correlated with the simpler standard deviation and the agreement measure (correlations of 0.783 and  $-0.752$ ), but barely resembles the comprehensive ambiguity measure (correlation of 0.265).<sup>15</sup>

The observed patterns suggest that disagreements on a single left–right dimension do not reflect uncertainty regarding party positions based on individual issues. Indeed, when comparing our measure to the average standard deviation across the issue-specific scales, the relationship is somewhat stronger compared to the variation on a single scale (correlation of 0.317). Our model thus partially picks up the average standard deviation across issues. But this is not the only factor that feeds into the measure. Recall that the comprehensive ambiguity measure not only reflects the uncertainty of the issue-specific placements, but also the degree to which these positions are inconsistent in terms of the latent scale. Whereas the proposed model accounts for this factor, averaging the standard deviations does not. In addition, due to the truncated scales, the standard deviations might systematically underestimate the variance for parties with extreme policy stances.

<sup>14</sup>Note that the interpretation of the agreement score is different from the other measures where higher values indicate less disagreement.

<sup>15</sup>We should stress that the comparison between our ambiguity measure and alternative measures that explicitly rely on a left–right scale are only valid to the extent that our latent space model recovers a left–right dimension as the latent conflict dimension. As our model enforces a one-dimensional ideological space, there is good reason to assume that most European party systems will fall along an overarching left–right dimension. Indeed, the discussion of the spatial parameters for the German case clearly indicated that the model recovered a conventional left–right axis from the issue placements. Empirically, the general left–right scale in the Chapel Hill data and the position estimates from our item response model are correlated at 0.850.



**Figure 5.** Correlation of the comprehensive party ambiguity measure with alternative measures

Note: the first row/column contains the proposed measure; the second row/column the standard deviation on the general left-right dimension; the third row/column the agreement score proposed by Van Der Eijk (2001); the fourth row/column the measure by Rozenas (2013; see online Appendix) the fifth row/column the mean standard deviation on the issue scales.

### Ambiguity And Party Characteristics

Having tentatively suggested some associations between the ambiguity estimates and party characteristics in the discussion of the German case, we now turn to a more systematic assessment of factors that might be related to ambiguous party perceptions. We consider *party size*, *party family*, *left-right orientation* and *government participation* as four potential determinants that are likely to guide public party perceptions. Larger parties, as well as those with a governing mandate, are awarded more media attention, such that their policy preferences should be more widely and more clearly known among observers (Hopmann, Vreese and Albæk 2011; Hopmann et al. 2012; Tresch 2009). By contrast, small parties should be adversely affected by insufficient media coverage of their issue messages. Party family and left-right orientation are included because fringe and niche competitors are likely to be perceived clearly on some issue dimensions, while creating substantial uncertainty among observers regarding their preferences on issues that are not at the core of their program. As an indicator of parties' left-right orientation, we employ the mean left-right placement in the Chapel Hill Expert Survey. As a proxy for party size, we include parties' logged vote share.<sup>16</sup> We begin by estimating a full model with all variables. The robustness of the results is probed by estimating two additional model variants that discard the parameters for party family and left-right orientation.

The first model in Table 1 provides the results of a regression analysis with the ambiguity parameters as the dependent variable.<sup>17</sup> Although the parameter for party size points in the expected direction – larger parties tend to generate less uncertainty among observers – the effect is not statistically different from zero in all model specifications. Likewise, governing parties are

<sup>16</sup>To check the construct validity of the proposed measure relative to the alternative measures, the same model is estimated for all five measures. The results are provided in the online Appendix.

<sup>17</sup>The model does not contain country-fixed effects. The substantive interpretation remains unchanged in a model variant with country-fixed effects.

**Table 1.** Predictors of party ambiguity

(Intercept)	1.65* (0.13)	1.60* (0.07)	1.04* (0.08)
log(Vote share)	-0.03 (0.02)	-0.06* (0.02)	-0.04 (0.02)
Government participation	-0.07* (0.03)	-0.08* (0.03)	-0.08* (0.03)
Left-right position	-0.27* (0.04)	-0.23* (0.03)	
Left-right position (squared)	0.03* (0.00)	0.03* (0.00)	
Party family: Radical Right	0.29* (0.09)		0.50* (0.09)
Party family: Conservatives	0.01 (0.08)		0.05 (0.08)
Party family: Liberal	0.20* (0.08)		0.19* (0.08)
Party family: Christian-Democratic	0.08 (0.08)		0.07 (0.09)
Party family: Socialist	-0.06 (0.08)		-0.04 (0.08)
Party family: Radical Left	-0.07 (0.10)		0.24* (0.09)
Party family: Green	-0.07 (0.09)		-0.04 (0.09)
Party family: Regionalist	0.31* (0.09)		0.34* (0.09)
Party family: Confessional	0.06 (0.14)		0.07 (0.15)
Party family: Agrarian	0.20* (0.10)		0.17 (0.10)
<i>N</i>	464	464	464
<i>R</i> <sup>2</sup>	0.38	0.29	0.30
adj. <i>R</i> <sup>2</sup>	0.36	0.28	0.28
Resid. sd	0.27	0.29	0.29

Note: standard errors in parentheses. Reference category for Party family: None.

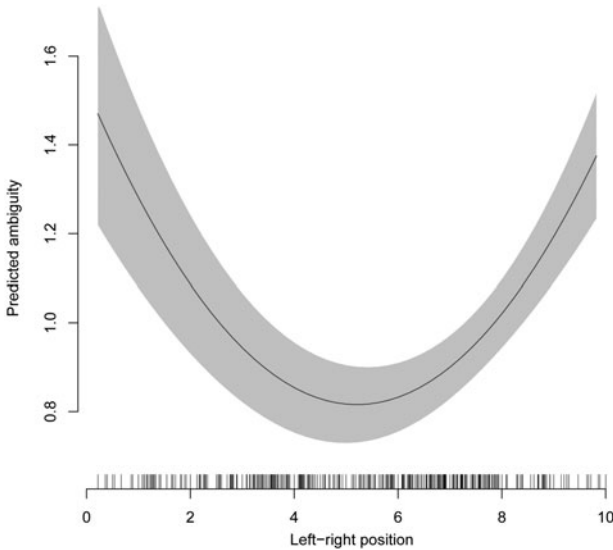
\*Indicates significance at  $p < 0.05$ .

plausibly estimated to be more clearly perceived than their opposition counterparts. Echoing the unsystematic observations from above, we find that parties in the radical right party family are among those with the highest ambiguity parameters. Similarly, regionalist and agrarian parties tend to be at the high end of the scale, which is in line with their niche status, such that observers might not be aware of their preferences on policies that are not at the core of their brand.<sup>18</sup> Finally, and in line with expectations, we find a reasonably strong association between parties' left-right stances and their perceived positional ambiguity. These results remain unchanged when running two model variants presented in Columns 2 and 3 of Table 1 where either the ideological position or the party family is excluded from the model. Figure 6 provides the predicted values for a governing party in the Conservative party family with a mean vote share across a range of values in the left-right scale based on the main model in Table 1. We find that centrist parties are considerably less ambiguous than extreme parties – above and beyond a control for party family.

## Conclusion

Informed vote choices presuppose voters' awareness of party preferences. Yet prior studies have often questioned whether this condition is met in the real world. Party positions are frequently subject to substantial degrees of ambiguity. Given the importance of clear policy stances for the performance of electoral institutions, a number of contributions have investigated the conditions and consequences of ambiguous policy profiles. We have argued that a measure of party ambiguity should do justice to the complexities of political perceptions. First, as perceptions measured by latent ideological scales are an aggregate indicator of issue-specific messages, a general measure of ambiguity should reflect the relationship between issue perceptions and latent party positions. Secondly, as there are two main mechanisms that drive public perceptions of party ambiguity – non-positions and inconsistent positions – a measure of perceptual ambiguity should reflect both mechanisms. To this end, we have introduced a novel model of ambiguity that applies an item response framework, while extending the common set-up with party-specific ambiguity

<sup>18</sup>A somewhat surprising deviation from the generally plausible patterns are the parameter estimates for liberal parties, which tend to generate more ambiguity among observers than expected. It is difficult to speculate about this empirical regularity without a more thorough analysis of liberal party profiles in contemporary European party systems.



**Figure 6.** Predicted levels of ambiguity.

Note: predictions for a governing party in the Conservative party family with a mean vote share across a range of values in the left-right scale. The gray area provides the 95 per cent confidence interval. The ticks on the x-axis represent the empirical values in the left-right variable.

parameters. This allows us to estimate the perceived party ambiguity comprehensively based on specific issue perceptions.

By applying the model to data for twenty-four European party systems, we have provided evidence that, *inter alia*, governing status is negatively related to perceptions of ambiguity. This might suggest that perceptions of ambiguity are determined by parties' limited ability to voice policy positions. As the mass media only provide limited space for political content, party actors are constrained in their ability to communicate their preferences. When parties can only send a limited number of position signals, this increases variation in the perceived ambiguity of their positions. The empirical results highlight a different mechanism than the dominant theme in the literature, which has treated ambiguous party positions as a conscious and strategic effort on the part of parties to increase their electoral support.

To be sure, while the empirical observations in this article have provided evidence that involuntary ambiguity might be an underexplored aspect of the story, this does not preclude the possibility that additional effects of voluntary ambiguity might be observable. Future research should make use of the fact that our ambiguity model permits a flexible parametrization of the ambiguity term that allows for different covariates to be explored. For example, several studies have suggested that voter preferences determine the level of ambiguity in party positions (Campbell 1983a; Jones 2003; Glazer 1990; Campbell 1983b; Milita, Ryan and Simas 2014). Future studies can easily incorporate voter preferences into the model, thus exploring more strategic determinants of ambiguity.

In addition to substantive applications, several methodological issues could be explored in future iterations of the model. First, it might be worthwhile to model missing expert placements, such that ambiguity not only affects the variance of expert placements, but also the missingness. If an issue position is unclear, an expert could decide not to report a position at all. This could be added to the model by making missing entries a function of the ambiguity term. If the variance lies above a certain threshold, experts are likely to report no party position. Two further topics that might be of interest are party-specific issue saliences and multidimensional policy spaces. Finally, future iterations of the model should aim to explicitly model the systematic between-country variation to account for different baseline levels of party ambiguity that might express themselves in the perceptions of the country experts.<sup>19</sup>

<sup>19</sup>A more systematic introduction to potential extensions of the model is provided in the online Appendix.

Taking a step back to re-evaluate the normative implications of our discussion, one might reasonably question how concerning voters' inability to perceive parties clearly is for vote choices and patterns of representation. For instance, we have observed that right-wing populist competitors generate a fair bit of uncertainty among observers with regard to their position in the latent ideological space. While many policy stances of right-wing populists might not be clear to observers, some issues will cause little disagreement. As many right-wing populist parties focus their efforts on the issue of immigration, this will generate little uncertainty about where these parties stand on the issue. Assuming that voters have a fairly imbalanced salience structure that only considers party positions on a few or even single issues, voters might find it sufficient to acquaint themselves with parties' immigration policies to make a reasoned vote choice.

At the same time, a comprehensive sense of parties' issue preferences is always preferable to an awareness of few issues to ensure that governmental policy best approximates voter preferences. Indeed, the economic preferences of right-wing populist parties are notoriously hard to pin down (Mudde 2007). Based on the finding that right-wing populist parties are frequently elected by the less educated, laborers and the unemployed (Werts, Scheepers and Lubbers 2013; Lubbers, Gijsberts and Scheepers 2002), one might be inclined to note a certain disconnect between an unclear economic profile of many right-wing populist parties that may or may not espouse redistributive policies and the objective economic preferences among their voter base. To be sure, individuals who vote for right-wing populist parties may not do so based on a desire for these parties to govern. Still, the example highlights the value of a clear policy profile to enable reasoned vote choices – a choice that at least gives voters the opportunity to take the full range of parties' policies into account.

**Supplementary material.** Data replication sets are available in Harvard Dataverse at: <https://doi.org/10.7910/DVN/4SRS4X> and online appendices at: <https://doi.org/10.1017/S0007123419000759>.

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## References

- Adams J** (2001) *Party Competition and Responsible Party Government: A Theory of Spatial Competition Based Upon Insights from Behavioral Research*. Ann Arbor: University of Michigan Press.
- Adams J, Ezrow L and Somer-Topcu Z** (2011) Is anybody listening? Evidence that voters do not respond to European parties' policy statements during elections. *American Journal of Political Science* 55(2), 370–382.
- Aldrich JH and McKelvey RD** (1977) A method of scaling with applications to the 1968 and 1972 presidential elections. *The American Political Science Review* 71(1), 111–130.
- Alesina AF and Holden RT** (2008) *Ambiguity and Extremism in Elections*. Working Paper 14143. Cambridge, MA: National Bureau of Economic Research.
- Andrich D** (1982) An extension of the Rasch model for ratings providing both location and dispersion parameters. *Psychometrika* 47(1), 105–113.
- Aragonès E and Neeman Z** (2000) Strategic ambiguity in electoral competition. *Journal of Theoretical Politics* 12(2), 183–204.
- Aragonès E and Postlewaite A** (2002) Ambiguity in election games. *Review of Economic Design* 7(3), 233–255.
- Bakker R et al.** (2015) Measuring party positions in Europe: the Chapel Hill Expert Survey trend file, 1999–2010. *Party Politics* 21(1), 143–152.
- Bartels LM** (1986) Issue voting under uncertainty: an empirical test. *American Journal of Political Science* 30(4), 709–728.
- Berinsky AJ and Lewis JB** (2007) An estimate of risk aversion in the U.S. electorate. *Quarterly Journal of Political Science* 2(2), 139–154.
- Bernauer J and Bräuninger T** (2009) Intra-party preference heterogeneity and faction membership in the 15th German bundestag: a computational text analysis of parliamentary speeches. *German Politics* 18(3), 385–402.
- Bräuninger T and Giger N** (2016) Strategic ambiguity of party positions in multi-party competition. *Political Science Research and Methods* 50(3), 1–22.
- Campbell JE** (1983a) Ambiguity in the issue positions of presidential candidates: a causal analysis. *American Journal of Political Science* 27(2), 284–293.



- Campbell JE** (1983b) The electoral consequences of issue ambiguity: an examination of the presidential candidates' issue positions from 1968 to 1980. *Political Behavior* 5(3), 277–291.
- Carpenter B et al.** (2017) Stan: a probabilistic programming language. *Journal of Statistical Software* 76(1), 1–32.
- Castles FG and Wildenmann R** (1986). *Visions and Realities of Party Government*. Berlin: de Gruyter.
- Chu CYC and Niou EMS** (2005) The strategy of ambiguity in electoral competition. *Academia Economic Papers* 33(3), 279–302.
- Clinton J, Jackman S and Rivers D** (2004) The statistical analysis of roll call data. *American Political Science* 98(2), 1–16.
- Dellas H and Koubi V** (1994) Smoke screen: a theoretical framework. *Public Choice* 78(3/4), 351–358.
- Downs A** (1957) *An Economic Theory of Democracy*. Cambridge: Cambridge University Press.
- Enelow J and Hinich MJ** (1981) A new approach to voter uncertainty in the Downsian spatial model. *American Journal of Political Science* 25(3), 483–493.
- Enelow JM and Hinich MJ** (1982) Ideology, issues, and the spatial theory of elections. *American Political Science Review* 76(3), 493–501.
- Fernandez-Vazquez P** (2019) The credibility of party policy rhetoric survey experimental evidence. *The Journal of Politics* 81(1), 309–314.
- Fox J** (2010) *Bayesian Item Response Modeling: Theory and Applications*. New York: Springer Science & Business Media.
- Gabel M and Scheve K** (2007) Mixed messages: party dissent and mass opinion on European integration. *European Union Politics* 8(1), 37–59.
- Glazer A** (1990) The strategy of candidate ambiguity. *American Political Science Review* 84(1), 237–241.
- Hare C et al.** (2014) Using Bayesian Aldrich-McKelvey scaling to study citizens' ideological preferences and perceptions. *American Journal of Political Science* 59(3), 759–775.
- Hoffman MD and Gelman A** (2014) The no-u-turn sampler: adaptively setting path lengths in Hamiltonian Monte Carlo. *Journal of Machine Learning Research* 15(1), 1593–1623.
- Hooghe L et al.** (2010) Reliability and validity of the 2002 and 2006 Chapel Hill Expert Surveys on party positioning. *European Journal of Political Research* 49(5), 687–703.
- Hopmann DN et al.** (2012) Party media agenda-setting: how parties influence election news coverage. *Party Politics* 18(2), 173–191.
- Hopmann DN, Vreese CHd and Albæk E** (2011) Incumbency bonus in election news coverage explained: the logics of political power and the media market. *Journal of Communication* 61(2), 264–282.
- Jensen T** (2009) Projection effects and strategic ambiguity in electoral competition. *Public Choice* 141(1), 213–232.
- Jessee SA** (2009) Spatial voting in the 2004 presidential election. *American Political Science Review* 103(1), 59–81.
- Jones DR** (2003) Position taking and position avoidance in the U.S. Senate. *Journal of Politics* 65(3), 851–863.
- Kam CJ** (2009) *Party Discipline and Parliamentary Government*. Cambridge: Cambridge University Press.
- Laslier J-F** (2006) Ambiguity in electoral competition. *Economics of Governance* 7(2), 195–210.
- Lauderdale BE** (2010) Unpredictable voters in ideal point estimation. *Political Analysis* 18(2), 151–171.
- Lubbers M, Gijsberts M and Scheepers P** (2002) Extreme right-wing voting in Western Europe. *European Journal of Political Research* 41(3), 345–378.
- Martin AD and Quinn KM** (2002) Dynamic ideal point estimation via Markov chain Monte Carlo for the U.S. Supreme Court, 1953–1999. *Political Analysis* 10(2), 134–153.
- McDermott ML** (1998) Race and gender cues in low-information elections. *Political Research Quarterly* 51(4), 895–918.
- Meyer TM and Miller B** (2015) The niche party concept and its measurement. *Party Politics* 21(2), 259–271.
- Meyer TM and Wagner M** (2013) Mainstream or niche? Vote-seeking incentives and the programmatic strategies of political parties. *Comparative Political Studies* 46(10), 1246–1272.
- Milita K, Ryan JB and Simas EN** (2014) Nothing to hide, nowhere to run, or nothing to lose: candidate position-taking in congressional elections. *Political Behavior* 36(2), 427–449.
- Mudde C** (2007) *Populist Radical Right Parties in Europe*. Cambridge: Cambridge University Press.
- Nyhuis D and Stoetzer L** (2019) “Replication Data for: The two faces of party ambiguity: A comprehensive model of ambiguous party perceptions”, <https://doi.org/10.7910/DVN/4SRS4X>, Harvard Dataverse, V1, UNF:6:xxUPR5ZZ4OBBmoM+2/kE7w== [fileUNF]
- Page BI** (1976) The theory of political ambiguity. *American Political Science Review* 70(3), 742–752.
- Page BI** (1978) *Choices and Echoes in Presidential Elections: Rational Man and Electoral Democracy*. Chicago, IL: University of Chicago Press.
- Petrocik JR** (1996) Issue ownership in presidential elections, with a 1980 case study. *American Journal of Political Science* 40(3), 825–850.
- Poole KT** (1998) Recovering a basic space from a set of issue scales. *American Journal of Political Science* 42(3), 954–993.
- Quinn KM** (2004) Bayesian factor analysis for mixed ordinal and continuous responses. *Political Analysis* 12(4), 338–353.
- Ranney A** (1954) *The Doctrine of Responsible Party Government: Its Origins and Present State*. Urbana: University of Illinois Press.
- Rozenas A** (2013) Inferring ideological ambiguity from survey data. In Schofield N, Caballero G and Kselman D (eds), *Advances in Political Economy: Institutions, Modelling and Empirical Analysis*. Berlin: Springer, pp. 369–382.

- Samejima F** (1969) Estimation of latent ability using a response pattern of graded scores. *Psychometrika Monographs* **34**, 1–97.
- Seeberg HB, Slothuus R and Stubager R** (2017) Do voters learn? Evidence that voters respond accurately to changes in political parties' policy positions. *West European Politics* **40**(2), 336–356.
- Shepsle KA** (1972) The strategy of ambiguity: uncertainty and electoral competition. *American Political Science Review* **66**(2), 555–568.
- Somer-Topcu Z** (2015) Everything to everyone: the electoral consequences of the broad-appeal strategy in Europe. *American Journal of Political Science* **59**(4), 841–854.
- Stokes DE** (1963) Spatial models of party competition. *American Political Science Review* **57**(2), 368–377.
- Tresch A** (2009) Politicians in the media: determinants of legislators' presence and prominence in Swiss newspapers. *International Journal of Press/Politics* **14**(1), 67–90.
- Van Der Eijk C** (2001) Measuring agreement in ordered rating scales. *Quality and Quantity* **35**(3), 325–341.
- Wagner M** (2012) Defining and measuring niche parties. *Party Politics* **18**(6), 845–864.
- Werts H, Scheepers P and Lubbers M** (2013) Euro-scepticism and radical-right voting in Europe, 2002–2008: social cleavages, socio-political attitudes and contextual characteristics determining voting for the radical right. *European Union Politics* **14**(2), 183–205.
- Zaller JR et al.** (1992). *The Nature and Origins of Mass Opinion*. Cambridge: Cambridge University Press.