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# Party Ambiguity and Individual Preferences * 

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October 13, 2018

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# Party Ambiguity and Individual Preferences 

October 8, 2018


#### Abstract

Although the literature on party ambiguity does not lead to a consensus, recent findings suggest that party ambiguity is a good strategy for electoral success. However, the literature on decision processes shows that individuals generally dislike ambiguity. The aim of the present project is to test the effect of party ambiguity on party preferences at the individual level, to see if findings in decision processes still apply. Using election data from eight Western European democracies, I define a measure of party ambiguity at the individual level and find that ambiguity has a negative effect on party preferences. In addition, I find that individuals with a high interest in politics are less likely to like ambiguous parties.


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## 1 Introduction

Ambiguity is a strategy used by parties to avoid taking a clear position on an issue. Parties can be ambiguous in different ways. For example, they can avoid discussing an issue or they can send different signals to different groups of voters concerning their position on an issue. Regardless of how it is generated, party ambiguity leads to a low consensus among voters concerning where the party stands ideologically. In other words, the estimation by voters of a party's location on an ideological dimension has a large variance if the party is ambiguous on that dimension.

Investigating the effect of party ambiguity on individual preferences is important for several reasons. First, ambiguity increases confusion and hinders voters from clarifying their options. This can hamper the democratic process. Second, ambiguity may lead voters to focus on non-ideological dimensions (Alvarez, 1998; Dalton, 2008), which may also compromise democratic representation. Third, ambiguity may camouflage responsibility. Clarity of responsibility is important for the agent-principal relationship between voters and parties to work correctly. To summarize, party ambiguity can lead to higher uncertainty of party positions, higher importance of non-ideological issues, and lower clarity of responsibility. Ambiguity can thus weaken democratic representation. Consequently, it is important to understand whether party ambiguity has a cost or not. The aim of this paper is to test whether voters dislike party ambiguity, and to investigate which voters are more inclined to tolerate ambiguity.

Early work on decision theory shows that the majority of individuals are risk averse, and generally prefer outcomes with low uncertainty. However, in the literature on party ambiguity, no consensus exists concerning the effect of party ambiguity on vote share, and recent empirical results (Bräuninger and Giger, 2016; Somer-Topcu, 2015; Tomz and Van Houweling, 2009) suggest that ambiguity increases vote share. I argue that the contradictory results might come from the fact that work on decision processes focuses on individual behavior, whereas work on party ambiguity mainly uses party-level analyses.

In this paper, I propose a measure of party ambiguity for each voter-party dyad to test the effect of ambiguity on party preferences. My measure has two advantages. First, it takes into account various dimensions. This is particularly important when studying ambiguity, as political parties can be more vague on some issues and less on others (De Vries and Hobolt, 2012; Rovny, 2012; Hobolt and de Vries, 2015). Second, as projection effect can affect the measure of ambiguity, I use a sampling method to attenuate this endogeneity problem between party preferences and the measure of ambiguity. I use electoral surveys in eight multi-party systems and find that ambiguity has a negative effect on party preferences. I also find a negative effect of party ambiguity on the perceived distance, consistent with SomerTopcu (2015). However, despite this potential benefit for ambiguous parties, the results show a strong direct negative effect of party ambiguity on voters' preferences, suggesting that ambiguity has a cost. In an additional analysis, I show that voters with high political interest are less likely to tolerate ambiguity. In the next section I discuss the relationship between party ambiguity and individual preferences. In section 3, I present my measure of ambiguity. The results of the main analysis are presented in section 4. The effect of ambiguity on the perceived distance is investigated in section 5. Section 6 presents the additional analysis on the effect of political interest and section 7 consists of a discussion.

## 2 Ambiguity and Party Preferences

### 2.1 Ambiguity and Decision Processes

Early work on decision processes suggests that individuals generally dislike ambiguity. Ellsberg (1961) shows with an urn experiment that individuals prefer a choice for which they know the probability of winning and losing than a choice with unknown odds (see also Fellner, 1961). Work on risk attitudes also shows that most of the people are risk averse and thus try to avoid uncertain outcomes (Kahneman and Tversky, 1984; Quattrone and Tversky, 1988; Weber, 1999; Dohmen, Falk, Huffman, Sunde, Schupp and Wagner, 2011). Consequently, the literature studying decision processes suggests that individuals rather dislike ambiguity.

### 2.2 Ambiguity and Parties

An important part of the literature on party ambiguity tests whether ambiguity is a good strategy for electoral success. Most of the work on the effect of ambiguity focuses on the US case: empirical studies use data on presidential elections, and theoretical studies assume a two-candidates race. However, several recent studies also investigate party ambiguity in multiparty systems (Bräuninger and Giger, 2016; Rovny, 2012; Somer-Topcu, 2015).

In theoretical studies, there is no clear consensus concerning the effect of party ambiguity on electoral success. In his book, Downs (1957) argues that the effect of ambiguity should vary according to the party system. He explains that "each party in a multiparty system will try to differentiate its product sharply from the products of all other parties", and that "political rationality leads parties in a two-party system to becloud their policies in a fog of ambiguity." (p. 134-136) According to Page (1976) who discusses ambiguity in the US, "the candidate's best strategy is to avoid issues of a divisive sort, and place (as nearly as possible) no emphasis on them, but devote all his time, money, and energy to matters of consensus." (p. 749) In a theoretical paper, Shepsle (1972) uses formal theory to show that in majority systems, ambiguity decreases the appeal of candidates unless a majority of the voters is risk acceptant. Glazer (1990) shows that ambiguity can be a good strategy in two-party majority systems if the candidates are uncertain about voters' preferences. Other results based on formal models also aim at explaining the incentives for parties to be ambiguous (Alesina and Cukierman, 1990; Aragones and Neeman, 2000).

In empirical studies, the results are also mixed. Bartels (1986) assumes that voters are risk averse and presents an empirical analysis showing that voters tend to dislike uncertainty. Gill (2005) finds that candidates have no incentive to be unclear about their preferences, unless they have extreme ones. Campbell (1983) finds that ambiguity has a positive effect if proximity to voters is low. In more recent studies, ambiguity seems to be a winning strategy for parties. Tomz and Van Houweling (2009) use experimental data and show that ambiguity attracts voters. Somer-Topcu (2015) finds that party ambiguity is a winning strategy. She shows that party ambiguity decreases the perceived distance between voters and the party. Bräuninger and Giger (2016) find that ambiguity can be a good strategy to appeal to the general public and parties' core constituencies. There are also more specific results concerning the effect of party ambiguity on electoral success. For example, Hersh
and Schaffner (2013) find that targeting differently different groups of voters can penalize the party and that broad-appeal is generally a better strategy. Finally, Rovny (2012) finds that parties in multiparty systems tend to blur their stances on dimensions on which they are moderate.

To summarize, empirical findings in the literature in decision theory show that individuals dislike ambiguity, whereas empirical findings in the literature on political parties do not lead to a consensus concerning the effect of ambiguity. Especially, several recent findings (Bräuninger and Giger, 2016; Somer-Topcu, 2015; Tomz and Van Houweling, 2009) suggest that ambiguity is a winning strategy for parties. The difference in results may be due to the fact that work on decision processes focuses on individuals, while the units of observations in the research on party ambiguity are generally the parties. One exception is the paper by Tomz and Van Houweling (2009) that shows that ambiguity attracts voters. The authors use an experimental design that mimics the US system.

Existing studies on the effect of party ambiguity in multiparty systems are based on aggregate electoral results and consequently, cannot directly test the effect of ambiguity on individual preferences. The aim of the present paper is to use survey data from eight countries in Europe to test the following hypothesis:

Hypothesis 1: The more a party represents an ambiguous option for a voter, the less likely the voter is to like this party, ceteris paribus.

In an additional analysis, I try to understand whether some voters are more attracted to ambiguous parties than others. More specifically, I test whether interest in politics affects the effect of ambiguity on party sympathy. Research in psychology has shown that one of the main motivational factors for curiosity and information seeking is to reduce uncertainty (see for example Berlyne, 1966; Kidd and Hayden, 2015). This suggests that individuals with high interest in politics have higher aversion for uncertainty. I thus expect voters with high interest in politics to be less tolerant towards ambiguity:
hypothesis 2: Ambiguity has a greater negative effect on party sympathy among individuals with high levels of political interest, ceteris paribus.

I use a spatial representation of policy preferences to deduce a measure of ambiguity for each voter-party dyad and test hypothesis 1 and hypothesis 2. This measure estimates the extent to which a party represents an ambiguous option for a voter. In the next section, I explain the operationalization of my measure of ambiguity.

## 3 Estimating the Policy Space and Measuring Ambiguity

In the literature on decision under uncertainty, several scholars depart from the expected utility hypothesis (Allais, 1953; Ellsberg, 1961; Kahneman and Tversky, 1979). Their main argument is that individuals do not only consider the expected utility specific to each option
before making a decision, but they consider the distribution of the utility specific to each option. In particular, the variance of the utility of an option matters.

From a voter's standpoint, each party is an option. As party ambiguity increases, the uncertainty of the option increases too. I will thus estimate how ambiguous each option looks to each voter. I use a spatial model because it condenses the ideological distances between parties and voters on several issues into one utility (i.e. the distance) for each voter-party dyad. To estimate ambiguity, I will then measure how this utility can vary due to party ambiguity. In spatial voting models, the options are the parties, and the utility of each option is generally quantified by $-d$, i.e. minus the Euclidean distance to each party (Black, 1978; Downs, 1957; Hotelling, 1929). The higher the variation of $-d_{v p}$, the more ambiguous the option $p$ is for voter $v$. Consequently, I define ambiguity at the voter-party dyad level as the standard deviation of the distance between a voter and a party.

To estimate ambiguity, I proceed in two steps. First, I locate voters and parties on the same two-dimensional policy space. For each party, I obtain a distribution of perceived locations (i.e. locations perceived by the different voters). Second, given voters' locations and the distributions of parties' locations, I estimate the standard deviation of the distance for each voter-party dyad.

### 3.1 Policy Space: Voters and Parties

I use the most recent election studies in several European countries where all variables necessary for my analysis are available. The surveys come from the electoral studies of Austria 2013, Belgium 1995, Denmark 2011, Germany 2013, Ireland 2002, the Netherlands 2012, Switzerland 2007, and the United Kingdom 2010. The number of cases is limited by data availability mainly because most of the election surveys do not ask respondents to locate themselves and parties on at least three policy dimensions.

To estimate the policy space, I use self-locations of respondents on three or more policy issues (depending on the country, see the Appendix for more details). In each country separately, I run a Principal Component Analysis (PCA) using respondents' self-locations on the various issues $\overbrace{}^{\top}$ This allows me to define in each country a two-dimensional policy space ${ }^{2}$ As respondents have also located the main political parties on the same issues, I use the loadings of the PCA to define where each respondent places each party on the two-dimensional policy space $3^{3}$ This gives a cloud of points for voters, and one for each party.

As an example, Figure 1 shows the locations of voters in grey and the mean locations of parties in Denmark on a two-dimensional space. For each party, the variance of the perceived party locations is described by an $80 \%$ confidence ellipse for each party (assuming a Normal distribution). These two-dimensional measures of variance describe the level of consensus

[^1]across voters concerning where each party stands (also called disagreement in the literature).

Figure 1: Policy Space in Denmark


It is interesting to note that in several countries (not in Denmark), some parties are more ambiguous on the first dimension, while others are more ambiguous on the second dimension. Having a distribution for each party location in two dimensions, I can now estimate ambiguity.

### 3.2 Ambiguity

High ambiguity leads to low consensus among voters concerning where the party stands ideologically. Consequently, party ambiguity can be conceptualized by the deviation of its location as given by the voters. This is ambiguity at the party level. However, for a given voter, what matters is the dispersion of the potential outcome. More specifically, what matters to the voter is the extent to which party ambiguity can affect the ideological distance between himself and the party. I thus define ambiguity as the standard deviation of the distance between the location of the voter and the locations of the party as perceived by all respondents.

In a two-dimensional space, the distance $d$ between a voter $v$ and a party $p$ can be written
as follows:

$$
d_{v p}=\operatorname{dist}\left(\left(x_{v}, y_{v}\right) ;\left(x_{p}, y_{p}\right)\right)
$$

with $\operatorname{dist}(;)$ the Euclidean distance between two points, $\left(x_{v}, y_{v}\right)$ the location of a voter $v$ in a two-diensional space, and $\left(x_{p}, y_{p}\right)$ the location of a party $p$ on the same space. If the party has an ambiguous location, $\left(x_{p}, y_{p}\right)$ are random variables. Consequently, $d_{v p}$ will also be a random variable and the ambiguity is $\cdot \sqrt[4]{4}$

$$
\text { ambiguity }_{v p}=s d\left(d_{v p}\right)
$$

The left graph of Figure 2 shows the perceived party locations of an (imaginary) party with mean $(3 ; 3)$, and a voter V located at $(8 ; 4)$, on a two-dimensional policy space. As party ambiguity is not null here, the party locations perceived by the voters are a distribution of points around $(3 ; 3)$. The grey segments in the right graph of Figure 2 show the distance between voter V and each point of the distribution. Ambiguity is the standard deviation of the length of these grey segments.

Figure 2: party locations and $f_{i}\left(d_{i}\right)$


The underlying assumption of this measure is that individuals have an idea of how am-

[^2]biguous parties are on the main policy issues. If there is full consensus among voters concerning where the party stands, a voter will be able to know that the distance between him and the party is certain and thus, ambiguity will be null. If there is high disagreement among voters concerning where a party stands, a voter will know that the distance between him and the party is ambiguous. This is a strong assumption, however, if parties stay vague on an issue, send different signals to different groups of voters, or send various signals to the voters over time, the voters should be able to perceive this.

The advantage of using a spatial model, based on several issues, is twofold. First it estimates the ideological distance between a voter and a party. In other words, it summarizes a voter's preferences relative to a party into one utility, the distance. Second, estimating how this distance can vary due to party ambiguity summarizes into one measure how party ambiguity affects a voter. If a party is ambiguous on two related issues, or if a party is ambiguous on two orthogonal issues should have different consequences for voters and using a spatial model enables to take this into account.

Finally, ambiguity depends on the voter's location relative to the party. In two dimensions, as parties can be more ambiguous on some issues and less on others, the ambiguity of a party can matter more or less depending on the location of the voter. To understand the relation between party ambiguity and ambiguity, Figure 3 displays one party (party $A$ ) and two voters (voter 1 and voter 2 ) on a two-dimensional policy space. The ellipse is the 95 percent confidence ellipse of the distribution of party A's locations as perceived by the voters.

Figure 3: Ambiguity


The distance to the party is the same for both voters. However, as party A is more ambiguous on dimension 1 than on dimension 2, the ambiguity of party A will affect the estimation of
the distance to the party much more for voter 2 than for voter 1.5 and therefore $s d\left(d_{1 A}\right)<$ $s d\left(d_{2 A}\right)$. Consequently, the ambiguity of a party might render the distance $d$ to the party much more uncertain for some voters than for others depending on their location relative to the party's location, and ambiguity takes this feature into account.

I will thus estimate ambiguity based on the spatial locations of voters and parties. However, I will not use all perceived party locations. I use a sampling procedure to avoid potential endogeneity problems. Using the whole sample might lead to biased estimations of ambiguity and this for several reasons First, for some respondents, placing parties on a scale is not intuitive. For example, some invert the left and the right. Taking their party location might bias the results. I thus follow common practice and remove the perceived party locations of these respondents for the estimation of party ambiguity.

Second, the supporters of some parties have higher levels of political information than the supporters of other parties. This might also bias the estimation of party ambiguity, as these informed voters are more likely to know the locations of all parties while the other voters are more likely to know the location of their preferred party only. Thus, I will select a sample of the respondents. The sample will force a similar distribution of political knowledge for the supporters of each party.

Third, and more importantly, projection effect might bias the estimation of ambiguity. Indeed, projection effect is the process by which a voter underestimates the distance between himself and the party when he likes the party. If the supporters of a party are highly dispersed (and are numerous), projection effect will lead to an overestimation of the ambiguity of this party. Conversely, if the supporters of a party are very similar (and are numerous), projection effect can lead to an underestimation of the ambiguity of this party. In other words, we have to differentiate between the dispersion of the supporters of a party and the ambiguity of the party. Because the more successful the party is, the higher the potential bias, there is a slight endogeneity problem as I test the effect of ambiguity on party preferences. Typically, a catch-all party will have a large amount of supporters and these supporters are likely to be highly dispersed. The ambiguity of this party can be overestimated here because these supporters will locate their favourite party close to them due to projection effect.

For the distribution of each party location, in order to attenuate the "political knowledge" bias and the "projection effect" bias, I use a sampling procedure. I select samples in which the distributions of vote choice and political knowledge are constrained. For each of the samples, I select (with repetition) supporters of each party and from each level of political knowledge. For example if the survey has four levels of political knowledge and the country has three parties $(A, B$, and $C), A$ and $B$ being large parties and $C$ a small party, I select the following sample (two respondents in each category for large parties and one for small parties):

[^3]Table 1: Sample Selection

| political | supporter of: |  |  |
| :---: | :---: | :---: | :---: |
| knowledge | party A | party B | party C |
| 1 | 2 | 2 | 1 |
| 2 | 2 | 2 | 1 |
| 3 | 2 | 2 | 1 |
| 4 | 2 | 2 | 1 |

As a result, the distribution of political knowledge is the same across supporters of different parties, and the share of supporters from each party is more uniform than in the whole sample. I select 100 samples based on these criteria. This sampling procedure should allow to attenuate the biases described above. Using each sample I estimate the ambiguity for each voter-party dyad (not only for the voters selected in the sample but for all voters). I obtain 100 measures of ambiguity for each voter-party dyad and take the mean of these 100 measures. Figure 4 shows the distribution of ambiguity for all voter-party dyads in all eight countries.

Figure 4: Ambiguity


Van der Eijk (2001) proposes a measure of agreement (or disagreement if we reverse the scale) concerning where a party stands on a given issue. Although our measure of ambiguity
and the agreement measure are conceptually distinct, both are measures of ambiguity broadly defined. I compare the two measures in the Appendix ${ }^{[6}$ and show that, as expected, agreement is negatively related to ambiguity.

## 4 Results

According to hypothesis 1, ambiguity should have a negative effect on party sympathy. The analysis below regresses party sympathy on ambiguity to test this hypothesis. The unit of observation is the voter-party dyad. The dependent variable is a measure of party sympathy ranging from 0 (dislike) to 10 (like). ${ }^{7}$ One may wonder whether testing the effect of ambiguity on vote choice would not be more relevant. Ambiguity however is generally higher among catch-all parties, and catch-all parties are more likely to benefit from strategic voting. I argue that the priority here is to better understand the effect of ambiguity on individual preferences and thus decide to use party sympathy as the dependent variable.

Nevertheless, as the aim of the paper is to understand the effect of ambiguity on voters' preferences, I only include respondents who voted in the analysis. 8 The independent variable of interest is ambiguity. Following a Downsian approach, I include a measure of perceived distance and expect this variable to explain a large share of variability. The perceived distance is the Euclidean distance between the voter's perceived self location and the party location as perceived by the voter. Ambiguity and perceived distance are the main variables of the model. Both of these variables vary across individuals and across parties (i.e. voter-party dyad).

In addition, some control variables generally included in analyses explaining vote choice are also relevant here. Party sympathy might differ for parties represented in government as the latter might benefit from high visibility. Consequently, I include a dichotomous variable party in government. Single issue parties might also have higher levels of party sympathy. Consequently, I include a dichotomous variable single issue party equal to 1 if the party is considered as a single issue party and 0 otherwise 9 I also add the demographic variables age, female, and education. ${ }^{10}$ Finally, I include random effects: one at the country level to control for differences across countries (and surveys), and one at the individual level because some individuals may have a higher general sympathy for political parties than others. Table 2 displays the results. In Model 1, I only include the main dependent variable perceived distance, and the variable of interest ambiguity. In Model 2, I add the variables party in government and single issue party. In Model 3, I add the demographic variables age, female, and education.

[^4]Table 2: The Effect of Ambiguity on Party Sympathy

| Level | Independent Variable | Model 1 | Model 2 | Model 3 |
| :--- | :--- | :---: | :---: | :---: |
| dyad | intercept | $8.209^{* * *}$ | $8.015^{* * *}$ | $8.045^{* * *}$ |
|  |  | $(0.210)$ | $(0.229)$ | $(0.236)$ |
|  | perceived distance | $-0.473^{* * *}$ | $-0.468^{* * *}$ | $-0.469^{* * *}$ |
|  |  | $(0.005)$ | $(0.005)$ | $(0.005)$ |
|  | ambiguity | $-0.721^{* * *}$ | $-0.801^{* * *}$ | $-0.819^{* * *}$ |
| party | party in government | $(0.047)$ | $(0.048)$ | $(0.049)$ |
|  |  |  | $0.543^{* * *}$ | $0.549^{* * *}$ |
|  | single issue party |  | $(0.024)$ | $(0.024)$ |
|  |  |  | $0.918^{* * *}$ | $0.926^{* * *}$ |
| respondent |  |  | $(0.049)$ | $(0.049)$ |
|  | age |  |  | $-0.002^{* *}$ |
|  |  |  |  | $(0.001)$ |
|  | female |  |  | $0.131^{* * *}$ |
|  |  |  |  | $(0.025)$ |
|  | education |  | $0.010^{*}$ |  |
|  |  |  |  | $(0.004)$ |
|  | Log Likelihood | -120475.651 | -119340.759 | -115653.053 |
|  | N | 5110 | 50830 | 49274 |
|  | Var: individual | 0.314 | 0.340 | 0.339 |
|  | Var: country | 0.308 | 0.374 | 0.378 |
|  | Var: Residual | 6.238 | 6.096 | 6.084 |

${ }^{* * *} p<0.001,{ }^{* *} p<0.01,{ }^{*} p<0.05$

The results show that the perceived distance always has a negative effect on party sympathy, consistent with the Downsian theory of voting. Ambiguity has a negative effect on party sympathy and this across all three Models. This result confirms hypothesis 1 and is consistent with the literature on decision theory, where scholars find that individuals generally do not like outcomes with too uncertain payoffs. This is a somewhat reassuring result as it suggests that parties cannot indefinitely increase ambiguity to attract voters.

In Model 2, where party-level variables are included, it is interesting to see that voters seem to have higher sympathy for single issue parties, and also for parties in government. Finally, results in Model 3 show that individual-level characteristics also affects party sympathy. Women rate parties higher on a sympathy scale than men, party sympathy decreases with age and increases with education. Given that projection effects can affect perceived distances (see the discussion above), I also ran similar regressions with the distance (i.e. the Euclidean distance between the voter's perceived self location and the mean of the perceived party positions) instead of the perceived distance. The results show similar trends (see Table 5 in the Appendix).

### 4.1 Robustness Checks

As a robustness test, I applied a jackknife by country (i.e. iteratively dropping the observations of one country) and obtained similar results. This suggests that the results are not driven by the data of one specific country.

On can also wonder about potential multicollinearity between ambiguity and the perceived distance. The Pearson correlation coefficient between these two variables equals 0.40 . The VIF (variation inflation factor) for perceived distance equals $1.23,1.24$, and 1.24 respectively in Models 1 to 3. For ambiguity, the VIF is $1.23,1.26$, and 1.27 respectively in Models 1 to 3. Although there is no clear threshold allowing to decide whether or not multicollinearity is a "problem" (Wooldridge, 2008, p. 99), these numbers are not alarming and I thus assume that multicollinearity is not a concern here ${ }^{11}$

However, a possible positive effect of party ambiguity is that parties can seem closer to voters than they really are (Somer-Topcu, 2015). I thus test the effect of ambiguity on the perceived distance by controlling for the distance (i.e. the objective distance) in the next section.

## 5 Ambiguity and the Perceived Distance

I run a model relatively similar to Somer-Topcu's (2015) analysis of the individual-level mechanism. The unit of observation is the voter-party dyad and the dependent variable is the perceived distance. The main independent variable is ambiguity. As control variables, I include variables likely to affect voters' perception: education, party in government, party size, and single issue party. I include a country level effect and an individual level effect. If ambiguity tends to decrease the perceived distance, we should see a negative coefficient for the variable ambiguity.

[^5]Table 3: Explaining the Perceived Distance

|  | DV = perceived distance |  |
| :--- | :--- | :---: |
| dyad | intercept | $1.187^{* * *}$ |
|  |  | $(0.131)$ |
|  | distance | $0.944^{* * *}$ |
|  |  | $(0.004)$ |
|  | ambiguity | $-0.449^{* * *}$ |
| voter |  | $(0.037)$ |
|  | education | $0.030^{* * *}$ |
| party |  | $(0.003)$ |
|  | party in government | $-0.038^{*}$ |
|  |  | $(0.018)$ |
|  | single issue party | 0.026 |
|  |  | $(0.029)$ |
|  | party size | $-0.652^{* * *}$ |
|  |  | $(0.075)$ |
| Log Likelihood |  | -117117.050 |
| N |  | 58031 |
| Var: individual |  | 0.752 |
| Var: country |  | 0.109 |
| Var: residual |  | 2.798 |

${ }^{* * *} p<0.001,{ }^{* *} p<0.01,{ }^{*} p<0.05$

Table 3 displays the results of the regression. Consistent with the literature, the results of Table 3 show that voters perceive a party as ideologically closer if the party is ambiguous. The main explaining variable however is the distance. The effect equals almost one, which is coherent as both distances are measured on the same policy space. Ambiguity ranges from 0.46 to 3.55 , with a standard deviation of 0.44 . This means that when ambiguity increases by one standard deviation, the perceived distance should decrease by approximately 0.20 unit (perceived distances range from 0 to 18.84 with a standard deviation of 2.85).

This result suggests that ambiguity affects how close a voter thinks the party is from him. This might seem to contradict results from Table 2 where the perceived distance is an intervening variable. According to the results in Table 2, perceived distance has a negative effect on party sympathy, and ambiguity has a negative effect on party sympathy. However, according to the results in Table 3, the fact that ambiguity decreases the perceived distance suggests that ambiguity has a positive effect on party sympathy, through the perceived distance. Ambiguity seems thus to have a negative direct effect on preferences, and an indirect positive effect through the perceived distance.

In the next section, I investigate further the mechanisms underlying the effect of ambiguity on party sympathy.

## 6 Additional Analysis

The aim here is to understand whether some voters are more attracted to ambiguous parties than others. More specifically, I test whether interest in politics affects the effect of ambiguity on party sympathy (hypothesis 2). To test this hypothesis, I add the variable interest in politics and its interaction with ambiguity to the variables of Model 3 in Table 2, inclusive of the random effects. As curiosity increases with knowledge (Loewenstein, 1994), I also control for political knowledge. Respondents who did not vote are not included. The variable interest in politics ranges from 0 to 1 , where 0 means no interest and 1 means high interest in politics. Table 4 presents the results.

Table 4: Ambiguity and Individual Preferences

| Levels | Independent Variable | DV = Party Sympathy |
| :---: | :---: | :---: |
| dyad | intercept | $7.292^{* * *}$ |
|  |  | - (0.279) |
|  | perceived distance | ) $-0.471^{* * *}$ |
|  |  | (0.005) |
|  | ambiguity | $-0.471^{* * *}$ |
|  |  | (0.082) |
|  | ambiguity $\times$ interest in | $-0.645^{* * *}$ |
|  |  | (0.115) |
| voter | age | $-0.003^{* *}$ |
|  |  | (0.001) |
|  | female | $0.149^{* * *}$ |
|  |  | (0.026) |
|  | education | 0.004 |
|  |  | (0.004) |
|  | interest in politics | 1.480*** |
|  |  | (0.195) |
|  | political knowledge | -0.001 |
|  |  | (0.005) |
| party | party in government | $0.547^{* * *}$ |
|  |  | (0.025) |
|  | single issue party | $0.928^{* * *}$ |
|  |  | (0.051) |
| Log Likelihood |  | -112793.584 |
| N |  | 48061 |
| Var: individual |  | 0.330 |
| Var: country |  | 0.447 |
| Var: Residual |  | 6.087 |

${ }^{* * *} p<0.001,{ }^{* *} p<0.01,{ }^{*} p<0.05$

The results show that interest in politics increases party sympathy, and the higher the
interest, the more negative the effect of ambiguity on party sympathy is. ${ }^{12}$ Thus, the results provide support for hypothesis 2. This finding is particularly interesting if the general level of interest in politics can vary over time and across context. If the level of political interest can increase from one election to the next, the effect of party ambiguity can also change. Some parties may have an incentive in generating interest in politics, while others may not.

## 7 Discussion

In this paper, I develop a measure of ambiguity based on a spatial representation of the policy space in eight European Democracies. This measure estimates the extent to which the ideological distance between a voter and a party is ambiguous. It varies across each voter-party dyad. One advantage of this measure of ambiguity is that it takes multiple policy issues into account. This is important as parties can be more ambiguous on some dimensions and less on others. Moreover, I use a sampling technique to attenuate potential bias due projection effect in the estimation of ambiguity.

I test the effect of ambiguity on party preferences and find that ambiguity has a direct negative effect on party sympathy. This is so despite the fact that ambiguity decreases the perceived distance between the voter and the party. The results thus reconcile with the literature in decision theory, and suggest that ambiguity can disadvantage parties. In a normative perspective, given that ambiguity hampers the democratic representation process, the results are encouraging. However, the fact that ambiguity tends to decrease the perceived distance between a voter and a party may explain to a certain extent, the success of catch-all parties.

In addition, I find that ambiguous parties have higher sympathy among voters with low interest in politics. This result thus also stresses the importance of political communication and in particular, the role of political actors and media in keeping democracy working. Arousing interest in politics is vital for the quality of political representation and should lead voters to be less tolerant towards ambiguity.

The results thus suggest that when interest in politics is high, individuals will be more likely to avoid ambiguous parties. When interest in politics is low, individuals will be more likely to focus on non-policy issues, and ambiguity will allow them to see the party closer than it really is. In future work, exploring this individual-level mechanism may be worthwhile.

It is important to acknowledge that the present analysis has some limitations. First, the measure focuses on a few political issues, and because these questions have been asked in the election study specific to each country, it is assumed here that these issues are the main political issues in the country. Second, this new measure of ambiguity assumes that individuals know how other voters perceive each political party. Third, the analysis here focuses on party sympathy as the main dependent variable. It may be interesting to test the effect of ambiguity on vote choice. Especially, as catch-all parties are generally more ambiguous and as they often benefit from strategic voting, it may be interesting to test how party ambiguity affects the decision to vote tactically. This can be an interesting avenue for future work.

[^6]
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## Appendix

## Main Analysis: Controlling for the (Objective) Distance Instead of the Perceived Distance

Table 5: The Effect of Ambiguity on Party Sympathy using (objective) distance

| Level | Independent Variable | Model 1 | Model 2 | Model 3 |
| :--- | :--- | :---: | :---: | :---: |
| dyad | intercept | $6.943^{* * *}$ | $6.585^{* * *}$ | $6.705^{* * *}$ |
|  |  | $(0.134)$ | $(0.153)$ | $(0.161)$ |
|  | distance (objective) | $-0.465^{* * *}$ | $-0.466^{* * *}$ | $-0.470^{* * *}$ |
|  |  | $(0.006)$ | $(0.006)$ | $(0.006)$ |
|  | ambiguity | $-0.131^{* *}$ | $-0.119^{*}$ | $-0.122^{*}$ |
| party |  | $(0.049)$ | $(0.051)$ | $(0.052)$ |
|  | party in government |  | $0.705^{* * *}$ | $0.712^{* * *}$ |
|  |  |  | $(0.023)$ | $(0.023)$ |
|  | single issue party |  | $0.857^{* * *}$ | $0.866^{* * *}$ |
|  |  |  | $(0.044)$ | $(0.044)$ |
|  | ageter |  |  |  |
|  |  |  |  | $-0.003^{* * *}$ |
|  | female |  |  | $0.001)$ |
|  |  |  |  | $0.127^{* * *}$ |
|  | education |  |  | $-0.022)$ |
|  |  | -158220.406 | -155448.711 | -150855.777 |
| Log Likelihood |  | 65446 | 64661 | 62766 |
| N |  | 0.035 | 0.102 | 0.108 |
| Var: individual |  | 0.104 | 0.144 | 0.148 |
| Var: country |  | 7.328 | 7.067 | 7.050 |
| Var: residual |  |  |  |  |

[^7]
## Comparison of our Measure with van der Eijk's (2001) measure of agreement

Here I compare our measure of ambiguity with van der Eijk's (2001) measure of agreement. It is important to note that ambiguity and agreement (or disagreement if we reverse the scale) measure two distinct concepts. Ambiguity measures the perceived ambiguity of a party at the individual level. Agreement measures the level of consensus among voters concerning where the party stands, and is thus a measure at the party level. However, both should be related.

I compare the two measures at the party level. To measure agreement, I use Ecker's (2011) STATA package and calculate the agreement score for each party on each policy issue. I then take the mean across issues for each party. To have a measure of ambiguity at the party level based on my measure, I take the mean across individuals. Figure 5 displays the results. The straight line shows a simple linear regression of agreement on ambiguity. The relation between the two measures should be negative as the level of agreement among voter should decrease with ambiguity. This appears to be the case except for Belgium where the relation is almost null. Of course the relation is far form being perfect but this is not surprising as the scales are not directly comparable and the concepts differ.

Figure 5: Comparing the Two Measures


## Variables Description

## Austria

Data: Autnes pre and post panel study 2013 (November 2012 - July 2013).
Party Sympathy

- On a scale from 0 to 10 , how much do you like the political parties in Austria? Please rate each party on a scale from 0 to 10 . 0 means you strongly dislike that party and 10 means that you strongly like that party. You can use the values in between to give a more precise answer. How much do you like these parties?


## Political Issues

- In politics people often talk about left and right. Where would you place X on a scale from 0 to 10, where 0 means left and 10 means right. You can use the values in between to give a more precise answer.
- Now, some questions about controversial political issues. Some people prefer low taxes in exchange for few social benefits, while others prefer high taxes in exchange for numerous social benefits. Where would you place X on a scale from 0 to 10 , where 0 means that you prefer low taxes in exchange for few social benefits, and 10 means high taxes in exchange for numerous social benefits?
- Now, we turn to the issue of immigration. Some people say immigration to Austria should be allowed only in exceptional cases, while other people say that immigration to Austria should be openly regulated. Where would you place X on a scale from 0 to 10 , where 0 means that immigration should be made possible only in exceptional cases, while 10 means immigration to Austria should be openly regulated?

Variable Additional Analysis: Interest in Politics:

- Generally speaking, are you very, fairly, a little or not at all interested in politics? (very interested, fairly interested, a little interested, not at all interested, dont know, refused)


## Belgium

Data: 1995 General election study Belgium (October 1995).
Party Sympathy Here I coded party sympathy based on the following three questions:

- Which political party do you prefer most?
- Which political party do you prefer second most?
- Which political party do you prefer least?

The constructed variable equals 3 if the party is the most preferred, 2 if it is the second, 0 if it is the least preferred, and 1 otherwise.

## Political Issues

- People are sometimes classified to the degree in which they are Catholic or nonCatholic. Someone who is very Catholic would mark the 0 and someone who is very strongly non-Catholic would mark 10. Of course, there are intermediary positions to the degree that one is more of less Catholic or non-Catholic. When you consider your own ideas on this, where would you place X?
- About immigrants, and here we mean Turks and Moroccans, there are different conceptions. Some think that they must receive the same rights as the Belgians, others think that they should have fewer rights than the Belgians. Where would you place X on a 0 to 10 scale?
- In politics, sometimes one has to choose between alternatives. Suppose that a choice had to be made between "conservation/protection of the environment and "jobs. Where would you place X on a 0 to 10 scale?
- Sometimes, too, one must choose between "the quality of life and "the preservation of a high rate of economic growth. Where would you place X on a 0 to 10 scale?

Eight issues were available in this survey. However, I only selected four. The four remaining issues (government regulations, freedom of speech, security vs. privacy, and regional vs. national power) are not included in the analysis, to avoid having too many missing values. The estimated party locations on the government regulations, the security vs. privacy, and the regional vs. national power had more than $30 \%$ of "don't know" answers. Moreover, in the question on regional vs. national power, the wording differs for Flanders and Wallonia (the regional power is called "Flanders" in Flanders and "the new identities" in Wallonia). Finally, the question concerning freedom of speech is also excluded in order to limit the number of missing values in the analysis. The four remaining questions are quite representative of the main political issues in Belgium (Boonen and Hooghe, 2012; Swyngedouw, 1992), with the exception of the language-community cleavage. However, the party system is also divided into the two languages and the variable party sympathy has only been asked for Flemish parties to Flemish respondents, and for Walloon parties to Walloon respondents.

Variable Additional Analysis: Interest in Politics:

- Some people are very interested in politics. Others are not interested at all. Are you very interested in politics, or are you not at all interested? (very much, a lot, more or less, little, none)


## Denmark

Data: Danish National Election Study (September - December 2011).
Party Sympathy

- Now I would like to hear what you think of the political parties. After I have mentioned the party, I want you to place it on this scale from 0 to 10 , where 0 means you that dislike the party very much and 10 means that you like it very much. If I mention a party that you do not know or do not feel you know enough about, just say so.


## Political Issues

- In politics one often talks about left and right. Where would you place X on this scale?
- The parties disagree on how many refugees we can receive. Some think we receive far too many. Others say we can easily take more refugees. Here is a scale. Where about would you place X?
- The parties also disagree how large the public sector should be. Some parties say we should cut public revenues and expenditures. Others say that we must face increasing public revenues and expenditures. Here is a scale. Where about would you place X?
- One often talks about a green dimension on which some parties strongly emphasize environmental protection, while others say that environmental protection is going too far. Here is a scale. Where about would you place X ?

In this survey, there were seven issues available. However, the three remaining issues (law and order, taxes, equality) had approximately $50 \%$ missing values (respectively $51.1 \%, 51.1$ $\%$, and $48.9 \%$, excluding "don't know" answers) for self locations. Consequently, I decided not to include these issues in the analysis.

## Variable Additional Analysis: Interest in Politics:

- Would you say that you are very interested, somewhat interested, only slightly interested or not at all interested in politics? (Very interested, Somewhat interested, Only slightly interested, Not at all interested, Don't know, unannounced, Irrelevant)


## Germany

Data: German longitudinal election study (23 September - 23 December 2013).
Party Sympathy

- And now some more precise questions about the political parties. What is your general opinion of each of the political parties? Please use the scale from +5 to $-5 .+5$ means that you have a very positive view of the political party; -5 means that you have a very negative view of the party. You can use the numbers in between to state your opinion more precisely.


## Political Issues

- In politics, people sometimes talk about left and right. Where would you place X on a scale from 1 to 11 where 1 means the left and 11 means the right?
- Some people want lower taxes, even if this means a reduction in the benefits offered by the social state, others want more benefits offered by the social state, even if this means an increase in taxation. What do you think is the opinion of X regarding this issue? Please use this scale from 1 to 11 .
- And now about immigration. Should immigration be facilitated or restricted? What do you think is the opinion of X regarding this issue? Please use this scale from 1 to 11.
- Some say that the fight against climate change should definitely take precedence, even if it impairs economic growth. Others say that the economic growth should definitely take precedence, even if it impairs the fight against climate change. What do you think is the opinion of X regarding this issue?


## Variable Additional Analysis: Interest in Politics:

- In general terms: How interested in politics are you? Very interested, fairly interested, moderately, not very interested or not interested at all?


## Ireland

Data: Irish National Election Study (May 2002).

## Party Sympathy

- The feeling thermometer works like this: If you have a favourable feeling (a warm feeling) towards a politician you should place him/her somewhere between 50 and 100 degrees; if you have an unfavourable feeling (a cold feeling) towards a politician, you should place him/her somewhere between 0 and 50 degrees; and if you don't feel particularly warm or cold (have no feeling towards the politician at all) then you should place him/her at 50 degrees.
Where would you place each of the following political parties?


## Political Issues

- In Politics people sometimes talk of left and right. And where would you place X on a scale from 0 to 10 where 0 means the left and 10 means the right? Please tick one box.
- And now I would like to ask you a question about abortion. People who fully agree that there should be a total ban on abortion in Ireland would give a score of 0. People who fully agree that abortion should be freely available in Ireland to any woman who wants to have one would give a score of 10 . Other people would place themselves in between these two views. Where would you place X on this scale? [Int. Show Card C8].
- I would like you to look at the scale from 0 to 10 on this card. A 0 means government should cut taxes a lot and spend much less on health and social services, and 10 means government should increase taxes a lot and spend much more on health and social services. Where would you place X on this scale?
- With regard to the Northern Ireland problem some people think we should insist on a United Ireland now while other people think we should abandon the aim of a United Ireland altogether. Of course other people have opinions somewhere between these extremes. Suppose the people who believe that we should insist on a United Ireland now are at one end of the scale, at 0 , and the people who think we should abandon the aim of a United Ireland altogether are at the other end, at 10. Where would you place X on this scale?

This survey had not four but six issues on which respondents were asked to locate themselves and the parties. Two questions however (on European integration and the environment) had more than $50 \%$ of answers missing for parties (respectively $50.3 \%$ and $50.4 \%$, excluding the "don't know" answers).

Variable Additional Analysis: Interest in Politics:

- How interested would you say you are in politics? (very/quite/not very/not at all)


## Netherlands

Data: Dutch Parliamentary Election Study (September - October 2012).
Party Sympathy

- Next, I would like to know from you how sympathetic you find the political parties. You can give each party a score between 0 and 10. 0 means that you find this party not sympathetic and 10 means that you find this party very sympathetic. If you don't know a political party, please feel free to say so. What score would you give party X?


## Political Issues

- In politics people sometimes talk about left and right. Would you please indicate the degree to which you think that a party is left or right? If you dont know a party, please feel free to say so, Where would you place the CDA?
- Some people and parties think that the European unification should go further. Others think that the European unification has already gone too far. Where would you place the CDA on a line from 1 to 7 , where 1 means that the European unification should go even further and 7 that the unification has already gone too far?
- Some people think that the differences in incomes in our country should be increased. Others think that they should be decreased. How would you place the CDA on a line from 1 to 7 , where 1 means differences in income should be increased and 7 means that differences in income should be decreased?

Variable Additional Analysis: Interest in Politics:

- Are you very interested in political topics; fairly interested; or not interested?


## Switzerland

Data: Swiss Electoral Studies (Selects) 2007 (22 October - 5 November).

## Party Sympathy

- Now we would like to know what you think about the main political parties. Tell us please to which extend do you like party X by using the 0 to 10 scale. 0 means that you really dont like the party and 10 means that you really like it.


## Political Issues

- In politics, people often talk about the left and the right. Could you please tell me where you would place X on a scale going from 0 to 10 , where 0 means left and 10 means right?
- Are you in favor of Switzerland joining the European Union, or in favor of an independent path for Switzerland?
- Are you in favor of rising the taxes for high income, or would you rather lower the taxes for people with high income?

Variable Additional Analysis: Interest in Politics:

- In general, how interested in politics are you? Are you very interested, rather interested, rather not interested, or not interested at all?


## UK

Data: British Election Study (January - September 2010).

## Party Sympathy

- On a scale that runs from 0 to 10 , where 0 means strongly dislike and 10 means strongly like, how do you feel about the Labour Party?


## Political Issues

- Now, another issue. Using the 0 to 10 scale on this card, where the end marked 0 means that government should cut taxes and spend much less on health and social services, and the end marked 10 means that government should raise taxes a lot and spend much more on health and social services, where would you place X on this scale?
- Some people think that reducing crime is more important than protecting the rights of people accused of committing crimes. Other people think that protecting the rights of accused people, regardless of whether they have been convicted of committing a crime, is more important than reducing crime. On the $0-10$ scale, where would you place X on this scale?
- Now, using the 0 to 10 scale on this card, where the end marked 0 means that there is no need for government to take action to improve opportunities for black and Asian people, and the end marked 10 means that government should make every effort to improve opportunities for black and Asian people, where would you place X on this scale?

Variable Additional Analysis: Interest in Politics:

- Let's talk for a few minutes about politics in general. How much interest do you generally have in what is going on in politics? (a great deal, quite a lot, some, not very much, none at all)


[^0]:    *The author gratefully acknowledges the helpful comments by Ted Brader, Sara Hobolt, the participants of the political behaviour seminar at the London School of Economics and Political Science, and Guido Tiemann and other participants at the MPSA panel. The authors are also very thankful to the anonymous reviewers for their excellent comments. This project was supported by the Swiss National Science Foundation (grant P2SKP1_168296).
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[^1]:    ${ }^{1}$ As the data are not continuous, one drawback here is that the matrix of variance-covariance estimated for the PCA is biased.
    ${ }^{2}$ I keep the two dimensions with the highest eigenvalues, because they generally explain most of the variability.
    ${ }^{3}$ The reason for not including all locations (parties and respondents) for the estimation of the PCA is that party locations are more numerous than self-locations, and using all locations might distort the policy space.

[^2]:    ${ }^{4}$ As van der Eijk (2001) suggests, measures of deviations on one dimension are potentially biased if the scale is defined by a fixed number of categories. However, as no measure of centrality is directly related to his measure of agreement, I cannot measure agreement before applying the PCA and then transform it using the loadings of the PCA. After the application of the PCA, as the two main dimensions are a linear combination of several issues, the resulting categories are not equally spaced, and consequently, the interval assumption does not hold. Consequently, his measure of agreement cannot be deduced from the two dimensions given by the PCA. However, as a linear combination of several issues gives rise to a higher number of categories, the bias identified by van der Eijk (2001) should be of lesser importance.

[^3]:    ${ }^{5}$ This is because party A is mainly ambiguous on a dimension that is orthogonal to the segment $\overline{\text { party A voter } 1}$, not to segment party A voter 1.

[^4]:    ${ }^{6}$ I use Ecker's (2011) STATA package agrm.
    ${ }^{7}$ The levels of the scale vary across countries but all variables have been rescaled in order to have the same minimum and maximum values. See the Appendix for the question used in each country.
    ${ }^{8}$ Results show similar trends in analyses comprising all respondents. I also tested whether ambiguity interacts with turnout. Although I find that voters are more likely to dislike ambiguity than non-voters, this result is not robust. A jacknife test shows that the results only hold in half of the cases.
    ${ }^{9}$ I follow Somer-Topcu (2015) and use the Comparative Manifesto Project dataset to code this variable. If the percentage of the manifesto dedicated to left-right issues was higher than 42.27 (the mean minus a standard deviation), I coded the party as single issue.
    ${ }^{10}$ The variable education has been standardized to range from 0 to 10 in each country.

[^5]:    ${ }^{11}$ I also regressed party sympathy on perceived distance and then regressed the residuals of this regression on all other dependent variables including ambiguity. I do so for Models 1 to 3 and also find a significant and negative effect of ambiguity.

[^6]:    ${ }^{12} \mathrm{I}$ also applied a jacknife here and the results are similar with one exception. After removing Denmark the interaction effect is still negative but not significant at the $5 \%$ level.

[^7]:    ${ }^{* * *} p<0.001,{ }^{* *} p<0.01,{ }^{*} p<0.05$

