

## 5 Modeling the New Party Vote

### *Data, Descriptive Statistics, and Method*

In this project, I examine whether the strategy of the established competitors influences the electoral outcome of new parties. To this end, I distinguish between issue competition and positional competition strategies. To capture the issue competition strategy of established parties vis-à-vis new competitors, I use the change in text similarity between the election programs of new and established parties as the main independent variable. Furthermore, the change in the left-right position is used to account for the influence of positional competition.

Apart from that, two secondary questions are examined. First, the influence of the ideological proximity of new and established parties on the fundamental relationship is analyzed. For this purpose, their affiliation to party families or ideological blocs is recorded. Second, I examine the extent to which the ideological specificity – or nicheness in other words – of the new party has a moderating effect.

Since the voting process depends on the electoral system in place, which can potentially be subject to change during the period under study, the electoral system is also included as an influencing factor in the model. Furthermore, I integrate the median voter position in the model because it has proven essential in policy move research. Finally, commonly used control variables like decade-fixed effects ensure unbiased estimates.

To address the research questions, the analysis covers 169 new parties in 18 advanced Western democracies from 1960 to 2018. The chapter is structured as follows: First, I justify the case selection, the chosen observation period, and the data sources used. This is followed by explanations of the dependent and independent variables. Then I will introduce the method used. In the following chapter, I finally present and discuss the analysis results.

#### *5.1 Data and Case Selection*

The essential characteristic of scientific theories is to formulate falsifiable statements about reality. Empirical data are used to falsify these statements, and their selection is thus decisive for the validity of the tests conducted.

The theoretical assumptions underlying this book require data on the position and issue emphasis of political parties. The theory claims to be valid for developed Western democracies in the post-war period so that data are required for as many parties as possible in different countries. In addition, time-series data is needed to capture the dynamics of party competition.

Several methods have been developed to obtain data on parties' positions in political science. Mair (2001) distinguishes between *a priori* judgments, secondary reading, expert surveys, mass surveys, elite studies, and the analysis of party programs and manifestos, each of which has its advantages and disadvantages and thus effects how the theory can be tested.

*A priori* judgments use the party family as a yardstick for an ordinal scaling of the party position. The basic idea is that parties of the same party family also have a similar position. However, this approach is now considered outdated. It captures party position statically and is thus not suitable for capturing ideological changes of parties between elections or in relation to each other.

Mair (2001) refers to secondary reading as a procedure in which the researcher determines party positions based on an intensive literature review. This procedure can be a precursor of the more formalized expert interviews. However, one central point of criticism is that it is questionable what the experts base their assessment on and how valid it ultimately is.

The more formalized expert surveys are supposed to deliver more valid results by increasing the number of persons determining the party position and thus developing a consensus that ideally comes closer to the actual party position than one expert alone can. Nevertheless, the fundamental problem of the justification of the experts' assessment remains: "Expert judgements are therefore not really an alternative to these other approaches; instead, they reflect a crude synthesis of these other approaches, filtered through the perceptions of well-read and intelligent observers. They are less an alternative than a short-cut" (Mair, 2001, p. 25). Furthermore, expert surveys usually only cover a specific point in time (Benoit and Laver, 2006; Castles and Mair, 1984). The Chapel Hill expert survey (Bakker et al., 2020) is an exception, as its first round took place in 1999 and has been repeated about every four years since then.

Mass surveys are another popular method. In these surveys, for example, the placement of political parties on the right-left axis is requested by the respondent, and thus the perception of the party position is measured. Surveys conducted in several waves also allow changes in party position to be

determined. However, one main criticism is that the respondents' perception is not necessarily identical with the actual party position.

Elite studies take very different forms, including analyses of the voting behavior of parliamentarians as well as interviews with party members or functionaries. Here it is questionable how individual party members or functionaries reflect the party as a whole. Moreover, this method is time-consuming and associated with high costs, so time-series cross-section data are not available.

The analysis of party programs and manifestos is based on either manual or computer-assisted content analysis based on category schemes. The great advantage of this method is that it can be used to repeatedly analyze long past points in time with recourse to original documents. In the process, changed questions can also be taken into account. Nevertheless, even this approach is not perfect. For example, the comparability of election programs between countries is questioned. The party manifesto project is the most famous example of a systematic manual content analysis of election programs and "remains one of the great success stories of international political science" (Mair, 2001, p. 16).

Concerning the assessment of issue salience, the variety of methods is smaller than in the determination of party positions. Although there are individual actors such as the Forschungsgruppe Wahlen (Jung et al., 2013) that regularly collect data on the currently most important issue from the perspective of the population, these efforts usually remain limited to individual countries, too. Cross-national data is available from projects such as the European Value Study (EVS, 2021). However, these only record on an even more coarse scale which issues are considered relevant to the population or the respondents' attitudes to selected issues. To the best of my knowledge, there is no cross-national longitudinal survey data on the issue emphasis of individual parties.

The analysis of election programs, on the other hand, has been carried out for many years to identify the main issues of parties. Once again, the Manifesto project (Volkens et al., 2020) should be highlighted. The CMP category scheme is based on "fifty-seven categories into which sentences can be counted and percentaged" (Budge, 2001b, p. 219). According to the project's self-description, these data are to be regarded as the salience of the respective underlying issues, while their combination into indices such as the RILE allows the determination of a party position.

The analysis of election manifestos is thus a suitable method to determine both party positions and the salience of issues. To capture party position, I resort to the RILE, the most established and widely used index that captures

party position based on the CMP categories. Moreover, the development of computer-assisted text analysis methods now makes it possible to analyze election programs cost-effectively and under new questions without having to resort to the CMP categories (e.g. Bräuninger et al., 2013). This is the path I am following with this work, whereby I intend to measure the issue salience of parties.

Overall, my analysis is based on the changes in electoral programs between elections in terms of party position and salience. This form of analysis also has implications for data availability and thus for the cases that can be included. To answer my research questions, I use the Parties, Institutions & Preferences (PIP; Jahn et al., 2018a) dataset. It combines data from the Manifesto project dataset with a collection of election results, cabinet compositions, and party fates. The main focus of the PIP dataset is to allow analyses with the most lengthy time series possible.

Another important data source is the Manifesto Project Dataset (Volkens et al., 2020), which covers 4656 election programs of 1170 parties from 56 countries. The dataset spans 761 elections from the year 1920 to the present. The main dataset contains, among other variables, the 57 main categories of the CMP category scheme and enables the calculation of indices such as the RILE. It covers “relevant parties, i.e. those that gained at least one seat in parliament” (Volkens et al., 2018, p. 2). This fits in with the definition of new parties used here.

The documents to be analyzed were taken from the Manifesto Corpus (Krause et al., 2018). This is the most comprehensive source of election programs. It contains the original documents on which the content analysis of the main dataset is based. The Manifesto Corpus Version 2018b used here contains 2317 election programs in nearly 40 languages. Due to missing election programs, the corpus size is smaller than the main dataset, limiting the analysis. The availability of manifestos varies from region to region. While election manifestos have been available for many Western countries since the 1960s, this has only been the case for Eastern European countries since the 2000s. Iceland, Greece, and Luxembourg also have poor coverage.

From these datasets, suitable cases are to be selected. As Pennings et al. (1999) pointed out, research designs can be straightforwardly defined by the number of cases included as well as the number of time points considered. In this sense, the study at hand conducts pooled analyses to maximize cases across time and space (Pennings et al., 1999, p. 28). There is a wide range of case selection methods in the field, without a clear consensus about the best method to choose (Beck, 2017). Case selection is made here in the

spirit of the most-similar system method (Przeworski and Teune, 1970, p. 32-34). The basic idea is to keep the cases under study as similar as possible so that a few experimental factors can explain differences between them: "It is anticipated that if some important differences are found among these otherwise similar countries, then the numbers of factors attributable to these differences will be sufficiently small to warrant explanation in terms of those differences alone" (Przeworski and Teune, 1970, p. 32). Lijphart refers to this procedure as the "comparable cases strategy" (Lijphart, 1975, p. 164). As he goes on to explain, comparable cases are likely to be found "within a geographical-cultural area" (Lijphart, 1975, p. 159).

Accordingly, I limit my analysis to developed and highly industrialized Western democracies. Based on this definition, my initial sample included 22 developed democracies and highly industrialized OECD countries. Japan was excluded from this sample because, unlike the other countries, it has no European antecedents. In this sense, it is genuinely an individual case, dissimilar to the other nations in the sample regarding its cultural and historical roots (Castles, 1998, p. 9). Moreover, the USA fell out of the sample because no new parties meet the definition criteria used here. Due to a lack of data, I also had to omit Iceland, Greece, and Luxembourg. This leaves me with 18 Western democracies in the sample: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

For these countries, data availability in the Manifesto corpus is also comparatively high (cf. Table 5.1). A total of 1671 election manifestos from 306 parties are available. For the majority of countries, the period of investigation begins in the 1960s and extends to 2017, except for France, Germany, and the Netherlands, for which even older election programs were collected. The determination of the observation period depends mainly on the definition of new parties. For this project, a party is considered new if it enters parliament for the first time only after the formation and consolidation of the original party system.<sup>1</sup> To ensure that this period of formation and consolidation of the party system has already taken place, I only examine new parties that entered parliament for the first time after 1960. This threshold ensures that the party systems of the countries studied have reached a certain maturity so that new parties can no longer belong to the original party system. For

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1 I exclude electoral alliances, but parties which came out of a party merger or split are included in the sample.

Table 5.1: Manifesto Corpus Data Availability at Country Level

Iso	Country Name	Obs.	No. of Parties	First Year	Last Year
36	Australia	88	11	1961	2016
40	Austria	66	10	1966	2017
56	Belgium	134	24	1961	2010
124	Canada	53	9	1962	2015
208	Denmark	175	17	1960	2011
246	Finland	97	13	1962	2011
250	France	65	20	1958	2017
276	Germany	89	19	1949	2017
372	Ireland	75	15	1961	2016
380	Italy	100	38	1963	2013
528	Netherlands	130	27	1946	2017
554	New Zealand	82	11	1960	2014
578	Norway	95	8	1961	2013
620	Portugal	66	14	1975	2015
724	Spain	98	31	1977	2016
752	Sweden	103	9	1960	2014
756	Switzerland	94	17	1963	2015
826	United Kingdom	61	13	1964	2017
Total		1671	306	1946	2017

countries that were democratized later, such as Portugal and Spain, I have set the beginning of the period under study at 1980, so that here too, at least one election has taken place before parties entering parliament for the first time can be considered new.

There is also the question of whether there is a time limit on how long the party can be considered new for individual parties. This, too, depends heavily on the definitional criteria for new parties, so the approaches taken vary. While some studies circumvent this issue by focusing on the number of new parties that enter parliament for the first time (Tavits, 2006; Zons, 2015), others explicitly examine the entire life span of a new party (Tavits, 2008; Willey, 1998). A third group tries to capture the degree of novelty by looking at characteristics of the party organization or its ideology (Barnea and Rahat, 2011).

In this study, the newness of a party is defined by its first entry into parliament, which is described as organizational newness (Bolleyer and Bytzek, 2017). This criterion is in principle open to setting a point in time after which a party is no longer considered new. However, this threshold would be arbitrary because there is a lack of evidence in theory after how many elections the new-party effect has worn off. Hence, I argue for explicitly including the number of elections in which a new party contested as a control variable in the model.

The case selection procedure gives me a sample of 168 new parties in 18 countries for which at least some manifestos are available.<sup>2</sup> This results in a total of 5296 dyads that can be analyzed. Depending on the variables used in the model, the number of parties and dyads in the sample becomes considerably smaller. I give the exact number in the descriptions of the model in the corresponding subsections. One example should be enough here: Analysis demands at least two time points for each party in order to capture changes in the election program; therefore, all new parties which only have been in the parliament for one election are dropped in the model fitting process, which gives me 117 new parties without missing values for the strategy values.

I summarize the case selection and observation period as well as the number of parties and dyads in Table 5.2. In addition, a comprehensive list of all new parties, their respective manifesto ID (or CMP party code), and descriptive statistics on their vote share can be found in Table 8.1 in the appendix.

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2 A detailed description of the availability of corpus data at party level can be found in section 8.1 in the appendix.

Table 5.2: Case Selection

Country	Time		Observations	
	First Year	Last Year	No. of New Parties	No. of Dyads
Australia	2010	2016	3	26
Austria	1986	2017	6	71
Belgium	1968	2014	15	1121
Canada	1997	2015	4	46
Denmark	1960	2015	11	676
Finland	1970	2015	6	304
France	1993	2017	8	148
Germany	1983	2017	3	81
Ireland	1982	2016	10	143
Italy	1976	2018	23	435
Netherlands	1967	2017	20	745
New Zealand	1966	2017	9	253
Norway	1961	2017	3	170
Portugal	1983	2015	4	89
Spain	1982	2016	17	326
Sweden	1988	2014	4	116
Switzerland	1987	2015	12	374
United Kingdom	1983	2017	10	172
Total	1960	2018	168	5296



## 5.2 Dyadic Approach

Previous work on the influence of rivals on party positions usually relies on observations of party-years, with these studies either focusing on the analysis of a few selected rivals (Meguid, 2008) or using a spatial-matrix approach in which the various movements of rivals are combined into one measure (Adams and Somer-Topcu, 2009b).

A critical evaluation of this approach was made by Williams (2015). The author points out that summarizing the policy moves of different parties "violates our understanding of strategic party competition and produces unrealistic empirical predictions" (Williams, 2015, p. 146). His solution is to replace the uniform-weight matrix with more advanced spatial econometric models. The matrix is weighted according to different schemes to consider influences of neighbors, parties of the same family, and the like. On the one hand, this leads to more realistic empirical results, as its application in policy diffusion research shows (Böhmelt et al., 2016). On the other hand, the problem of information loss due to averaging persists.

Another solution to this problem is the dyadic approach, which I opt for here. The dyadic approach has been used mainly in international relations and in diffusion research (Volden, 2006). Recently, this approach has also become increasingly popular in party policy research (Düpont, 2017; Düpont and Rachuj, 2021). In the dyadic approach, each observation consists of a combination of two observation units. So instead of party-years, a dyadic study is based on dyad-years, i.e., a pair of parties is studied at different points in time. In the dyadic approach, each party is "allowed to be the potential "receiver" and "sender" of a policy, and independent variables can measure the characteristics of both "receivers" and "senders", as well as their relationships" (Gilardi and Fuglister, 2008, p. 415). This method thus avoids averaging all movements of parties in a party system in one measurement and allows to take the characteristics of different parties and their relationship into account. Therefore, it is well suited for the analysis conducted here.

I compare each new party with every contender party in the same party system at that election. That means new parties are also compared to other parties considered new. The rationale behind this decision is that competition between new parties seems as influential as between established and new parties. Moreover, new parties in a party system may have entered parliament at very different times and therefore differ in their degree of maturity. A restriction, therefore, does not appear to be appropriate.

After I have just explained the selection of cases and the data source, I devote the following sections to operationalizing the dependent and independent variables. I then turn to the modeling and method of statistical evaluation.

### 5.3 *Dependent Variable*

The dependent variable of this analysis is the vote share of new parties. Since Downs (1957), models of spatial competition have been based on vote share, despite efforts to develop these models further (Strom, 1990). This seems appropriate because the vote share plays a central role in the political system. It decisively determines the number of seats to be expected in parliament, influences the prospects of gaining political office or participation in coalition formation, and is linked to many other advantages, such as the level of party funding or media coverage. Therefore, party strategists are likely to keep an eye on their own vote share and that of others.

From a methodological point of view, the vote share allows the modeling of success and failure over the entire life span of a party in parliament. Compared to other conceivable measures such as first-time re-election (Obert and Müller, 2017) or the number of total electoral participations, this is a great advantage for the research interest pursued here. Although other methods are also justified in their respective area, they do not fit the analysis of the dynamics of position and issue competition that is of interest here, as they focus on the beginning or end of a party's journey in parliament.

The distribution of vote shares (cf. Figure 5.1) for new parties shows a strikingly right-skewed distribution with a mean (dashed line) of 7.02% and a standard deviation of 6.43%. The median is 5.10%. So while the center of gravity of the distribution is in the range below 10% of the vote, there are a surprising number of observations that even exceed 20% of the vote.

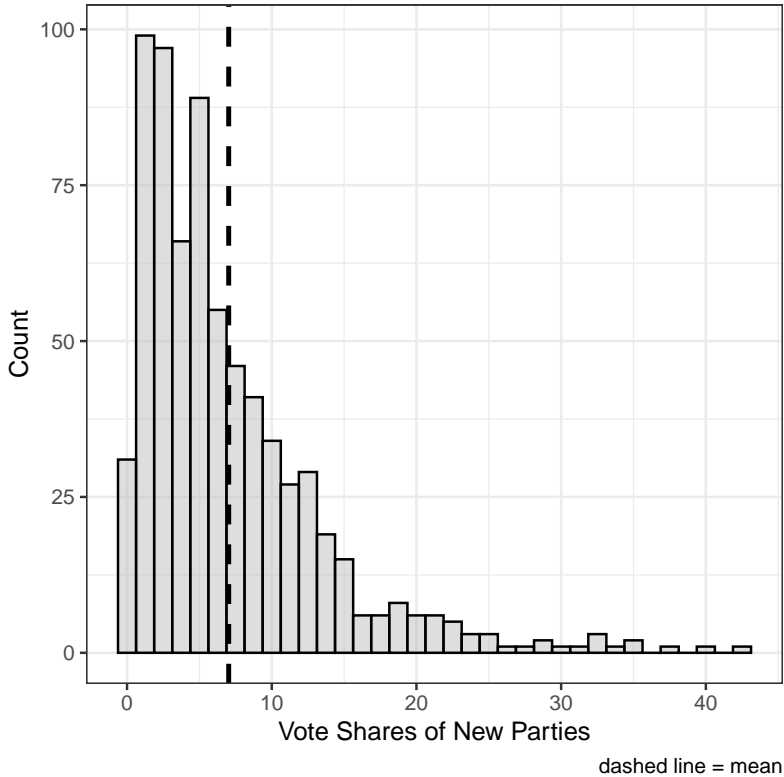


Figure 5.1: Distribution of Vote Shares of New Parties

Let us look at the distribution of the election results of new parties by countries (cf. Figure 5.2) for the whole observation period. We first see that relatively similar median values of around 5 percent are observed in the majority of countries, with a lower group with well below 5 percent in the countries Ireland, Portugal, the United Kingdom, Switzerland, and Spain standing out relatively clearly from a smaller upper group consisting of Canada and Belgium with around 10 percent median vote share. Concerning the dispersion of the values, Italy, the Netherlands, and Canada are particularly striking, with a range of almost 40 percent of the votes. These sometimes large differences between countries suggest that country-fixed effects should be included in the model.

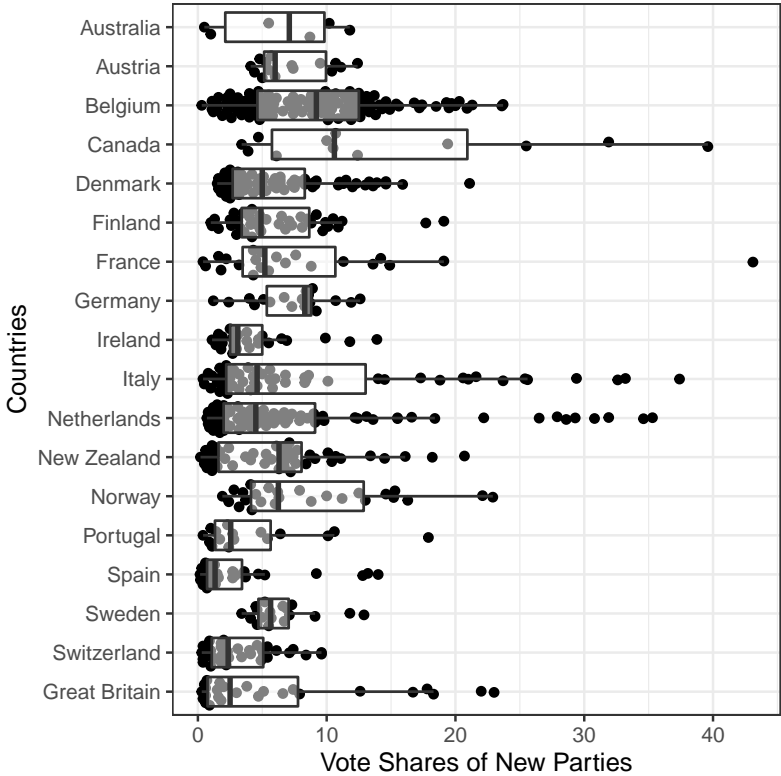


Figure 5.2: Election Results of New Parties by Countries

#### 5.4 Independent Variables

The dyadic approach adopted here pairs new parties with established competitors. This makes it easy to capture characteristics of the established party, the new party, or their relationship using independent variables. This chapter follows the same logic: first, I explain how I operationalized the strategic behavior of the established party. I then discuss the measurement of nicheness as a characteristic of the new party. Next, the shared party family represents the relationship between the two parties. Finally, I discuss the selection and operationalization of control variables such as the type of electoral system.

In this project, I consider positional and issue competition as the main areas of strategic party activity. I, therefore, formulate and examine the strategies of established parties vis-à-vis their new competitors with regard to these two dimensions. This requires appropriate measurements of both dimensions. I use manifesto data, specifically the RILE, to measure positional competition on the left-right dimension. The scholars of policy moves heavily utilized this approach, so I draw on their previous work. However, I use a different approach to measure issue competition, namely the computer-assisted text analysis of election programs. Both methods will be explained in greater detail below.

### 5.4.1 Positional Competition

The theoretical model on which this work is based sees positional competition around the left-right dimension as an essential part of strategic party competition. The basic idea of this approach is that voters prefer the party in an election which has the smallest distance to their position. A variety of approaches have been developed to capture the position of parties. A general overview of the most important of these methods has already been given in section 5.1. The conclusion is that no method is without weaknesses, so compromises are necessary. In the context of this work, I follow the leading strand of (policy move) research and use CMP data to calculate the RILE index (Budge and Klingemann, 2001) as a measurement of party position. A detailed discussion of the properties, advantages, and disadvantages of the CMP data and the RILE was carried out in chapter 4. Hence, in this section, I will explain the calculation of the strategy based on the RILE index.

### Measuring Strategic Positional Competition

While in the policy move literature, the direction of the policy moves plays a crucial role, here the changes in the relative position of the new and the established party to each other are to be determined. For this purpose, the election program of the new parties is compared with that of the established party at two successive election dates (cf. Figure 5.3). Thus, the observed change in distance can be attributed to the policy move of the established party.

$$\begin{aligned}
 D_1 & \left| \text{NewParty}_{t0} - \text{Est.Party}_{t0} \right| \quad (\text{Position Distance at Initial Election}) \\
 D_2 & \left| \text{NewParty}_{t0} - \text{Est.Party}_{t1} \right| \quad (\text{Position Distance after Policy Move}) \\
 \text{Strategy}_{RILE} & \begin{cases} \text{confrontation strategy} & \text{if } D_2 - D_1 > 0, \\ \text{maintainance strategy} & \text{if } D_2 - D_1 \sim 0, \\ \text{adoption strategy} & \text{if } D_2 - D_1 < 0 \end{cases} \quad (\text{Strategy})
 \end{aligned}$$

Figure 5.3: Equations to Calculate the Positional Strategy of Parties

First, I measure the difference in position between the election manifestos of both contenders in the initial election. Second, I compare the position of the established party in the next election with the position of the new party in the initial election. The comparison of the two differences allows conclusions to be drawn about the shift in the position of the established party. If the difference between the two parties has increased, the calculated strategy variable takes on positive values. The established party has chosen a confrontational strategy. If the distance has decreased, the values of the strategy variable are negative. The established party has taken a position closer to the new party, i.e., it has chosen an adoption strategy.

## Descriptive Statistics

In order to determine the strategy of an established party, three election programs must be available. However, this has a negative effect on the total number of dyads to be examined. Of 5296 dyads of interest in the sample, a strategy value could be calculated for 3579 due to missing values. The distribution of values for the strategy variable is slightly right-skewed, with the range of values larger for negative values (representing adopting strategies). It is striking that the mean value is very close to zero. Thus, many parties change their right-left position slightly from election to election. At the same time, even large policy moves of 20 or more points are actually not rare, regardless of whether they are an expression of an adopting or a confronting strategy.

When looking at the histograms for the individual countries (cf. Figure 5.4), somewhat smaller differences in detail become apparent:<sup>3</sup> In Australia (ISO code 36), the number of analyzable dyads is relatively small, contributing to noticeable gaps in the distribution of values. There are only minimal changes in the RILE in many cases in Spain (ISO code 724), which is reflected in a pronounced peak in the histogram. A similar pattern is observed in Belgium (ISO code 56). All in all, these country differences are relatively small, so it is not apparent that individual countries or groups of countries deviate to such an extent that no generalization is possible.

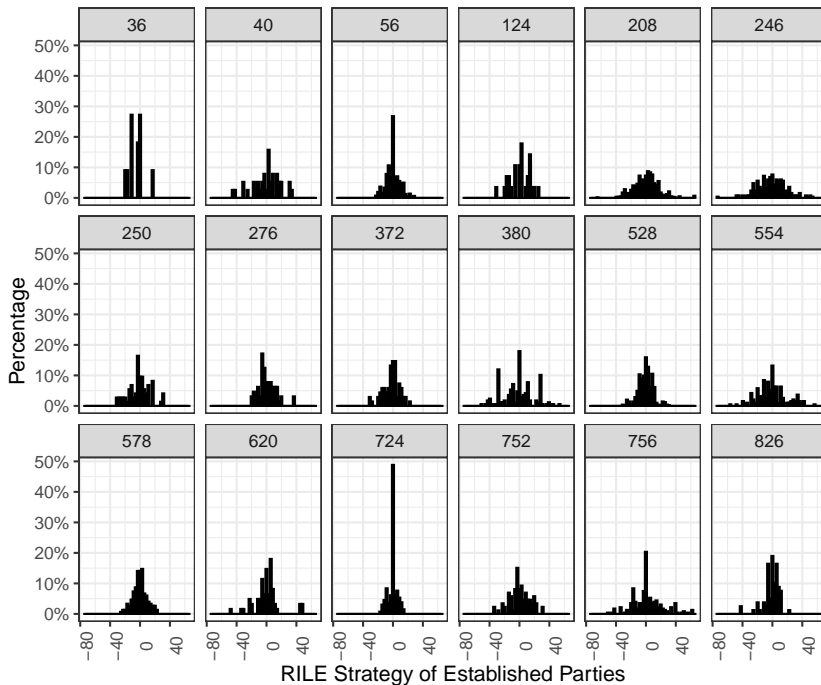


Figure 5.4: Distribution of Positional Strategies of Established Parties By Countries (ISO Codes)

3 In order to better compare the countries with each other, I present them side by side in one figure. In order to provide a good graphical representation of the histograms despite the different numbers of cases, I have chosen the percentage scale for the y-axis. Furthermore, I use the ISO codes instead of country names for better plotting.

From a Downsian perspective, the adopting strategy should be associated with a lower vote share for the new party because voters have an established party as an alternative. Hence, confrontation should have the opposite effect. Furthermore, previous research suggests that parties tend to moderate their position, which means "that parties tended to shift their policy positions in the same direction that their opponents had shifted their policies at the previous election" (Adams and Somer-Topcu, 2009b, p. 825). This corresponds to a maintaining strategy with a relatively small effect on the vote share since the distance between the two parties remains the same.

However, following Green-Pedersen (2007, p. 608) I assume that positional competition plays a secondary role for new parties because the left-right dimension is not as crucial for new parties as it is for established parties. For this reason, adoption and confrontation strategies are likely to have relatively small effect sizes on the vote share of the new parties. Instead, issue competition is likely to have a more significant influence. I will discuss this in the following section.

#### 5.4.2 Issue Competition

This study assumes that issue competition is, besides position, a fundamental component of party competition. Issue competition means that parties compete by emphasizing issues to different degrees. In this way, they try to convince voters of their competence in the respective area or the urgency of the respective issue to have a favorable starting position in the election.

The measurement of similarities and differences in the emphasis of issues between parties was so far done by evaluating CMP data (Seeberg, 2020a, p. 8). However, this means a restriction to a small number of specific issues. This limitation is particularly problematic when researching new parties. Instead, I aim for a truly multidimensional measure that avoids the a priori determination of issues to be investigated. Hence, in this project, I use a novel measure that determines the similarity of documents based on quantitative text analysis.

While the fundamentals of bag-of-words approaches (cf. section 4.1.2) and the calculation of cosine similarity scores (cf. subsection 4.1.3) have already been explained in great detail, this chapter focuses on the calculations necessary to construct a measurement of strategic issue adaptation and avoidance and the challenges posed by multilingual corpus documents.



## From Text to Data

Text-as-data approaches combine several advantages that justify their use in party research: For the thesis at hand, it is particularly favorable that the measurement does not require an a priori determination of categories. Thus, it is possible to capture changes in parties' issue competition strategies without relying on the prior specification of issues. This is a great advantage, especially when examining parties that potentially address new or niche issues that are not part of the left-right dimension.

In order to capture the similarity of the parties' issue emphasis, a quantitative text analysis was conducted. The basic idea of the measurement is grounded in the distribution hypothesis, according to which similar topics are formulated with similar terms (Sahlgren, 2008). Since only comparisons between election programs in successive elections were made, possible semantic problems due to the shift in the meaning of terms over time are not expected. So, if documents show a high correspondence of the terms used as well as their frequency, this is interpreted as an expression of a similar issue structure. Thus, following the bag-of-words approach, the text similarity of election manifestos is considered here to measure the similarity of the issues addressed by the parties in their election manifestos.

The election programs to be analyzed are formulated in natural language in all its complexity, "but not all of language's complexity is necessary to effectively analyze texts" (Grimmer and Stewart, 2013, p. 272). To reduce this complexity, information is discarded that is unnecessary for the statistical analysis. In this respect, the most consequent step is to discard the order of words in the document, analyzing only the frequency of the individual terms. The document-feature matrix constructed in this way represents text as word count data. While each column represents a unique term, each row represents a document. The cells contain the frequency of the respective feature in the text. For this matrix to be analyzed meaningfully, all documents must be available in the same language. I will explain the necessary translation and validation in a separate section (c.f. section 5.4.2).

The construction and preprocessing of the document-feature matrix has the task of converting the contents of the texts into frequency data, so that the text contents of interest become as easily accessible to the analysis as possible and are not obscured due to frequent terms or content-less stopwords. At the same time, the construction and preprocessing of the document-feature-matrix should not itself lead to bias. To meet these objectives, as few preprocessing steps as possible were carried out. All manifestos were subjected to the same

preprocessing steps, i.e., all manifestos from all countries were translated into English. In this way, I ensure that the bias induced by these steps is as similar as possible for all electoral programs and that the observed differences are not falsely attributed to countries, for example, when they are actually methodological artifacts.

Before preprocessing of the documents can begin, however, it must be ensured that the documents to be compared are in the same language. Since comparisons are only made within countries, one might assume that this would not be a problem. However, in practice, it has become apparent that this is indeed a challenge. In Finland, Belgium, France, Italy, Spain, Switzerland, and Canada, the parties compete in more than one language. Therefore, I conducted a computer-assisted translation of the document-feature matrix of all manifesto corpus documents in the sample to overcome language barriers between manifestos. I report on the details of this process in the following section.

For the preprocessing steps, I follow generally accepted procedures (Reber, 2019, p. 5), which include splitting of n-grams, removal of stopwords, trimming, and normalization. N-grams are terms that consist of several individual words. These result, among other things, when compound words are translated for which there is no direct equivalent in the target language. In splitting, n-grams are broken down into individual words. This is justified because n-grams do not generally improve the quality of the analysis (Grimmer and Stewart, 2013). Afterward, so-called stopwords were removed based on a stopword list. Stopwords are terms that do not themselves convey any topic-related information because they mainly fulfill grammatical functions (Grimmer and Stewart, 2013, p. 273). They can therefore be ignored in the analysis conducted here. For the same reason punctuation, numbers, and symbols are removed from the text.

The removal of stopwords does influence the word distribution, but since the terms do not have any meaning in terms of content, this should be substantially insignificant (de Vries et al., 2018). Since the list of stopwords differs from language to language, this step is a potential gateway for bias. To exclude this, all document-feature matrices were translated into English, and the resulting translated DFM was freed from English stopwords. In a third step, terms were removed from the DFM that appeared in less than 1% and more than 99% of the documents. This so-called trimming serves to neither overestimate nor underestimate similarities of documents due to particularly rare or frequent terms (Grimmer and Stewart, 2013, p. 273). It also improves the efficiency and accuracy of the results (Welbers et al., 2017, p. 253).

Finally, the DFM was weighted or normalized, i.e., the absolute frequencies in the cells were converted into relative frequencies. This step compensates for differences in the length of different documents.

The DFM thus obtained is the basis of the analysis carried out here. Based on this data, the text similarity between pairs of documents is calculated. I will go into the details of this procedure in a separate section (c.f. section 5.4.2).

Before that, however, the multilingualism of the election programs should be addressed in greater detail. As has already been said, the documents to be compared must be in the same language in terms of their textual similarity. Therefore, I had to translate the manifestos. In the following section, I give a brief overview of the process.<sup>4</sup>

### Dealing with Multilingual Corpora

The best way to compare multilingual election programs is a human translation of all full texts into a common language. However, the large volume of data to be translated would require a tremendous amount of time and money. Fortunately, machine translation has made great strides in recent years. Although it has not yet reached the quality of human translation, it has become a viable option for political science as well, and it is fast, inexpensive (de Vries et al., 2018; Lucas et al., 2015; Reber, 2019), and easy to use. Providers such as Google Translate allow access to their service via the well-known web interfaces and APIs. Packages such as *translateR* (Lucas and Tingley, 2015) use the APIs to allow direct access by statistical software such as R (R Core Team, 2021) to process the data.

The pricing for machine translations usually depends on the volume of the characters to be translated. For example, a full-text translation of the entire Manifesto Corpus would cost more than 10,000 dollars using the Google translation service. In order to use scarce resources as efficiently as possible, it is therefore vital to keep the amount of text as small as possible.

Therefore, a term-by-term translation of the document-feature matrix as proposed by Reber (2019, p. 5) is performed here. This process allows the number of characters to be translated to be drastically reduced. Instead of translating the same words repeatedly, each unique term is translated only

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4 The translation and data collection procedure presented in the next section was carried out in January and February 2019. Therefore, the data has already been validated and was applied in another project I am involved in (Düpont and Rachuj, 2021).

once per language. Moreover, the number of characters in the DFM does not increase linearly with the number of election programs that this DFM represents. After a certain number of election programs, almost all terms have appeared once, and another election program hardly contains any new unique features. For example, while all German election programs contain about 20 million characters, the DFM of all German election programs has only 1.6 million characters. All in all, the number of characters to be translated for the entire sample is reduced from over 160 million to about 7.2 million characters and thus by more than 95%.

In the entire sample of 18 countries, 13 different languages are represented. These are Catalan, Danish, Dutch, English, Finnish, French, Galician, German, Italian, Norwegian, Portuguese, Spanish, and Swedish. English was chosen as the target language for the translation. English, already the *lingua franca*, is also the largest single language in the sample, with five English-speaking countries, so it makes sense to choose this language to have to translate as little as possible and thus keep the costs low. In addition, English has a reputation for delivering the best translation results, not least because most parallel corpora are available for English, based on which the translation models are trained (de Vries et al., 2018, p. 5). In total, 12 language pairs had to be translated.

As Grimmer and Stewart (2013) remind us, validation is central to text-as-data approaches. Of course, this also applies to machine translation. Three translation strategies can be distinguished: If the human full-text translation mentioned at the beginning is interpreted as the gold standard, then the machine full-text translation is to be seen as the silver standard, and the translation of the document-feature matrix as the bronze standard.

A comparison of the silver and bronze standards was carried out to validate the translation, i.e., to prove that the translated DFM is of comparable quality to a full-text machine translation. While for the whole corpus, the respective DFMs were translated with all manifestos of the respective source languages, a part of the corpus (about 20% of the texts for each language) was also full-text translated. The DFMs of the full-text translations were then compared with the feature-translated DFMSs in terms of cosine and Jaccard text similarity, vocabulary, and patterns of text similarity between the election programs.

The results show a high degree of text similarity between the texts despite different translation paths, a high degree of vocabulary similarity, and – most important here – a very high degree of correspondence in the similarity

patterns found between the election programs.<sup>5</sup> These data confirm the results of Reber (2019). The term-by-term translation method has thus proven its suitability. In summary, the presented translation method allows for the cost-effective comparison of election programs of different input languages. It thus provides a good starting point for calculating the independent variable used here.

### Measuring Strategic Issue Competition as Text Similarity

The previous section explained how the document-feature matrix was constructed and how the machine translation and validation were performed. This section explains how the text similarity was calculated based on the translated DFMs and how I derive a measure of strategic issue competition from it.

Several different measures have been proposed in the literature to capture the similarity between two texts (Bär, 2013, p. 17). This study uses the cosine similarity measure because it can be regarded as a baseline model: “[...] The standard way of quantifying the similarity between two documents  $d_1$  and  $d_2$  is to compute the cosine similarity of their vector representations [...]” (Manning et al., 2008, p. 121). It has a common scale from 0 (no similarity) to 1 (equal texts) and is robust against different text lengths. Furthermore, this measure is well implemented in content analysis packages like Quanteda (Benoit et al., 2018) and fits perfectly with the dyadic approach.

In order to develop a measurement of issue competition strategy from the measurement of text similarity, I proceed analogously to the calculation of the positional strategy explained above. The measurement is done by comparing three election programs. First, I calculate the text similarity of the election programs of the two competitors in the initial election following the equation in Figure 4.2. Then I calculate the text similarity between the election program of the established party in the next election and the initial election program of the new party. From the comparison of the two indicators (cf. Figure 5.5), it can be concluded whether the established party has taken up issues of the new party or respectively emphasized them more than before (engagement strategy) or not (avoidance strategy). So I interpret this measurement as the established party’s issue competition strategy against the new party.

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5 A more comprehensive (including graphical) presentation of the validation process including all results can be found in the validation report (Düpont and Rachuj, 2020).

$$\begin{aligned} S_1 \text{ } NewParty_{t0} \text{ vs. } Est.Party_{t0} & \quad (\text{Cosine Similarity at Initial Election}) \\ S_2 \text{ } NewParty_{t0} \text{ vs. } Est.Party_{t1} & \quad (\text{Cosine Similarity with New Manifesto}) \\ Strategy_{Cosine} & \begin{cases} \text{avoidance strategy} & \text{if } S_1 - S_2 > 0, \\ \text{indifference strategy} & \text{if } S_1 - S_2 \sim 0, \\ \text{engagement strategy} & \text{if } S_1 - S_2 < 0 \end{cases} \quad (\text{Strategy}) \end{aligned}$$

Figure 5.5: Equations to Calculate the Issue Competition Strategy of Parties

Since the issue competition calculation is based on similarities in election programs, while the positional competition measurement is based on differences in position, I adjusted the measurement of issue competition so that negative values indicate an engagement strategy, just as negative values for position competition reflect an adoption strategy.

Negative values can be interpreted as an engagement strategy because the similarity between the new party's election program and the established party's changed manifesto is higher than before. The established party shares more words or uses the shared words more often than in the previous election. Vice versa, positive values correspond to an avoidance strategy: the distance between both manifests has increased, some issues are not or not as often emphasized as before. In the next section, I present descriptive statistics for this variable.

### Descriptive Statistics

Presented above is the calculation of issue competition strategy based on two different text similarity measurements of three election programs. In total, the issue competition strategy could be calculated for 2770 dyads. The number of missing values is higher than for the positional strategy because of the smaller scope of the Manifesto Corpus. While the variable has a theoretical range of values from -1 to 1, we see an empirical range in the sample from -0.52 to 0.82. These are high numbers grounded on remarkable changes in the election programs of the established parties. However, such significant changes are comparatively rare.

Moreover, the observed values are symmetrically distributed around the mean value of 0.008 (standard deviation 0.1). The median of the distribution is 0.0035. The avoidance strategy is observed slightly more often than the engagement strategy.

To gain more detailed insights, it is useful to look at the histograms for the individual countries (c.f. Figure 5.6).<sup>6</sup> Here, too, it can be seen that most countries have a rather symmetrical distribution of values around the midpoint, which is close to zero. That means strategies of issue avoidance (positive values) and engagement (negative values) roughly balance each other out.

Despite this fundamental similarity, there are also notable differences between the countries. Again, Australia (ISO code 36) catches the eye because the small number of dyads appear as gaps in the histogram. As in the analysis of the distribution of positional competition strategies, Spain (ISO code 724) stands out in particular. Here, a pronounced peak can be seen in the histogram, reflecting that in a high number of cases, only minimal changes are made to the election program of the established parties. In other words, the strategy of indifference towards the new parties is used particularly often in Spain. Italy, on the contrary, shows a comparatively broad distribution of values, i.e., changes in the electoral program in both directions (avoidance and engagement) are observed with similar frequency, as is the strategy of indifference.

However, most countries do not show any peculiarities in their histogram and thus resemble each other quite well. Therefore, I have no reason to believe that individual countries might distort the analysis results.

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6 Like in Figure 5.4 I present country histograms side by side in one figure for better comparability. In order to provide a good graphical representation of the histograms despite the different numbers of cases, I have chosen the percentage scale for the y-axis. Furthermore, I use the ISO codes instead of country names for better plotting.

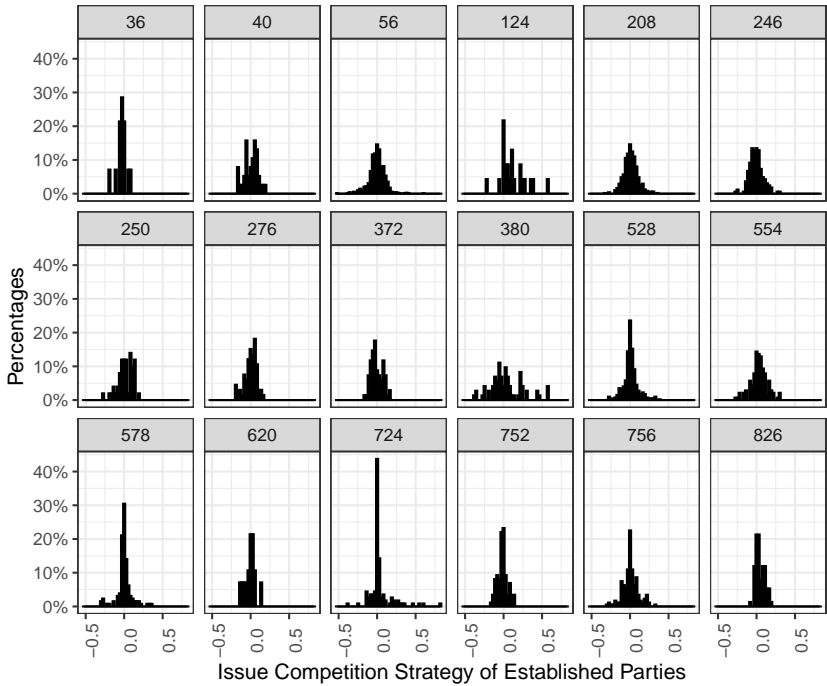


Figure 5.6: Distribution of Issue Competition Strategies of Established Parties By Countries (ISO Codes)

On theoretical grounds, I assume that an avoidance strategy is associated with a higher vote share for the new party because the party can mobilize their electorate around their issues without a rival with a competing offer in this segment. Accordingly, the engagement strategy is more likely to be associated with losing votes for the new party. Within the same ideological bloc, this relationship can disappear or be reversed. I will discuss this problem in the next section.



### 5.4.3 New Parties and Niche Issues

The study of niche parties has been popular over the last 15 years. However, an important part of the research focuses on the definition of the term, as very different conceptions have been put forward: "Researchers are still searching for concepts to clarify the defining criteria of niche parties, which results in different parties being perceived as niche parties" (Bischof, 2017, p. 220). Especially in early works, niche parties are considered a special type of party whose ideology differs from other parties by extreme (e.g., extreme nationalist) or non-centrist (e.g., green) issues. The classification into party families was used to identify such parties: "We label the members of the Communist, Green, and extreme nationalist party families as niche parties" (Adams et al., 2006, p. 513). Meguid also identifies niche parties through party family affiliation. Her "analysis focuses on the most common set of niche parties: the environmental and radical right parties (Meguid, 2005, p.351).

A different path was taken by Meyer and Miller (2015). The authors pointed out that niche parties are best captured with a minimal definition: "A niche party emphasizes policy areas neglected by its competitors" (Meyer and Miller, 2015, p. 261). They further argue that "other definitional elements proposed in the literature are variable rather than definitional properties. Specifically, (1) the novelty of its issues, and (2) its 'different' (i.e. non-economic) ideology are not essential elements and should be seen as empirical correlates rather than defining elements" (Meyer and Miller, 2015, p. 261).

With this new conception, the focus is no longer on identifying individual parties as niche parties but on the degree of nicheness that a party exhibits. This shift is of particular importance concerning new parties: it is often implicitly assumed that new parties and niche parties are identical. I argue, however, that niche parties are a subset of new parties. They may well be more vulnerable or resilient than other new parties. Therefore, I test whether the degree of nicheness influences the electoral vulnerability of new parties to strategies of established parties.

In order to measure the degree of nicheness of a party, Meyer and Miller (2015) proposed a new measurement that "should capture party nicheness as a relative concept of 'being distinct' from the competitors' issue emphasis; assess the degree to which a party accentuates policy areas (i.e. being continuous rather than dichotomous); allow for variation over time; and it should not restrict policy niches to specific policy areas (such as immigration or environmental protection)" (p. 262). Therefore, Meyer and Miller

(2015) compare for each policy dimension a "party's policy profile with the (weighted) average of the remaining parties in the system" (p. 262).

This measurement was later taken up and further developed by Bischof (2017), who combines two measures in order to generate an "additive nicheness index" (p. 226).

First, he uses the unweighed variant of the nicheness score proposed by Meyer and Miller. This "market share score" compares a party's selective emphasis on specific issues with the average emphasis on these issues by all other parties in the party system. He distinguished between ecological, agrarian, regional, extreme right, and eurosceptic segments. Bischof operationalizes his concept by assigning Manifesto Project pers to measure the emphasis of the market segments. These segments reflect the main issues of classic niche parties as identified by Adams or Meguid. What they all have in common is that they reflect non-economic issues on the fringes of the party system that mainly were ignored before the emergence of the niche party and thus integrate a new line of conflict into the party system (Bischof, 2017, p. 224).

Second, he develops a measure of specialization. It captures how different the parties' manifestos are for the five segments mentioned above. Combining both measures gives him a nicheness score, whereby high values represent a party with a significant market share advantage and a limited offer. In contrast, low values represent a diverse manifesto in which many market segments are discussed (Bischof, 2017, p. 227).

The main disadvantage of this type of measurement is the a priori definition of issues and the dependence on the availability of Manifesto Project data. The definition proposed by Meyer and Miller (2015) also does not mention specific issues or characteristics of these issues, while the concrete measurements make restrictions in this respect by focusing on particular issue segments. A measurement that builds directly on the election programs can avoid these shortcomings. I will propose such a text analytical measurement here.

Conceptually, it is based on the measurement developed by Meyer and Miller (2015) and Bischof (2017). The basic idea is that the nicheness concept describes that some parties make policy offers to voters that differ significantly from the offers already available in the party system. This is, of course, a question of degree and not of kind, so a continuous measure seems to be appropriate.

The measurement focuses on comparing the text similarity of the party under study with all other parties in the party system. So I compare the selective issue emphasis of one party with all the other parties in the party system

for a particular election. The proposed nicheness score is best understood as the average similarity of a party to the party system. High values represent a party that is very similar to all the others, while low values show that the party focuses on other issues than the rest of the party system. While the first party could be referred to as a mainstream party, the second is a niche party. I call this measurement the party system similarity score.

I compare it with Bischof's nicheness score to validate my new measurement. A simple correlation analysis first shows the expected negative correlation (Pearson's  $R = -0.37$ ), which indicates the plausibility of the new measurement (cf. Figure 5.7), but also that the two measures are not simply identical. Then, a more detailed analysis looks at the measurement value for different groups in the sample and at different points in time.

First, I compare the party system similarity score and the nicheness score for new versus established parties. If we look at the party system similarity score for new parties, we see that they have somewhat lower means overall than established parties ( $\bar{X}_{NewParties} = 0.45$  vs.  $\bar{X}_{EstablishedParties} = 0.47$ ). Two sample t-tests are statistically significant ( $p = 0.05$ ).<sup>7</sup>

Bischof's nicheness score shows a substantially similar result, with new parties having a higher nicheness ( $\bar{X}_{NewParties} = 0.57$ ) than established parties ( $\bar{X}_{EstablishedParties} = 0.51$ ). Again the two-sample t-test is significant ( $p = 0.001$ ).

This makes sense since new parties can often be assigned to one of the party families considered niche parties. Nevertheless, the slight difference also shows that an equation of new and niche parties is not appropriate. Therefore, the implicit equation of both concepts should be abandoned in favor of a concrete measurement of the nicheness of the parties.

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7 Contemporary quantitative research in the social sciences and their neighbouring disciplines is subject to considerable criticism (c.f. Ioannidis (2005); Wuttke (2019)). The so-called replication crisis sheds light on weaknesses and problems in the application of quantitative methodology (Schrodt, 2014) as well as on publishing mechanisms. At the heart of the debate is a profound critique of the use of tests of statistical significance (cf. Gill (1999); McShane et al. (2019); Troeger (2019)). These tests are especially questionable when the study units are not randomly selected, or a complete sample is studied (Behnke, 2005), as is the case in this project. However, I follow the mainstream consensus in this field and report the p-values, but opt for a cautious interpretation due to the concerns expressed by the scholars mentioned above.

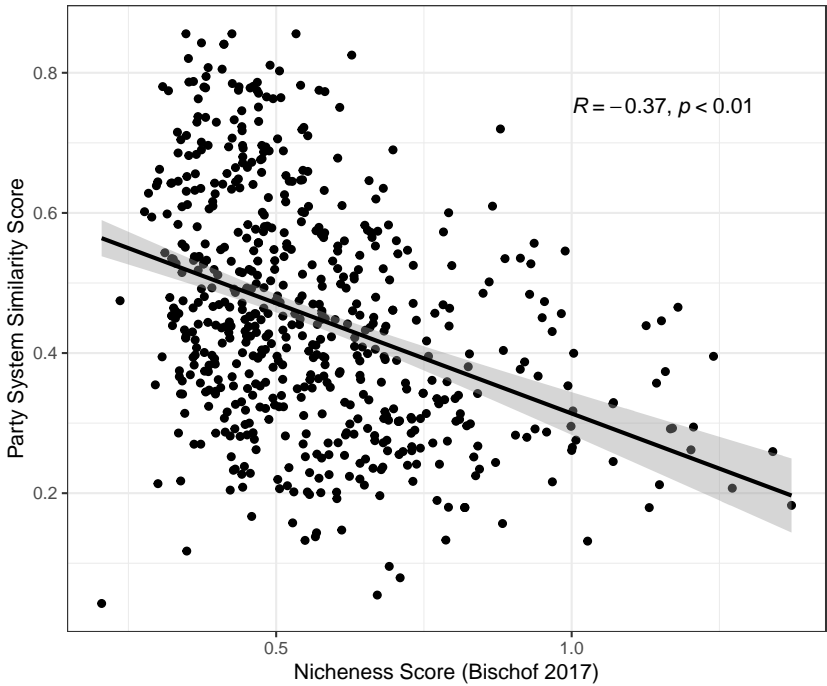


Figure 5.7: Relationship Between Different Nichelessness Scores of New Parties

Table 5.3 summarizes mean, standard deviation, lower and upper quartile, as well as the median for the two measures by party families. Looking at the values in detail, we find that ethnic, regional, special issue, and nationalist parties show the least similarity with the rest of the party system on average.<sup>8</sup> This result is encouraging because these party families ideally represent issues classified as non-centrist or extreme. A similar picture emerges for Bischof's nichelessness score: Special-issue parties, and the nationalists have the highest score. They are followed by the parties of the ecological party family.

At first glance, it is surprising that there seems to be a different assessment regarding the nichelessness of green parties. However, it must be borne in mind that this comparison does not yet consider the temporal dimension, i.e., the

8 Because there are only two agrarian parties in the sample, I do not consider their values any further. In addition, I have ignored parties that do not belong to a party family (missing values) for this analysis.

*Table 5.3: Party System Similarity and Nicheness Scores for New Parties by Party Families*

Party Family	Party System Similarity Score					Nicheness Score				
	Mean	SD	Q1	Me- dian	Q3	Mean	SD	Q1	Me- dian	Q3
Ecological	0.47	0.15	0.34	0.45	0.58	0.62	0.21	0.47	0.57	0.69
Socialist/Left	0.46	0.17	0.32	0.41	0.60	0.58	0.18	0.45	0.56	0.68
Social Democratic	0.49	0.17	0.36	0.45	0.60	0.56	0.21	0.42	0.49	0.66
Liberal	0.45	0.15	0.33	0.46	0.54	0.52	0.21	0.38	0.46	0.67
Christian democratic	0.47	0.19	0.31	0.44	0.66	0.48	0.16	0.37	0.44	0.55
Conservative	0.54	0.15	0.49	0.53	0.63	0.46	0.12	0.37	0.45	0.47
Nationalist	0.44	0.14	0.34	0.45	0.54	0.65	0.18	0.51	0.67	0.76
Agrarian	0.26	0.12	0.15	0.24	0.41	0.52	0.15	0.40	0.57	0.60
Ethnic/Regional	0.34	0.12	0.23	0.36	0.44	0.53	0.14	0.42	0.50	0.62
Special Issue	0.42	0.12	0.32	0.40	0.50	0.66	0.21	0.49	0.62	0.80
All	0.44	0.17	0.31	0.43	0.55	0.56	0.19	0.42	0.51	0.67

development of the measured values from election to election. Through Bischof's research, it is known that niche parties reduce their emphasis on niche issues over time (Bischof, 2017, p. 229). This is particularly true for the green parties, so a general average cannot suffice for the assessment. In the following, I also look at the development of the party system similarity score and the nicheness score during the first ten elections of new parties.

Plotting the measurement by party families and the number of elections shows the correspondence between the two indices even more clearly. For this purpose, I use a transformed party system similarity score, which facilitates comparisons with Bischof's nicheness score thanks to the rescaling. I obtain this by subtracting the party system similarity score from 1. This measurement can be called the party system dissimilarity score, i.e., higher values stand for a low similarity to the other parties in the party system (or a higher nicheness of the party), while low values stand for a high similarity to all other parties.

Figure 5.8 shows the median of the party system similarity score with a black dot and the upper and lower quartile of this variable by the length of the line. The respective values for the nicheness score are shown in red.

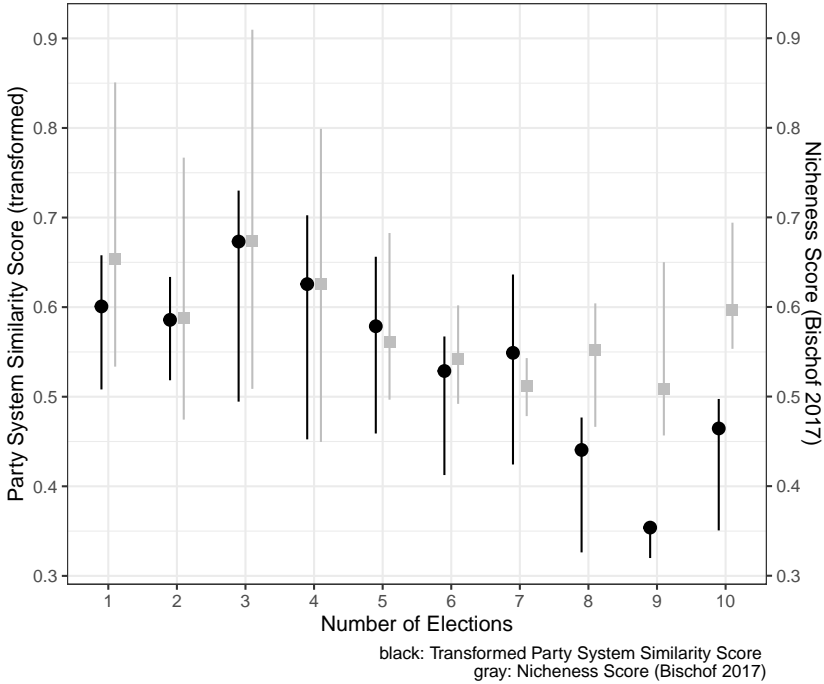


Figure 5.8: Nicheless Scores of Ecological New Parties

I present here the results for the new parties of the ecological party family. The plots for all other party families are in the appendix (c.f. section 8.3). For all party families, except for the Liberals, the transformed party system similarity score corresponds well with Bischof's nicheless score, especially concerning the direction of change. This results in very similar trends, which underlines the validity of the measurement.

At the substantive level, it is striking that in the case of the green parties, a trend towards a reduction in the emphasis of green issues can be seen, i.e., the nicheless of the parties in this party family decreases. A similar pattern can be seen in the special issue parties, which tend to become more moderate after the first elections. The proposed measurement can thus reproduce one of Bischof's key findings, which he calls the "first mover advantage" (Bischof, 2017, p. 230). Almost all other party families, perhaps most pronounced in regional parties, show a wave-like trend. Green and special issue parties are somewhat exceptions to the rule, underlining their status as niche parties.

In summary, it can be said that statements about the nicheness of new parties are possible by measuring the similarity of election programs using text analysis. Even with small differences in detail, the newly proposed measurement leads to the same conclusions as Bischof's method. Moreover, the party system similarity score has the advantage of not being *a priori* fixed with regard to the niche issues to be examined. Thus, the measurement is closer to the definition of niche parties as put forward most rigorously by Meyer and Miller. Furthermore, generalization to other points in time or world regions is more straightforward. In addition, the measurement is not dependent on the availability of manual content analysis so that it can be applied cheaply and quickly to new electoral programs, for example, at the state level.

I use the party system similarity score of a new party in my model to measure how much the party deviates from the rest of the party system in terms of its issue emphasis. I suspect that nicheness makes a party vulnerable to the established party's issue competition strategies. As a single effect, I think that the higher nicheness of a new party is associated with a higher vote share for the new party because the high degree of specialty shows that voters have no other parties to vote for.

#### 5.4.4 Ideological Proximity Between New and Established Parties

Downs' model suggests that the closer parties are to their opponents in ideological terms, the more dependent they are on changes in their positions and issues. This hypothesis is based on the assumption that voters prefer parties that are ideologically close to them. From the model's perspective, the policy move of a distant party at the other end of the ideological spectrum should hardly result in voter migration. In contrast, the policy move of a close party could well turn one's voters away. Due to this incentive structure, it can be assumed that parties will react to the policy moves of their rivals by changing their policies in the same direction. Empirical research confirms this assumption (Adams and Merrill III, Samuel, 2009; Adams and Somer-Topcu, 2009b; Williams, 2015).

At the same time, what electoral consequences this strategic behavior has for (new) parties remains to be seen. I first assume that parties in the same party family also share the same electorate. Therefore, the electoral outcome of new parties may be influenced differently by the policy moves of

an established competitor in the same party family than by a competitor at the other end of the political spectrum.

I use a priori assessments of ideological position in the sense of Mair (2001) in order to include ideological proximity as a variable in the modeling without generating an endogeneity problem at the same time. The best known and most widely used concept is that of the (ideological) party family (Höhne, 2012; Mair and Mudde, 1998; von Beyme, 1984), by which parties are assigned to types based on their origin or core ideology. Although the concept is considered "one of the most undertheorized and least specified approaches to the general classification of parties" (Mair and Mudde, 1998, p.211), it has been widely used in comparative political science ever since.

For example, the Manifesto Project distinguishes ten party families: Ecological, Socialist, Social Democratic, Liberal, Christian Democratic, Conservative, Nationalist, Agrarian, Ethnic and Regional and Special Issue Parties. The frequency of new parties in these party families is shown in Table 5.4. Most of the new parties in the sample belonged to either the Socialists or the Liberals. New parties of the Ecological family follow them. New Agricultural parties are infrequent. Conservative new parties seem to be particularly successful, while Ethnic and Regional parties have the lowest average vote share.

Concerning new parties, the concept of party families is particularly challenged: While many new parties can be assigned to a traditional party family, others are regarded as founders or representatives of an entirely new group of parties (such as green parties). In the case of a third group, it is difficult to make a classification at all: "[...] Quite a few newly emerging parties might prove *sui generis*, with little or nothing in their genetic makeup to suggest an equivalence beyond the borders of their own respective polities" (Mair and Mudde, 1998, p. 214).

In order to overcome these problems of classification, concepts have been developed that group different party families into ideological blocs. Adams and Somer-Topcu (2009b) distinguish, based on the party families of the Manifesto Project, a left-wing bloc of Ecologists, Communists, and Social-Democrats and a right-wing consisting of Conservatives, Christian-Democrats and Nationalists (Adams and Somer-Topcu, 2009b, p. 834). The Liberal parties are allocated as a centrist group but are not considered further in the analysis due to the small number of cases. In a broader version of the concept (Düpont, 2017, p. 82), Liberal and Agrarian parties can also be classified as right-wing so that as many party families as possible are represented in the two blocs. Both approaches have in common that Ethnic,



*Table 5.4: Vote Shares of New Parties by Party Family*

Party Family	Average Vote Share	No. of New Parties
Ecological parties	5.25	20
Socialist or other left parties	5.70	25
Social democratic parties	7.74	13
Liberal parties	8.40	25
Christian democratic parties	8.59	17
Conservative parties	11.23	11
Nationalist parties	7.49	13
Agrarian parties	6.87	2
Ethnic and regional parties	3.78	17
Special issue parties	9.51	15
Missing information	5.62	10
All new Parties	7.02	168

Regional, and Special Issue parties are omitted, as they are comparatively rare.

I test all three conceptions in this book. Using the dyadic approach, I investigate whether the new and the established party belong to the same party family or ideological bloc. I construct a dummy variable for each of the three concepts, which equals one if both parties share the same group or zero otherwise. To capture the moderating effect of this variable, I introduce an interaction between the (issue) strategy and the (shared) party family into my model.

Regarding positional competition, I assume that parties belonging to the same party family or ideological group should be more susceptible to the strategic policy moves of their rivals because both parties compete for the same voter milieus.

For issue competition, it is conceivable that within the same party family, strategies have a different effect on new parties than they do on new parties outside their group. The reason for this is that an engagement strategy shapes the competition in this ideological group around the issues of the new parties

and gives them more public attention. The new party has an advantage as the original representative of this issue. The avoidance strategy should be associated with a lower vote share for the new party because the downplay of the issues prevents this.

#### 5.4.5 Competitiveness of the Established Party

Parties' vote maximization is at the heart of Downsian theory. Parties change their position in order to attract votes. Especially the experiences of past elections shape the parties' policy moves (Somer-Topcu, 2009). The past vote gains and losses are also an important signal for voters: a party that was able to win votes in the last election is seen as more competitive than a party that did not (Abou-Chadi and Orlowski, 2016).

Hence, I assume that the past election results of established parties moderate the impact of their strategies: From the voters' point of view, a competitive established party has a high probability of actually implementing its policies. By adopting the new party's position or emphasizing its issues, a competitive established party may convince voters that it is a better alternative than the new party. An established party that is not competitive will not have that advantage.

To examine this phenomenon, I look at the change in the established party's vote share between the previous and the current election. In my view, this raises two problems: the problem of time and the problem of endogeneity, which I briefly discuss below.

First of all, voters make "timely-decisions" (Somer-Topcu, 2009): Research shows that a loss or gain of votes in the last election only affects the current election if there are no more than two years between the two elections. Voters cannot, of course, see into the future, but they do have an eye for current poll results; only in this way is strategic voting conceivable.

At the same time, despite all the justified criticism, election polls as a whole have a considerable track record that reliably anticipates the election result to within a few percentage points of inaccuracy. I, therefore, assume that voters take the expected election result into account in their voting decision. At best, therefore, a poll as close to the election as possible should be used to account for the expected loss or gain of votes. However, since this polling data is not available for so many countries and such a long time series, calculating based on the actual election result is the best available option.

The second problem is the possible endogeneity: the vote gain or loss of a new party is not independent of the vote gain or loss of the established party. In principle, this objection is correct, but it is only of minor importance in the context of the analysis carried out here.

The problem of endogeneity of the two election results is smaller than one might initially assume since the established party of the dyad under consideration is not the only or most important source of votes for the new party. Rather, a series of other parties take part in the election whose election results are not included in the model. Furthermore, the election results of the new party are also partly fed by former non-voters, so another important source is added.

Importantly, I am also looking at the moderating influence of the established party's competitiveness on the effectiveness of its strategy, i.e., the relationship between strategy and electoral gains and losses. However, this moderating effect on the strategy itself, which is of interest, does not have an endogeneity problem. I am not claiming that the established party's electoral gain leads to the new party's electoral loss, but that the strength and direction of the strategy's effect are influenced by electoral success or loss.

The empirical analysis of the vote gains and losses of the established parties shows a range of values from -28.0 percentage points to +20.6. The mean value is -0.35, with a standard deviation of 4.42. The variable is approximately normally distributed, with most values lying between -10 and 10 or within two standard deviations.

Figure 5.9 shows vote gains and losses of the established parties by countries.<sup>9</sup> The distribution of values in the individual countries is quite similar, with Australia (ISO code 36), Spain (ISO code 724), and Switzerland (ISO code 756) standing out slightly. Again, I see no evidence of a significant, country-specific effect that could confound the analysis.

I assume that the effect of the variable will be negative in the linear-additive model. However, in the linear-interactive model, the case is more complex. Since competitiveness is an essential aspect for voters, it can influence the direction of the effect of the implemented strategies of positional and issue competition, as formulated in hypotheses 5a and 5b.

9 Again, I present country histograms side by side in one figure for better comparability. In order to provide a good graphical representation of the histograms despite the different numbers of cases, I have chosen the percentage scale for the y-axis. Furthermore, I use the ISO codes instead of country names for better plotting.

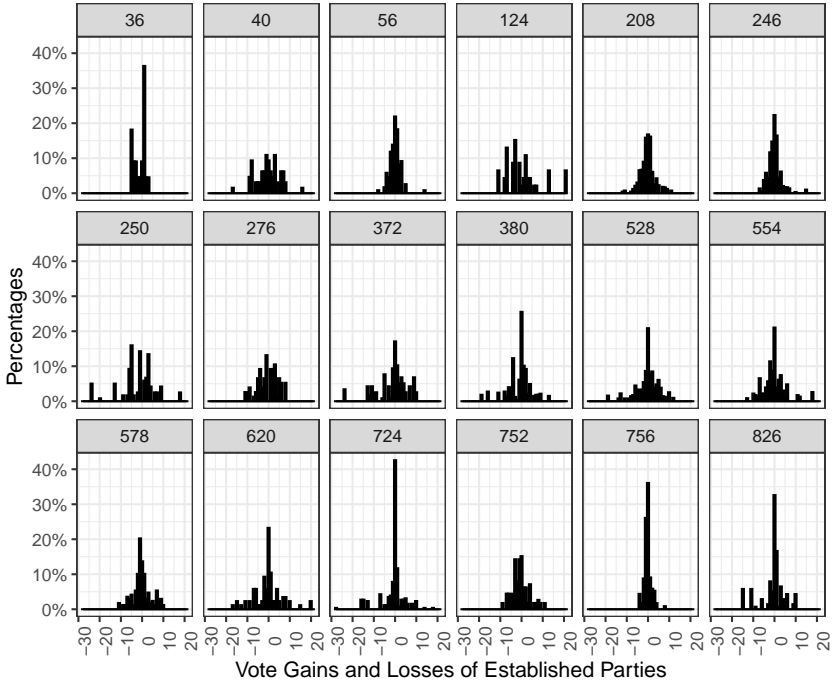


Figure 5.9: Distribution of Vote Gains and Losses of Established Parties by Countries (ISO Codes)

#### 5.4.6 Public Opinion

Economic voting models suggest that public opinion is an essential aspect of party competition. The significance of public opinion derives directly from the premise of vote-seeking parties (Adams and Somer-Topcu, 2009b, p. 826). Yet, this concept has been widely ignored in new and niche party research. This is especially surprising because the policy move literature adopted public opinion as a central variable since the seminal work of Adams et al. (2004). So I draw on that strand of literature and implement it in my models of new party success.

Basically, two different measures have been proposed: Utilizing Eurobarometer data, Adams et al. (2004) took "the mean self-placements of the survey respondents from a given country in a given year as [...] measure of voter ideology" (Adams et al., 2004, p. 597). This approach has its merits be-

cause it is based on a cross-national, longitudinal survey of voter preferences and thus independent of other data sources typically used in policy move research. However, the Eurobarometer data restricts possible analysis to a small number of Western European countries since the 1970s. Furthermore, it is questioned how valid cross-national comparisons based on surveys are (Huber, 1989; Kim and Fording, 1998) and whether these surveys are "a good match to the party-position data" (McDonald and Budge, 2005, p. 114-115) at all.

This led us to the second measurement, the median voter approach, which was developed by Kim and Fording (1998) and later widely adopted in research (Adams and Somer-Topcu, 2009b; Williams, 2015). The median voter is a measure of voter ideology or, more precisely, the "central tendency among voters" (Kim and Fording, 1998, p. 74). This approach conceives "ballots as questionnaires which instruct the 'respondent' to choose the party that is closest to him or her on a left-right ideological scale" (Kim and Fording, 1998, p. 77). In order to estimate the median voter position, they combine their "party ideology measure with election return data for each country" (Kim and Fording, 1998, p. 74).

The measurement is done in three steps: First, for each election, the ideology of each party is determined on the right-left dimension. Secondly, an interval is determined in which the respective party's voters are located. This is done by determining the midpoints between a party and its right- and left-wing rivals. Thirdly, the vote share of the party is determined.

In this way, a grouped frequency distribution is created, which makes it possible to calculate the median voter position according to the following formula:

$$M = L + \frac{50 - C}{F} * W$$

$M$  = Median voter position (RILE)  
 $L$  = The lower end (RILE) of the interval containing the median  
 $C$  = The vote share up to but not including the interval containing the median  
 $F$  = The frequency (vote share) in the interval containing the median  
 $W$  = The width of the interval containing the median

Figure 5.10: Equation to Calculate the Median Voter Position (Kim and Fording, 1998, p. 79-80)

The measure was refined by McDonald and Budge (2005) to account for "situations when the farthest left or farthest right party in a system is involved in the formulation" (McDonald and Budge, 2005, p. 113-114). While in the original measurement, the interval extends to the endpoint of the value range, the refinement assumes a symmetrical interval, thus avoiding an undesired stretching of the voter distribution.

I apply this measure to account for the influence of public opinion on the new party vote share. Therefore, I calculate the distance between the median voter and the new party position based on the RILE.<sup>10</sup> Positive values of the variable represent a higher distance between the median voter position and the new party and should be associated with a smaller vote share for the latter. Thus, I expect a negative sign for the median voter distance.

#### 5.4.7 Electoral System

In the study of new parties, electoral systems have always been considered to play a central role in both the initial breakthrough and the long-term success. Therefore, when discussing the influence of the electoral system on new parties, the emphasis is on the permissiveness of the electoral system, i.e., "how easy it is to win a seat" (Tavits, 2008, p. 115) given a certain number of votes.

Besides this "mechanical effect" (Duverger, 1954), the "psychological effect" has to be taken into account to: "Duverger's psychological effect assumes that the voters are aware of the workings of the mechanical effect. Potential voters for minor parties under small magnitude electoral laws are aware that minor parties are unlikely to win any seats. A vote for a minor party would therefore be wasted. With the goal of influencing the outcome of the election, the voter is likely to abandon the minor party and vote for one of the major parties, perhaps as a lesser of evils" (Willey, 1998, p. 655). This voting behavior is also referred to as strategic voting and represents a

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10 This is a possible source of multicollinearity, as the RILE is also used to measure positional competition. In addition, the established parties' strategy towards new contenders influences the calculation of the median voter position and thus also the distance between the new party and the median voter. However, the influence on the estimates is likely to be relatively small, as a large number of other values are included in the calculation.

separate branch of research (Blais and Carty, 1991; Cox, 1997; Kawai and Watanabe, 2013; Myatt, 2007).

Despite some studies finding evidence for strategic voting in mixed systems (Gschwend, 2007) and proportional representation systems (Gschwend and Stoiber, 2014), most scholars argue that strategic voting is not equally important in all electoral systems. Basically, the larger the district magnitude, the lower the importance of strategic voting (Cox, 1997). In order to take the psychological effect of the electoral system into account in the model, it makes sense to determine the type of electoral system.<sup>11</sup> As Ezrow (2010) points out, "the major fault line that is drawn is between systems allocating seats by plurality voting and those that determine seat shares via proportional representation (PR) electoral formulae" (Ezrow, 2010, p. 8).

Accordingly, in this project, I use an ordinal scaled variable to take into account different degrees of proportionality in the electoral systems under scrutiny. A majority system is coded with zero, mixed system with one, and PR systems with two. I expect the variable to have a positive sign, as the risk of wasted votes, i.e., an important incentive for strategic voting, decreases the more proportional the voting system is.

### 5.4.8 Controls

To obtain as unbiased estimates as possible, I include the decade in which the election was held and the country under scrutiny as common control variables in the model. Furthermore, lagged dependent and independent variables are added in the model, which I discuss in the next section.<sup>12</sup>

First of all, I include a measure of the decade the election took place. The idea behind this is to control for exogenous shocks that affect all countries in the sample, e.g., the oil crisis, the collapse of the Eastern bloc, and the financial crisis of 2008/2009 (Plümper and Neumayer, 2010, p. 422-425).

11 Although the nesting structure in the multilevel model already controls for country differences, changes in electoral law over time are not yet taken into account.

12 I also tested the impact of the number of elections a new party has successfully participated in as a variable for my model. The idea was that this variable controls for the age of a new party in parliament to account for maturation effects. This might have been necessary since, in the model, I analyze the whole life of the new party, not just the first few elections. However, the variable itself has an extremely small insignificant coefficient and also barely changed the rest of the coefficients in the model, so I did not consider it further.

Second, I control for the country where the election took place through the nesting structure in the conducted multilevel model. I will explain this in more detail in the next section. However, the basic idea is to take into account unobserved differences between countries, such as the degree of federalism, the size of the population, or its heterogeneity, which do not undergo significant changes from election to election. This is a solution to "Galton's problem" of (spurious) spatial dependence between two countries (Plümper and Neumayer, 2010, p. 426-428).

### 5.5 *Method*

The model specified here is intended to estimate the influence of issue and positional competition on the vote share of a new party, i.e., on a metrically scaled dependent variable. Accordingly, a method from the group of multiple regression analyses is to be selected. The time-series cross-section dyadic data to be analyzed here pose particular challenges for the models to be specified. The data exhibit both spatial and temporal dependencies that violate the Gauss-Markov assumptions so that the specification of an OLS linear regression is inappropriate (Beck and Katz, 1995, 1996).

Hence, I use multilevel modeling (Gelman and Hill, 2006; Hox, 2010) to account for the complex data structure.<sup>13</sup> Multilevel models have become very popular in political science because many research questions, such as the one examined here, appear "by its very nature to be multilevel" (Kedar and Shively, 2005, p. 298).

One of the advantages of these models is that group differences are explicitly accounted for by allowing for residual variance at each grouping level. This residual variance represents unobserved variables that lead to the correlation of observations within the same group, for example, parties in the same country or the same election. If such grouped observations are incorrectly treated as independent, biased standard errors of the regression coefficients are estimated, leading to incorrect inferences.

Multilevel models can be divided into three groups: varying intercepts models estimate a separate intercept for each group but keep the slope of the regression line constant. In contrast, random slope models keep the intercept

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13 I fit all models using R (R Core Team, 2021) and the lme4 package (Bates et al., 2015).



constant and estimate different slopes. Finally, the most complex models combine random intercepts and random slopes.

Following Gilardi and Füglistler (2008) I use random intercept multilevel models because they "account for cross-sectional heterogeneity while at the same time allowing the inclusion of constant or rarely changing variables [...]. Second, each level has its own error and its own estimated variance, which helps address the complex dependencies that arise in dyadic datasets" (Gilardi and Füglistler, 2008, p. 426).

The general regression equation for random (or varying) intercept multilevel models can be stated as follows:

$$\gamma_i = \alpha_j + \beta x_i + \epsilon_i$$

Figure 5.11: *Varying Intercepts Multilevel Regression Model* (Gelman and Hill, 2006, p. 237)

So, the model specified here allows for different intercepts of the regression line for each group and estimates them simultaneously, while the slope of the regression line is held constant. In a multilevel model, highly complex nesting structures are possible, which represent the data well, making it challenging to interpret the results and often suffer from non-convergence. A neat summary was presented by Meyer (2013, p. 225-228), who identified three problems that arise in party policy move research because the observations are nested within countries, parties, and elections. First, the assumption of homoscedasticity is violated because cases may vary across countries, parties, and elections due to unobserved factors. Second, contemporaneous correlation can occur because parties interact with each other, so that it "is unreasonable to assume, that parties shift their policy position independent of their competitors' shifts" (Meyer, 2013, p. 225). Third, serial correlation is expected because the positions of a party and its policy moves depend on decisions at previous elections.

To adequately account for the potential co-occurrence of heteroscedasticity, contemporaneous correlation, and serial correlation, Meyer opts for two three-level random intercept models and a third model with panel corrected standard errors and a lagged dependent variable.

In order to check to what extent a multilevel model is an appropriate specification, I calculated the intra-class correlations coefficient. Overall, I found high adjusted ICCs for nesting in elections, where group-differences account for 42% of variance, 9% for countries, and 53.8% if the model was

nested in parties. If an ICC above 10 percent is observed, this is considered an indication that the multilevel approach is justified (Bliese, 1998).

However, in the model development process, I found only minor differences between the two-level model specifications and substantially similar results if two- and three-level model specifications are compared.

I, therefore, restrict my analysis to two-level random intercept models, in which observations are nested within one grouping factor, and run alternative model specifications as robustness checks. I test for nesting in elections or in countries to check for the robustness of my models.<sup>14</sup>

While these multilevel models account for heteroskedasticity, contemporaneous correlation and serial correlation must be treated separately. Contemporaneous correlation between parties and their competitors is less of an issue because it is modeled directly with independent variables.

In order to deal with serial correlation, I specify dynamic models (Beck and Katz, 2011) with lagged dependent and independent variables. Since Achen's (2000) seminal work, there has been a lively debate about the advantages and disadvantages of lagged dependent variables (LDVs) in political science. As Achen (2000) noted, LDVs can suppress the explanatory power of independent variables without enhancing theoretical understanding.

Later Wilkins (2018) showed with a simulation study that the answer to Achen's (2000) concerns are "more LDV and lagged independent variables [...] not fewer" (Wilkins, 2018, p. 1). Particularly, Wilkins argues for including two lagged dependent variables for  $t-1$  and  $t-2$  and a lagged independent variable. This model is a variant "of the autoregressive distributed lag (ADL) (2,1) model" (Wilkins, 2018, p. 3-4) proposed by Beck and Katz (2011).

I follow his advice to get unbiased estimates and include the lagged vote share of the new party at the last two elections. Furthermore, I integrated the lagged issue strategy variable in my model.

## 5.6 *Summary*

In this chapter, I have discussed the methodological choices made to examine whether positional or issue competition, moderated by the shared party family or the degree of similarity to the other parties in the party systems, influences the new party's vote share.

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14 If parties and elections are used as nesting factors, this corresponds to running a regression for each case, which makes general conclusions nearly impossible.

Based on a text-as-data approach, I draw a sample of 5296 dyads from 168 new parties in 18 Western democracies from 1960 to 2018. The analysis uses multilevel random intercept models to account for the nested data structure.

It is assumed here that positional competition revolves around the left-right dimension. Therefore, I operationalize positional competition as absolute differences in the RILE scores of an established party. In contrast to positional competition, issue competition is not limited to a specific conflict dimension but can occur on all conceivable issues. So it is unfavorable to reduce the analyses only to specific issues or issue areas such as right vs. left or GAL vs. TAN. For this reason, I have developed a text analytic measure for the issue competition and will put it to the test here. The operationalization is based on the text similarity of the election programs of the new and established parties in different elections. It captures the movement of the established party toward or away from the new party.

The importance of new issues is especially intriguing concerning new parties often thought of as niche parties. In order to step away from pre-defined categories, I developed a new measure, the party system similarity score. This allows me to directly model the impact of a new party's nicheness without requiring manual content analysis, as with previous measures.

In addition, I account for the ideological similarity between the new and the established party. I operationalize this with a dummy variable with the value of one if both parties belong to the same party family. Furthermore, public opinion and the electoral system are known as important influences on the vote share of a party as well as their policy moves. Hence, I take them into account to avoid omitted variable bias. Finally, control variables like a decade fixed effect and lagged depend and independent variables are introduced to specify a dynamic model with as unbiased estimates as possible.

This lays the methodological foundations for this work. In the following section, I continue with the presentation of my results.

