Parties’ Policy Programmes and the Dog that Didn’t Bark: No Evidence that Proportional Systems Promote Dispersed Party Positioning

Lawrence Ezrow  
Department of Political Science  
University of California  
Santa Barbara, CA 93106-9420  
ezrow@umail.ucsb.edu

Prepared for delivery at the Annual Meeting of the Midwest Political Science Association, Chicago, Ill, April 7-10, 2005. The author would like to thank Jim Adams, Garrett Glasgow, Kent Jennings, Gary Marks, and Lorelei Moosbrugger for their insightful comments on earlier drafts of this paper. The remaining errors are my own.
Parties’ Policy Programmes and the Dog that Didn’t Bark: No Evidence that Proportional Systems Promote Dispersed Party Positioning

Abstract

While there is extensive theoretical research that explores the linkages between parties' policy positions, on the one hand, and the characteristics of the political system (i.e. voting rules and the number of parties) on the other, empirical research on this topic is less developed. Building on earlier work by Dow (2001), we report empirical analyses that explore the connections between the degree of policy dispersion in 15 party systems (defined as the degree of policy differentiation between the parties in the system), and two important system-level variables: the proportionality of the electoral laws used to select representatives to the national legislature, and the number of political parties. Contrary to expectations – but consistent with recent theoretical work by Schofield and his co-authors – we find no evidence that party dispersion increases under Proportional Representation, nor that dispersion increases in countries that feature large numbers of parties. These findings have important implications for political representation and for understanding parties' elections strategies.
“Is there any point to which you would wish to draw my attention?”
“To the curious incident of the dog in the night-time.”
“But the dog did nothing in the night-time”
“That was the curious incident,” remarked Sherlock Holmes.
(Dialogue between Sherlock Holmes and Inspector Gregory, from “Silver Blaze,” by Sir Arthur Conan Doyle)

1. Introduction

There is an emerging body of work that seeks to understand the factors that affect the degree of policy differentiation offered by parties and candidates across political systems, i.e. the extent to which competing parties/candidates offer divergent sets of platforms that provide voters with a wide range of policy options. The spatial modeling literature has identified several features of voting behavior that plausibly influence vote-seeking parties’ position-taking incentives, and through this, the degree of party/candidate dispersion. These factors include: the electoral salience of policies relative to unmeasured sources of voters’ party evaluations (Lin et al., 1999; Enelow and Hinich, 1982, 1984; Lomborg, 1996); the importance of “valence” dimensions of voters’ party evaluations relative to policy dimensions of evaluation (Schofield, 2003; Schofield and Sened, 2003, 2004; Ansabaheere and Snyder, 2000); the dimensionality of the policy space within which voters and parties are located (Schofield and Sened, 2004; Lomborg, 1996); the spatial distribution of voters’ partisan affiliations (Adams and Merrill, 1999; Merrill and Adams, 2002); the strategic effects of voter abstention (Hinich and Ordeshook, 1970; Anderson and Glomm, 1992); and the extent of strategic voting (Feddersen, Sened, and Wright, 1990; Cox, 1987). Additional theoretical studies explore the effects of politicians’ motivations, i.e. office-seeking versus policy-seeking objectives (see Wittman, 1977, 1983; Londregan and Romer, 1993; Groseclose, 2001), as well as system-level variables including the number of parties (Eaton and Lipsey, 1975; Lomborg, 1996) and electoral laws (Cox, 1990; Austen-Smith and Banks, 1988).

While the theoretical literature on the topic of party polarization is extensive, there has been little empirical work that evaluates the predictions derived from formal theory. Indeed, to our knowledge Dow (2001) has written the only comparative empirical study
that explores the factors that influence the degree of policy differentiation among political parties/candidates that we observe in real world party systems. After analyzing Dutch, Israeli, Canadian, and French elections, Dow concludes that “parties in the majoritarian systems are located significantly closer to the center of the voter distribution than those in proportional systems (Dow, 2001: 122).”

In this paper we extend the enquiry initiated by Dow to encompass the party systems in fifteen postwar democracies. Specifically, with respect to these fifteen party systems, we ask the question: Do party systems in countries with proportional electoral systems display a greater diversity of policy alternatives than the party systems in countries with plurality elections? We further subdivide this query by considering two, related, questions: Is there a direct relationship between electoral laws and party system dispersion?, and, Do electoral laws exert an indirect effect on party system dispersion via their influence on the number of political parties? The latter question is motivated by Duverger’s well-known law and hypotheses (1963), which posit that the number of political parties is influenced by the electoral system (see also Rae, 1967; Riker, 1982; Taagepera and Shugart, 1989; Cox, 1997).

Contrary to our expectations, our empirical analyses suggest that the answer to each of the above questions is no. Specifically, we find little evidence to suggest that electoral laws (specifically the proportionality of the electoral system) exerts an effect – either directly or indirectly – on parties’ tendencies to propose dispersed as opposed to convergent policy positions. Furthermore, to the extent that we do uncover linkages between electoral systems and party system dispersion, the relationships we find are opposite to Dow’s con-

---

1 We note, however, that in addition to Dow’s 2001 paper there are numerous studies that present spatial mappings of voters and parties/candidates in real world elections, in such countries as Taiwan, Russia, Chile, the Netherlands, Israel, Italy, and the United States (see Lin et al., 1996; Schofield and Sened, 2004; Schofield, 1997; Schofield et al., 1998 a b; Myagkov and Ordeshook, 1999; Dow, 1998; Giannetti and Sened, 2004; Enelow and Hinich, 1984). However – with important exceptions to be discussed below – these studies are not primarily concerned with explaining the factors that cause the degree of party policy dispersion to vary across political systems.

2 Duverger’s Law states that plurality systems are associated with two-party systems. He additionally develops two hypotheses which posit that Proportional Representation rules are associated with multiparty sys-
clusions: namely, our analyses suggest that more proportional electoral systems may actually motivate greater policy convergence by political parties. This finding runs contrary to the conventional wisdom that proportional electoral systems motivate parties to present a wide range of policy alternatives. In an early analysis of voting systems, F.A. Hermens commented on this relationship, positing that proportional representation made “it natural that there be a party to represent every shade of political opinion. This means that political differences are not only more clearly expressed, but multiplied and intensified (Hermens, 1941: 19).”

However we emphasize that, although we uncover some evidence to suggest that more proportional voting systems actually motivate less policy differentiation between parties, the weight of our evidence is most consistent with the finding of no effect, i.e. that electoral system proportionality does not systematically influence party policy dispersion. This suggests that the role of the country’s electoral system in explaining party policy differentiation is analogous to the role of the ‘dog in the night-time’ in the Sherlock Holmes story Silver Blaze: namely, that contrary to the expectations of political scientists, electoral system proportionality does not systematically increase or depress the diversity of political parties’ policy offerings. We conclude that when exploring the factors that affect party system dispersion, electoral systems are the dog that did not bark.

We note that our conclusions come with four caveats. First, due to measurement issues (discussed below), our empirical analyses are limited to fifteen party systems in Western democracies. While the scope of our study thereby exceeds that of Dow’s (2001) empirical study on four democracies, we are nevertheless cautious about extrapolating our conclusions to political systems outside of our study. Second, due to additional limitations in our data (also discussed below), we analyze policy differentiation exclusively in terms of parties’ positions along a unidimensional Left-Right continuum. Dow, by contrast, locates party and voter positions in two-dimensional spaces.

Third, we emphasize that our conclusion, that electoral system proportionality does not systematically affect party system dispersion, does not imply that electoral laws exert no influence on party elites’ policy strategies; indeed, given the extensive theoretical and
empirical literature suggesting that politicians do indeed account for electoral laws, such a conclusion would be remarkable. What our findings do suggest is that, in the fifteen democracies in our study, electoral system proportionality does not exert a significant net effect on party system dispersion. Thus to the extent that proportionality presents parties with incentives to moderate their policies in some circumstances, our results imply that there must be other circumstances where proportionality motivates parties to shift towards more radical policies. We will briefly speculate on what these types of circumstances might be, following the presentation of our empirical results. However our central focus here is on whether electoral system proportionality enhances/depresses the diversity of political parties’ policy offerings, not why proportionality produces these effects.

Our fourth caveat relates to the first two caveats discussed above, namely that in exploring our research question we confront significant theoretical and practical difficulties in measuring our dependent variable, party system dispersion. We extensively explore these issues in Section three, where we develop several alternative measures of system dispersion. The fact that our central substantive conclusions hold regardless of which measure we use increases our confidence in our results.

The above caveats notwithstanding, we feel that our results have important implications for institutional design, for democratic representation, and for spatial models of elections. With respect to institutional design and democratic representation, our findings suggest that scholars need to rethink the proposition that proportional election systems promote diversity in political parties’ policy offerings, an assumption that underlies the long-standing debate over the relative virtues of proportional versus plurality voting systems. This posited policy diversity is seen as an advantage by some scholars, who argue that it enhances mass-elite policy linkages (Dalton, 1996) but as a potential disadvantage by other scholars who point out that policy diversity may also entail destabilizing political extremism (Carter, 2004). Our findings suggest that, regardless of the virtues/drawbacks of political diversity, both sides in this debate should be cautious of their underlying assumption that electoral proportionality actually promotes divergent position-taking by the competing parties within a political system. With respect to spatial models of elections, our findings suggest an important puzzle on parties’ policy programmes, that may prove susceptible to the spatial modeling approach, namely: What are possible rational choice explanations for
our finding that parties do not present more radical policy programmes in proportional systems? We will offer some possible answers to this question, following the presentation of our initial results.

In Section 2 we develop hypotheses linking institutional variables (i.e. electoral rules and the number of parties) to the level of party policy differentiation. The third section develops measures of party system policy dispersion based on previous work done by Alvarez and Nagler (2004), and presents data from fifteen long-standing democracies that we use to evaluate the hypotheses. The fourth and fifth sections specify the statistical models that we use to tests the hypotheses, and discuss the empirical findings. The sixth section outlines possible reasons for why the hypotheses developed in section 2 are not supported by the data. The final section of the paper concludes.

2. Hypotheses on voting systems, the number of parties, and party system dispersion

Following Cox (1990), we shall refer to centripetal incentives as those factors that reward parties that converge to the center of the voter distribution, while centrifugal incentives refer to the factors that create a more dispersed array of parties. Several authors have considered the circumstances that would explain convergent and divergent party behavior across systems. Among the factors posited to affect party dispersion is the electoral salience of policies, the proportion of partisan voters, the ideology of partisan voters, the electoral impact of non-policy factors, and the degree of strategic voting.

The conventional understanding is that proportional electoral rules exert centrifugal incentives that motivate parties to present noncentrist policy programmes. This expectation has been developed in an influential spatial modeling study by Gary Cox (1990). Assuming deterministic policy voting along a unidimensional continuum, Cox establishes the independent effects of electoral rules (specifically, the electoral formulae, district magnitude, and ballot structure) and the number of competitors (discussed in more detail later in the section) on the positioning incentives for parties. Cox concludes that proportional electoral formulae create incentives for parties to present noncentrist policies.

Dow (2001) advances the debate by presenting intuitive arguments and empirical analyses suggesting that proportionality does indeed exert centrifugal policy incentives on
political parties. Dow’s intuitive argument is that parties have weaker incentives to maximize votes in proportional systems than they do in disproportional/plurality systems, and given the expectation that centrist policy positioning tends to enhance parties’ vote shares, this implies that disproportional electoral systems motivate centrist party positioning compared with proportional systems. Dow bases this argument about vote-seeking incentives on the logic that, because disproportional electoral laws tend to punish small parties by awarding them seat shares in parliament that are less than their national vote shares – while correspondingly awarding seat shares to large parties that exceed their vote shares – disproportional electoral laws give office-seeking parties added motivations to maximize their electoral support. Thus, in disproportional systems fewer parties are capable of “winning” parliamentary seats, and maximizing votes means staking out popular positions. This suggests that there are strict limits to the viable policy space for competition in disproportional systems, i.e. we should expect to see in plurality systems a “clustering” of a small number of competitive parties close to the mean or median voter position.

By contrast, given that electoral thresholds in proportional systems permit more parties to win seats in the legislature, the competing parties in proportional systems can

---

3 There is both a theoretical and empirically-based literature suggesting that parties in multiparty elections (i.e. elections involving at least three parties) maximize votes by presenting centrist positions. Theoretically, Lin et al. (1999) demonstrate that when voting is probabilistic and voters do not attach too much salience to policy distance compared with unmeasured, nonpolicy motivations, then a unique vote-maximizing equilibrium exists in which all parties in a multiparty election locate at the mean voter position (but see Schofield, 2003). Empirically, scholars report computations on survey data from real world elections which suggest that the noncentrist parties that contested these elections could have increased their support in elections held in Britain, France, the Netherlands, Germany, and Canada (see Alvarez, Nagler, and Willette, 2000; Alvarez, Nagler, and Bowler, 2000; Schofield et al., 1998a b; Adams and Merrill, 2000; Adams, Merrill, and Grofman, 2005).

4 In addition, votes are less directly tied to office in proportional systems – that is, parties with smaller vote shares can still participate in governing coalitions in PR systems. By contrast disproportional systems frequently manufacture single-party parliamentary majorities, as is the case in Britain, as well as in New Zealand prior to its switch to Proportional Representation for the 1996 election (see McDonald, Mendes, and Budge, 2004, for a review of the evidence on this issue). In these cases, “losing” parties have no chance of becoming part of the government. Alternatively, proportional systems give small parties the opportunity to coalesce with larger parties and take part in the governing coalition (e.g. the FDP throughout most of the post-War period in Germany).
afford to be concerned less about whether they are occupying their vote-maximizing positions. Instead parties are free to spread across the ideological continuum and represent smaller niches or pockets of voters. Russell Dalton summarizes this idea succinctly, “At the system level, voter-party correspondence is greater in fractionalized party systems and nations with proportional representation. Diversity in party choices clarifies party options and makes it more likely that voters can find a party that supports their mix of policy preferences (Dalton, 1996: 254).” Thus, in systems with proportional electoral rules, the viable policy space for politics will increase. This provides the basis for the first hypothesis – the Direct Effects Hypothesis – that seeks to explain variation in party dispersion across systems:

H1 (The Direct Effects Hypothesis): Proportionality exerts a direct effect on party policy dispersion (i.e. an effect that is independent of the number of parties).

The second hypothesis is also motivated by the work of Gary Cox (1990). In addition to voting rules, Cox considers the effects of the number of competitors on the incentives for party positioning in a spatial model with deterministic policy voting. Cox concludes that the greater the number of competitors in a political system, the stronger the expectation that at least some of these parties will present non-centrist positions (see also Eaton and Lipsey, 1975). This conclusion is also supported by Merrill and Adams’s (2002) theoretical results on multiparty elections with probabilistic voting, which conclude that vote-seeking politicians’ centrifugal incentives increase with the number of parties. Roughly speaking, the logic that underlies both the Cox and the Merrill-Adams conclusions is that the greater the number of parties contesting an election, the greater the danger that centrist parties will be “squeezed” by less centrist competitors, thereby depressing the centrist parties’ vote shares.

We emphasize that the conclusions of Cox, Merrill and Adams, and others on the relationship between the number of parties and centrifugal policy incentives are independent of the proportionality of the electoral system. However, these conclusions are nevertheless related to electoral systems research, since there is extensive empirical evidence that electoral laws exert effects on the number of viable parties in a political system. Spe-
specifically, dating back at least to Duverger’s (1963) formulation of his famous law –
namely, that single-ballot plurality systems favor two-party political systems⁵ – scholars
have argued that the number of parties increases with electoral system proportionality (see
Taagepera and Shugart, 1989; Cox, 1997; Lijphart, 1999). This suggests in turn that electo-
r al systems may exert an indirect effect upon party policy dispersion, via their influence
on the number of parties:

\[ H2 \text{(The Indirect Effects Hypothesis): Proportionality exerts an indirect effect on party}
\text{policy dispersion via its influence on the number of parties.} \]

To summarize, scholars argue that proportional electoral systems exert a direct ef-
fect on parties’ policy positions, by weakening political elites’ incentives to maximize
votes. Scholars further argue that centrist policy positioning becomes less attractive to
vote-seeking parties as the number of parties increases, which suggests that electoral sys-
tems may exert an indirect effect on party positioning via their influence on the number of
parties.

3. Data and Measurement

Measuring the independent variables: Electoral system proportionality and the
number of parties

The two independent variables that are central to the Direct and Indirect Effects
hypotheses are the degree of proportionality of the electoral system, and the number of
parties in the political system. Here we rely on measures of these institutional characteris-
tics that are reported by Arend Lijphart (1999), for 36 democracies over the period 1945-
1996. Lijphart’s measure of electoral system disproportionality, which is based on the
index developed by Gallagher (1991), varies with the squared differences between parties’
vote shares and their subsequent seat shares in parliament.⁶ According to this measure
larger differences between votes and seats indicate greater disproportionality. Column 3 of

⁵ Related to this is Duveger’s Hypothesis, that “the simple majority system with second ballot and propor-
tional representation favor multipartyism” (Duverger, 1963, p. 239).

⁶ The equation for the Gallagher Index of Disproportionality is \[ \left( \frac{1}{2} \sum (v_i - s_i)^2 \right)^{0.5} \] where \( v_i \) and \( s_i \) are the vote
shares and subsequent seat shares for party i.
the Appendix reports measures of these variables for the fifteen countries included in our study. These measures indicate that countries such as Denmark, Germany, Sweden, and Norway feature quite proportional voting systems, while Britain, the United States, France, and Canada – the four countries in our study that employ some form of plurality – are comparatively disproportional. These measures conform to common sense.

We use the effective number of parliamentary parties developed by Laakso and Taagepera (1979) and applied by Lijphart (1999) to estimate the number of competitors in the party system. The Laakso-Taagepera (L-T) measure is constructed so that large parliamentary parties are counted more heavily than small parties. Thus if four parties are competing and each receives 25% of the seats in parliament, the L-T measure of the effective number of parties is four, while if two large parties each control 40% of the seats in parliament and two smaller parties each control 10% of the seats, the effective number of parties is about three. Column 4 of the Appendix reports the L-T estimates of the effective number of parliamentary parties for the fifteen countries included in our analysis.

*Measuring the dependent variable: Party system policy dispersion.*

While the measurements for the two key independent variables are straightforward – in the sense that widely accepted measures of these variables have already been developed – measurement of the dependent variable, party system policy dispersion, is more complicated. While a measure of party dispersion requires only three pieces of informa-

---

7 Below we discuss the criteria we used to select these fifteen countries.

8 We note that the countries’ relative rankings with respect to Gallagher’s measure of disproportionality are also quite consistent with alternative disproportionality measures that have been developed, such as Taagepera and Shugart’s measure of “Effective District Magnitude” (see Table 21.1 in Taagepera and Shugart, 1989). Hence the substantive conclusions we report below do not depend on the specific disproportionality measure that we employ.

9 Though the measure used in Lijphart is based on seats, it is equally logical to base the measure on votes (see Taagepera and Shugart, 1989). The effective number of parties is calculated using the following equation developed by Laakso and Taagepera (1979): \( N = 1 / \Sigma s_i^2 \), where \( s_i \) is the proportion of seats of the \( i \)th party. The alternative measure is based on votes (\( N = 1 / \Sigma v_i^2 \), where \( v_i \) is the proportion of votes of the \( i \)th party). In the following empirical analyses, we employ each measure (i.e. based on seats and votes) and the substantive results remain unchanged. For further discussion on the effective number of parliamentary parties, see Taagepera and Shugart (1989: Chapter 8) or Lijphart (1999: Chapter 5).
tion per country (that is, ideological placements of parties, the underlying voter distributions, and the parties’ vote shares) scholars sharply disagree both over how best to measure the parties’ policy positions, and also about how to aggregate these party position measures into a valid measure of party system dispersion. With respect to the measurement of parties’ policy positions, for instance, some scholars argue for _expert placements_ of party positions (Huber and Inglehart, 1994; Castles and Mair, 1984), others rely on _citizen placements_ of parties as recorded in national election surveys (Alvarez, Nagler, and Bowler, 2000; Adams and Merrill, 1999, 2000), and still other scholars emphasize the virtues of locating parties based upon content analyses of their _election manifestos_ (Budge et al., 2001).\(^{10}\) With respect to aggregating the party position measures into a measure of party system dispersion, scholars disagree about whether or not the parties’ positions should be weighted by their size (see Alvarez and Nagler, 2004; Dow, 2001; Kollman, Miller, and Page, 1998).\(^{11}\) In order to ensure that our substantive conclusions are not artifacts of our measurement approach, we shall evaluate Hypotheses 1-2 using both weighted and unweighted measures of party system policy dispersion; furthermore, we evaluate these hypotheses using each of the alternative approaches to locating political parties discussed above, namely citizen placements, expert placements, and party manifesto codings.

The party system dispersion measure also requires data about underlying voter distributions in each country and parties’ vote shares. In so doing, it is feasible to measure party dispersion relative to the voter dispersion — and additionally, weigh parties’ policy positions by their vote shares.\(^{12}\) We define citizen policy dispersion as the standard devia-

\(^{10}\) In addition, other scholars have employed the technique of multidimensional scaling, which involves estimating the parties’ positions (relative to voters’ positions) via analyses of voters’ policy preferences in combination with their party evaluations (see Dow, 2001; Schofield and Sened, 2004).

\(^{11}\) The argument for weighting party system dispersion by party size is that such weighting accounts for the fact that the small parties in some countries — such as the American Green Party, the British Socialist Party, and so on — have virtually no political influence, so that their policy proposals do not enlarge the menu of policy choices available to voters in any meaningful sense. The arguments for relying on an unweighted measure of party system dispersion are, first, that any weighting system is unavoidably arbitrary given that parties’ policy influence does not necessarily correlate with vote (or seat) share, and, second, that small parties provide a vehicle through which voters can express their policy preferences, regardless of whether or not such parties significantly influence government policy outputs.

\(^{12}\) The Manifesto Research Group provides vote shares in a CD-ROM in its 2001 publication.
tion of respondents’ Left-Right self-placements in the country, calculated for all respondents who were willing to place themselves on the Left-Right scale.\footnote{13}

Here is a simple illustration of why it is important to measure party dispersion relative to the dispersion of the voter distribution. Suppose that two countries A and B have identical ideological dispersions of parties – based upon survey respondents’ party placements – but that country A has a more dispersed voter distribution than country B. If we look only at party dispersion (without voters) the countries’ party systems will be scored as being equally dispersed. However, when we take into account the differing voter distributions, we conclude that the party system in country B is more dispersed because the parties in this system are more compactly distributed \textit{relative to the voter distribution}. Our decision to normalize our measure of party system dispersion based upon the degree of voter dispersion in the country is consistent with arguments advanced by Alvarez and Nagler (2004) and Kollman et al. (1998), both of whom develop voter-normalized party dispersion measures. We note, however, that we have replicated all of the analyses reported below using measures of party system dispersion that are not normalized for the dispersion of the voter distribution, and that these analyses support substantive conclusions identical to the ones we report below.

The underlying ideological distribution of citizen policy preferences is measured in the Eurobarometer surveys, dating back to 1976. The surveys ask respondents to place themselves on a Left-Right 1-10 scale. Our measure of voter dispersion is the standard deviation of citizen self-placements in the country during the election year.\footnote{14}

With these considerations in mind, we develop a measure of party system dispersion that is analogous to the \textit{Party System Compactness} measure developed by Alvarez and

\footnote{13}{The questions in the 1989 Eurobarometer (31A) were as follows: “In political matters, people talk of “the left” and “the right”. How would you place your views on this scale? And, where would you place the political parties (of your country)?”}

\footnote{14}{For analyses of political systems outside of the (then known as) European Community, we rely on Table 7.1 in Powell (2000: 168) for standard deviations of voters. This allows for the addition of Australia, Canada, Finland, Norway, Sweden, and the United States to the analysis of western European countries (we note that the Castles-Mair survey does not ask experts to place parties in Greece, Luxembourg and Portugal).}
Nagler (2004).\textsuperscript{15} *Party System Compactness* is expressed as voter dispersion divided by party dispersion. In the following empirical analyses, however, we reverse the numerator and the denominator so that higher scores indicate increased party dispersion. The *weighted measure of party system dispersion (WPD)* is defined as follows:\textsuperscript{16}

\[
WPD_k = \frac{\sum_{j=1} \frac{V_j |(P_{jk} - \bar{P}_k)|}{\sigma_{vk}}}{\bar{P}_k}
\]

Where,

\(\bar{P}_k\) = the *weighted* mean of all the parties’ Left-Right ideological positions in country \(k\).
\(P_{jk}\) = the ideological position of party \(j\) in country \(k\).
\(V_j\) = Vote share for party \(j\).
\(\sigma_{vk}\) = the standard deviation of voter self-placements in country \(k\).

The alternative to weighing parties’ positions by their vote shares is to weight all parties equally. This measure is the *unweighted measure of party system dispersion (UPD)*, and it is constructed as follows:

\[
UPD_k = \frac{\left[\sum_{j=1} \frac{|P_{jk} - \bar{UP}_k|}{\sigma_{vk}}\right]}{n}
\]

Where,

\(N\) = the absolute number of parties included in the analysis for country \(k\).
\(\bar{UP}_k\) = the *unweighted* mean of the parties on a Left-Right scale in country \(k\).

\textsuperscript{15}As discussed below, the Alvarez-Nagler party system compactness measure weights the parties’ positions by their vote sharers. Our unweighted measure of party system dispersion approximates the one used by Dow (2001), which relies on the measure of *Centrality* developed by Kollman et al (1998).

\textsuperscript{16}The Alvarez and Nagler formula is: \(\sigma_{vk}/[\sum_{j=1} V_j |(P_{jk} - \bar{P}_k)|]\), which is identical to the one above with the single exception that the numerator and dominator have been switched.
The key distinction between the unweighted (UPD) and weighted (WPD) measures of party dispersion is that while the former taps into the absolute variation in party alternatives, the latter captures the electoral strength of these alternatives. To visualize the mechanics of these two measures, refer to Figures 1a and 1b. Each looks at the 1983 elections in West Germany, and measures party system dispersion based on WPD and UPD respectively. WPD measures the dispersion at .90, while UPD registers .75. The explanation for the difference is relatively simple – the CDU is a relatively noncentrist party in the German system and it received the largest vote share in the 1983 elections. In this instance, the dispersion of the German political system decreases when we treat the CDU and the rest of the parties as equals (i.e. based on the UPD measure in Figure 1b).

[Figures 1a & 1b here]

4. Testing the Direct and the Indirect Effects Hypotheses

Recall that the Direct Effects Hypothesis predicts a positive relationship between the degree of proportionality and party dispersion, i.e., that as the electoral system becomes more proportional party policy differentiation increases. The Indirect Effects Hypothesis posits a positive relationship between the effective number of parties and the party dispersion variable. The parameters of an OLS regression model are estimated in order to evaluate these hypotheses. The full specification is given below:

\[
\text{Party Dispersion} = b_1 + b_2 [\text{Degree of proportionality}] + b_3 [\text{Effective Number of Parties}] + e, \tag{3}
\]

H1: \( b_2 > 0 \)

H2: \( b_3 > 0 \)

\(^{17}\) Specifically, WPD is calculated \((.056*|3.52-5.82| + .384*|3.97-5.82| + .07*|5.59-5.82| + .49*|7.57-5.82|)/1.9 = .90,\) where the parties’ deviations from the weighted party mean are weighted by their shares of the vote. Alternatively, UPD is calculated \(((|3.52-5.16| + |3.97-5.16| + |5.59-5.16| + |7.57-5.16|)/4)/1.9 = .75,\) where each parties’ deviation from the mean party placement on a Left-Right scale is counted equally. The denominator (1.9) in each equation is the standard deviation of the West German voter self-placements in 1983.
However, the independent variables relating to proportionality and effective number of parties are correlated, which raises concerns about collinearity in the full specification. The most direct way of checking for biased coefficients in the full specification is to estimate bivariate regression equations. The bivariate proportionality specification is:

\[
\text{Party Dispersion} = b_1 + b_2 \text{[Degree of Proportionality]} + e , \quad (4).
\]

H1: \(b_2 > 0\)

The bivariate number of parties specification is:

\[
\text{Party Dispersion} = b_1 + b_2 \text{[Effective Number of Parties]} + e , \quad (5).
\]

H2: \(b_2 > 0\)

Results for the weighted measure of party dispersion. Table 1 reports parameter estimates for the full specification, the bivariate proportionality specification, and the bivariate number of parties specification, with each specification estimated using the weighted version of the party system dispersion variable. Each specification was estimated in turn for each of the three different versions of the party dispersion variable – one based on expert placements, another on voter placements, and another on codings of party manifestos – described earlier, so that there are nine regressions in all.

The most striking feature of the results reported in Table 1 is the consistent lack of support for the Direct Effects Hypothesis and the Indirect Effects Hypothesis. None of the estimated coefficients for the degree of proportionality and for the number of parties is positive and statistically significant. Indeed, eight of the twelve parameter estimates for these independent variables are negative, which implies that party dispersion actually declines as electoral system proportionality and the number of parties increases. While most of these parameter estimates do not attain statistical significance, the estimates are significant (and negative) for the full and the bivariate proportionality specifications, when

---

\(^{18}\) For the 15 countries in the primary analyses the correlation between the independent variables is .58, which is statistically significant at the .05 level.
citizen placements are used to locate the parties (see Table 1, columns 4-5). In toto, these results do not support the Direct and the Indirect Effects Hypotheses, that party system dispersion increases with electoral proportionality and with the number of parties.

[Table 1 about here]

Results for the unweighted measure of party dispersion. Table 2 reports analyses that are identical to those reported in Table 1, except that the results in Table 2 are based on the unweighted version of the party system dispersion variable. One again, we find no support for the Direct Effects Hypothesis and the Indirect Effects Hypothesis. None of the estimated coefficients for the degree of proportionality and for the number of parties are positive and statistically significant, and in fact ten of the twelve parameter estimates for these independent variables are negative, suggestive of effects that are in the opposite direction to the relationships we have posited.

[Table 2 about here]

Overall, we find no evidence to support the Direct and the Indirect Effects Hypotheses, that party system dispersion increases with electoral system proportionality and with the number of parties. This conclusion persists despite the fact that we have evaluated these hypotheses using alternative measures of party dispersion (weighted and unweighted) and different types of information about party positions (expert placements, citizen placements, and party manifestos). We conclude that in the fifteen postwar democracies included in our study, increased electoral proportionality and larger numbers of parties were not systematically linked to policy diversity in the party system.

6. Explaining the Results: Schofield’s Research on Party Strategies

Given that the scholarly research discussed in Section 2 tends to support the Direct and the Indirect Effects Hypotheses, the empirical findings reported above are surprising. What accounts for our finding that party system dispersion does not systematically increase with electoral system proportionality and with the number of parties? Here we
briefly discuss recent theoretical research – much of it by Schofield and his co-authors – that may illuminate our findings.

In the past few years, Schofield has identified two factors that can motivate vote-seeking parties to shift away from the center of the voter distribution, thereby increasing the policy diversity of the party system. The first is the strategic implications of “valence” dimensions of party evaluation, i.e. dimensions related to voters’ impressions of party elites’ competence, honesty, or charisma (see Stokes, 1963). Schofield and his co-authors argue that “valence-disadvantaged” parties have electoral incentives to differentiate themselves on policy grounds, because if they present centrist policies that are similar to those advocated by valence-advantaged parties, then voters will defer to the valence dimension – that is, they will choose parties that are stronger valence-wise (see Schofield and Sened, 2003; Schofield, 2003; see also Adams, 1999). To the extent that Schofield’s argument captures real-world parties’ electoral strategies, we should not expect all vote-seeking parties to converge towards the center of the policy space. In this case, then even if Dow (2001) is correct in his argument that plurality systems motivate parties to attach greater weight to vote-seeking, this will not in turn imply that plurality elections motivate policy convergence.19

Miller and Schofield (2003), building on Aldrich (1983a, 1983b, 1995), develop a second motivation for vote-seeking parties to diverge from the center of the policy space, which revolves around strategic incentives related to party activists. The Miller-Schofield argument is that parties can enhance their vote shares by appealing to party activists who provide scarce campaign resources (i.e. time and money) – and that these activists typically hold extreme views. Specifically, the authors argue that parties can use the added campaign resources they acquire via their policy appeals to activists to enhance their images along valence dimensions such as competence and integrity – and that this in turn will increase the parties’ electoral support among rank-and-file voters.

A final interpretation is that while maximizing votes is obviously important, maximizing the likelihood of being included in the governing coalition is more important.

---

19 Adams and Merrill (1999, 2000; see also Adams, Merrill, and Grofman, 2005) present an alternative argument that voters’ partisan loyalties can motivate vote-seeking parties to diverge from the center, in the direction of the policies favored by the members of their partisan constituencies.
Schofield et al. (1998a) examine Dutch and German elections and determine that parties (intentionally or unintentionally) forgo their vote-maximizing positions, and try to put themselves in good positions for the post-coalition negotiations (see also Laver and Shepsle, 1996). This entails presenting policies that are acceptable to potential coalition partners, which may provide incentives for policy moderation. If proportional systems motivate parties to present policies that are acceptable to coalition partners, then these parties may well present centrist positions.

7. Conclusion

Political scientists and casual political observers have long been in agreement that proportional electoral rules provide voters with a wider ideological “menu” of choice in elections (in extreme circumstances, at the price of stability). Conversely, plurality and plurality-runoff systems are thought to produce Downsian “tweedledee-tweedledum” political competition where the number of competitors is low and their policy differences slight. The empirical analyses reported in this paper – which are based on several alternative measures of party system policy dispersion – do not support these claims. In our analyses of fifteen democratic party systems, we find no evidence that the diversity of parties’ policy offerings increased with electoral system proportionality. Nor do we find evidence for an “indirect effect” of proportionality on party dispersion, via the influence of electoral systems on the number of political parties.

The limitations (stated in the introduction) of this study are also the avenues for future research on the relationship between the institutional setting and party behavior. Future studies would benefit by having more than fifteen countries and/or by analyzing parties’ positions along multiple policy dimensions. These caveats notwithstanding, we feel that our findings are important. We have evaluated the relationship between proportionality and party policy dispersion over a much larger set of counties than has been explored in previous empirical work. Furthermore, our results are robust across several alternative measures of parties’ positions. We therefore believe that this study contributes to our understanding of the relationship between electoral laws, parties’ policy programmes, and political representation.
## Appendix: Data Points in the Analysis (based on Expert Placements)

<table>
<thead>
<tr>
<th>Country</th>
<th>Weighted Party Dispersion</th>
<th>Unweighted Party Dispersion</th>
<th>Degree of Proportionality</th>
<th>Effective Number of Parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>1.06</td>
<td>0.96</td>
<td>9.79</td>
<td>2.19</td>
</tr>
<tr>
<td>Belgium</td>
<td>0.72</td>
<td>0.71</td>
<td>16.85</td>
<td>5.49</td>
</tr>
<tr>
<td>Canada</td>
<td>0.42</td>
<td>0.60</td>
<td>7.78</td>
<td>2.35</td>
</tr>
<tr>
<td>Denmark</td>
<td>0.85</td>
<td>0.76</td>
<td>18.16</td>
<td>5.11</td>
</tr>
<tr>
<td>Finland</td>
<td>0.80</td>
<td>0.70</td>
<td>16.77</td>
<td>5.17</td>
</tr>
<tr>
<td>France</td>
<td>1.15</td>
<td>1.22</td>
<td>1.29</td>
<td>3.54</td>
</tr>
<tr>
<td>Germany</td>
<td>0.90</td>
<td>0.75</td>
<td>18.46</td>
<td>2.84</td>
</tr>
<tr>
<td>Ireland</td>
<td>0.35</td>
<td>0.87</td>
<td>16.74</td>
<td>2.76</td>
</tr>
<tr>
<td>Italy</td>
<td>0.82</td>
<td>0.90</td>
<td>16.12</td>
<td>5.22</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0.67</td>
<td>0.67</td>
<td>18.65</td>
<td>4.68</td>
</tr>
<tr>
<td>Norway</td>
<td>0.94</td>
<td>0.95</td>
<td>15.24</td>
<td>3.61</td>
</tr>
<tr>
<td>Spain</td>
<td>0.92</td>
<td>0.89</td>
<td>11.79</td>
<td>2.76</td>
</tr>
<tr>
<td>Sweden</td>
<td>0.80</td>
<td>0.81</td>
<td>18.17</td>
<td>3.52</td>
</tr>
<tr>
<td>UK</td>
<td>0.96</td>
<td>0.85</td>
<td>5.28</td>
<td>2.2</td>
</tr>
<tr>
<td>United States</td>
<td>0.43</td>
<td>0.43</td>
<td>4.34</td>
<td>2.41</td>
</tr>
</tbody>
</table>
References


Hermens, F.A. 1941. Democracy or Anarchy? University of Notre Dame.


Laakso, Markku, and Reinhart Taagepera. 1979. “‘Effective’ Number of Parties: A Measure with Application to West Europe.” Comparative Political Studies 12: 3-27.


Figure 1a. Demonstrating the Weighted Measure of Party System Dispersion (using the 1983 West German Elections)

1983 German Elections

Weighted Party Dispersion = 0.90

Vote Percentage

0 10 20 30 40 50 60

1 2.5 5 7.5 10

Gruenen SPD FDP CDU/CSU

Experts' Left-Right Party Placements

Figure 1b. Demonstrating the Unweighted Measure of Party System Dispersion (using the 1983 West German Elections)

1983 German Elections

Unweighted Party Dispersion = 0.75

Vote Percentage

0 10 20 30 40 50 60

1 2.5 5 7.5 10

Gruenen SPD FDP CDU/CSU

Experts' Left-Right Party Placements
Table 1. Regression Coefficients Estimating Relationships between WEIGHTED System Dispersion and Institutional Variables (based on three measures of parties’ policy positions)

<table>
<thead>
<tr>
<th>Variable</th>
<th>EXPERTS</th>
<th>CITIZENS</th>
<th>MANIFESTOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specification:</td>
<td>FULL</td>
<td>Bivariate Bivariate</td>
<td>FULL</td>
</tr>
<tr>
<td><strong>Degree of proportionality</strong></td>
<td>-.01 (.01)</td>
<td>-.006 (.01)</td>
<td>-.02** (.008)</td>
</tr>
<tr>
<td><strong>Effective Number of Parties</strong></td>
<td>.05 (.07)</td>
<td>.02 (.05)</td>
<td>.008 (.04)</td>
</tr>
<tr>
<td>Constant</td>
<td>.76*** (.21)</td>
<td>.85*** (.16)</td>
<td>.73*** (.20)</td>
</tr>
<tr>
<td>N</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>-.10</td>
<td>-.06</td>
<td>-.07</td>
</tr>
</tbody>
</table>

*=.10, **=.05, ***=.01, two-tailed test
Table 2. Regression Coefficients Estimating Relationships between UN-WEIGHTED System Dispersion and Institutional Variables (based on three measures of parties’ policy positions)

<table>
<thead>
<tr>
<th>L-R Party Placements based on:</th>
<th>EXPERTS</th>
<th>CITIZENS</th>
<th>MANIFESTOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specification:</td>
<td>FULL</td>
<td>Bivariate</td>
<td>FULL</td>
</tr>
<tr>
<td>Variable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree of proportionality</td>
<td>-.01</td>
<td>-.005</td>
<td>-.01</td>
</tr>
<tr>
<td></td>
<td>(.01)</td>
<td>(.008)</td>
<td>(.01)</td>
</tr>
<tr>
<td>Effective Number of Parties</td>
<td>.02</td>
<td>-.004</td>
<td>-.06</td>
</tr>
<tr>
<td></td>
<td>(.05)</td>
<td>(.04)</td>
<td>(.04)</td>
</tr>
<tr>
<td>Constant</td>
<td>.84***</td>
<td>.88***</td>
<td>.82***</td>
</tr>
<tr>
<td></td>
<td>(.16)</td>
<td>(.12)</td>
<td>(.16)</td>
</tr>
<tr>
<td>N</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>-.12</td>
<td>-.04</td>
<td>-.08</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*=.10, **=.05, ***=.01, two-tailed test