Are moderate parties rewarded in multiparty systems? A pooled analysis of Western European elections, 1984–1998

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Abstract. We present cross-national analyses – both cross-sectional and longitudinal – estimating the vote shares for approximately 80 parties across Western Europe from 1984 to 1998. The results indicate that parties' vote shares increase with their proximity to the centre of the voter distribution, although the effects are relatively small. These findings corroborate the theoretical results reported by Lin et al. in their article 'Equilibrium in Multicandidate Probabilistic Spatial Voting' (*Public Choice*, Vol. 98, pp. 59–82), and provide support for conclusions reported by other authors who rely on simulations of individual-level data from national election surveys.

Introduction

Can parties in Western Europe gain votes by converging towards the mean (or median) voter's position? Traditional spatial theory clearly predicts that, *ceterus paribus*, parties contesting two-party elections gain votes by converging towards the centre (Downs 1957). However, prior studies of models of multiparty elections report conflicting conclusions. Theoretical models that assume deterministic policy voting suggest that noncentrist positioning may be optimal[1] (Cox 1990; see also Adams 2001), while models with probabilistic voting suggest that parties increase their expected votes by shifting in the direction of the mean voter position (Lin et al. 1999; De Palma et al. 1990). However, recent work by Norman Schofield (2004; see also Schofield & Sened forthcoming) and by Adams and Merrill (1999, 2000; see also Adams 2001; Merrill & Adams 2002) has challenged this conclusion, suggesting that when measured nonpolicy-related voting influences are introduced into the probabilistic voting model, then parties may enhance their vote by shifting *away* from the centre of the voter distribution.[2]

In addition, simulations based on individual-level survey data from real-world elections also reach conflicting conclusions, with some studies finding that centrist positioning would increase support for parties contesting multiparty elections (Alvarez et al. 2000a, 2000b; Schofield et al. 1998a, 1998b), while other simulation studies conclude that parties may maximize votes by

presenting distinctly noncentrist positions (Adams & Merrill 1999, 2000). These differing conclusions based on election survey data arise in part from differences in the historical elections under review, but also from the analysts' differing assumptions about voters' decision rules and the number of parties contesting the election (see Schofield 2001; Adams & Merrill 2000). However, note that none of the studies cited above analyze the linkages between parties' vote shares in real-world elections and their proximity to the centre of the policy space in these elections.

The goal of this article is to conduct such an analysis. Specifically, we conduct a *macro-level* analysis of party positioning and election outcomes across Western Europe from 1984 to 1998, in which the dependent variables are the parties' vote shares in real-world elections, and the crucial independent variables are the policy distances between the parties and the mean voter positions in the countries included in our study. For this purpose, we employ the Eurobarometer surveys from the relevant election years, which allow us to construct measures of the mean citizen policy preference in each country, as well as measures of the policy distances between the parties' positions (as perceived by the citizens) and the mean citizen preference.[3] This macro-level approach has been used extensively in empirical studies of the electoral effects of candidates'/parties' positioning in American elections (see Burden 2001; Erikson & Wright 1993, 1997; Erikson et al. 2002; Ansolabehere et al. 2001; Canes-Wrone et al. 2002), as well as in studies on the electoral effects of economic conditions both inside and outside the United States (see Lewis-Beck 1988; Paldam 1991; Powell & Whitten 1993; Powell 2000). However, to our knowledge this approach has not previously been used to estimate the electoral effects of party positioning outside the United States.[4]

Our findings support the conclusions developed in many of the existing studies of multiparty competition: *proximity to the mean voter position matters*. More specifically, we conclude that parties receive a statistically significant electoral benefit from locating near the mean voter position. This benefit, however, is relatively modest in size, so that parties that advocate noncentrist positions may nonetheless be electorally competitive. This conclusion corroborates the findings suggested by Schofield's (2004; see also Schofield et al. 1998a, 1998b) simulation studies, as well as the conclusions reported by Alvarez and his co-authors (Alvarez et al. 2000a, 2000b). Given that our conclusions are derived from a methodology that is completely different from the Alvarez-Schofield approach, these results, in toto, give us increased confidence that our estimates of the electoral effects of party positioning are accurate. This is an important finding because, as we will discuss later, these earlier studies employ a simulation approach that relies on several strong assumptions not necessarily satisfied in practice.

Our results are important for several reasons. First, paramount to the spatial modeling enterprise is the notion that parties' issue positions matter for elections. If the empirical evidence shows that party and voter positioning is unrelated to electoral outcomes, then this may call into question a central assumption that underlies spatial modeling. Second, our results have important implications for political representation. The ideological 'congruence between citizens and policy makers' is one of the central features of democracy (Huber & Powell 1994). Democratic theory informs us that elections are supposed to reveal the will of the people. The title of G. Bingham Powell's seminal work *Elections as Instruments of Democracy* (2000) aptly summarizes this concept of representation. Methodologically speaking, a cross-national 'snapshot' comparing party proximities and vote shares provides an important measure of the extent to which elections fulfill the function that Powell ascribes to them.[5] Related to this idea, there is also a perceptible empirical relationship between government policy outputs and those of the median party in governing coalitions (Budge & McDonald n.d.). In addition, this article speaks to issues of *dynamic representation* (Stimson et al. 1995) in that we evaluate the electoral impacts of shifts in public opinion over time in order to determine whether parties benefit at the ballot box when public preferences shift in their direction between elections. Finally, there are implications for party strategies (Budge 1994) and their ideological positioning in elections.

In the next section, we briefly survey the existing approaches used to study the electoral effects of party positioning in multiparty elections. The section after that highlights some of the limitations of these studies, and proposes an alternative approach relying on the national level of observation. We then refine hypotheses regarding proximity and employ the cross-national approach before discussing our conclusions.

Existing theory and empirical approaches

Several empirical studies exist that explore multiparty systems and party behaviour using the spatial modeling framework. In a series of important papers, Schofield and his co-authors examine party competition within several democracies: Britain, France, Belgium, Denmark, Germany, Ireland, Israel, Italy, Luxembourg and the Netherlands (Schofield 1997, 2004; Schofield et al. 1998a, 1998b; Schofield & Sened forthcoming). In addition, Adams and Merrill (1999, 2000; see also Adams et al., forthcoming) analyze party competition in Norway, France and Britain. Dow (2001) explores elections in Canada, France, the Netherlands and Israel, while Alvarez and Nagler (1995, 1998; see also

Alvarez et al. 2000a, 2000b) analyze elections in Canada, Britain and the Netherlands.

All of these analyses use national survey data. More specifically, they rely on three important measurements to complete their analyses: the individual self-placements of the survey respondents along one or more policy scales; the respondents' placements of the parties along these same policy scales; and the respondents' reported vote decisions.[6] Starting with these three measurements – and, in some cases, including additional variables such as sociodemographic characteristics, evaluations of the party leaders' personal qualities, party iden-tification and retrospective evaluations of the economy – the authors cited above estimate the parameters of individual-level voting models, which are functions of the policy distances between the respondents' preferred positions and the positions of the competing parties. Using the parameter estimates from these individual-level models, the authors aggregate the individual responses in order to estimate the parties' expected vote shares in the his-torical elections under review. The major payoff of these analyses is that the analysts can estimate the expected changes in vote shares if parties shifted their policy positions. They can then use these estimates to compute both the parties' vote-maximizing positions, *and* the magnitude of the vote losses that parties can expect to suffer as they diverge from these policy optima.

For the most part, the authors cited above find that, *ceterus paribus*, parties can expect to gain votes by presenting centrist policies relative to the mean voter position (but see Adams & Merrill 1999, 2000; Schofield 2004; Schofield & Sened forthcoming). Interestingly however, these authors conclude that parties do not actually take their vote-maximizing positions. Schofield et al. (1998a, 1998b) argue that parties take positions that put them in a good 'space' for post-election coalition formation, while Dow maintains that non-centrist parties cannot feasibly shift to the moderate positions that would maximize their support because the votes gained by taking more centrist positions are offset by the credibility and reliability concerns created by the shifting policy stances of the party.

While the studies cited above have been invaluable in advancing our understanding of the electoral effects of party positioning, the simulation approach that each set of authors employs features several strong assumptions. First, they necessarily rely upon the coefficients estimated for individual-level voting specifications so that their conclusions are only reliable to the extent that these individual-level vote models are correctly specified. Unfortunately, because behavioural researchers disagree sharply among themselves about the proper specification for models of individual voting behaviour, it is difficult to know what the proper voting specification is.[7] Second, the authors' simulation approaches typically employ the assumption that parties can relocate without

cost in the policy space, and furthermore, that parties' policy shifts do not affect voters' criteria for evaluating the parties. Recent empirical work by Stokes (1999) and by Alvarez and Nagler (2004) calls both of these assumptions into question.[8] Saving the methodological details for a later section, the present study side-steps these problems by actually observing shifts in party proximity, and expanding the scope of study across 12 Western European democracies.

Hypotheses, data and methods

Central hypotheses

We seek to test the following hypotheses on the relationship between party positions, voter positions and election outcomes:

> *H1*: Parties occupying positions close to the mean voter position receive a higher proportion of the vote in national elections than do parties positioned farther away from the mean voter.

> *H2*: Parties gain votes in national elections when the mean voter position shifts in their direction between elections.

Introducing the data and developing key measurements

To test *H1* and *H2*, it is necessary to develop measures of popular support (i.e., vote share) and proximity. The process of developing a measure for party support is relatively straightforward. Using Mackie & Rose (1991, 1997), it is possible to collect the absolute percentage of votes for each party in each election.[9] Still, one transformation is necessary, as we should expect successful parties to receive fewer votes in systems where there are more competitive parties. For example, the parties in our sample who receive a relatively large proportion of popular support in Belgium – a system that features at least six competitive parties – receive a lower absolute percentage of votes than the major parties in Britain, which features just three competitive parties. Thus, a normalized measure of vote-share is appropriate, which takes into account the number of competitive parties in the given election. The measure we employ is:

$$\text{Normalized Vote-share (NV)} = V_i * N_j \qquad (1)$$

where V_i equals the absolute share of the vote for party i, and N_j is the number of parties in election j receiving over 5 per cent of the vote.[10]

Developing a measure of proximity is also straightforward. Eurobarometer 31A (1989) asked approximately 1,000 respondents in each of 12 countries

across (what was then known as) the European Community to place them-
selves, and each of their significant national parties, on a 'left-right' scale
ranging from 1 (extreme left) to 10 (extreme right).[11] We use these placements
to compute the mean voter's left-right position in each country, as well as the
parties' (mean perceived) positions.[12] As an example, Figure 1 presents the
voter distribution and the parties' (mean perceived) left-right positions for
France.[13]

All of the measures presented in this article will derive from the difference
between the mean citizen preference and the mean party placement. We
measure the party's proximity to the mean voter position by squaring the dif-
ference between party position and the mean citizen placement:[14]

$$\text{Squared Proximity} = (A_i - X_i)^2 \tag{2}$$

where A_i is the position of the mean voter on a left-right continuum, and X_i
is the (mean perceived) position of party X.

In addition to the squared proximity measure, we employed a second and
slightly more complicated measure of proximity, which will help us evaluate
the first hypothesis. This alternative proximity measure divides the squared
proximity of a party by the average squared proximity of all the parties
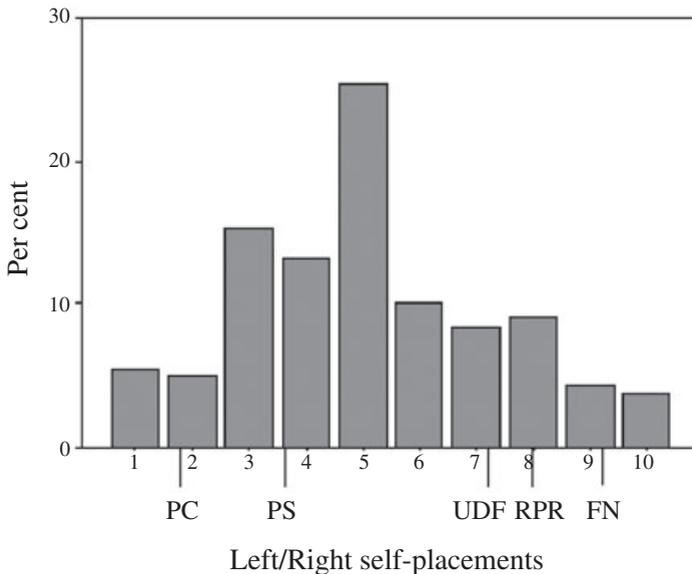
Figure 1. The ideological distribution of respondents and mean party placements in France.
Notes: This sample is from the Eurobarometer (31A) survey in 1989. The locations of the
parties are based on the respondents' placements from the same survey.

included in the analysis that are competing in the same election. The measure accounts for differing average proximities across countries, and is referred to as 'relative squared proximity'. The variable is constructed as follows:

$$\text{Relative Squared Proximity} = \frac{\text{Party squared proximity}}{\text{Average squared proximity}}$$

$$= \frac{(A_i - X_i)^2}{\Sigma_i (A_{ij} - X_{ij})^2 / n} \tag{3}$$

The construction of the relative squared proximity variable allows us to control for cross-national differences in respondents' interpretations of the left-right scale and/or for differences in the dispersion of parties across different national settings.

The cross-sectional analysis (testing H1*)*

In Table 1, we estimate two specifications that relate the parties' vote shares to their proximities to the mean voter position: one using the squared proximity variable and the other using the relative squared proximity variable. The first specification is:

$$\text{Normalized Vote Share} = b_0 + b_1(A_i - X_i)^2 + e \tag{4}$$
$$\text{H1.1}: b_1 < 0$$

and the second specification is:

$$\text{Normalized Vote Share} = b_0 + b_1(\text{relative squared proximity}) + e \tag{5}$$
$$\text{H1.2}: b_1 < 0$$

where *e* is a random disturbance term.

Reiterating some of the major points in the previous sections, our central hypothesis is that the coefficient estimates relating to our measures of proximity will be negative and statistically significant – that is, parties lose votes as their policy distance to the mean voter position increases. The results reported in columns 1 and 2 of Table 2 support this hypothesis. For both measures of proximity the coefficients are negative and statistically significant at the 0.01 level, which implies that *ceteris paribus*, the further away a party is from the mean voter position in its national electorate, the fewer votes it receives.[15]

Columns 3 and 4 in Table 1 report results for an alternative set of analyses in which our measure of the parties' positions was based on experts' placements, as reported in a survey of country experts conducted by Huber and Inglehart (1995). These analyses are important because, unlike the respondents' party placements, experts' placements are unlikely to be contaminated

Table 1. Coefficients for different measures of proximity when estimating Normalized Vote shares across the European Community

Coefficients	Eurobarometer placements (1984–1994)		Expert placements Huber-Inglehart (1988–1998)	
	Squared proximity (1)	Relative squared proximity (2)	Squared proximity (3)	Relative squared proximity (4)
Constant	72.31	70.50	83.57	84.97
	(4.95)	(5.16)	(5.62)	(5.88)
Proximity	−2.46	−10.11	−2.61	−5.93
	(0.75)	(3.90)	(0.79)	(1.79)
N	245	245	138	138
Adjusted R^2	0.04	0.02	0.07	0.07

Notes: Each parameter estimate is statistically significant at the 0.01 level, employing a two-tailed test. Estimated standard errors are in parentheses.

by assimilation and contrast effects, which have the potential to bias rank-and-file survey respondents' party placements.[16] The results for the analyses based on experts' party placements display the same pattern as the analyses based on the survey respondents' party placements – namely, for both the squared proximity measure and the relative squared proximity measure, the coefficients are negative and statistically significant at the 0.01 level.

Note that although the proximity coefficients are significant, they are still quite small. Substantively, the coefficients for squared proximity represent marginal expected losses for parties closer to the citizen mean, and rapidly declining losses for those parties approaching the ideological extremes. For instance, consider the parameter estimate in column 1, which is −2.46. This implies that a party competing in a four-party system can expect to lose about six-tenths of 1 per cent of the vote (0.6 per cent) as it shifts from the mean voter's position to a position one unit away from the mean voter position along the 1 to 10 left-right scale. By contrast, if this party shifts from one unit away from the mean voter to a position two units away, its expected vote loss approaches 2.5 percentage points; a further shift to a position three units from the mean is associated with an expected loss of about 5.5 percentage points, relative to positioning at the mean voter position.[17] Expected losses would be greater in a system with fewer than four parties, and less in a system with more than four parties.[18] The proximity coefficients reported in columns 2 to 4 support similar substantive conclusions.

Table 2. Coefficients for the variables squared proximity gain $[(\text{Prox}_{t-1})^2 - (\text{Prox}_t)^2]$ and lagged changes in normalized vote shares $[NV_{t-1} - NV_{t-2}]$ when estimating changes in normalized vote shares $[NV_t - NV_{t-1}]$ across the European Community

Coefficients	Eurobarometer placements (1984–1994)		Expert placements Huber-Inglehart (1988–1998)	
	Basic (1)	Advanced (2)	Basic (3)	Advanced (4)
Constant	−1.88*	−2.52**	−1.97	−2.38
	(1.10)	(1.13)	(1.72)	(1.76)
Squared	3.27***	2.72***	3.34**	3.16*
proximity gain	(1.00)	(1.02)	(1.68)	(1.70)
Lagged ΔNV		−0.14**		−0.09
		(0.06)		(0.09)
N	228	211	134	133
Adjusted R^2	0.04	0.05	0.02	0.02

Note: Estimated standard errors are in parentheses. *$p < 0.10$, **$p < 0.05$, ***$p < 0.01$, two-tailed test.

The 'proximity gain' specification (testing H2*)*

Although the cross-sectional analyses reported in Table 1 suggest that parties' vote shares increase modestly with proximity to the mean voter position, a limitation of these tests is that we have not controlled for nonpolicy-related sources of party strength such as the charisma of party leaders, parties' campaign spending and economic conditions.[19] To the extent that parties' nonpolicy-related strength correlates with their policy positions, omission of these variables may bias our estimates of the electoral effects of party ideologies. Indeed, important work by Schofield (2004; see also Schofield & Sened forthcoming) suggests that parties that enjoy nonpolicy-related advantages have electoral incentives to present centrist positions, thereby providing theoretical support for such a correlation.

Here we address this problem by estimating the electoral effects of *changes* in the parties' proximities to the mean voter between elections.[20] Using the self-placement scores in the Eurobarometer, it is possible to determine the magnitude and direction of the ideological shift of the mean citizen between elections, and to use these shifts in the mean voter position to calculate changes in each party's (squared) proximity to the mean voter position. Specifically, squared proximity gain is measured by subtracting the current squared proximity from the squared proximity in the prior election. If a party

is closer to the citizen mean in the current election than in the prior one, the measure will be positive. To the extent that we find that parties that experience proximity gains tend to increase their vote shares, we will have additional evidence that proximity to the mean voter position enhances party support – and, crucially, this test is not subject to the criticism that omitted nonpolicy-related sources of party strength bias the results. The reason is that, even if parties enjoying nonpolicy-related advantages do tend to locate nearer to (or further away from) the centre than disadvantaged parties, to the extent that proximity matters we should still expect such parties to gain votes when the mean voter position shifts in the party's direction, and lose votes when the mean voter shifts away from the party's position.

The dependent variable in our analysis is the change in the party's normalized vote share (ΔNV) between elections. We expect the coefficient for proximity gain to be positive and statistically significant – in other words, shifts towards the mean citizen should be rewarded with votes (*H2*). Thus our specification is:

$$\underset{\textstyle |}{\overset{\Delta NV}{}} \qquad\qquad \underset{\textstyle |}{\overset{\text{(Squared) Proximity Gain}}{}}$$

$$\boxed{NV_t - NV_{t-1}} = b_0 + b_1 \boxed{\left[(A_i - X_i)_{t-1}^2 - (A_i - X_i)_t^2 \right]} + e \qquad (6)$$

$$H2.1 : b_1 > 0$$

An additional, advanced proximity gain specification controls for the lagged changes in normalized vote shares. We control for prior shifts in the vote, because it is likely that – due to the regression to the mean – parties that gained votes in the previous election will lose support in the current election:

$$\overset{\text{Lagged } \Delta NV}{\underset{|}{}}$$

$$NV_t - NV_{t-1} = b_0 + b_1 \left[(A_i - X_i)_{t-1}^2 - (A_i - X_i)_t^2 \right] + b_2 \boxed{\left[NV_{t-1} - NV_{t-2} \right]} + e \quad (7)$$

$$H2.2 : b_1 > 0$$
$$(H3 : b_2 < 0)$$

Table 2 supports the second hypothesis by showing that shifts in proximity are accompanied by shifts in vote shares. The squared proximity gain coefficients are positive and statistically significant in all of the specifications. In addition, note that the sizes of the proximity gain coefficients based on the Eurobarometer respondents' party placements (columns 1 and 2 in Table 2) are virtually identical to the coefficients based on the country experts' party placements (columns 3 and 4). These findings are extremely important because they substantiate the conclusions drawn by existing studies on the effects of

proximity and party support across Western Europe – namely, proximity gains translate only into modest electoral benefits. The size of the coefficient in column 1 (3.27) indicates that the gains in votes are relatively small for parties benefiting from proximity gains during inter-election periods.[21]

Conclusion

> Our simplification concentrates on the central notion that the policy preferences of voters and the policy promises of parties both matter for elections. Despite the importance of this proposition, it has not been subject to serious macro-level testing. (Erikson et al. 2002: 256)

These analyses supply us with a macro-level empirical test along the lines suggested by Erikson et al. (2002) of the spatial model across Western European party systems. Based on citizen perceptions from the Eurbarometer surveys (1984–1998), we conclude that proximity is related to popular support (i.e., votes) across the multiparty systems in Western Europe. Specifically, parties occupying positions close to the mean voter position are likely to receive modest electoral benefits compared to noncentrist parties. Using a macro-level approach, this finding confirms the claims arrived at by existing empirical studies that explore multiparty systems using the spatial modeling framework. We also add a temporal component and find that parties tend to gain votes when the mean voter position shifts in their direction between elections. Moreover, these results are strengthened by alternative specifications based on expert opinions of parties' positions from the Huber-Inglehart (1995) study.

However, it should be kept in mind that this is simply a first look at an important and complicated question. For instance, it would be interesting to explore whether the degree to which proximity to the mean voter is rewarded differs across countries (a question that we cannot adequately address here due to the small number of observations per country). Another limitation of the present study is that it only extends to a one-dimensional ideological space. We have knowingly sacrificed the texture of more elegant two-dimensional spatial mapping in a smaller number of countries (see, e.g., Dow 2001; Schofield 1997) for cruder measurements of ideology in order to expand the geographical scope of the article. In spite of these empirical constraints, there still appears to be a tendency for centrist parties to gain votes in the party systems we have analyzed.

Even Anthony Downs (1957: 126–127) was aware of the questionable applicability of his central convergence prediction to multiparty systems. Perhaps to the surprise of Downs, there are general connections between proximity and vote shares existing in such systems. There are other explanatory

factors plausibly at work that have yet to be explored, such as the electoral systems or the economic environments in which parties operate. It is not farfetched to expect the magnitude of the effects of proximity to vary by electoral setting.

Acknowledgments

Appendix: Parties included in the analysis

Belgium
Belgian Communist Party (PCB)
Socialist Party-Flemish (SP)
Socialist Party-French (PS)
Ecologists (Ecolo/Agalev)
Francophone Front/Walloon Rally (FDF/RW)
People's Union (Volksunie)
Liberal Party-Flemish (PVV)
Liberal Reformation Party (PRL)
Flemish Christian Socialists (CVP)
French Christian Socialists (PSC)

Denmark
Socialist People's Party (Socialistisk Folkeparti)
Social Democratic Party (Socialdemokratiet)
Radical Liberal Party (Radikale)
Christian People's Party (Kristeligt Folkeparti)
Center Democrats (CD)
Liberal Party (Venstre)
Conservative Party (Konservative)
Progress Party (Fremkridtspartiet)

France
Communist (PC)
Socialist (PS)

Union for French Democracy (PR/UDF)
Gaullists – Rally for the Republic (RPR)
National Front (FN)

Germany
Greens (Die Grünen)
German Social Democratic Party (SPD)
Free Democratic Party (FDP)
Christian Democratic Union/Christian Social Union (CDU/CSU)

Great Britain
Labour
Social and Liberal Democrats
Conservatives

Greece
Left Coalition: Communist Party (KKE)
Panhellenic Socialist Movement Party (PASOK)
Democratic Renewal (Diana)
New Democracy (ND)

Ireland
Sinn Fein
Workers' Party

Labour
Green
Progressive Democrats
United Ireland Party (Fine Gael)
Republican Party (Fianna Fail)

Italy
Italian Communist Party (PCI)
Proletarian Democracy (DP)
Italian Socialist Party (PSI)
Radical Party (PR)
Greens (Verdi)
Italian Social Democratic Party
   (PSDI)
Italian Republican Party (PRI)
Italian Liberal Party (PLI)
Christian Democrats (DC)
Italian Social Movement (MSI)
Free Democratic Party (FDP)

Luxembourg
Communist Party of Luxembourg
   (KP/PC)
Green Alternative Party (GAP)
Socialist Workers Party
   (LSAP/POSL)
Democratic Party – Liberals
   (DP/PD)
National Movement (Bewegung)
Christian Social Party (CSV/PCS)

The Netherlands
Pacifist Socialist Party (PSP)
Radical Political Party (PPR)
Labour Party (PvdA)
Democrats '66 (D'66)

Christian Democratic Appeal
   (CDA)
People's Party for Freedom and
   Democracy (VVD)
Reformational Political Federation
   (RPF)
Reformed Political Union (GPV)
Political Reformed Party (SGP)
Center Party (CP)

Portugal
Communists (PCP)
Popular Democratic Union
   (UDP)
Portuguese Democratic Movement
   (MDP/CDE)
Party of Democratic Renewal
   (PRD)
Socialist Party (PS)
Social Democratic Party (PSD)
People's Monarchy Party (PPM)
Christian Democratic Party
   (PDC)
Social Democratic Center (CDS)

Spain
Basque United People (HB)
United Left (IU)
Spanish Socialist Workers' Party
   (PSOE)
Basque Nationalist Party (PNV)
Convergence and Union Party
   (CiU)
Democratic and Social Center
   (CDS)
Popular Coalition (CP)

Note: Parties are ordered from 'the left' to 'the right' by country. The Huber-Inglehart survey does not cover Greece and Luxembourg.

Notes

1. Additional models with deterministic voting make similar non-centrist predictions by assuming that parties are motivated by policy preferences, or by including *valence* characteristics in their models (Wittman 1973, 1983; Ansolabehere & Snyder 2000; Groseclose 2001).

2. Schofield and his co-authors emphasize the importance of 'valence' dimensions of evaluation (such as voters' judgements about the competing party leaders' degrees of competence, integrity and charisma), arguing that parties that are disadvantaged on valence grounds have electoral incentives to differentiate their policies from the policies of valence-advantaged parties, and that valence-disadvantaged parties thereby enhance their vote shares by shifting to extreme or noncentrist positions (see also Adams 1999; Ansolabehere & Snyder 2000; Hug 1995). Adams and Merrill (see also Adams et al. 2005) present arguments that parties have electoral incentives to diverge from the centre of the voter distribution, by appealing on policy grounds to voters who are biased towards them for nonpolicy reasons, notably party identification. Because the partisans of different parties typically occupy different regions of the policy space, this strategic incentive is likely to motivate policy differentiation by the competing parties.

3. As discussed below, we also conduct alternative sets of analyses in which we employ country experts' placements as our measure of the parties' positions.

4. Nagel's (2001) study of British elections represents a partial exception to this generalization.

5. Of course, because government formation in multiparty parliamentary democracies revolves around post-election coalition negotiations, government policy outputs depend on more than the parties' vote shares. Nevertheless, because parties' bargaining power in coalition negotiations depends on their seat shares – which are obviously related to their vote shares – the empirical question of whether policy centrism enhances parties' vote shares in important for democratic representation.

6. We note that Schofield's (1998a, 1998b, 2004) studies typically rely on the self-placements of party elites to calibrate the parties' policy positions.

7. The disagreements among behavioural researchers include, but are not limited to, the following topics: the empirical status of the party identification variable (see Fleury & Lewis-Beck 1993; Converse & Pierce 1993); the extent to which respondents' preferred policy positions (and their perceptions of the parties' positions) are subject to assimilation/contrast effects (see Merrill et al. 2001); whether voters evaluate parties based on the policy distances between the parties' announced positions and the voters' policy preferences, or whether, alternatively, voters account for the fact that the parties may not be able to fully implement their announced policy agendas due to countervailing pressures from coalition partners or from other branches of government (see Kedar forthcoming; Lacy & Paolino 1999, 2001). Chapter 2 in Adams et al. (2005) reviews the problems that behavioural researchers' disagreements pose for spatial modelers seeking to understand parties' policy strategies in real-world elections.

8. Specifically, both the Stokes study and the Alvarez-Nagler study report results suggesting that the importance that voters attach to the parties' policy positions – relative to alternative influences on the vote such as economic conditions and the personal images of party leaders – varies with the parties' positions (i.e., that voters' decision rules are *endogenous*).

9. The remaining election returns (through 1998) were gathered using the CD-ROM accompanying Budge et al. (2001).

10. We note that we conducted additional statistical analyses using parties' absolute vote shares, and that these analyses supported substantive conclusions that were identical to the conclusions based on normalized vote shares we report below.

11. The questions in the 1989 Eurobarometer (31A) are 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)?'

12. Below we report alternative sets of analyses which employ country experts' party placements in place of the mean positions ascribed to the parties by the Eurobarometer respondents.

13. We note that the distributions of the respondents' self-placements across the countries included in the Eurobarometer survey were all similar to Figure 1 in that their shape approximates a bell-curve and their mode is in the middle of the scale (i.e., 5 or 6 on the 1 to 10 scale). The exceptions are Greece and Denmark, where the distribution appears bimodal, and the mode is 8, respectively.

14. We performed alternative analyses based on the parties' linear proximities to the mean voter position. These analyses supported substantive conclusions that were identical to the ones we report below, although the statistical fit of these models was not as strong as the fit for squared proximity, suggesting that the latter measure is the appropriate metric for evaluating the electoral effects of party positioning. This empirical finding suggests that the parties' vote shares are *concave* functions of their policy positions – that is, parties' vote shares drop off slowly at first as they diverge from their vote-maximizing positions, but then drop off more rapidly as the parties move further away. Adams and Merrill (forthcoming) present theoretical arguments about why parties' vote shares can be expected to be concave functions of their positions.

15. Interestingly, if parties wish to maximize their chances of gaining office – as opposed to maximizing votes – these results still hold up. We estimated a probit model using a binary dependent variable indicating whether or not the party gained office in the election. There were no substantive changes in the results.

16. Specifically, there is evidence that survey respondents tend to rationalize their vote choices by placing the parties they like unrealistically near to their own preferred ideological positions (an *assimilation effect*), while placing parties they dislike far from their own ideological positions (a *contrast effect*) (see Merrill et al. 2001, for evidence on this point).

17. The calculation of the expected vote loss for a party which is one unit from the mean voter position in a four-party system is $(-2.46 \times (1)^2)/4)$ or only 0.615 per cent of the vote. For two units the vote loss is estimated to be $(-2.46 \times (2)^2)/4)$ or 2.46 per cent. The expected vote loss for three units is $(-2.46 \times (3)^2)/4)$ or 5.54 per cent.

18. For a three-party system (i.e., Britain), the expected vote losses due to proximity are expected to be greater than a system with six competitive parties (i.e., Denmark, 1990). For example, if a party is positioned at two and a half units away from the mean voter position, then the expected loss in the British system is 5.1 per cent, and in the Danish system, 2.6 per cent.

19. Our omission of these variables stems from two considerations. First is the fact that the Eurobarometer surveys do not contain information on most of the important nonpolicy-related variables that behavioural researchers have identified (i.e., they do not report respondents' assessments of party leaders or of the parties' campaign spending). And second, there is extensive evidence that respondents' perceptions of many important nonpolicy variables – such as their perceptions of party leaders and their evaluations of economic conditions – are biased by their political loyalties, so survey items tapping

these variables may actually be surrogates for the respondents' policy preferences (see Alvarez & Nagler 2001).

20. The Italian elections, post-1992, have been omitted due to the significant changes that were made to the electoral rules and the party system.

21. Take, for example, a party moving from two units to one unit away from the mean voter position. Referring to the sixth equation in the text, the party's squared proximity gain value is $((2)^2 - (1)^2)$, or 3. Thus $\Delta NV = -1.88 + 3.27(3)$ or 7.93. As the number of competitive parties in each system decreases or increases, 7.93 translates into more or less votes, respectively. For instance, for a four-party system, the expected gain is $7.93/4 \approx 2$ percentage points, while for a six-party system the expected vote gain is $7.93/6 \approx 1.3$ percentage points.

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