B.J.Pol.S. **36,** 291–315 *Copyright © 2006 Cambridge University Press*
doi:10.1017/S0007123406000160 *Printed in the United Kingdom*

Election Laws and Representative Governments: Beyond Votes and Seats

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A sophisticated research tradition has explored theoretically and empirically the consequences of election laws for vote–seat disproportionality and, more recently, for the distance between citizen and legislative left–right medians. In contemporary parliamentary systems, policy making tends to be dominated by governments, not legislatures. This article extends election law theory to its expected effects on the left–right representativeness of governing parties and examines whether these are realized after eighty-two elections in fifteen mature parliamentary systems. The analysis shows how the legislative median party, the legislative plurality party and pre-election coalition agreements between parties shape these connections between citizens, legislatures and governments. The article also develops more nuanced measures of party influence on policy making and re-examines the governmental findings using these. Governments and policy-making configurations emerging from bargaining after PR elections are in net significantly closer to their citizens than those created by SMD elections.

A major research tradition in comparative politics, developed particularly from the seminal work of Douglas Rae,[1] has studied the consequences of election laws for party representation, emphasizing equitable correspondence between partisan votes and partisan seats in the legislature. More recent work has similarly explored the correspondence between citizen and legislative medians.[2] Both lines of research report and explain advantages for legislative representation of proportional representation (PR) election rules over single member district (SMD) election rules. Despite the generally accepted domination of governments (parties holding cabinet portfolios) in parliamentary policy making, the literature has paid surprisingly little attention to the representativeness of these governments.[3] This neglect of governments is unfortunate. The most general conception of democratic representation involves institutionalized arrangements that reliably create connections between what citizens want and what policy makers do.[4] In contemporary

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[1] Douglas Rae, *The Political Consequences of Electoral Laws* (New Haven, Conn.: Yale University Press, 1967); landmarks in this large literature include Gary Cox, *Making Votes Count: Strategic Co-ordination in the World's Electoral Systems* (Cambridge: Cambridge University Press, 1997); Michael Gallagher, 'Proportionality, Disproportionality and Electoral Systems', *Electoral Studies*, 10 (1991), 33–51; Arend Lijphart, *Electoral Systems and Party Systems: A Study of Twenty-Seven Democracies, 1945–1999* (Oxford: Oxford University Press, 1994); and Rein Taagepera and Matthew S. Shugart, *Seats and Votes: The Effects and Determinants of Electoral Systems* (New Haven, Conn.: Yale University Press, 1989).

[2] See G. Bingham Powell Jr and Georg Vanberg, 'Election Laws, Disproportionality and the Left–Right Dimension', *British Journal of Political Science,* 30 (2000), 383–411; and Michael D. McDonald, Silvia M. Mendes and Ian Budge, 'What Are Elections For? Conferring the Median Mandate', *British Journal of Political Science*, 34 (2004), 1–26, esp. 18–20.

[3] For rare exceptions, see P. J. Taylor and A. Lijphart, 'Proportional Tenure vs. Proportional Representation', *European Journal of Political Research*, 13 (1985), 387–99; John D. Huber and G. Bingham Powell Jr, 'Congruence between Citizens and Policymakers in Two Visions of Liberal Democracy', *World Politics,* 46 (1994), 291–326; McDonald *et al*., 'What Are Elections For?' pp. 21–3.

[4] Hanna F. Pitkin, *The Concept of Representation* (Berkeley: University of California Press, 1967), pp. 232–4.

https://doi.org/10.1017/S0007123406000160 Published online by Cambridge University Press

parliamentary systems, policy making tends to be dominated by governments, not legislatures. Vote–seat correspondence measures implicitly assume that all party representatives are equal. The emergent picture of representation overstates the absolute level of equity in parliamentary systems and may distort the relative consequences of election laws. Not all preferences can become governmental policy. Turning to governments reminds us that representation involves 'enacted', as well as 'advocated' policy.[5]

Moreover, as Lijphart has observed, some conceptions of the democratic process emphasize responsiveness of policy makers to the majority of the people, rather than to all of the people.[6] Majoritarians seem primarily to be interested in correspondence between the citizen majority and government policy, not in procedural advocacy of a wide range of opinion. Proportionalists (or consensualists) presumably are interested in both.

The critical point is not that vote–seat correspondence is irrelevant, but that its large empirical literature can be extended to include implications for representative governments as well. As shown by Cox,[7] we now have available theories of party competition and government formation that allow us to predict some consequences of election laws for both legislative vote–seat correspondence and government representation. We also have important empirical studies of government formation that illuminate critical elements in the process.

This article first reviews our expectations about the empirical consequences of election laws – primarily the distinction between SMD rules and PR, multi-member district rules – for correspondence between the electorate and the legislature. It tests these against the experience of eighty-two elections in fifteen parliamentary democracies over twenty years from the late 1970s to the late 1990s. Familiar findings are confirmed; causal connections are clarified. A second section then draws on theory and empirical studies of parliamentary government formation to propose hypotheses connecting SMD and PR election outcomes to correspondence between the citizen median and the government. The analysis shows how the legislative median party, the legislative plurality party and pre-election coalition agreements between parties shape these connections. The third section of the article develops more nuanced measures of party influence on policy making and re-examines the governmental findings using these.

ELECTION RULES AND REPRESENTATIVE LEGISLATURES

Expectations

Many studies have shown empirically that in mature democracies electoral systems with large, multimember districts and one of the proportional designs for aggregating the citizens' votes usually provide better correspondence between citizens' votes and party representation in the legislature than do SMD plurality or majority systems. This relationship is not automatic in either type of system. Success in equitably translating votes into seats under any electoral rule depends on the geographic distribution of citizens' votes within and across districts and on the ability of parties (or voters) to reduce the number

[5] The language is that of Cox, *Making Votes Count*, pp. 226–7.

[6] Arend Lijphart, *Democracies: Patterns of Majoritarian and Consensus Government* (New Haven, Conn.: Yale University Press, 1984), chap. 1; G. Bingham Powell Jr, *Elections as Instruments of Democracy: Majoritarian and Proportional Visions* (New Haven, Conn.: Yale University Press, 2000).

[7] Cox, *Making Votes Count*, esp. chap. 12.

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of competing parties to the appropriate number and competitive positioning.[8] Both geographic and competitive conditions for success are more stringent with higher thresholds for representation, especially in SMD electoral systems, which is why on average they are less likely to achieve equitable vote–seat correspondence.

We also have some theory about the substantive left–right correspondence of the preferences of citizens and their party representatives under SMD and PR. The most important single criterion would be congruence of representatives with the citizen median. In a single issue dimension, the position of the median is privileged because it is the only policy position that cannot be defeated by another position in a head-on vote. The further from the citizen median the legislative median is located, the larger the citizen majority that would prefer an alternative. The choice of the citizen median, not the mean, is thus determined by a normative justification, depending on the position of each citizen being weighted equally.[9]

As shown by Cox, we expect theoretically that under both types of election rules, party competition in a unidimensional space will lead the parties to be centred around the citizen median and that the median voted party (measured by lining up the parties by their left–right positions and counting across by votes received until we get 50 per cent) will be fairly close to that median.[10] In the PR systems this distribution and good proportionality of vote–seat representation are expected to reflect the position of the median voted party into the legislature as its median.

Hypothesis 1a: Under PR election rules, the distance between the median citizen and the median voted party will predict the distance between the median citizen and the median legislator.

In the SMD systems, however, the presence of substantial disproportionality of representation must be taken into account. Rae had also shown that SMD-type election rules were more likely to result in legislative majorities for single political parties than were PR rules.[11] Such single-party majorities could emerge either from strategic behaviours of elites and voters that reduce the number of competing parties to only two (Duverger's Law),[12] or from the well-known distortion in the vote–seat translation. The largest parties tend to be advantaged under any electoral system; under SMD it is typically the plurality party that is advantaged most. By definition, a party commanding a legislative majority includes the legislative median.

Hypothesis 1b: Under SMD election rules, the distance between the median citizen and the plurality vote winner will predict the distance between the median citizen and the median legislator.

[8] Cox, *Making Votes Count*; Powell and Vanberg, 'Election Laws, Disproportionality and the Left–right Dimension'.

[9] However, in these particular countries during these elections, the citizen means and medians are quite similar and the results do not depend on this choice of measure.

[10] Gary W. Cox, 'Centripetal and Centrifugal Incentives under Alternative Voting Institutions', *American Journal of Political Science*, 34 (1990), 903–35; Cox, *Making Votes Count*, chap. 12.

[11] Rae, *The Political Consequences of Electoral Laws*, pp. 74–6.

[12] Maurice Duverger, *Political Parties: Their Organization and Activity in the Modern State* (trans. B. North and R. North) (New York: John Wiley, 1954); William H. Riker, 'The Two-party System and Duverger's Law: An Essay on the History of Political Science', *American Political Science Review*, 76 (1982), 753–66; Cox, *Making Votes Count*.

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As SMD systems usually create legislative majorities for single political parties, good correspondence of citizen and legislative medians then requires that winning party to be located close to the citizen median. As suggested by Huber and Powell[13] and Cox,[14] the conjunction of Duverger's Law and Downs's theory of centre-seeking two-party competition[15] would lead us to expect such majorities to be close to the citizen median. If both parties converge to the median, vote–seat disproportionality need not imply poor correspondence of citizen and legislative medians. However, achieving this correspondence in practice requires, again, achieving stringent and perhaps infrequently realized conditions.[16] Moreover, Down's centripetal theory has been challenged by a variety of theoretical and empirical studies suggesting empirical factors that constrain the degree of convergence to the median.[17]

The relative advantage between the two systems will depend on the relative distances from the citizen median of the plurality party in SMD systems and the median voted party in PR systems. Because of the stringency of conditions of party competition, in conjunction with greater vote–seat disproportionality in SMD systems, we expect better correspondence under PR systems.

Hypothesis 1c: PR election rules produce less distance between citizen median and legislative median than SMD election rules in the average election.

Analysis: Legislative (Mis)representation

The present empirical analysis is based on eighty-two elections in fifteen (primarily parliamentary) countries from 1977 through 1998. The time frame is set by the availability of citizen and elite surveys used to estimate the substantive representation measures. Although relevant data are available for seven elections in Ireland and one in Japan also, these are not usually considered PR systems and are excluded from the present analysis, which builds from the work on election laws. These countries in this time period have relatively stabilized party systems. The sample contains a variety of election systems. The primary contrast explored in this paper is between twenty-three elections in the SMD systems in Australia, Britain, Canada, France and New Zealand, and the fifty-nine elections held in eleven countries under PR.[18] In Table 1 the first three columns show features of party electoral competition in the SMD and PR elections, while the last three columns show

[13] Huber and Powell, 'Congruence between Citizens and Policymakers'.

[14] Cox, *Making Votes Count*, chap. 12.

[15] Anthony Downs, *An Economic Theory of Democracy* (New York: Harper and Row, 1957).

[16] Cox, *Making Votes Count*, chap. 12.

[17] Downs himself noted the potential role of abstaining extremists in limiting convergence (*Economic Theory of Democracy*, pp. 118–20.) Also see the 'Mays' Law' line of research, and the analysis of internal party incentives, arguing that patterns of recruitment will generally produce party representatives more extreme than party voters: J. D. May, 'Opinion Structure of Political Parties: The Special Law of Curvilinear Disparity', *Political Studies*, 21 (1973),136–51; Herbert Kitschelt, 'The Internal Politics of Parties', *Political Studies*, 37 (1989), 400–21; and Pippa Norris, 'May's Law of Curvilinear Disparity Revisited', *Party Politics*, 1 (1995), 29–47. For a review of studies showing implications of modifying one or more of the many theoretical assumptions of the Downsian model, see Bernard Grofman, 'Downs and Two-Party Convergence', *Annual Review of Political Science*, 7 (2004), 25–46.

[18] There are differences within even the five single-member district systems, of course, with the alternative vote in Australia and majority run-off elections in most French elections. The eleven proportional representation systems, in ten countries plus France 1986, have a variety of 'effective' electoral thresholds, ranging from the Netherlands at 0.67 to France 1986 at 12 (Lijphart, *Electoral Systems and Party Systems*).

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TABLE 1 *Competition and Representation in Parliamentary Elections: By Type of Election Rules*

	Electoral competition			Legislative outcomes		
		Distance between median citizen and:			Distance between median citizen and:	
Election rules*	Effective number of parties	Party winning median voter	Party winning plurality votes	Vote–seat dispro-portionality (Gallagher Index)	Party of median legislator	Government parties
Single-member districts	3.62	0.70	1.62	13.28	1.46	1.61
Multi-member proportional representation	4.97	0.69	1.31	2.91	0.73	1.14
Absolute difference:	− 1.35	+ 0.01	+ 0.31	+ 10.37	+ 0.73	+ 0.47

*The single-member district countries are Australia, Britain, Canada, France, New Zealand, together giving twenty-three elections; the PR countries are Austria, Belgium, Denmark, Finland, France 1986, Germany, Italy, Netherlands, Norway, Spain and Sweden, together supplying fifty-nine elections. The time period is 1978–98.

outcomes for their vote–seat and left–right representation in the legislature and government (which will be explored in the next section).

In these developed democracies the general effects of election rules on procedural vote–seat representation are well known. As we might expect from Duverger's Law, Table 1, column 1 shows fewer parties are effectively winning votes in the SMD systems, 3.62 over all (three without France, which has a majority run-off, rather than plurality or alternative vote) compared to an average of nearly five in the PR systems. However, the number of effective parties in SMD is still substantially over two and there were few, if any, single parties winning vote majorities.[19] The short-term distortions created by the SMD election rules substantially reduced the number of parties in the legislature, to about 2.4 (2.3 without France), and created single-party majorities in 70 per cent (16/23) of the elections and majorities for announced pre-election coalitions in Australia and France in five others. The vote–seat distortion is far greater in the SMD systems, as we expect from stringency of geographic and party requirements and as documented in previous studies of mature democracies. Table 1, column 4, using the Gallagher Index shows 13.28 in the SMD systems compared to only 2.91 in the PR systems. Regression of disproportionality on Lijphart's 'effective electoral threshold' shows results very similar to those reported by Lijphart.[20]

The less familiar analysis here, testing Hypotheses 1a–1c, involves substantive representation: the correspondence between the median citizen and the median legislator.

[19] In an overlapping dataset covering forty-five elections in the SMD countries over twenty-five years, Powell reports that 'only in Australia in 1975 and in France in 1981 did a party or preelection coalition win a clear voter majority; Canada 1984 and Australia 1972 are very close' (*Elections as Instruments of Democracy*, p. 129.)

[20] Lijphart, *Electoral Systems and Party Systems*, p. 108.

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If we think the point of elections is to convert citizens' preferences into representation through the medium of votes and the rules for aggregating those votes, then ideally we should begin with preferences, not votes, in our analysis.[21] The left–right scale makes it possible to compare the policy-positions of citizens with the policy-positions of the parties that represent them in a kind of 'super' issue dimension. While the reduction of multiple dimensions into this single one is more problematic in some situations than others, substantial work on public opinion suggests that the left–right scale position is a reasonable summary of citizens' views in the context of national political debate in most of these countries.[22] Studies comparing citizens and representatives on particular political issues tend to show a strong connection on issues more closely linked to the left–right scale, where party competition is related to this dimension.[23] The approach in this analysis measures misrepresentation by the absolute distance between median citizen and median legislator (or government), thus requiring only that the distances between left–right positions be comparable across times and countries, not that the substantive positions be similar.[24]

[21] An alternative method of linking voters, legislative medians and governments was proposed and operationalized by HeeMin Kim and Richard Fording, 'Voter Ideology in Western Democracies', *European Journal of Political Research*, 33 (1998), 73–97; and HeeMin Kim and Richard Fording, 'Government Partisanship in Western Democracies 1945–1998', *European Journal of Political Research*, 41 (2002), 165–84; and adapted by McDonald *et al*., 'What Are Elections For?' The advantage of their approach, building on the party-manifesto data and assuming voters support a party close to their preferences, is that it allows cross-national comparisons of substantive positions, while the distance approach used here can only compare deviations from citizen positions. Moreover, our approach assumes citizens and expert placement of parties in the same country have in mind similar scales and is dependent on availability of citizen and elite surveys. However, the advantage of the current approach is that it builds directly on citizen self-placements, without assuming that citizen votes correspond to their underlying preferences. Votes are in part shaped by party alternatives presented to the voters; using them to impute citizen preferences imposes greater structure on the analysis of their correspondence to those parties in the legislature. Given these respective advantages and disadvantages, it is extremely reassuring that the substantive conclusions about legislative and government deviation from the (imputed) voter median in SMD and PR systems reported by McDonald *et al*., pp. 18–23, are quite consistent with the results reported below.

[22] See Matthew Gabel and John D. Huber, 'Putting Parties in their Places', *American Journal of Political Science*, 44 (2000), 94–103; John Huber, 'Values and Partisanship in Left–right Orientations: Measuring Ideology', *European Journal of Political Research*, 17 (1989), 599–621; Ronald Inglehart, 'The Changing Structure of Political Cleavages in Western Society', in Russell Dalton *et al*., eds, *Electoral Change in Advanced Industrial Societies* (Princeton, N.J.: Princeton University Press, 1984), pp. 25–69; Ronald Inglehart and Hans Klingemann, 'Party Identification, Ideological Preference and the Left–right Dimension among Western Mass Publics', in Ian Budge et al., eds, *Party Identification and Beyond* (London: JohnWiley, 1976), pp. 243–73; Powell and Vanberg, 'Election Laws, Disproportionality and the Left–Right Dimension'; and the elite surveys mentioned in fn. 24 below.

[23] See, e.g. Soren Holmberg, 'Issue Agreement', in Peter Esaiasson and Knut Heidar, *Beyond Westminster and Congress: The Nordic Experience* (Columbus: Ohio State University Press, 2000), pp. 155–80; Herbert Kitschelt, Zdenka Mansfeldova, Radoslaw Markowski and Gabor Toka, *Post-Communist Party Systems: Competition, Representation and Inter-Party Cooperation* (New York: Cambridge University Press, 1999), chap. 9; and Ian McAllister, 'Party Elites, Voters and Political Attitudes: Testing Three Explanations of Mass-Elite Differences', *Canadian Journal of Political Science*, 24 (1991), 237–68.

[24] The citizen medians on the left–right scale are computed from citizen surveys, primarily from the Eurobarometers and the World Value studies, using the closest survey, but no more than eighteen months permitted between survey and election. The positions of political parties are computed from the expert placements of the parties in the studies reported in Francis Castles and Peter Mair, 'Left–Right Political Scales: Some Expert Judgments', *European Journal of Political Research*, 12 (1984), 73–88; and John D. Huber and Ronald Inglehart, 'Expert Interpretations of Party Space and Party Locations in 42 Societies', *Party Politics*, 1 (1995), 73–111, assuming these are accurate within five years of the time of the survey. Most left–right scales are ten-point scales; those that are not are converted for that purpose.

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We expected theoretically that in both types of systems, electoral competition would result in the symmetrical distribution of parties around the voter (citizen) median with the median vote winner close to that citizen median. Column 2 of Table 1 shows that this expectation is reasonably well realized. Under both types of systems, the position of the party winning the median vote is about 0.7 from the self-placed citizen median. It is not the absence of centre party choices in SMD systems that is responsible for greater legislative distances. In both types of electoral systems, there is quite a bit of variance, with Britain and Denmark having the median vote winner (Liberal Democrats and RV, respectively), close to the citizen median, while France and Sweden often had a substantial gap in the centre, with no party very close to the citizen median. However, in about three quarters of the elections, in both types of systems, the median vote-winning party was within 0.7 of the citizen median.

In the PR systems, consistent with expectation from Hypothesis 1a, the position of the voted median party was an excellent predictor of the legislative median ($r = 0.84$), and both were relatively close to the citizen median. (In 83 per cent of the PR systems they were the same party; this was so in only a third of the SMD systems.) In the SMD systems, the position of the plurality winner, not the median vote winner, was expected to predict the legislative median.[25] This was also true ($r = 0.95$), consistent with Hypothesis 1b. The differing ways that electoral competition is converted into legislative correspondence of median citizen and median legislator show up very clearly in the simple regression analyses in Table 2. The properties of electoral competition and procedural (vote–seat) representation are shown as independent variables on the left of the table. The first data column shows all eighty-two systems. In this simple additive model, we see that vote–seat disproportionality, the distance between median citizen and median voted party, and distance between median citizen and plurality vote winner all have significant effects on legislative median correspondence and collectively explain a good deal of it ($R = 0.75$.) But this additive model is misleading. The next two columns separate the SMD and PR systems. In the SMD systems only the position of the plurality vote winner has the predicted (and highly significant) effect: ($B = 0.91$; $\beta = 0.94$.) Each unit of distance of the plurality winner from the median results in almost a full unit of the legislative median – this is the consequence of vote–seat distortion usually turning vote pluralities into legislative majorities. The distance of the median vote-winning party is actually (weakly) negatively related to legislative distance. In the PR systems, by contrast, the plurality winner distance had no significant predictive power, while the median-vote winner was the very powerful predictor ($B = 0.88$, $\beta = 0.80$), with disproportionality also significant ($B = 0.04$; $\beta = 0.14$.) (The higher threshold PR systems, especially

[25] Deciding which party is the 'plurality vote winner', is slightly more complicated than it sounds because of the continuing election coalitions between some parties in some countries. The Liberal and National Parties in Australia and the CDU and CSU in Germany have been in continuing alliances over many elections; the latter do not compete directly against each other, as the CSU runs only in Bavaria and the CDU does not run in that *Land*. Similarly, in the period covered here in France, the UDF and Gaullists divided up the districts even on the first round and did not offer voters a choice between them. Slightly less compellingly, the French Communists and Socialists withdrew in each other's favour on the second round of legislative elections. In each of these cases, the spirit of electoral competition and, especially, the choices offered the voters seemed best captured by the party alliance, not the individual party. Where any of these party pairs together won a plurality of the votes (over the other pair in France), I counted them as the plurality winner, and estimated their position from the (seat-weighted) average of the two parties. However, the legislative median was always based on a single party (not an alliance) containing the median legislator.

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TABLE 2 *Regression Analysis of Legislative (Mis)Representation by Type of Election Rules*

Independent variables	All cases	SMD cases	PR cases
Distance of voted median party from median citizen	0.39*** (0.10) 0.32	− 0.21** (0.07) − 0.19	0.88*** (0.08) 0.80
Distance of plurality vote winner from median citizen	0.47*** (0.08) 0.45	0.91*** (0.07) 0.94	0.11 (0.07) 0.12
Vote–seat disproportionality (Gallagher Index)	0.05*** (0.01) 0.35	0.01 (0.01) 0.04	0.04* (0.02) 0.14
R	0.75	0.97	0.86
Number of cases	82	23	59

Note: Dependent variable is distance between citizen and legislative medians. For each independent variable the following three items are displayed: unstandardized coefficient; standard error in parentheses; standardized beta.
*Significant at 0.10, **significant at 0.05, ***Significant at 0.01.

Spain, Norway in the early 1980s and France 1986, had notably greater disproportionality.)[26]

Although it is easier to read these results by showing them separately, as in Table 2, an interactive specification of all the systems together, multiplying the three election characteristics by a dummy for SMD election rules, yields identical inferences. In this correct interactive specification, the direct effect of election rules is reduced to insignificance. Thus, the processes of connection fit our theoretical expectations and the relative advantage of the two electoral systems should depend on the relative correspondence of the median-voted party and median citizen in the PR systems (although vote–seat distortion can also play a small role) compared to the correspondence of the plurality winner and median citizen in the SMD systems.

In comparing the consequences of these predictably different processes connecting party competition and legislative correspondence, we find, contrary to Duverger–Downs generated expectations about centrist SMD competition, the plurality vote winner was actually further from the citizen median in the SMD systems than was the plurality vote winner in the PR systems. And, of course, it was much further from the citizens than the median vote winners. As shown in column 3 of Table 1, the plurality vote winner was typically quite a large distance to one side or the other of the citizen median (1.62 on average in the SMD systems.) The vote–seat distortion created by short-term effects of the election laws in the SMD systems usually converted the plurality vote winner (44 per cent

[26] Spain suffers from malapportionment across districts as well as a higher effective threshold. See Lijphart, *Electoral Systems and Party Systems*, p. 128; Jorge De Esteban and Luis Lopez Guerra, 'Electoral Rules and Candidate Selection', in Howard R. Penniman and Eusebio M. Mujal-Leon,eds, *Spain at the Polls 1977, 1979, and 1982* (Durham, N.C.: Duke University Press, 1985), pp. 52–3, 56.

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on average) into a legislative majority winner (54 per cent on average). (Relative differences in vote–seat distortion within the SMD systems played no additional role, as seen in column 2 of Table 2.) The legislative majority contains the median legislator by definition. Thus, despite the conceptual independence, its realization in some specific cases and the arguments of majoritarians, the correspondence of citizen median and legislative median tends, like the correspondence of votes and seats, to be poorer in the SMD electoral systems, consistent with Hypothesis 1c. As shown in column 5 of Table 1, after elections in the SMD systems, the average distance between the citizen and legislative medians was 1.46,[27] while in the PR systems the average distance was about half as far: 0.73. (The simple correlation between SMD and legislative distance was a statistically significant 0.46.)

There are two points worth mentioning about these absolute average differences. First, as in the vote–seat differences there is substantial variance in the SMD distances, with some very close and others quite far from the median citizen. Secondly, while 1.5 scale points may not sound like much, we have to keep in mind that the median citizens in these countries are generally located around the centre of the scale (5.5), which roughly limits the possible maximum distance to only 4.5 points. Thus, in the SMD systems the average legislative median is about a third of the possible maximum distance from the median citizen.

The results in Tables 1 and 2 together help explicate the reason for the greater distances between median citizen and median legislator in the SMD systems compared to the PR systems. Relative to the theoretical expectations from Duverger and Downs, the problem is that the large parties under SMD are not converging to the median.[28] Whether this failure to converge originates in a 'Duvergerian' failure to co-ordinate to only two parties, as suggested by column 1 of Table 1 (Cox's stringent conditions) or a 'Downsian' failure of two-party convergence resulting from the pressures arising from selective recruitment of ideological activists or other sources in electoral competition (Groffman's stringent conditions), cannot be resolved with these data.

However, the failure of the large parties to converge is only half of the story. As we see from the similar positions of the voted median parties in the two systems (Table 1, column 2), the much greater short-term 'mechanical' disproportionality in converting votes to seats under SMD is the essential second half. If the vote configurations under SMD and PR were each converted perfectly into seat configurations, the respective legislative medians would be equally congruent with their citizens. But they are not. Given the failure of the large parties to converge to the median, the question of vote–seat representation becomes highly relevant, as does the large literature on its relative proportionality under different election rules. The interaction of party competition and disproportionality creates the greater distances in SMD systems.

[27] In the SMD systems the fact that in Table 1 the legislative median is slightly less distant than the plurality winner is primarily the result of the alliances in Australia and France, where the legislative median was held by the closer party. There were also some cases where vote–seat distortion led the plurality vote winner to finish second in seats, as in Australia 1990, Canada 1979 and New Zealand 1981; however, in these cases the respective distances from the citizen median were rather similar between the plurality vote winner and runner-up, so the 'wrong' outcome did not make much additional difference.

[28] As also seen in Powell and Vanberg, 'Election Laws, Disproportionality and the Left–Right Dimension', Fig. 2.

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ELECTION RULES AND REPRESENTATIVE GOVERNMENTS

Expectations

We expect that government formation in parliamentary systems will be shaped in part by the legislative election outcomes, especially the position of the legislative median, which we have been exploring in the previous section. The formation and sustaining of parliamentary governments depends on constructing at least temporary majorities from the parties in the legislature to pass investiture votes, where these are required, and to avoid termination by hostile votes of no confidence. Such majorities are also needed to pass budgets and make public policy. Although the processes of constructing majorities may be affected by election commitments (as we shall see below), the most compelling element in the government formation situation is the party configuration in the legislature.[29]

There are good theoretical reasons to expect that the position of the median legislative party will be important in predicting the position of the government. These reasons are somewhat different in the SMD and PR systems. In the SMD systems the elections usually result in legislative majorities for single parties or pre-election coalition partners (in France and Australia). Where such legislative majorities are elected, they almost always form parliamentary governments without adding other parties. These legislative majorities will by definition contain the median legislative party; if they are single-party majorities they will (by our measurement) be at the position of that party. In the PR systems, however, the elections usually fail to result in single-party majorities and governments must be negotiated after the election. A great deal of theoretical work predicts that the median party will dominate government formation in a single dimensional policy space.[30]

Hypothesis 2a: In both PR and SMD parliamentary systems, the closer the citizen median and the legislative median, the less distance between the citizen median and the government.

As we know from the previous section that the legislative median is substantially closer to the citizen median in PR systems, we would expect that governments would also be closer to the citizen median in PR systems. The size of the PR advantage would depend on the respective distances of the legislative medians from the citizen medians. Thus:

Hypothesis 2b. Citizen-government distances will be less in PR systems, because of the lesser distances between citizens and legislatures.

However, because of the complexity of the processes of negotiated government formation in the PR systems, we need much more than the position of the median legislative party to explain fully the position of the government in these systems. Importantly for our purposes, some of these other factors could systematically affect the distances from the citizens. In their analysis of which governments formed in 220 coalition formation

[29] In these mature parliamentary democracies unified party voting can usually be assumed, as discussed in Michael Laver and Norman Schofield, *Multiparty Government* (New York: Oxford University Press, 1990), chap. 2 and Appendix A; and Shaun Bowler, David M. Farrell and Richard S. Katz, *Party Discipline and Parliamentary Government* (Columbus: Ohio State University Press, 1999). The major exception among these countries is Italy.

[30] Cox, *Making Votes Count*, chap. 12; Laver and Schofield, *Multiparty Government*, 110–19; Norman Schofield, 'Political Competition and Multiparty Coalition Government', *European Journal of Political Research*, 23 (1993),1–33.

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situations (from some 30,000 possible governments), Martin and Stevenson draw on the large literature on government formation to propose and test a variety of hypotheses.[31] They do not investigate the distances of their governments from citizen medians, but we can draw on some of their findings to formulate hypotheses about government positions and, to some extent, distances.

Three factors that loom large in the Martin and Stevenson findings are the presence of the median legislative party in the potential coalition, the presence of the plurality legislative party in the potential coalition, and the presence of prior governing agreements between potential coalition partners.[32] We can use these theoretical arguments and empirical results to formulate additional hypotheses (3a–d) about governments in PR systems.

We have already noted the large theoretical literature stressing the importance of the median party. Empirical studies have also reported that the median party appears in some 80 per cent of governing coalitions in European parliamentary systems.[33] As we know from the previous section, the median party in PR systems is on average fairly close to the citizen median, although with substantial variance:

Hypothesis 3a. In PR systems, if the government does not include the median legislative party, it will be further from the citizen median.

The role of the legislative plurality party has been less intensively studied, but also indicated by several lines of theory. Martin and Stevenson not only find that potential coalitions involving the plurality party are significantly more likely to form, but suggest that the plurality party is particularly important in government formation because of its *formateur* role – it usually is given the first opportunity to form a government after an election.[34] Laver and Schofield noted that the largest legislative party was present in over 80 per cent of the European governments formed in non-majority situations.[35] We might expect the distance of the plurality party from the citizen median to be especially important for government distance from the citizens because plurality parties are, by definition, larger than the median parties where the two are not the same, and thus contribute more to the government position.

Hypothesis 3b. In PR (and SMD) systems, the further the legislative plurality party from the median citizen, the further the government will be from the median citizen.

Where parties have announced during the election that they will attempt to govern together, they usually keep these promises. Similarly, parties disavowing certain coalition possibilities usually keep those promises as well. At a minimum, the presence of such

[31] Lanny W. Martin and Randolph T. Stevenson, 'Government Formation in Parliamentary Democracies', *American Journal of Political Science*, 45 (2001), 33–50.

[32] Martin and Stevenson, 'Government Formation', p. 42. Also see Huber and Powell, 'Congruence'.

[33] Laver and Schofield, *Multiparty Government*, p. 113; Ian Budge and M. J. Laver, 'The Relationship between Party and Coalition Policy in Europe', in M. J. Laver and Ian Budge, *Party Polity and Government Coalitions*, (New York: St Martin's Press, 1992), p. 416; Wolfgang Mueller and Kaare Strøm, *Coalition Governments in Western Europe* (New York: Oxford University Press, 2003), p. 564.

[34] Martin and Stevenson, 'Government Formation', pp. 34, 36. The theoretical formulation suggesting the importance of the plurality party in its formateur role in non-majoritarian situations was David Austen-Smith and Jeffrey Banks, 'Elections, Coalitions and Legislative Outcomes', *American Political Science Review*, 82 (1988), 405–22. We cannot test Martin and Stevenson's causal hypothesis directly with the current data.

[35] Laver and Schofield, *Multiparty Government*, p. 113; Muller and Strøm, *Coalition Governments*, p. 568.

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agreements may inhibit the normal bargaining advantages of the median position.[36] This seems especially likely in the common situation of ideological coalitions between right parties or between left parties, which will limit formation of government coalitions across the legislative median in systems in which they are found. The coalitions should be from the median 'out' towards either right or left, rather than across the median.

Hypothesis 3c. In PR systems, the presence of pre-election ideological governing agreements will be associated with fewer cross-median coalitions and, thus, greater distance between the government and the median voter.

Considering together Hypotheses 3a–c, we see that although the role of the legislative median party should keep coalitions in PR systems linked to the citizen median, the role of the plurality party and pre-election ideological coalitions should push the government further away.

Hypothesis 3d. In PR systems the average government should be further from the citizens than the legislative median party is from the citizens.

It is even possible that the effect of 3a–c (coalitions without median parties, plurality parties and pre-election coalitions) may outweigh the effect of confirmed Hypothesis 1c (relative closeness of legislative median parties), which would negate the overall prediction in Hypothesis 2b that the PR governments will be closer to the citizens than the SMD governments.

Proponents of majoritarian and proportional approaches disagree over whether failure of two-party median convergence under SMD or failure of median party domination of government formation under PR is likely to be a more serious problem.[37] Cox summarizes this situation as one that 'depends on what one assumes about coordination. If coordination is more likely to fail at the electoral stage, then stronger systems will be more erratic. If coordination is more likely to fail at the government formation stage, then feebler systems will be more erratic.'[38] However, it is also important to keep in mind that in the PR systems, the plurality vote winner is likely to command more legislative seats than the median party (where the two are not the same). We seem to have no strong theory about the distance of the plurality winner from the citizen median under PR,[39] leading to some uncertainty about the net relative advantages of the two systems for government correspondence.

Analysis: Substantive (Mis)representation in Governments

When we turn from the legislative median to the government, we must first confront systematically the problem of estimating the position of multiparty governments. This is, of course, critical for the PR systems, in which they are the most common form of

[36] For a discussion of the importance of party pre-election promises as constraints, see Kaare Strøm, Ian Budge and Michael. J. Laver, 'Constraints on Cabinet Formation in Parliamentary Democracies', *American Journal of Political Science*, 38 (1994), 303–35; also see Mueller and Strøm, *Coalition Governments*, p. 563.

[37] Michael Pinto-Duschinsky, 'Send the rascals packing: Defects of proportional representation and the virtues of the Westminster Model', *Times Literary Supplement*, 25 September, 1999, pp. 10–12; Michael Pinto-Duschinsky, G. Bingham Powell, Arend Lijphart, Jack Vowles and Matthew Soberg Shugart, 'Send the Rascals Packing!' *Representation*, 36 (1999), 117–55.

[38] Cox, *Making Votes Count*, p. 237.

[39] However, see the interesting proposal of Anthony McGann concerning the skewedness of the citizen preference distribution, 'The Advantages of Ideological Cohesion a Model of Constituency Representation and Electoral Competition in Multi-Party Democracies', *Journal of Theoretical Politics*, 14 (2002), 37–70.

https://doi.org/10.1017/S0007123406000160 Published online by Cambridge University Press

government, and also relevant for some of the governments in Australia and France in the SMD systems. The most obvious alternatives are:

1. *The median legislator*. Laver and Schofield tell us that in a single-dimensional bargaining situation, the position of the median legislator (or the party including him or her) will dominate policy formation, regardless of whether or not the party is in the government. (In their memorable phrase: 'It makes no difference if it goes off on holiday to Bermuda and sits on the beach getting a suntan.')[40] As the left–right dimension assumes substantial uni-dimensionality, one approach is simply to take the position of the party controlling the median legislator as the best estimate of the government position. This leaves us with the same results already shown in Column 5 of Table 1. We should not forget these results, which showed the very substantial advantage of the PR designs.
2. *The majority party in the government*. In most multiparty governments one party will have a majority of the seats commanded by the government. If it could establish simple majority voting within the government parties as a means of settling party differences, its position would always prevail. This sounds plausible, but it is almost certainly incorrect as a general rule. Unless the larger party also has a majority in the entire legislature, which is almost never true in coalition governments,[41] there is no reason for the smaller party to remain in the government under such domination. It might as well leave, threaten to bring down the government, and/or see what it could negotiate from the other parties.[42]
3. *Veto player rule*. Another possibility, as suggested by Bawn, is that each party in the government might be able to veto policies with which it disagreed.[43] This is an interesting possibility, but it is not obvious how to interpret in left–right terms that we can compare to citizen preferences. It would apparently depend on the relationship between the citizen position and the status quo. If we think it usually means that the substantively most centrist position reflects the status quo, multiparty governments will in practice be close to the centre. In these systems with the median voter generally near the centre, the practical implications will yield more representative governments for multiparty coalitions, further advantaging the PR systems.
4. *Weighting the positions of the parties in the government by their seat shares*. Another simple, general rule for accommodating the differing positions of the parties sharing government is to weight the positions of the different parties by their relative percentages of seats in the legislature. Compellingly, this rule corresponds extremely closely to the way in which parties distribute the cabinet portfolios themselves.[44] Cabinet portfolios are *not* distributed according to Rules 1–3. Nor is the prime ministership, which typically goes to the largest single party. As there is good reason to believe that distribution of cabinet portfolios has important substantive policy implications,[45] this rule seems to reflect and shape policy influence distribution.

[40] Laver and Schofield, *Multiparty Government*, p. 111.

[41] France 1981 is an exception, as the Socialists had a legislative majority, but nonetheless gave about 10 per cent of the cabinet positions to the Communists, with whom they had had an electoral alliance.

[42] Note that this same argument applies, exactly, to taking the median party within the government.

[43] Kathleen Bawn, 'Money and Majorities in the Federal Republic of Germany: Evidence for a Veto Players Model of Government Spending', *American Journal of Political Science*, 43 (1999), 707–36.

[44] Laver and Schofield, *Multiparty Government*, pp. 167–81 and references therein.

[45] Michael Laver and Kenneth Shepsle, eds, *Cabinet Ministers and Parliamentary Government* (New York: Cambridge University Press, 1994).

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Using the per centages of seats held by the parties, then, seems by far the most plausible way to estimate the net government position on the left–right scale.

We are now in a position to test Hypotheses 2 and 2a, concerning the effect of the differing distances of legislative medians for government medians in the SMD and PR systems.[46] As we see in the leftmost column of Table 3, in a simple regression analysis of distance between government and the citizens in all eighty-two systems, the SMD systems are significantly further away, about half of a scale point (as we also see in

TABLE 3 *Regression Analysis of Government (Mis)Representation by Type of Election Rules*

Independent variables	All cases		PR cases without single-party majority	
SMD Election Rules	0.46***	0.06	–	–
	(0.17)	(0.16)	–	–
	0.29	0.04	–	–
Distance of legislative	–	0.55***	0.19*	0.16*
median party from	–	(0.10)	(0.11)	(0.09)
median citizen	–	0.56	0.17	0.15
Legislative median	–	–	−0.26**	−0.22
party in government	–	–	(0.14)	(0.12)
	–	–	−0.17	−0.15
Distance of legislative	–	–	0.53***	0.50***
plurality party from	–	–	(0.11)	(0.10)
median citizen	–	–	0.50	0.46
Pre-election party	–	–	0.45***	0.18
pacts present	–	–	(0.13)	(0.13)
	–	–	0.34	0.14
Government across	–	–	–	−0.59***
median	–	–	–	(0.14)
	–	–	–	−0.41
R	0.29	0.58	0.75	0.83
Number of cases	82	82	56	56

Note: Dependent variable is distance between citizen median and government. For each independent variable the following three items are displayed: unstandardized coefficient; standard error in parentheses; standardized beta.
*Significant at 0.10, **significant at 0.05, ***significant at 0.01.

[46] The subsequent analysis of governments estimates the position of the first government formed after the election. As shown in Powell, *Elections as Instruments of Democracy*, p. 220, in cases where the government fell before the next election, later governments were usually closer to the median than the original government. These later governments were on average 0.36 closer to the median (averaged by country), consistent with the greater importance of the median party in post-election bargaining. Seven of the PR systems (Belgium, Denmark, Finland, Germany, Italy, Norway and Sweden) experienced such multiple governments, as did France and New Zealand. If we used the average government position, rather than that of the first government, the PR advantage would be slightly enhanced. (Beyond the cases reported in Powell, only Norway 1997 experienced multiple governments of different party composition before the next election; in that case the new Labour government was slightly further from the median than the original KFR–SP–V government formed after the election.)

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the simple comparison of means in Table 1, column 6), which is consistent with Hypothesis 2. Moreover, when we enter the distance between the legislative median and the citizen median into the equation, in data column 2 of Table 3, we see that not only is the legislative distance a strong and significant predictor (with each point of legislative distance creating an additional half point of government distance), but the election rules variable is reduced nearly to zero (0.06) and complete insignificance. This result supports Hypothesis 2b, which predicted that the legislative median distances would completely account for a PR advantage over the SMD systems.

We can also see in Table 3 that the citizen–government distance advantage of the PR systems (0.46) is substantially less than the citizen–legislature distance advantage of PR (0.73) that we saw in Table 1. (The simple correlation of 0.29 between the median citizen and the government is also substantially less than was the correlation of 0.46 between median citizen and median legislator.) This is consistent with Hypothesis 3d, strongly suggesting that we need to explicate the causal mechanism to understand why the PR government advantage is not greater.[47]

Because of the very high degree of multicollinearity between the legislative median and the legislative plurality (majority) in the SMD systems, we cannot use a single interactive equation, but must examine the systems separately. All but two of the SMD elections (Canada 1979 and France 1988) resulted in majorities for single parties or the French and Australian pre-election coalitions. These government majorities contained both the parties with the legislative median and the legislative plurality party. The average SMD government was slightly further from the citizen median (1.61) than is the average SMD median legislator (1.46) (Table 1). This difference occurs because in the multiparty conservative coalitions in France and Australia, which together controlled legislative majorities, the party in the coalition that was closer to the centre included the legislative median. Averaging in the influence of the more extreme partner pulled the government position away from the legislative median. (The degree of difference depended, of course, both on the relative size of the two parties and on their respective positions.) This estimate seems to reflect the reality of policy making in these countries. Government distance in the SMD systems is completely dominated by the electoral competition and vote–seat distortion issues discussed in the previous section, with no additional effect of legislative bargaining.

In the PR systems the plurality vote winner (39.9 per cent on average) almost always became the legislative plurality party, but did not command a majority of seats (41.9 per cent on average). Except for three single-party majorities in Spain, government formation had to take place by pre- or post-election negotiation, either to form a majority coalition or to allow a minority government that could be deposed by the other parties. Columns 3 and 4 in Table 3 test Hypotheses 3a–c about the effect of coalition formation factors on government distance in the PR systems. The three single-party majority governments are set aside, so these regressions are based on fifty-six bargaining situations.

Considering only the PR bargaining situations actually reduces the effect of the distance between citizens and the legislative median party. The simple correlation (not shown) is less (down from 0.56 in the full set to 0.31 in the PR bargaining cases), which

[47] Also see McDonald *et al*., 'What Are Elections For?' p. 22, showing that although government position is responsive to the parliamentary median in both SMD and PR systems, the average 'distortion' (the absolute difference between the left–right position of the parliamentary median and the government) is nearly twice as large in the PR systems.

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is still consistent with Hypothesis 2a, as we know that many of the more distant cases have been eliminated. In the multi-variate analysis in column 3, however, we see that the effect is reduced to 0.19, significant only at the 0.10 level. The presence in the government of the median party, as predicted by Hypothesis 3a is slightly stronger at 0.26. The median party is in the government 77 per cent of the time, which is very similar to findings in previous studies, and is worth about a third of a scale point in its own right. Interestingly, an interactive formulation does not improve on this specification, suggesting that the presence of the median party in the coalition and the distance of that party from the citizens are each of independent importance.[48] But with the median party in so many governments it is hard to disentangle these effects.

Column 3 of Table 3 also shows the coefficient for the distance between the legislative plurality party and the citizen median. As we might expect from the size of these parties, which are different from the median party in 60 per cent of the cases, and included in the government 79 per cent of the time, they are very powerful, as well as statistically significant, predictors of the government distance from the citizens. Each point of distance between the plurality party and the citizens moves the government about half of a point further away. This result strongly supports Hypothesis 3b. An interesting point to note is that as the plurality winner dominates legislative and government distances in the SMD systems, its role here is a major point of similarity between the two types of systems, generally pulling both governments further from the citizen median. However, because of the much lesser vote–seat distortions in PR, the plurality party does not dominate the government totally; a role is left for a separate legislative median party, which is also usually (83 per cent of the time) the voted median party or close to it.

Finally, the last variable in column 3 of Table 3 is a dummy variable for the presence of inter-party governing commitments during the election, as inferred from election campaign descriptions in various secondary literatures.[49] These inter-party pre-election agreements, as exemplified by coalitions between the FDP and the CDU/CSU or FDP and SDP in Germany, or in various coalitions between centre (Agrarian), liberal and conservative parties in Scandinavia, are found in about half (31/56) of the elections in the PR systems. Although occasionally, as in a couple of Austrian Grand Coalitions, they may cross the ideological divide, mostly they involve ideologically centre-left or centre-right. They are associated with governments further from the centre (about 0.60 of a point in simple comparisons). In the regression the coefficient is 0.45, which is significant at the 0.01 level, as predicted by Hypothesis 3c.

The nature of the connection between pre-election agreements and the distance of post-election coalition formation can be seen more clearly in column 4 of Table 3, which adds a direct measure of the formation of coalitions that cross the legislative median. These are coalitions containing both a party whose position on the ten-point left–right scale is less than 5 *and* a party whose position on the left–right scale is greater than 6. Such cross-median coalitions are found in a quarter of all the PR governments. But they

[48] The nature of the influence of the median party is perhaps further illuminated by noting that of the twelve coalitions that do not include it, the median legislative party is an explicit support party in four cases (in Denmark and Spain), is extremely close (0.18) to one of the government parties in another, and joined a replacement coalition before the next election in two more cases.

[49] These were adapted, corrected and updated from Powell, *Elections as Instruments of Democracy*, pp. 73–6, 261–2, focusing on explicit pre-election pacts, rather than general expectations; additional sources included Sona N. Golder, *The Logic of Pre-Electoral Coalition Formation* (Columbus: Ohio State University Press, forthcoming); and *Keesing's Contemporary Archives; West European Politics*.

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appear very rarely after elections marked by inter-party governing agreements, as compared to half of the governments not shaped by pre-election agreements. (The correlation between pre-election agreements and post-election cross-median governments is -0.51, not shown here.) Cross-median party coalitions are over two-thirds of a point closer to the median than coalitions that do not cross the median. When both pre-election agreements and post-election cross-median governments are entered into the equation, the latter is reduced by more than half and becomes statistically insignificant. This result supports Hypothesis 3c, that pre-election agreements have constrained cross-median coalition formation and thus limited a type of government formation that is very close to the citizen median. It is worth noting that there were no cross-median coalitions in the SMD systems, which eliminates a way that those governments could have been pulled towards the citizen median.

The explication in Table 3 of the differing processes that connect legislative medians and governments in the SMD and PR systems helps us understand the nature of the PR advantage and its limitations. The SMD governments are almost entirely determined by the election outcomes. The plurality winner usually becomes the legislative majority, which contains the legislative median. As seen in the previous section, it is often at some distance from the median citizen. The PR system governments seldom have single-party majorities; their governments are almost always the result of party negotiation. The PR post-election bargaining starts from the advantage that the legislatures themselves are more accurately centred with respect to their citizens – the legislative medians are much closer to the citizen medians. As the median party joins 80 per cent of the governments and supports others, its presence and its distance from the median help predict the government's distance, giving the PR governments a substantial advantage. However, the plurality party also is part of about 80 per cent of all negotiated governments and its size makes it a larger contributor. While the plurality parties under PR are slightly closer to the median than their SMD counterparts, the differences are not nearly as great as with the legislative medians, reducing the initial PR advantage. Moreover, the presence of pre-election pacts between parties also constrains negotiated governments, reducing cross-median coalitions, further limiting the advantage derived from the better-positioned legislative median. The net outcome, as shown by the last column in Table 1 and the first columns of Table 3, is a significant advantage to governments in PR systems, but the advantage is substantially less than we would expect from comparing the legislative medians alone.

The situation is further complicated by the minority governments, which constitute over 40 per cent (26/59) of the post-election PR governments in this data set. (They are found in Denmark, Italy, Norway, Sweden and Spain.) In the older literature on government formation minority governments were treated as the outcome of various kinds of bargaining failure. Much of the more recent work has suggested that they are one reasonable outcome of the advantage of the median party, which theoretically can in a one-dimensional space dominate bargaining without commanding a parliamentary majority, especially under helpful institutional conditions.[50] However, the theoretical expectation that the median party would control seems confounded. In nearly half of the

[50] For a brief review of the older literature and a statement of the spatial explanation of viable minority governments at the legislative median, as well as important institutional features, see Laver and Schofield, *Multiparty Government*, pp. 72–81, 111.

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minority PR cases the legislative median party is not in the government, although it might support it from outside the cabinet (Denmark and Spain). The best single predictor, again, is the distance of the plurality party, found in eighteen of the twenty-six minority governments and a very powerful predictor of government distance in those eighteen cases.[51] The PR minority governments are substantially further from the median voter (1.49) than are PR majority governments (0.86), and minority status remains a significant predictor of greater distance in controlled regression analyses. A full explanation of minority government status is beyond our scope here and may often be a consequence more than a cause of greater distance from the citizen median. However, it is notable that minority governments are relatively more frequently found after pre-election pacts ($r = 0.45$), and are seldom associated with cross-median party governments (-0.54). Again, the pacts seem to inhibit easy formation of centrist majority coalitions. One implication of the more frequent minority governments under PR is worth keeping in mind. Their continuing existence depends on bargaining with additional parties. If that bargaining pulls them towards the median, as we shall suggest in the next section, then the policy implications of their government may be less anomalous than the simple calculations make it appear. And because of the many minority governments, the overall computation of pure government positions may especially overstate their true distance from the median in the PR systems.

Nonetheless, even taking all government positions at face value, governments in the PR system are still significantly closer to the citizen median (1.14 scale points away on average) than are governments in the SMD systems (1.61 scale points.) Although the magnitude is shaped by the degree of electoral pact formation in the PR systems and the relative distance from the citizens of the plurality vote winners, the greater proximity to citizens of the median legislative parties provides a basic advantage to the PR systems. As we saw in the previous section, the disproportionate creation of single party (or pre-election coalition) majorities under SMD, but rarely under PR, is a key element in legislative representativeness. To this degree the traditional concern of the vote–seat representation literature finds a continuing role in explaining the proximity of governments to citizens.

FROM GOVERNMENTS TO POLICY MAKERS: ESTIMATING OPPOSITION INFLUENCE

While it is unrealistic to assume that all the legislative parties have equal influence, and thus to use votes and seats alone to measure representation, it is also somewhat unrealistic to assume that governments have unchecked political power. This assumption is especially problematic when we try to compare across political systems. Different systems of election rules systematically create governments that differ in their legislative control. For this reason, it is worthwhile to make a brief, if admittedly imprecise, effort to estimate the realistic influence of the opposition in the SMD and PR systems.

[51] The eight minority cases without the plurality winner in the government are, on average, the most distant from the citizen median (1.6) and difficult cases to explain. They are all found in Scandinavia, were often short-lived, and seem to be linked to both pre-election alignments and the presence in the legislature of 'extremist' parties on the far left and far right, which were not included in any governments, but whose support on confidence motions could sustain or defeat them. These cases seem mostly closely to approximate majoritarian ideas of the unpredictability of government bargaining in PR.

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Expectations: Opposition Influence

In these parliamentary systems the cohesion of the government parties can usually be taken for granted. If the government commands a majority in the legislature and there are no institutional features that diffuse government control, it dominates the policy-making process, from the design of legislation through its implementation. Such governments are not all-powerful. Opposition parties can use their legislative forum to raise embarrassing questions in anticipation of the next election and may occasionally find procedural levers of influence.[52] Nonetheless, no observer of usual policy-making processes in Britain or France can doubt that the ability of minority oppositions to shape policy in the interests of their constituents is usually extremely limited. Yet in legislative situations where the government must rely on votes from the opposition to stay in office, let alone pass legislation, and where legislative rules encourage an active role for the opposition parties through chairing committees and even shepherding legislation, as in Norway, the influence of those parties will obviously be greater.[53]

The effects of opposition influence on substantive, left–right representation are potentially complex. Everything depends on where on the left–right scale the government and the opposition are located. Fortunately, we have some theoretical expectations: theories of electoral competition lead us to expect parties in election campaigns to locate themselves symmetrically around the median voter.[54] If so, we would expect government and opposition configurations that emerge directly from the election, as usually happens in the SMD systems, to be on opposite sides of the median. In negotiation-driven government formation, by contrast, as discussed above, we find both the median legislative party and the plurality party to be very frequent participants in government. A roughly symmetrical distribution emerging from party competition, as we expect theoretically, in combination with governments formed from median and plurality parties, should also result in government and opposition facing each other across the median:

Hypothesis 4a: In both SMD and PR electoral systems, government and opposition will usually be on opposite sides of the citizen median.

Hypothesis 4b. Thus, in both SMD and PR, taking account of the influence of the opposition will pull the 'net' policy-making position closer to the citizen median.

Moreover, assuming that governments and oppositions are, indeed, on opposite sides of the citizen median, then, *ceteris paribus*, the more influential the opposition parties, the more the governments will be pulled towards the citizen median. Two widely studied legislative features that seem likely to affect the influence of the opposition parties are minority governments and strong, power-sharing committee systems.[55] As we have seen, minority governments are typically found in association with PR electoral systems; the

[52] A detailed study showing opposition influence on education policy under these conditions in France can be found in Frank Baumgartner, *Conflict and Rhetoric in French Policymaking* (Pittsburgh: University of Pittsburgh Press, 1989); and Frank Baumgartner, 'Parliament's Capacity to Expand Political Controversy in France', *Legislative Studies Quarterly*, 12 (1987), 33–54.

[53] Kaare Strøm, *Minority Government and Majority Rule* (New York: Cambridge University Press, 1990), chap. 6.

[54] Cox, *Making Votes Count*, p. 230.

[55] Kaare Strøm, 'Minority Governments in Parliamentary Democracies', *Comparative Political Studies*, 17 (1984),199–227; Strøm, *Minority Government and Majority Rule;* Powell, *Elections as Instruments of Democracy*, chap. 2, based largely on Herbert Doering, ed., *Parliaments and Majority Rule in Western Europe* (New York: St Martin's, 1995).

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SMD election rules usually create legislative majorities. Empirical studies have suggested that power-sharing committee systems are also very frequently associated with PR, although we do not know if this is a consequence of frequent opposition bargaining power or an implication of alternative visions of policy making.

Hypothesis 4c: Opposition political parties will have more influence on policy making in PR systems.

The combination of opposition parties on the opposite side of the citizen median and their greater influence in PR systems leads us to expect that:

Hypothesis 4d. Under PR, the net policy-maker position will be closer to the citizens, and more sharply reduced from the legislative median distance, than under SMD.

However, we must keep in mind that the net effect of opposition influence will be shaped by the relative distances of governments and oppositions, as well as by the magnitude of opposition influence.

Analysis: Positions, Opposition Influence and Consequences in SMD and PR Systems

It is fairly straightforward to estimate the positions of government and opposition relative to the citizen median, if we can assume that all the parties not holding cabinet portfolios in the government are in the opposition. Of course, in the PR multiparty systems, these relationships are often somewhat more complicated than that. But this basic juxtaposition of government versus opposition will not greatly distort our understanding of parliamentary life, as long as we recognize varying opposition influence in different situations. The position of the government is calculated from the seat-weighted average of the parties in the government, as discussed above; the position of the opposition is calculated from the seat-weighted average of all remaining parties in the legislature.

The first data column in Table 4 shows the numbers of cases under SMD (top half of the table) and PR (bottom half) where the government and opposition are on the same side or opposite side of the citizen median. As we see, in both types of systems nearly 90 per cent of the systems find government and opposition on opposite sides of the citizen median, just as predicted from Hypothesis 4a.

Estimating the influence of the opposition is, of course, more problematic than estimating the positions of government and opposition relative to the citizen median. Most previous studies have simply guessed at the relative effect of political and structural conditions, drawing on varied accounts of policy making in different countries.[56] Here we can draw on the expert estimations elicited by Laver and Hunt's 1989 survey of journalists and scholars in each country. Laver and Hunt asked their respondents to rate the 'impact' of parties in the parliamentary opposition on government policy on a scale, in which (1) was 'no impact' and (9) was 'high impact.'[57] The average opposition party ratings ranged from a low of about 2 in Britain and Spain to a high of about 7 in Norway

[56] For example, Powell, *Elections as Instruments of Democracy*, pp. 103–9, 267–8.

[57] Michael Laver and W. Ben Hunt, *Policy and Party Competition* (New York: Routledge, 1992). The Laver–Hunt data are quite attractive because the question addressed exactly our current concern, provided a clear base-line ('no impact'), covered the countries of interest to us here and are based on at least five experts in each country. The primary limitations are reliance on a single question, an uncertain meaning of the upper end of the scale ('high impact'), no specification of the time frame and absence of comparable data at other time points than 1989.

https://doi.org/10.1017/S0007123406000160 Published online by Cambridge University Press

TABLE 4 *Distance of Governments, Oppositions and Estimated Policymakers from Citizens: By Election Rules and Positioning of Governments and Oppositions*

Positioning of governments and oppositions relative to citizen median	Number of cases	Influence of opposition	Distance from median citizen		
			Government	Opposition	Estimated policy maker*
SMD elections					
Same side	3	0.20	1.17	0.24	1.10
Opposite side	20	0.26	1.67	1.74	1.30
All SMD	23	0.25	1.61	1.55	1.27
PR elections					
Same side	7	0.35	0.40	1.07	0.46
Opposite side	52	0.46	1.24	1.34	0.81
All PR	59	0.44	1.14	1.31	0.77
Difference		+ 0.19	+ 0.47	+ 0.24	+ 0.50

*Estimated using the coefficients in column 2, from the equation in the Appendix to estimate influence of the opposition on the transformed Laver–Hunt scale, and then weighting the left–right position of the opposition by half that influence (assuming maximum possible influence of opposition is half of government).

and Italy. If we convert the 1–9 scale to a 0–100 range (subtract 1 and divide by 8), we find oppositions in Britain and Spain given about 12.5 per cent of 'high' impact, while oppositions in Norway and Italy are given about 75 per cent. This certainly seems plausible in a relative sense, based on studies of policy making in these countries, and is not unreasonable in an absolute sense. It is interesting to observe that the opposition parties never received average ratings of 'no impact', even in Britain, suggesting that any legislative representation is worth something to the voters in having impact on government policy making. This point implies, in turn, that representation measures based only on governments are too conservative, even in majoritarian countries.

In a regression analysis of the nineteen cases in the Laver–Hunt study, dummy variables for minority government and legislative rules facilitating opposition bargaining power strongly and significantly predict the Laver–Hunt opposition influence scores.[58] Where the upper house of the legislature or a directly elected presidency had some policy-making influence and was controlled by the opposition, opposition influence was also facilitated.[59] It seemed intuitively probable that the magnitudes of these factors would be affected by the size of the opposition representation in the legislature, a feature that would affect its claim on floor time, proportions of committee seats and the like, so the final specification multiplies the dummies by the size of the opposition (see Appendix for the regression equation). Simple size of the opposition is insignificant (at least within the range in the

[58] This analysis explicitly assumes that the experts were referring to the government – opposition relations at the time of the survey in the first half of 1989 (Laver and Hunt *Policy and Party Competition,* p. 36.). These were governments resulting from elections in 1986, 1987 or 1988 in all countries except Greece, whose government dated to the 1985 election. In 1986–88 there were two elections in Denmark and France; the later outcomes are assumed to be the experts' point of reference.

[59] Lijphart, *Democracies*, p. 212.

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cases here). The intercept thus corresponds to the case of oppositions facing majority governments, in conditions of weak committees and no opposition control of outside institutions. Italy, which is clearly an outlier, perhaps because of weak party cohesion, receives a special country dummy, so as not to bias the other coefficients. With a multiple R of 0.90, this specification, which corresponds so well to expectations based on theory and other empirical studies, seems satisfactory.

The regression equation implies that, in the usual SMD situation of majority government, weak committees and no outside support, the legislative opposition parties get 18 per cent of the 'high impact' influence. The fairly common case in (one third of) the PR systems of an opposition with around 55 per cent of the seats in the legislature, facing a minority government and helped by a strong committee system, the opposition representatives get about $(0.50 + 0.25) \times 0.55 = 0.41 + 0.18 = 59$ per cent of the 'high impact' influence. Of course, the exact scores depend on the configuration of these facilitating conditions.

We can now use the regression equation predicting the Laver–Hunt scores in 1989 to predict opposition influence across the full time period of our eighty-two cases in fifteen countries, using the conditions of government minorities, opposition-influence facilitating legislative rules and control of outside institutions.[60] Column 2 in Table 4 shows the estimated opposition influence in the SMD and PR systems. As we see, the average estimated opposition influence in the SMD systems is about 0.25 of 'high impact', while the average estimated opposition influence in the PR systems is 0.44 of 'high impact', just as we expect from Hypothesis 4c. The opposition influence in the PR systems is especially notable in the minority government cases (0.57 of 'high impact').

From the size and positions of the government and opposition parties in the legislature and their relative estimated influence we can calculate a net policy-maker position on the left–right scale and compare it to the position of the median voter. Columns 3 and 4 in Table 4 show the distances of the government and the opposition parties from the citizen median. The last column shows the distance of the net policy-maker position from the citizens, using the opposition influence estimate to weight the opposition party position. Reading across Table 4, we can see that the net policy maker is notably closer to the citizen median than the government position under both SMD and PR, as predicted by Hypothesis 4b, reflecting the substantial symmetry of government and opposition under both systems. Under SMD the 1.61 government distance from the citizen median is reduced about 20 per cent, to 1.27 when account is taken of the weighted opposition parties. Under PR the 1.14 government distance is reduced about 32 per cent to 0.77 by taking account of the opposition parties. The minority government distances are especially reduced (from 1.5 to 0.97).

[60] One problem that emerges as we extend the Laver–Hunt based analysis to the full dataset involves 'supported' minority governments. These are governments that do not themselves command a parliamentary majority based on the parties sharing cabinet portfolios, but they have some kind of fairly explicit arrangement with a small 'support' party outside the cabinet that makes it possible to sustain a government. There were no cases like this in the year of the Laver–Hunt survey, but there are six others in the dataset. A close look at the governments in question (Denmark 1984, Italy 1979, Norway 1985, Spain 1979, Spain 1989, Spain 1993) suggests that they reflect a variety of conditions, but in general are neither covert strong majority governments nor as open to opposition influence as the usual minority government. In the absence of more precise information, I made the simplifying decision to treat them as intermediate between these two, giving their oppositions a boost similar to control of an outside institution. The representatives of the small support parties are given a weight of 75 per cent of the government representatives. None of these small adjustments greatly affects the final conclusions.

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However, it is an interesting paradox of the alignment of government and opposition, that because SMD governments are further from the citizens, they could benefit more than their PR counterparts from taking an equivalent account of the opposition. Moreover, as we see in column 4 of Table 4, as part of the symmetry of competition, the oppositions in the SMD systems are also further from the citizen median and, thus, substantially further from their governments, than their PR counterparts. In Hypothesis 4d we did not consider the fact that the same amount of opposition influence would reduce the larger gap by a greater absolute amount. By contrast, the PR systems do have more minority governments and stronger committee systems, which gives the opposition parties more effective weight in policy making (as shown in column 2). It turns out that in the specific configurations examined here, the two kinds of effect roughly balance each other. Thus, as shown in column 5, the net reduction of distance from the citizen median between government and policy maker is only slightly greater under PR than under SMD. This is only weakly consistent with the expectations from Hypothesis 4d. The advantage in correspondence with the median voter enjoyed by PR governments is slightly, but only slightly, enhanced because of the greater influence of opposition parties under minority governments and power-sharing committee systems.[61] In this configuration, at least, knowing the distances of the governments from the median citizen is a reasonable approximation of the net PR advantage.

CONCLUSION

This article proceeded in three stages, building upon, yet going 'beyond', the traditional vote–seat analysis of the representational consequences of election laws. The first stage examined the connections between citizens and legislatures in eighty-two elections in fifteen mature parliamentary systems. After confirming the advantage of PR over SMD election rules for vote–seat correspondence, I re-examined the connections between election rules and citizen–legislature correspondence on the left–right scale. As hypothesized, citizen–legislature median correspondence was shaped by the position of the plurality vote winner in the SMD systems and by the median vote winner in the PR systems (Hypotheses 1a,b). The plurality vote winners seldom won a voter majority, but in the SMD systems the vote–seat distortion of the election rules created legislative majorities for them. Moreover, the plurality vote winners did not consistently converge to the citizen median, while the median vote winners were generally quite close to the citizen median in both systems. Theoretically, quite stringent conditions must be met to achieve good median correspondence in SMD systems. Substantively, the combination of disproportionality and non-convergence explained the poorer performance of the SMD systems (Hypothesis 1c).

In the second stage, I moved from citizen–legislature correspondence to citizen–government correspondence, the major contribution of this article. I assume that citizen

[61] The magnitude of difference depends on a number of factors, including what we assume 'high impact' means relative to the influence of the government. Recall that the estimate in column 2 of Table 4 shows the influence of the opposition relative to 'high impact'. In the calculations leading to policy-maker distances in Column 5, it is assumed that 'high impact' is half of full government impact–the government parties are, after all, overseeing the conduct of the ministries with all that means for policy initiative and implementation. If we assume 'high impact' implies as much influence as the government, then the PR advantage is additionally enhanced, but the basic conclusions are not altered.

https://doi.org/10.1017/S0007123406000160 Published online by Cambridge University Press

representation does not end with the formation of the legislature, but continues as policies are made between elections. It is generally accepted that parliamentary governments have the most influence on such policy making. Theory and empirical studies of government formation allowed us to propose and test Hypotheses 2 and 3 connecting SMD and PR legislative outcomes to correspondence between the citizen median and the government.

In the SMD systems the plurality vote winners usually became legislative majorities and governments. As already noted, the stringent conditions necessary to create single-party majorities close to the median in SMD systems were difficult to realize. Single parties rarely won a majority of the vote; vote–seat distortion frequently gave a legislative majority to a non-centrist party. The governments negotiated after PR elections were significantly closer to the citizen median, an advantage explained statistically by the greater proximity of their legislative median parties (Hypothesis 2b).

Despite that advantage, theory and previous empirical studies suggested several other factors that shape bargained governments in PR systems (Hypotheses 3a–d), pulling them away from the legislative median. Not all PR governments included the median party; the larger plurality party, also included in nearly 80 per cent of them, had a powerful effect; pre-election agreements inhibited the formation of cross-median party coalitions. The PR governments did remain significantly closer to the citizen median than the SMD governments.

In the third stage, I examined the effects of the relative positions of governments and oppositions on estimated policy-making representation. As expected (Hypothesis 4a), in the great majority of cases under both SMD and PR election rules, governments and oppositions were on opposite sides of the citizen median and fairly symmetrical distances from it. This configuration implied that taking more account of the position of the opposition would increase the proximity of the estimated 'policy-maker' position to the median citizen (Hypothesis 4b). Oppositions were more influential under minority governments and more inclusive committee systems, both much more frequently associated with PR elections, leading to opposition influence being greater after PR elections (Hypothesis 4c). However, the absolute reduction of distance was rather similar under the two systems, because of the off-setting effects of greater influence under PR and greater distances to reduce under SMD. The relative advantage of negotiated PR governments was slightly enhanced (Hypothesis 4d).

Defenders of SMD systems have hypothesized that going beyond total vote–seat correspondence would restore their representative superiority in connecting majorities and policy makers, largely because post-election government formation under PR would be plagued by the biased or capricious behaviour of multi-party elites. Defenders of PR have disagreed, pointing to the theoretically stringent conditions for unbiased SMD connections and the theoretical influence of the median legislator in open bargaining under PR. This analysis of the causal linkages supported some expectations from each side, but the net advantages favoured the PR systems at each level.

It seems to me important that our understanding of representation move beyond votes and seats to take account of real patterns of policy-making influence. This article extends representational analyses to include governments and policy makers, tests a variety of hypotheses that explicate the causal mechanisms involved and offers substantial support for the average representational superiority of PR designs.

https://doi.org/10.1017/S0007123406000160 Published online by Cambridge University Press

APPENDIX

Transforming the opposition influence score to a 0–100 scale (score minus 1 divided by 8), the regression equation is:

Dependent Variable	Independent Variables	Unstandardized Coefficient	(SE)	Beta	*T*-Ratio
Transformed Laver–Hunt = influence score	Intercept	0.18**	(0.04)	–	4.7
	Italy Dummy	0.49**	(0.11)	0.56	4.7
	Minority × Opposition Seat %	0.50**	(0.10)	0.66	5.0
	Outside × Opposition Seat %	0.27	(0.17)	0.19	1.6
	Committee × Opposition Seat %	0.25*	(0.11)	0.29	2.3

$N = 19$ $R = 0.90$ *Significant at 0.05, **Significant at 0.01.

https://doi.org/10.1017/S0007123406000160 Published online by Cambridge University Press

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