Election and party system effects on policy representation: Bringing time into a comparative perspective

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Abstract

Public policy is supposed under democracy to be necessarily linked to popular preferences through elections. Election outcomes are however shaped not only by the votes cast but also by the party-policy options on offer and the rules by which votes are aggregated into seats. A crucial question is whether rules exert their influence through the party system they help shape or whether public policy is directly affected by them. We examine these points here over the post-war period with evidence on policy preferences at electoral and governmental levels in 21 countries. Under single member constituency systems (SMD), election rules and party systems have independent and equal effects on short run representation, while under PR it is the party systems which produce (limited) distortion. Over time however SMD itself emerges as the main source of representational bias in the countries where it operates, with little bias under PR from either election or party systems.

1. Introduction

Democracy is uniquely characterised as a political system by forging a ‘necessary connection’ between popular preferences and public policy (May, 1978; Säward, 1998, 51) through its defining institution, free elections (Dahl, 1956, 63–81). However we all know, at least since Duverger (1951), that the rules under which elections are held, particularly the rules for aggregating votes into legislative seats, affect both party systems and policy outcomes. The major contrast has traditionally been drawn between PR rules aiming to match overall vote and seat shares, and single-member constituency (usually plurality) systems more concerned with producing a definite election outcome (Powell, 2000). More subtle differences within these broad groups have been neglected, owing partly to the absence of over-time measures in previous studies (however see the series of books edited by Bernard Grofman, starting with Grofman and Lijphart, 1986). There is reason to believe that any variation in election rules has some political effect, and this deserves examination in regard to public policy—which we can better do by looking at several measures of policy correspondence concurrently, including some that are time based.

There is a difficulty however. Until recently little evidence on preferences or public policy has been available—whether on government actions or even government intentions. In particular, time-sensitive measures have been lacking. Rule effects have been debated mainly in...
terms of party electoral success. Parties are, of course, carriers of policy and can be seen as hewing to a reasonably consistent policy line over time at least in left-right terms (Castles, 1982). Nevertheless they do vary their policies between election and election—and as far as individual elections are concerned, sometimes quite considerably (consider Clinton in 1992 and 1996 and Gore in 2000). Such changes not only affect the choices offered to electors, and what they can be seen as voting for. It also alters the policies parties promote once in office.

Fortunately a direct source of evidence on party policy has emerged from the extensive codings of post-war election programmes now available (Budge et al., 2001). These enable us to take direct cognisance of what the parties themselves say about policy in their only fully authoritative pronouncement—the platform or manifesto—and to map it in terms of left-right or other policy movement.

Being able to follow through party policy shifts over time also enables us to estimate a particular government’s unique policy preferences (through weighting the preferences of parties making up the government—cf Kim and Fording, 2001, 169). These are not yet their declared preferences and far less the policy actually effected. However, they are closer than we have usually got to what individual governments want to do.

Having individual election positions for parties allows us to see what electors are voting for. Indeed, it also allows us to estimate what the median voter preference is (Kim and Fording, 1998, 2001). This gives an idea of popular preferences which we can compare with government preferences to measure the correspondence between them.

Such correspondence measures have already been used to check out general mandate theories (McDonald et al., 2004; McDonald and Budge, 2005) Here we apply them to the more specific and much debated question of how election and party systems affect the correspondence between popular and government preferences. With over time policy measures we can make relatively exact measurements of rule and party effects and compare them systematically.

Before going on to the analysis we describe the programmatic, voting and governmental data we use to make our estimates, and how these can be combined to give locations on a left-right scale.

2. Comparative evidence

Our data cover some 265 elections giving rise to 482 governments in the 21 post-war democracies that we cover. As we are comparing popular and governmental, rather than parliamentary preferences, (for these see McDonald et al., 2004) we can include the United States among the countries studied. To investigate the correspondence between median voter and government positions, the most obvious approach, justified immediately below, is to identify the positions of parties and electors along a left-right dimension. To do this we start with the left-right scoring from the Comparative Manifesto Project (CMP) using the CMP-98 release (Budge et al., 2001). We apply the operational strategies described below but first provide the overview in Table 1. The left portion of the table reports the number of governments, sequence numbers, the caretaker and non-partisan governments and the number of government elections (as identified in Woldendorp et al., 2000). The right portion reports the average left-right position of the median voter throughout the time periods and the weighted mean position of governments, where the weights correspond to the relative number of parliamentary seats held by parties in government.

3. The left-right policy space

A policy space shared between electors and parties is, of course, crucial in allowing the identification of a median and Government policy position that can be meaningfully compared. In what follows we base ourselves on the left-right scale devised for the manifesto data (Budge et al., 2001, 21–47). In making policy comparisons in left-right terms we are of course following such authoritative exemplars in this field as Powell (2000) and general use of left-right comparisons by many others.

Surveys of experts asked to rank their national parties along a left-right scale are burgeoning. Most respondents find no difficulty in using a left-right characterization; nor do electors when asked to do the same in national voting studies (Castles and Mair, 1984; Huber and Inglehart, 1995; Inglehart and Klingemann, 1976). Gabel and Huber (2000) undertake an extensive analysis of party programmes over 15 post-war democracies and find a left-right dimension emerging as the principal and only shared dimension. Analyses of electoral data stretching over 100 years similarly identified a left-right dimension as the one on which to base analysis (Bartolini and Mair, 1990). By simply casting a vote for the nearest party on this dimension, communicated to them by parties and the media, a voter can register her or his preference for a policy programme on shared criteria. The overall distribution of percentages based on everyone voting for their party then designates the median voter position and the party closest to it.

Apart from expert and party use of it as a preferred frame of reference, telling evidence for the relevance
of left and right comes from the review of mass survey research on collective representation carried through by Converse and Pierce (1986) and more recently by Pierce et al. (1999). Their analyses show that voters do have a strong sense of where they themselves and the parties stand on the broad contours of policy as indicated by the left-right dimension. Pierce summarises the findings by saying:

The issue to which they [voters] are likely to give high priority ... is the ideological super-issue ...: the left-right dimension on the European continent or the liberal-conservative dimension in the United States. Voter-party congruence on more specific issues, even those that are traditionally linked to the ideological dimension, is much more limited.

(Pierce in Miller et al. (1999, 30))

4. Party policy positions in three non-PR systems

We can illustrate these points by looking at actual party policy movement between elections in three countries which display interesting differences—both in regard to PR systems and among themselves. These are the United States and Britain, with single-member district (SMD) majoritarian/plurality systems of voting, and France with its run-off system.

Figs. 1, 2 and 3 map the left-right policy positions taken by their parties over the post-war period. The figures show a general rightward drift by British and American parties over time, and ideological stability or a small leftwards shift in the case of France. The theoretically driven general left-right scale on which these representations are based (Budge et al., 2001, 22) derives from a count of election programme sentences into left, right or irrelevant categories, subtracting the left from the right total and dividing by the total number of programme sentences. Left categories fall into three main groupings: peaceful internationalism, economic planning and welfare. Right categories group as military alliances, freedom and traditional order (Table 2).

The major interest of the figures, given their over-time nature, is what they reveal about party policy moves and in particular whether they differ between
countries in ways which might be attributed to their differing electoral and party systems. For example, we might expect the United States, the purest example of a two party system in the world, to conform best to Downsian notions of policy convergence on the median (Downs, 1957, 112–119). The British case might be blurred through the existence of an electorally strong third party, the Liberal Democrats—even if they are consistently done down by the plurality system in single member constituencies. France might be even more ambiguous—the four mainstream parties falling most of the time into two competing blocks of left and right.

What we actually find however is a strong and consistent policy differentiation between the US Republicans and Democrats with little sign of convergence between them over time or at single elections (within a general rightward drift which occurs in most English-speaking countries).1 This corresponds to the behaviour of the major British parties except when they came closer at points in the 1950s. Even the Liberals have been quite distinctive in (centrist) policy terms over the last three decades. Similarly the Socialists and Gaullists in France have kept themselves apart, and seem to have carried their electoral partners with them.

These left-right party placements have been shown to be reliable and valid measures when evaluated against expert and mass perceptions of party left-right positions (McDonald and Mendes, 2001; Gabel and Huber, 2000; Klingemann, 1995). The special contribution of the manifesto data is that they do record changes in party positions from one election to the next. Expert and mass judgements of party positions have in contrast only been collected for a few time-points. Moreover, these are so stable across time that they make it difficult to study party movement (McDonald and Mendes, 2001).

5. Government and electoral policy positions

Our concern here however is not with party left-right positions as such but the estimates we can derive from them of Government policy position and majority electoral preferences. By comparing the two we can then see how the transmission of electoral opinion into public policy is affected by the election and party systems.

We calculate the left-right position of a government as the weighted mean position of the parties in government, where the weights are the parliamentary seat percentages among parties in government (Powell, 2000, 173–174; Huber and Bingham Powell, 1994). Using parliamentary seats as the weights is justified by repeated findings that government ministries are usually allocated to government parties in proportion to the seats they hold in parliament (Budge and Keman, 1990; Browne and Franklin, 1972). Using a weighted average to indicate a government’s left-right position is based on the assumption that parties in government influence policy in proportion to the cabinet posts they occupy. In order to provide a modest reliability and validity check, we have compared our government policy scores with others calculated in the same way but using expert scores. For 32 governments of the early 1980s and early 1990s for which we have parallel scores (Powell, 2000, 180–185), \( r = 0.82 \).

For reasons which we specify immediately below, we use the preference of the median voter as our indicator of majority opinion. Her position is calculated as a variation on the measurement strategy devised by Kim and Fording (1998) using left-right party placements and the election voting percentages. Each party’s

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1 This general rightwards drift can most likely be explained by the ousting of the early post-war welfare-oriented ‘Social Democratic Consensus’ by market-oriented economics following the growth of world free trade and globalisation. The change has been resisted however by the traditionally Statist parties of continental Europe, even by those of the right and centre, as the example of France illustrates (Fig. 3).
voters are assumed to be distributed around its policy position out to the mid-points with the two adjacent parties. A simple formula, described in Appendix, can then be applied to the grouped frequency distribution to determine the position of the median voter. The estimates produced on its basis have considerable plausibility and face validity (Kim and Fording, 1998, 2001), as discussed further in Appendix.

We have made two modifications to the calculation. First, in the case of Iceland and Portugal we omitted the category ‘effective authority’ from the left-right calculation, as inspection indicated this was not an indicator of right-leaning attitudes in these two countries. Second, when the furthest left or furthest right party in a system is involved in the formula, we assume that the voters on its ‘outer side’ occupy an interval symmetrical with that on its ‘inner side’ rather than stretching out to $\pm 100$ or $\pm 100$, which would render them unrealistically extreme. These and other considerations affecting our calculation of the median voter position are discussed in Appendix.

Being able to estimate the median position is important because it is the best measure we can have of what the popular majority wants (Powell, 2000), indicating the central policy tendency among voters. The ‘Power of the Median’ has been proved mathematically (Black, 1958) and justified intuitively, e.g. Downs (1957, 115–118) in the case of a single-dimensional policy continuum like the left-right one.

6. Representing public preferences

With measures both of popular policy preferences and of government intentions we are now in a position to measure the correspondence between the two. This is a first step towards examining the effects of voting rules on representation, by seeing how the correspondence varies between countries with different types of election and party system.

There are three aspects of policy correspondence which we can examine. The first is the most obvious—the average absolute difference between median voter position and government position on the left-right scale after each election. However, we can also bring in time by seeing how this works out over the long run, since negative and positive deviations from the popular position at each election could over the long-term average out close to the long-term popular preference. Finally, we can see how well changes in the popular position from election to election get reflected in changes in government position—a simple regression equation over all elections in each country is all that is needed to relate the two. The last two measures build on the ability of the manifesto data to reflect changes over time.

Table 3 provides figures which enable us to make these three kinds of comparison. The first (column 1 of Table 3) simply averages the absolute difference after each election between the left-right preference of the median voter and the (weighted) left-right preference of the subsequent government (we label this ‘distortion’). The second measure, of long-term bias, averages these differences arithmetically, taking account of positive and negative values. It is designed to show how far individual election distortions might balance each other out in the long run. The third measure, responsiveness, shows how far on average a change in the position of the median voter produces a corresponding change in the government position.

Applying these measures to the individual countries in the table we can see, for example, that Australia commonly produces governments with quite a large incongruence between the median voter (majority) preference
and the government policy position. This is reduced however when we average these distortions arithmetically over time because positive ones balance out negative ones. There is still quite a substantial discrepancy of 7.1 but it is much reduced from the 18.2 post-electoral incongruence. The figure for responsiveness (slope) at 0.64 does not differ significantly from 1.00, a one to one relationship, showing sensitivity of government policy to shifts in popular opinion.

We can go behind these figures to illustrate the substantive political developments they reflect still taking Australia as the example. A split in the Labour Party (ALP) produced a separate, more centrist Democratic Labour Party (DLP) which from 1955 to 1972 got from 5 to 7% of the national vote, depriving the ALP of its majority and allowing the formation of right-wing Liberal-Country Party governments. In most of these elections the median voter supported the DLP but got right-wing governments, producing the high figure for short-term distortion in Table 3. This is also buttressed by a similar split within the Liberal Party in the 1970s, which helped let in Labour governments during the 1980s and early 1990s with similar distortion effects but in the opposite direction.

Because these short-term distortions run in opposite directions, they produce a positive (rightist) discrepancy in the mid-post-war period and a negative (leftist) one in the later post-war period (up to 1996). Averaging them arithmetically produces a lower figure for long-term bias than for short-term distortion. The sharp alternation of government control between the earlier and later periods ensures that the right and left oriented distortions compensate for each other to some extent. This is despite the fact that each type of government is quite far removed from the median voter preference of its time. The Australian case illustrates the way in which sharp party alternation in government under SMD systems has the potential to bring public policy into line with median preferences in the long-term, even though the two may differ considerably after each individual election. Distortion and bias are less marked in the UK than in Australia because parties had policy positions which were closer to each other, and hence to the median voter, in the 1950s and 1960s; and governments alternated more rapidly with each other in the 1960s and 1970s.

Table 3 shows that long-term bias is less than short-term distortion in all countries. The reduction is particularly marked for Denmark and the US, which approach almost perfect correspondence in the long run after showing a lot of short-term distortion. The much criticised electoral and party systems of Italy produce a good correspondence on all indicators, provoking the heretical reflection that possibly the median Italian voter got what she wanted out of the old political system (at least as far as policy intentions were concerned). Italy contrasts with France which performs badly on all representation measures.

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Table 2

<table>
<thead>
<tr>
<th>Right emphases: sum of %s for</th>
<th>Left emphases: sum of %s for</th>
</tr>
</thead>
<tbody>
<tr>
<td>Military: positive</td>
<td>Decolonization</td>
</tr>
<tr>
<td>Freedom, human rights</td>
<td>Military: negative</td>
</tr>
<tr>
<td>Constitutionalism: positive</td>
<td>Peace</td>
</tr>
<tr>
<td>Effective authority</td>
<td>Internationalism: positive</td>
</tr>
<tr>
<td>Free enterprise</td>
<td>Democracy</td>
</tr>
<tr>
<td>Economic incentives</td>
<td>Regulate capitalism</td>
</tr>
<tr>
<td>Protectionism: negative</td>
<td>Minus</td>
</tr>
<tr>
<td>Economic orthodoxy</td>
<td>Economic planning</td>
</tr>
<tr>
<td>Social Services limitation</td>
<td>Protectionism: positive</td>
</tr>
<tr>
<td>National way of life: positive</td>
<td>Controlled economy</td>
</tr>
<tr>
<td>Traditional morality: positive</td>
<td>Nationalization</td>
</tr>
<tr>
<td>Law and order</td>
<td>Social Services: expansion</td>
</tr>
<tr>
<td>Social harmony</td>
<td>Education: expansion</td>
</tr>
</tbody>
</table>

Table 3
Representational distortion, bias, and responsiveness between left-right positions of governments, weighted by party size, and left-right position of median voters, 21 democracies, 1950s to 1995

<table>
<thead>
<tr>
<th>System</th>
<th>Country</th>
<th>Short-term distortion*, Mean (std dev)</th>
<th>Long-term bias*, Mean (std dev)</th>
<th>Responsivenessc</th>
<th>Intercept (s_b)</th>
<th>Slope (s_β)</th>
<th>R²</th>
<th>s_e</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR</td>
<td>Australia</td>
<td>18.2 (9.1)</td>
<td>7.1 (19.4)</td>
<td>7.7 (3.9)</td>
<td>0.64 (0.35)</td>
<td>0.12</td>
<td>19.4</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Canada</td>
<td>6.1 (7.8)</td>
<td>3.6 (9.3)</td>
<td>3.1 (2.7)</td>
<td>0.85 (0.39)*</td>
<td>0.23</td>
<td>9.6</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td></td>
<td>France</td>
<td>18.6 (8.2)</td>
<td>11.3 (18.6)</td>
<td>7.0 (4.4)</td>
<td>0.53 (0.45)</td>
<td>0.05</td>
<td>18.4</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td></td>
<td>New Zealand</td>
<td>12.4 (7.0)</td>
<td>1.2 (12.4)</td>
<td>-2.6 (4.7)</td>
<td>0.56 (0.40)</td>
<td>0.08</td>
<td>14.4</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td></td>
<td>United Kingdom</td>
<td>14.6 (11.1)</td>
<td>4.1 (18.2)</td>
<td>10.3 (5.5)</td>
<td>1.55 (0.32)**</td>
<td>0.59</td>
<td>17.3</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>United States</td>
<td>15.4 (7.4)</td>
<td>-0.3 (17.7)</td>
<td>-4.2 (6.1)</td>
<td>2.46 (1.29)*</td>
<td>0.25</td>
<td>17.5</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Summary</td>
<td>14.7 (9.4)</td>
<td>5.3 (16.7)</td>
<td>5.0 (1.6)**</td>
<td>0.93 (0.15)**</td>
<td>0.24</td>
<td>16.8</td>
<td>122</td>
<td></td>
</tr>
</tbody>
</table>

PR Austria 6.6 (4.4) 174

The measures of responsiveness in Table 3 also reflect characteristics of politics in the various countries. The statistics come from a regression equation which within each country links median voter preference to government policy over all elections. The interest lies in seeing how far a shift in popular preferences is on average reflected by a corresponding shift in government policy: the indicator of this is the value of β for the slope relating preference to government policy intentions. Most of these values do not differ significantly from 1.00, indicating a reasonable degree of responsiveness of government policy to voter preference, on average, within each country.

Countries where responsiveness seems rather less than ideal are the Netherlands and France. This might be expected in the Dutch case from the constant presence of the religious parties in government, regardless of election results, for the whole post-war period (up to 1994). The home of ‘consociational democracy’ (Lijphart, 1968), surely favours Parliamentary negotiation between parties to a quick response to shifts in public opinion. In France the intervention of an autonomous President in coalition negotiations also helps reduce government responsiveness to popular opinion.

Countries with above average sensitivity to popular shifts of opinion are Germany, the UK and notably the US. SMD systems are often justified as registering changes in public opinion better than PR. The presence of Germany however indicates that this is not necessarily so. Rather, both Germany and the UK with two large and sometimes evenly balanced parties alternating in government owe their greater sensitivity more to their party than to their election system. A shift of one or two percent in the vote can change the government and its policy. We have also to take account of the fact that ours is a policy-based rather than simply a party-based measure of responsiveness. The shift of the Conservative party to the...
right after 1979 was accompanied by a similar but much more muted shift by the British median voter. The Conservative government thus over-responded in policy terms to public opinion, as Labour governments had done with their leftwards shift in the 1970s.

The case of the United States is also interesting. It has the largest value for the slope coefficient in Table 3 (2.46) but also the largest associated error term (1.29), indicating that Presidential policy changes exaggerate shifts in public opinion but to a widely varying extent at different times.

This finding contrasts with the conclusions reached by analysts of Congressional representation, particularly in the House of Representatives, that changes in party seats have become increasingly unresponsive to changes in popular vote since 1948 (e.g. Tufte, 1973). We have to remember however that we ourselves are examining the Presidency, and not just the Presidency but the policy position taken by the Presidency. Policy positions can be more flexible and responsive to popular opinion than seat shares, even in Congress (Wlezien, 1996). Our findings about Presidential responsiveness are supported by the most comprehensive recent study (Erikson et al., 2002, 309—311) using alternative measures to ours of opinion and policy intentions.

Even though moving in sympathy with the median voter the government position in our analysis can shift much more than she does—as with the change of party control in 1980 and President Reagan’s further move Right in 1984. Or it can move less, as when George Bush remained substantially to the Right in 1988 in face of a popular shift Leftwards.

7. Election systems, party systems and policy representation

The main interest of Table 3, however, lies less in individual country differences than in those between election systems. Table 3 shows that SMD systems (largely as a result of electoral pluralities being transformed into parliamentary majorities) produce considerably more incongruence between popular and government preferences than PR systems—an average of 14.7 compared to 7.6. However, over time, these tend to cancel out, as a leftward incongruence is succeeded by a rightward incongruence—average bias is 5.3 (SMD) compared to 1.4 (PR). Thus long-term policy representation under SMD compares more favourably than short-term representation with that of PR systems, although the comparison still favours the latter.

Responsiveness is often considered the great strength of SMD compared to PR—shifts in electoral opinion being immediately transformed into changes of governments and their policies, while legislative bargaining over coalition formation impedes this. However we can see from the fourth column of Table 3 that this is not upheld. In fact, most PR systems show a reasonable level of responsiveness to changes in popular preferences while the lowest responsiveness appears in New Zealand and France.

The main lesson from Table 3 is that proportional representation does the job it was designed for in policy terms as well as in the reflection of vote shares in seats—and probably because it equates seat with the vote shares, giving Parliamentary influence to parties in proportion to the popular support they get (McDonald et al., 2004). On the indicators, PR systems perform better or equally well as SMD systems on average—and indeed also compare well at the individual country level.

Electoral systems may exert a policy effect directly, through the way they aggregate votes into seats, or indirectly, through the type of party system they promote. Since Duverger (1951) it has been recognized that PR tends to encourage more parties and SMD less. More parties might offer better-nuanced policy alternatives through which the median preference might more sensitively be reflected by the government.

Table 3 however shows few differences that could be associated with party numbers as such. For example, Austria, with 2.5 parties like Britain but strict PR, scores better than the UK on all measures. There seems clear evidence from Table 3 therefore that election systems exert some direct effects on representation, not ones totally mediated by the party system.

We can check this conclusion directly by assigning distortion and bias separately to election rules and parties. The party system can distort the representation of median voter preferences by offering party policy packages that are all quite distant from those preferences, even in terms of the closest alternative which attracts her support. By measuring the distances in left-right terms between the median voter and the closest party at each election and taking the absolute mean of these, we get an estimate of how much distortion each party system with its range of offerings introduces into policy representation. By averaging these distances arithmetically and allowing for their positive and negative signs, we can estimate the bias of the party system.

For its part the election system is supposed to make the party policy chosen by the median voter the median one in Parliament. The measure of how far it departs from this is the left-right distance between the policy position of the party chosen by the median voter and that of the Parliamentary median. Distortion and bias can both be estimated from this as previously.
As misrepresentation can last a longer or a shorter time these estimates are weighted by the time between elections to get a truer picture of how far representation is generally exact or off the mark. (However, unweighted estimates produce much the same results.) There are other sources of distortion and bias in the representative process—distance between the policy position of the Parliamentary median party and that of the Government for example. So the figures reported in Table 4 do not sum up in any sense to those in Table 3. What they do is provide a basis for judging whether associated party systems or election rules per se contribute more to representational distortion and bias.3

The answers are mixed. Under SMD the source of distortion varies very much between individual countries, from New Zealand where the party system contributes much more to distortion than the election system, to Britain where the reverse is very strongly true. Overall, election and party systems seem to contribute equally to distortion. In terms of long-term bias however it is the election system which contributes more, except in Australia. By alternating as the Parliamentary median, opposing parties arrive at a reasonable representation of long-term average preferences.

Under proportional representation it is clear that what distortion of median voter preferences exists is due to the parties rather than electoral processes. These match up the median voter’s party with the Parliamentary median party pretty exactly. It is the party alternatives which fail to match as closely to voter preferences as they are supposed to (still more closely than under SMD systems however). There is little long-term bias under PR at all, so one must judge both the electoral system and the party system as working together quite efficiently to match policy intentions and preferences in the long run.

Table 4
Electoral system and party system effects on representational distortion and bias over 21 democracies 1950s to 1995

<table>
<thead>
<tr>
<th>Country</th>
<th>Distortion</th>
<th>Bias</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Electoral System</td>
<td>Party System</td>
</tr>
<tr>
<td>SMD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>9.1 (3.9)*</td>
<td>15.6 (1.7)**</td>
</tr>
<tr>
<td>Canada</td>
<td>4.1 (2.6)</td>
<td>4.3 (1.1)**</td>
</tr>
<tr>
<td>France</td>
<td>12.4 (3.5)**</td>
<td>8.1 (1.7)**</td>
</tr>
<tr>
<td>New Zealand</td>
<td>3.4 (1.6)</td>
<td>10.1 (1.6)**</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>19.4 (4.2)**</td>
<td>6.6 (1.2)**</td>
</tr>
<tr>
<td>Summary</td>
<td>9.3 (1.6)*</td>
<td>9.4 (0.7)**</td>
</tr>
<tr>
<td>PR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Austria</td>
<td>3.6 (2.3)</td>
<td>6.7 (1.1)**</td>
</tr>
<tr>
<td>Belgium</td>
<td>0.5 (0.3)</td>
<td>2.3 (0.9)*</td>
</tr>
<tr>
<td>Denmark</td>
<td>0.7 (0.6)</td>
<td>4.7 (1.0)**</td>
</tr>
<tr>
<td>Finland</td>
<td>1.0 (0.9)</td>
<td>2.3 (0.6)**</td>
</tr>
<tr>
<td>Germany</td>
<td>0.0 (—)</td>
<td>5.0 (0.8)**</td>
</tr>
<tr>
<td>Iceland</td>
<td>0.5 (0.4)</td>
<td>2.7 (0.5)**</td>
</tr>
<tr>
<td>Ireland</td>
<td>5.6 (3.6)</td>
<td>7.9 (1.9)**</td>
</tr>
<tr>
<td>Italy</td>
<td>0.2 (0.2)</td>
<td>1.5 (0.4)**</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>1.6 (1.7)</td>
<td>4.5 (0.7)**</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0.0 (—)</td>
<td>3.2 (0.6)**</td>
</tr>
<tr>
<td>Norway</td>
<td>1.3 (0.8)</td>
<td>3.6 (0.8)**</td>
</tr>
<tr>
<td>Portugal</td>
<td>0.2 (0.4)</td>
<td>3.8 (0.8)**</td>
</tr>
<tr>
<td>Spain</td>
<td>2.4 (1.7)</td>
<td>1.7 (0.7)</td>
</tr>
<tr>
<td>Sweden</td>
<td>5.7 (3.3)</td>
<td>7.2 (1.9)**</td>
</tr>
<tr>
<td>Switzerland</td>
<td>0.0 (—)</td>
<td>1.8 (0.5)**</td>
</tr>
<tr>
<td>Summary</td>
<td>1.6 (0.4)**</td>
<td>4.1 (0.3)**</td>
</tr>
</tbody>
</table>

Distortion: cell entries are means and their standard errors (bracketed) from early 1950s to 1995. Calculations are weighted by the time between elections. Distortions are defined as follows: electoral system, the absolute value of the difference between the party left right position closest to the median voter and the median parliamentary party left-right position; party system, the absolute value of the difference between the median voter left-right position and the left-right position of the party closest to the median voter. 
Bias: cell entries are means and their standard errors from early elections. Distortions are defined as follows: electoral system, the absolute value of the difference between the party left right position closest to the median voter and the median parliamentary party left right position; party system, the arithmetic difference between the median voter left-right position and the left-right position of the party closest to the median voter. *p < 0.05; **p < 0.01.

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3 It is true that some SMD countries tend towards a multi-party system (Canada and France) and some PR countries approximate to three-party systems (Austria and Germany). However, these are exceptions to the general tendency for the number of parties to increase with the proportionality of election rules. Hence we group parties by election system in Table 4. Results are given by individual country however. Comparisons in terms of party system can be made—though it must thus be remembered that the number of parties varies with time in most countries, rendering precise comparisons difficult.
We have not reported figures for the United States in Table 4, because by its nature direct election of an executive President is difficult to compare with Parliamentary elections in these terms. However, the American party which attracted the vote of the median elector always gains the Presidency in our period.\(^4\) So distortion and bias produced by the election system are zero. The substantial distortion and limited bias reported in Table 3 are due entirely to the operation of the party system with its infrequent ‘holes in the middle’ where the median voter is generally found. Party alternation however reduces long-term bias to vanishing point, as we have seen.

8. Overview and conclusions

Some distortion is produced both by election systems working on their own, and by the effects of the party system with which they are associated (and have originally helped produce). However, in the long run both combine to produce governments whose policy intentions are surprisingly close to those of the majority of voters, as estimated by the median. If one were choosing election systems so as to maximise democracy, i.e. creating a ‘necessary correspondence’ between popular preferences and public policy, our evidence would favour PR in terms of reducing bias and distortion, while remaining responsive to changing preferences. Taking a broader view however we are agreeably surprised at the extent to which non PR systems match up policy with preference over the long run—an aspect of the matter not investigated before, since long policy series have not previously been available for analysis.

Whatever their limitations as measures of preferences and intentions rather than actual policy outputs, the manifesto data do allow us to look directly at relationships across different levels of the political system. For the first time this enables us to consider representative processes comparatively and over time, and thus answer some of the classical questions raised in this regard by political and constitutional theory. Hopefully, the answers we supply here will be useful in designing electoral systems in the future as well as in developing a better understanding of existing ones.

Appendix

Our measurement of a median voter’s position relies on the procedure developed by Kim and Fording (1998, 2000), with two adjustments discussed below. It differs from a survey-based measure in three respects. First, surveys asking respondents to locate themselves on a left-right scale often do not permit the identification of the party for whom a respondent had voted in an earlier national election. That requires the survey-based measure to refer to a median citizen rather than a median voter. Secondly, and more importantly, surveys that ask a left-right self-placement question are infrequently available so they are not up to the task of providing a good match to the party-position data. The party-position data are designed to have meaningful cross-national variation, i.e. if Norwegian parties locate themselves on average to the left of Australian parties of the same family (e.g. social democrats and conservatives), this can be taken as indicating that the Norwegian left-right space is left of the left-right space in Australia. This feature holds for the CMP data as well as for ‘expert’ survey data (Mair and Castles, 1997). Mass survey data on respondents’ left-right positions, on the contrary, appear to have no such cross-national variation.

In nearly all countries the median voter positions identified by mass surveys are quite similar (Powell, 2000, 162, 180–185). For example, the median citizen in Norway is recorded by surveys to be at the same left-right position as the median citizen in Australia or the United States. This is implausible when one thinks of the general difference between these countries’ politics. One consequence is that, but for three countries that stand three to four standard deviations to the left of all the others (namely, France, Italy and Spain), the cross-national correlation between median citizen positions identified by surveys in the 1980s with those in the 1990s is almost non-existent and, worse, negative, i.e. \( r = -0.14 \). It appears, therefore, that voters in surveys report they are on the left, in the centre or on the right within the context of their own country’s political space, rendering their self-placements suspect for any comparative analysis and, more damning for present purposes, for matching to the party-position data that do contain valid cross-national differences along the left-right dimension. The Kim—Fording measure uses leverage gained from the party system cross-national difference and has been validated in part by tests that pay attention to national political differences. And, we can note, the overtime \( r = +0.44 \) for the Kim—Fording measure applied to the same elections in the same 15 nations for which Powell’s (2000) survey data correlation is \(-0.14\).

The formula used by Kim and Fording is:

\[
M = L + \left( \frac{50 - C}{F} \times W \right)
\]
where \( M \) is the median voter position, left-right; \( L \) is the lower end on the left-right dimension of the interval containing the median; \( C \) is the cumulative vote percentage frequency up to but not including the interval containing the median; \( F \) is the vote percentage of the party in the interval containing the median; \( W \) is the width of the interval containing the median.

In a three-party system, with parties \( P, Q \) and \( R \) at left-right positions of \(-12, +2 \) and \(+8 \) and vote percentages of 47, 12 and 41, the median voter position is:

\[
M = (-5) + \left( \frac{50 - 47}{12} \times 10 \right) = -2.5
\]

The one adjustment we made to their measurement strategy involved situations when the farthest left or farthest right party in a system is involved in the formulation of either \( L \) or \( W \). In those cases, Kim and Fording allow the extreme score of \(-100 \) or \(+100 \) to mark the endpoint where voters of that party are located. We find this implausible and its effect on the calculation undesirable. In particular, the \(-100 \) and \(+100 \) endpoints can artificially stretch the distribution of voters around a party’s position. Rather than assume the party’s voters are so widely dispersed, we assume they are distributed in a symmetrical interval around the party’s position. For example, for a leftmost party at \(-15 \) and a 0 midpoint between it and an adjacent party on the right, we assume the left boundary of that party’s voters is \(-30 \). With this marginal modification, the measure produces cross-national characterizations of considerable plausibility (see the national median voter positions in Table 1 above) as well as passing several reliability checks such as the correlations between the country placements over time, all of which add to the extensive series of checks reported by Kim and Fording themselves.

The great strength of the median measure, as with the manifesto data, is its ability to catch cross-national differences and over-time movements. This enables us to inspect structural, long-term features such as bias and responsiveness (Table 3), crucial to the assessment of whether there is a policy correspondence between legislators and governments. Static expert judgements and infrequent survey data on citizen self-placements have not allowed any of our predecessors to extend their investigations this far, thereby leading for example to harsh assessments of the extent to which majoritarian (SMD) systems co-ordinate popular preferences with public policy positions of parliaments and governments, which on our more extended investigation are not altogether justified.

The fact that both the median voter measure and government policy position are both calculated from party policy positions may raise some doubts about a potential tautology in evaluating our results. When we consider the details of the calculations in each case it can be seen however that they are quite capable of varying independently of each other—as Table 3 in fact demonstrates. We have already shown that substituting another measure would produce similar results in the case of government policy (\( r = 0.82 \) with Powell’s (2000, 173–174) expert estimates). Klingemann (1995) demonstrates that average party left-right scores from manifesto data match survey self-placements by their supporters. So these other measures would produce similar results, although they could be applied only to incongruence rather than to long-term bias and responsiveness in Table 3, lacking the time dimension of the manifesto data. From a wider theoretical perspective, it can be said that any tautology is inbuilt to the structure of modern representative government, which forces voters to express their public preferences by voting for party alternatives, and then commissions the same parties with their declared programmes to make up government. We investigate the links between these, but representative government itself creates the situation in which they become substantively important.

References


