OUT OF EQUILIBRIUM:
A POSITIVE THEORY OF PARTIES
AND REPRESENTATION

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Abstract. Most theories of party competition predict that parties converge to the center on policy issues; the world around us tells us that is not so; and the obvious contradiction has sent recent theorizing on a long, difficult search for divergent party equilibria. Empirical analysts have had an easier time. They take for granted divergent party positions, but, armed with that ‘fact’, they report that the role of parties in producing accurate representation is at best conditional upon electoral system features and other institutional arrangements. Working from the diverse coalition model of parties, we argue that theory has it right: parties do not have equilibrium policy positions. Building on that premise, we create a series of simulations to explore whether dis-equilibrated party position taking is the missing reality that brings about accurate representation. We conclude that it is.
Electoral democracy is party democracy. Among its requirements for creating popular control over public policy is that parties offer different policy programs. At issue here is whether and how parties present policy choices to electors so that there can be accurate representation of the median voter. Relying on theory alone, there have to be doubts whether they do it at all. In their least complicated form, our theories of electoral competition tell us to expect party convergence. That does not happen, however, and it has been difficult to construct cogent reasoning for how, why, and where parties come to non-convergent equilibrium policy positions (Downs, 1957). The search goes on (e.g., Aldrich 1984; Cox 1990; Kollman, Miller, and Page 1992; Morton 1993; Budge 1994; Adams 2001a; 2001b), making it fair and accurate to say, presently, we cannot tell in theory whether equilibrium policy positions exist at all.

Empirical analysis treats the issue differently. It takes parties’ divergent positions as given and asks how well they work for accurate representation. Given the identified positions, electoral democracy is seen as a conditional reality, at best. Accurate representation arises, if at all, in proportional election systems: “the persistent superiority of the proportional influence designs in linking the citizen median and the policymakers should give pause to those attracted by the idea of the decisive election as a direct tool for citizen control” (Powell 2000, 252).

We ask whether theories and analyses of party position taking might be looking at the issue of accurate representation upside down. That is, could it be that theory is right? What if there are no equilibrium party positions in any but a loose sense of that concept? It could follow that the accuracy of representation is better than empirical analysis leads us to believe, for two-party systems in particular and for all systems generally. Our purpose is to explore these possibilities by developing a thesis that dis-equilibrated party position taking is the missing reality, which in theory and fact produces accurate representation.

In the context of parties without equilibria, the crucial mechanism in the representational process is voter choice. By offering varied choices, at least one party will usually be positioned in the vicinity of the median voter. That leaves it to electors to make the choice on the basis of policies on offer. If they make the right policy choice, we show that the electoral consequences are responsive, unbiased, and, mostly, congruent representation. In much the same way that models of under-informed parties indicate party policy offerings are drawn to the center as a byproduct of random searches for a winning position (McKelvey and Ordeshook 1985, 492-95),
parties without equilibria can create electoral democracy with electors as the centripetal force. Their electoral choices keep the policy positions of governors on target with median voters.

We start by setting the foundation, by considering the plausibility of assuming parties do not have equilibrium policy positions. In the remaining sections we construct a model to explore the representational consequences through a series of simulations. Section three describes how we plan to analyze the representational qualities at stake and specifies assumptions and conditions for parties and voters. Section four reports, first, simulation results for two-party systems and, next, for three-party systems under proportional representation rules. In each case we evaluate accurate representation relative to what equilibrated party positions would produce. Section five looks into the theoretical robustness of our results. Section six discusses the implication of our model with respect to the role of parties in democratic representation and concludes with our thoughts about the prospects and limitations of representation in electoral democracy.

**Characterizing Parties**

Theories and analyses of parties are often set within one of three broad frameworks: an electoral competition model, a responsible party model, or a diverse coalition model (see Aldrich 1995, 7-14). Each operates from different premises, adopts different assumptions, and emphasizes different questions. For our purposes an important distinction is that they lead to differing evaluations of how accurate representation can be and how accurate it is. We consider, first, the electoral competition and responsible party models and then turn to the reasons we favor the diverse coalition model.

**Competing and Responsible Parties**

The electoral competition model is the framework for much formal theoretical modeling. It tells us there could be highly accurate representation if parties were so omniscient and prescient as to be able to converge to the position of the median voter at each election. Such is not the world we see, however. For some reason yet to be uncovered theoretically—uncertainty, biased voters, something else—parties do not converge. This leaves the model standing agnostic on how parties fulfill their role of offering different choices. The responsible party model, on the other hand, is often the implicit framework of empirical analyses. Many analyses take divergence as given and ask whether parties behave responsibly enough to produce accurate representation.
Among other things, party responsibility requires that parties offer voters the ‘right’ options and that the winning party or parties follow through. Being able to offer the ‘right’ options, however, appears to be the province of proportional electoral systems. Follow through appears to be the province of single-member district plurality (SMDP) systems.

One idea that sets these models apart is the different assumption each makes about party goals. According to the electoral competition model, in order to understand how parties operate one assumes they want to win elections. With that in mind, one then reasons through to how a party can most effectively compete for votes. By figuring out a party’s most effective strategy, one is led to hypotheses about how a party behaves before an electorate, in parliament, and in government. A party offers policies to electors (e.g., Downs 1957) and promotes policies for adoption (Austen-Smith and Banks 1990) that will best secure its chances of holding office. Anthony Downs puts the point succinctly: “The major force shaping a party’s policies is competition with other parties for votes” (Downs (1957, 102).

The responsible party model is organized around the issue of how parties should operate (Schattschneider 1942; APSA 1950). The model’s useful analytical function comes from taking its prescriptive requirements and using them as standards to help figure out what makes the ‘ideal type’ more or less realizable. It assumes the goal of parties should be to create policy offerings in accordance with their different images of what is needed to bring about an improved human condition. One type of empirical analysis that follows concerns itself with the choices parties offer (Ginsberg, 1972; 1976; Robertson 1976; Budge et al. 1987, Budge et al. 2001, Laver, Benoit, and Garry 2004). Others ask what the choices mean for accurate representation (Huber and Powell, 1994; Powell 2000; Powell and Vanberg 2000), government formation (e.g., Laver and Shepsle, 1996; Muller and Strom 2000a), and actual policies (Budge and Hofferbert 1990; Erikson Stimson, Mackuen 2001). At some times in some places, parties appear to live up to the model’s requirements; at other times and in other places they do not. The evaluations are, at best, conditional.

Diverse Coalitions

We approach parties from a perspective provided by the diverse coalition model. It, too, is set apart from the preceding models by assumptions it makes about party goals. The model looks at parties as organizations and finds it dubious to assume they have goals. Rather, parties
exist because they serve the interests of ambitious politicians, who presumably want to win their own elections and promote policies in line with their own preferences (Katz 1980; Aldrich 1995).

Born as legislative factions or organizations sympathetic to the policy aspirations of newly enfranchised segments of society, parties locate themselves on different sides of the dominant cleavage lines in a society (Lipset and Rokkan 1967). This makes it possible for close observers to look across a variety of issues and see policy distinctions between and among the parties (Laver and Hunt 1992). On most issues party leaders and party adherents among the public line up in much the same way (Dalton 1985, Table 3, 282). Probably for these reasons it is easy for ‘expert’ observers and the general citizenry to characterize party positions along a left-right continuum (Castles and Mair, 1984; Huber and Inglehart 1995; Klingemann and Inglehart 1976), on which, again, leaders and adherents align similarly (Dalton, Table 3, 282).

Why do parties line up on different sides? The answer, we propose, follows from how ambitious politicians sort themselves into parties in the first place. It seems entirely plausible to think that ambitious politicians want to affiliate with a party that serves their interests. If we assume, as is usual, that a politician wants first and foremost to hold elective office, she or he will join a party that best serves that particular goal. In some circumstances, such as American South from 1880 through 1970, only one party provides a realistic opportunity for electoral victory. Most developed democracies, however, have competitive party systems and in them two or more parties offer reasonable electoral prospects for an aspiring politician. In these competitive circumstances an ambitious politician is expected to join a local party organization providing the best opportunity. Which party that is depends on which side of a line of cleavage predominates in a locale. If we assume politicians have policy ideas that, other things equal, they prefer not to sacrifice to their ambition for office, the choice they face is not a mere either/or proposition. They can move or be assigned to a constituency that offers a good opportunity for election given their policy views, or they can have district lines drawn that match their views to a constituency. Also, where two or more parties offer reasonable opportunities, a simple tie-breaking rule is for a politician to join the party with a program he or she most agrees. By sorting along policy lines at the time of entry, the particular politicians affiliated with a party help to maintain its policy-related reputation and thereby create divergent central tendencies.

Difficult as it is to distance oneself from the notions that parties have goals, theoretically there is not much to commend the idea. The main theoretical problem is the collective nature of a
party, meaning it requires a unitary actor assumption to keep it afloat. What individuals within a group might want is difficult to read as what the group as a unit wants. A composite of elements needed by each individual to achieve his or her goal does not amalgamate to some fixed value for each composite element as it might apply to each person in a group. Thus, when the issue is to find an equilibrium policy position, the diverse coalition model implies that the equilibrium is a candidate characteristic not a party characteristic. Each candidate has an equilibrium policy position to offer his or her constituency; a party does not.

We expect two competing candidates facing a policy-interested constituency with partisan pre-dispositions to take positions close to each different constituency median though separated slightly, perhaps as a reflection of their uncertainty (Downs 1957, 100-02) or to accommodate elector’s partisanship (Erikson and Romero 1990; Adams 2001a; 2001b). The most thorough evidence on candidate locations across multiple constituencies comes in relation to House elections in the United States. It corroborates the expectation for candidates. Within a single constituency, Democratic and Republican candidates for the House almost always stand apart (Sullivan and O’Connor 1972). And, in accordance with the ideological leanings of one’s constituency, each set of partisan candidates takes positions different from their co-partisans who have to face different constituencies.

As good as the correspondence between theory and evidence of candidate position taking is, attempts to extend the logic of candidates to models of party position taking lead to predictions that are not much supported. Comparative investigations report little tendency for party policy programs to respond to problems of the day, such as unemployment and inflation (McDonald, Budge, and Pennings n.d.), or to public opinion and recent election results (Adams, Clark, Ezrow, and Glasgow n.d.). In U.S. presidential elections, it is difficult to explain party liberal-conservative positions with other variables, showing a “hint” of an effect from Macropartisanship and little evidence of platform response to public mood (Erikson, MacKuen, and Stimson 2002, 261, n. 17).

If we refuse to assume parties have goals, we need also to refuse to assume parties have ideologies as such. That is not to say, however, that parties do not espouse policy programs. They do. Announcing a policy program is among the initial steps taken by virtually all parties preceding virtually all elections. Why do their announced positions move around, as if without equilibria? This answer, too, has to do with the sorting process. Because politicians with diverse
views sort themselves according to party policy central tendencies, a party is expected to host politicians with a range of views. Within-party differences over policy become a source of party faction. As individuals in each faction vie for party leadership positions, sometimes winning and other times losing, the policy character of a party is likely to shift to reflect the views of the current winning faction. Through such individually based rational choices a party tends to offer policy programs that vary over time.

Finally, when it comes to empirical analysis, we surmise that it is the central tendencies that stand in for equilibria party positions. This is true, implicitly, for analyses that use party dummy variables on the right hand side to estimate parties’ policy effects (see, e.g. Stimson, MacKuen, and Erikson 1995; but see also Erikson, MacKuen, and Stimson 2002, 256-83). It is also implicitly true for analyses that treat party policy tendencies as indicated by their family affiliation—e.g., social democratic, Christian, liberal, or conservative—or tendance—e.g., left-right—(see, e.g., Cameron 1978). And it is true, for the most part implicitly, for analyses that use ‘expert’ scoring of party positions (e.g., Cusack 1997; Rueda and Pontusson 2000; Huber and Powell 1994; Powell and Vanberg 2000; Powell 2000). Nevertheless, the central tendencies are not actual equilibria. There is neither a theoretical mechanism to attract positions back toward them after a deviation nor a theoretical mechanism to retain positions once the seeming equilibrium has been ‘found.’ Rather, they are empirical generalizations based on what has been observed. They miss the important reality that parties move around in the policy space. It is this aspect of reality, the variability, which we think plays a major role in producing accurate representation.

Given that two divergent parties leave a gap in the middle, by definition of the situation, plus an assumption that each party is fixed at its position, the deck is stacked against finding accurate representation. If, however, party positions move around and voters select the nearest party, the implications for the quality of accurate representation can look quite different. In other words, by assuming that party central tendencies are their once-and-for-ever positions—over the short, intermediate, and long runs—two-party systems almost have to appear to provide relatively inaccurate representation. But, then, it may be that the assumption of fixed positions is doing a good deal of the work that drives toward an inference that representation under these circumstances is inaccurate.
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**Design**

Our main interest lies with how the politics of parties without equilibrium policy positions play out in terms of accurate representation. The core relationship is between the policy preferences of the party in control of policymaking and the median voter position. Given a left-right space, the party in control of policy making is the median parliamentary party (MPP), meaning the party with which the median parliamentarian affiliates. In a two-party situation the MPP is the majority party in parliament and there cannot be much doubt about partisan control of policy making. In multi-party systems, policy control by an MPP could be undone by party negotiations over government formation were they to involve non-policy considerations. However, evidence on governments in multi-party systems reveals that the MPP is in government over 80% of the time (Laver and Budge 1992; Müller and Strøm 2001b, ppp). And, it is theoretically plausible to view the party of the median legislator as in control of nearly everything (van Roozendaal 1990; 1992; but see Austen-Smith and Banks 1988).

**Representational Qualities**

We investigate the accuracy of collective representation with respect to three key qualities: (1) responsiveness, (2) unbiasness, and (3) congruence. Responsiveness and unbiasness are longer-run qualities of representation; they are expected values. Congruence is a short-run quality, focused as it is on per-election results. Responsiveness refers to whether and, if so, how changes in policies espoused by a winning party relate to changes in median voter preferences. In operational terms this is the slope coefficient of the core relationship. Direct responsiveness, a slope value of 1.0, is desirable as it indicates that changes in winning policy programs have an expected one-to-one correspondence to changes in the expressed preferences of median voters. Slopes greater than 1.0 indicate more polarized outcomes than tracking the median voter would warrant, and slopes less than 1.0 indicate a more centrist tendency than varied positions of median voters would warrant. Unbiasness refers to how well the average left-right positions of winning parties matches the typical preferences of median voters. In operational terms, if the median voter average position is zero, bias is indicated by the intercept of the core relationship. No bias, a zero intercept, is desirable; it indicates that over the long run average winning positions match the average over time preferences of median voters. Finally, congruence refers to the average distance between winning positions and preferences of median voters. In operational terms this is the average per election absolute value of the distance between the two. Full
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congruence, a zero average, is desirable because it indicates that in each and every election the left-right position of a winning party matches the preference of the median voters.

Through their statistical manifestations each quality provides a different substantive perspective on accurate representation. From a long-run perspective it is possible to argue that unbiasedness is the only thing that matters. Given enough time and a sufficient number of elections, unbiased representation means policy neither tilts left or right relative to median voters’ average position. The time it takes to amount to a long run, however, may well outside the experience of individuals, and the representation they experience in their own lifetimes may not seem at all like accurate representation. Both randomly generated policies and even strongly negatively responsive policies could produce unbiasedness. At the other end of the time horizon, it is possible to argue that congruence is all that matters. And, while it is true that full congruence is the aim, it is not as if the same level of incongruence is substantively the same with respect to accurate representation. If an electorate has a run of ten elections for which it is always positioned on the political right and the winner is always in the center, incongruence will have a given magnitude. All of the outcomes are to the left of the median voter, so that voters living through these 20, 30, 40 years experience a system that feels biased leftward. To cover conceptually the intermediate run of a person’s lifetime political experience, it is important to have the policy choices respond to shifts in median voter locations. That is what ensures that in the intermediate-run, lifetime-experience, bias is zero—as long as responsiveness is direct and long-run bias is zero. In short, all three qualities are important in their own right.

Assumptions

The two key ingredients in the core relationship are the policy positions of parties and voters. We need to specify assumptions for both. For party systems these include their size, policy program left-right locations, and volatility. For electors, we need to specify where they are located along a left-right dimension, how they decide elections, and how they move in ways that create more and less volatility for the electorate.

Party Systems. We look at two- and three-party systems. The general tendency of the left-right position of the Left Party resides in the negative range of scores. The general tendency of the Right Party resides in the positive range equidistant from the zero point. The position of the Center Party is set, initially, to the precise middle. Party policy movement along the left-right
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dimension is the assumption of major theoretical interest. In one scenario party locations mark
their fixed equilibrium positions. Alternatively, the positions are central tendencies around which
party policy positions vary randomly.

**Electorates.** As a starting point we assume that in static view the preferences of electors are
normally distributed around a mean zero.\(^1\) Given a normal distribution, the mean is the position
of the median voter. Electors are assumed to be deterministic policy voters. Whichever party is
closer to an elector, the elector will vote for that party. Finally, we assume electorates move left
and right, so far as we can tell, randomly. Across a series of elections median voter locations
form a normal distribution. Electorates are assumed to be more and less volatile, based on
information culled from research (described below). Movements of the more volatile electorate
have a standard deviation that is about one-fifth as large as the distance between the central
tendencies of the party of the left and the party of the right. Movements of the less volatile
electorate have a standard deviation that is one-thirteenth of the distance between the left and
right party central tendencies.

**Other Considerations.** Representation requires more than preferences and choices. Electoral
institutions must translate voter choices into party distributions in parliament. For most of the
analyses we report, we assume the translation is accurate in the sense that the MPP is the party
preferred by the median voter. When we look into robustness, however, we consider situations
when SMDP electoral systems make mistakes and when negotiations over government formation
in multi-party systems lead to non-selection of the MPP as the core of government. Finally, a
preference distribution among policy makers is a long step away from policy. We assume parties
are responsible in the sense that their respective left-right pre-election policy stances are the left-
right positions they translate into policy.

**Conditions**

Our analysis is hypo-theoretical, based on a set of “what ifs?” To keep the analysis
within manageable bounds and to ensure its relevance to politics in the world we know, we
ground our what ifs on realistic conditions. Figure 1 summarizes a static view of the evidence on
the distribution of citizen preferences and party position central tendencies along a left-right

\(^1\) The average zero position is a matter of convenience. It ensures that we can use the intercept as a
numerical statement about representational bias.
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dimension. The left-right metric is expressed in two forms, that used in mass and expert surveys and that used by the Comparative Manifest Project (see Budge et al. 2001). The two metrics are comparable (Gabel and Huber 2000; McDonald and Mendes 2001). We use the Comparative Manifest Project (CMP) metric because it conveniently marks the center as zero. Left positions have negative values; right positions have positive values.²

[Figure 1 about here]

Electors and Electorates. Data from the Eurobarometer and similar surveys tell us that when citizens are asked to place themselves on a 1-to-10 left-right scale, their responses form a normal distribution, centered near the scale midpoint of 5.5, with a standard deviation of approximately 2.0 (see, e.g., Powell 200, 168). As for the left-right positions of parties, citizen and expert respondents tend to agree that major-contender parties on the left and right of the median citizen do not converge. They are seen as standing at left-right positions perhaps a little less than one standard deviation left and right of the median citizen (Klingemann and Inglehart 1976; Castle and Mair 1984; Huber and Inglehart 1995). In our initial depiction and analysis, center parties are located precisely between the major left and right parties. Later we allow them to stand closer to one side.

Evidence of how the left-right distribution of citizen self-placements change through time is more difficult to come by. Robert Erikson and his colleagues give us one glimpse in when they relate liberal-conservative positions in American party platforms to the liberal-conservative mood of the public. The two major American parties stand about 25 units apart, and movement of the public’s liberal-conservative mood stays inside those bounds (Erikson, MacKuen, and Stimson 2002, 265). The standard deviation of mood is 4.45 (Erikson, MacKuen, and Stimson 2002, 219). That is, public opinion moves left and right to an extent slightly less than one-fifth of the distance that separates the parties. James Adams and his colleagues provide another glimpse when they look at annual Eurobarometer left-right self-placement data for eight European nations (Adams, Clark, Ezrow, and Glasgow n.d.). On a one-to-ten scale, the average within-nation and across-time standard deviation is .22. Given that major parties are typically about three units apart on a one-to-ten scale, a .22 standard deviation is 1/13th to 1/14th of the party distance, which we translate to a standard deviation of 2.0 on the CMP metric. We use this evidence to set variability

² Linear conversion from the CMP metric to the survey metric is something like

Survey Score = 5.5 + .115 CMP Score.
for more and less volatile electorates; standard deviations for the two types of electorates are set to five (more volatile) and two (less volatile).

**Parties.** On the issues of locations and variability in party position taking we have a thorough record. Based on policy statements in election programs for 25 Western democracies from 1946 through 1998, the CMP has constructed a record party left-left-right positions (Budge et al. 2001). Table 1 reports the means and standard deviations of party left-right positions of the major parties in five Anglo-American SMDC systems and in predominantly three-party PR systems. Mean locations of major left and right parties are typically between 25 to 35 units apart, except in Canada. Their standard deviations range considerably from 6 to 26 but mostly are in the range between 10 and 18. It is in the realm of plausibility to set left and right party positions at $\pm 13$, each with a standard deviation of 13. If we assume the variability in party positions is normally distributed, the probability that the left party leapfrogs the position of the right party is plausibly small (see McDonald and Budge, n.d., chapter 5). In multiparty systems, a center party might split the difference and, on the metric we are using, have a central tendency at zero. In Table 1, To split the difference is a fair characterization of Dutch Christians. In Germany, however, the FDP’s central tendency is closer to the CDU than to the SPD, and Ireland’s Fianna Fáil and Fine Gael are both right/right-center. When we ask about the robustness of our results, therefore, we explore what difference it makes when a center party’s position is halfway between left and right parties and when it stands closer to a party on one side.

[Table 1 about here]

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3 There is a modest tendency for party position distributions to be skewed toward the center. Ten of 17 parties in the Social Democratic family, for example, show positive skew; six of ten parties in the Conservative family show negative skew. For only four of those 27 parties is the skew statistically significant, however. Given a predominant tendency of no skew, we proceed with the simpler assumption of normal distributions.

4 The area under a normal distribution beyond one standard deviation is .1562. Therefore, a left party has .1562 probability of taking a position above 0, and a right party has a .1562 probability of taking a position below zero. The joint probability that a left party is above zero and a right party is below zero (i.e., that these parties leapfrog) is .1562 * .1562, or .0244.

5 Austria’s FPÖ looks as if it splits the difference, but its mean masks its tendency to have been slightly left of center in the 1960s after which it moved very far right (Müller 2000, 87). Indeed, over the last 15 to 20 years the FPÖ can be characterized as an extreme right party.
Summary. To summarize, we investigate two- and three-party systems with central tendencies of the Left Party at −13, the Right Party at +13, and the Center Party at either 0 or +6.5. Parties move around their left-right central tendencies with standard deviations of 13. As for electorates, they are assumed to be more and less volatile. The median voter movements of the more volatile electorate have a standard deviation of five, and the median voter movements of the less volatile electorate have a standard deviation of two.

Analyzing Representation

We start by looking into two-party systems. Our analysis uses simulations of 1000 elections to evaluate the accuracy of collective representation under different circumstances. As we have said, accuracy is a threefold matter, involving (1) responsiveness, (2) bias, and (3) congruence. High quality representation exists when (1) the left-right positions of policies are directly responsive to the left-right position of median voters—i.e., a slope of 1.0, (2) there is no bias—a zero intercept, and (3) congruence is exact—the average distance between policy and median voter positions is zero. We proceed with a complete analysis of two-party systems first; thereafter we turn to three-party systems.

Two-party Systems

The representational consequences for parties at fixed positions are shown in Figure 2. A median voter to the left of zero elects the Left Party at policy position −13. Likewise, anytime the median voter is to the right of zero, the electorate elects the Right Party at +13. Considered in detail the consequences for representation have a totally unresponsive outcome to any elector movement except that which goes from negative to positive or vice versa. At the transition point of zero, the movement is an overly responsive 26 points. Generalizing about the details across all elections by summarizing the movements with a linear equation, we see at the top of the scatterplot that a one-unit movement by the median voter produces, on average, more than a two-unit movement in the policy position of the elected party (b = 2.08). In other words,

6 Intuitively one might be inclined initially to think that the slope would be 3.25. The mean MPP policy values (Y) are −13 and +13, and these are obtained for a mean MV position (X) of −4 when MV is less than zero and +4 when MV is greater than zero. Drawing a line through the mean Y’s and X’s would produce a slope of (26 / 8) or 3.25. However, the general linear tendency takes account of the non-responsiveness from 0 → ± 18 by treating the within-segment MV variation as if it were measurement error. Since 36 percent of the MV variation is in the 0 to −18 or 0 to +18, the proportion of as-if error is .36. Therefore the estimated slope is 3.25 * (1 – .36) or 3.25 * .64 or 2.08.
responsiveness is 2.08 to 1.0, and, given the small and statistically insignificant intercept, there is no bias.

Congruence results are shown in the histogram. They average 9.0, meaning that for any given election we can expect the policy position of an MPP and electorate’s median voter will differ by nine units. Median incongruence is 9.6, so half the outcomes are above 9.6 and half are below. Furthermore the probability that the two actors are within six units of one another is only .160. Briefly stated, we see an overly responsive relationship, no bias, a typical mismatch between nine and 10 units, and a low probability that the match is within six units.

[Figure 2 about here]

Figure 3 shows the relationship and congruence results for a situation when party positions vary. The relationship is certainly less orderly than when parties stand at fixed positions. Disorder, notwithstanding, the quality of representations is mostly enhanced when party positions vary. We see from the associated equation that responsiveness is now close to one-to-one, b = 1.07, and there is no statistically significant bias.

[Figure 3 about here]

Average incongruence is nearly the same as when parties are at fixed positions, but median incongruence is 7.6. One main difference in the congruence results is that the probability of close congruence is considerably higher when parties vary. The probability that the policy and median voters are within six units of one another is .401 (compared to .160 for fixed parties). The one downside is that varying party positions hold an almost one-in-four chance that incongruence will exceed 13, which never happens in our simulations using fixed party positions. Therefore, while there is a risk of high incongruence when party positions vary, varying versus fixed party positions creates more direct the responsiveness, leaves bias at essentially zero, and increases the probability of good congruence.

Does the accuracy of representation change in a less volatile electorate? Some details are different, but relative comparisons stay much the same. For parties at fixed positions competing in a less volatile electorate, the relationship is

\[ \text{MPP}_i = .05 + 5.20 \text{MV}_i + e_i \]

\[ (.25) \quad (.12) \]

\[ ^7 \text{It could happen, but that would require the electorate to move more than five standard deviations. Such an outcome has about a 3 in 5 million chance.} \]
Bias is unaffected compared to the more volatile electorate; it has the same numerical value, .05, which is statistically insignificant. Responsiveness more than doubles, however, which makes more than doubly responsive something that was overly responsive to begin with.\(^8\) Congruence is worse; average incongruence grows to 11.4, and its median value is 11.6. The probability of being less than six units apart falls to one in a thousand. In short, with fixed party locations, decreasing electoral volatility increases responsiveness, leaves bias unaffected, and reduces congruence.

In the case of varying party positions, low electorate volatility also makes responsiveness overly responsive, but the increase is only to a value of 1.32. The relationship involving varying parties is

\[
\text{MPP}_i = -0.54 + 1.32 \text{MV}_i + e_i
\]

\[
(0.37) \quad (0.18)
\]

Relatively speaking, parties with varying positions are still more directly responsive than were parties at fixed positions. Furthermore, average congruence is better with varying as compared to fixed parties. Mean incongruence for varying parties is 9.2 versus an average of 11.4 for fixed parties, and median incongruence is 8.0 compared to 11.6. Also, the probability of the MPP being within six units of the MV is .395 for varying parties, compared to only .001 for fixed parties.

To summarize, the quality of representation in two-party systems is expected to be reasonably close to directly responsive and unbiased when parties have distinct central tendencies around which their left-right offerings to voters vary. At any given election, however, one can expect a mismatch between the policy position offered by the winning party and the location of the median voter. And, under the circumstances specified, one has to expect that in one of four elections the mismatch will be especially large. In other words, our results give theoretical substance to the observation that “plurality voting, while often defective in single elections, is probably the main force maintaining over time the simple majority decision that most people regard as desirable” (Riker 1982, 88). Immediately below we check on the notion that plurality voting, associated as it is with two-party systems, is “the main force.” What we have seen thus

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\(^8\) The more than doubling of responsiveness follows from the facts that the mean values of MPP are ±13 while the mean values of MV are now ±1.6 instead of ±4.0 when MV is above or below zero. Therefore, the relationship runs generally from (-1.6, -13) to (+1.6, +13), which has a slope of 8.125. But, as before, the as-if error in MV positions is .36 (see footnote \(X\), and 8.125 \(\times\) .64 is 5.2.
A Positive Theory of Parties and Representation

far is that it can be a force to create accurate representation on average, through time, in the intermediate and long runs, even though on a short-run, per-election basis it may well produce substantial inaccuracy.

Three-party Systems

The results of our simulation for three-party systems, with fixed party positions and a relatively volatile electorate, are provided in Figure 4. They show much improved congruence compared to two-party systems. Mean and median values of incongruence are 3.1, and the probability of being within six units of perfect congruence is very high, .931. What is more, responsiveness is not far from one-to-one, $b = .88$, and bias is essentially zero. Compared to two-party systems, three-party system offerings, given fixed party positions at the locations specified, are expected to provide just as accurate representation over the intermediate and long runs and much more accurate representation in the short-run.

{Figure 4 about here}

Much the same can be said about three-party systems that have parties taking varying positions before a relatively volatile electorate. These results are displayed in Figure 5. We see first that responsiveness is again close to one-to-one, $b = .85$, and there is no statistically significant bias. Congruence is much improved compared to two-party systems, though it is not quite as good as we could expect from three-party systems with fixed positions. Mean incongruence is 5.9; its median value is 4.6. The probability of being within six units is .616, which is better than two-party systems, varying positions, ($p = .527$) but not as good as with three parties at fixed positions ($p = .931$)

{Figure 5 about here}

The results from applying our simulations to less volatile electorates, given fixed positions, show very good congruence. MPP positions are all but guaranteed to be within six units of perfect ($p = .998$), with mean and median values of 1.6 and 1.4, respectively. The one downside is that the system becomes almost totally unresponsive. The equation is

$$\text{MPP}_i = .01 + .03 \text{MV}_i + e_i$$

Given the very good congruence, we prefer not to make too much of this. The congruence is so good that the overly centrist tendency may be difficult to recognize.
Varying party positions in the face of a less volatile electorate look lead to very much the same type of results we have seen for the more volatile electorate. Mean incongruence is 5.7; the median is 4.3; and the probability of being with six units is .623. Now, however, responsiveness is restored. The equation is

$$MPP_i = -.34 + .90 MV_i + e_i$$

The resulting differences of fixed versus varied parties are likely to impress different observers differently. Which outcome might be preferred depends on whether a person values high congruence with little or no dynamic or less congruence with a dynamic that, on average, leads to a near one-to-one correspondence of MPP and MV positions.

Two more and less obvious observations are worth making. Having more choice improves the accuracy of representation. In case it does not go without saying, it is not having three parties as such that provides the choice; it is having three parties at three different locations. That is only possible with three parties, but the number alone is not sufficient. Some multi-party systems polarize almost into as-if dualities, as least as reflected by their central tendencies. And, in two-party systems, the notion of more choice is something that can be available over time, if the parties vary their positions. The less obvious point is a cautionary observation about cross-system comparisons of accurate representation. Treating parties as if they have fixed positions does relative injustice to reports on the accuracy of representation under two-party systems. Theoretically, more congruent representation in three-party systems is expected to come from parties with fixed positions. For two-party systems, fixed positions as contrasted with varied ones lead to less accurate representation, including a lower probability of high congruence. Therefore, an assumption of fixed positions in two-versus multi-party systems, all else equal, tends to exaggerate between-system differences. The comparison is between a better-case scenario for three party systems and a worse-case scenario for two-party systems.

**Checking for Robustness**

**Discussion and Conclusions**
References


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Table 1: Left-Right Post-war Mean party Positions and Standard Deviations in Five SMDP Systems and Four Predominantly Three-Party PR Systems

<table>
<thead>
<tr>
<th>Country</th>
<th>Party</th>
<th># of Election Programs</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>LAB</td>
<td>22</td>
<td>-11.1</td>
<td>16.7</td>
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<tr>
<td></td>
<td>LIB*</td>
<td>22</td>
<td>24.6</td>
<td>18.0</td>
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<tr>
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<td>LIB</td>
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<td>9.5</td>
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<tr>
<td></td>
<td>PCP</td>
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<td>4.2</td>
<td>10.8</td>
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<td>-24.4</td>
<td>11.1</td>
</tr>
<tr>
<td></td>
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<td>2.9</td>
<td>13.1</td>
</tr>
<tr>
<td>United Kingdom</td>
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<td>-25.8</td>
<td>13.8</td>
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<tr>
<td></td>
<td>LIB**</td>
<td>15</td>
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<td>12.9</td>
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<tr>
<td></td>
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<td>18.8</td>
</tr>
<tr>
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<td>11.5</td>
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</table>

* The Australian Liberal’s program scores have been averaged with the Country Party, their permanent partner. is calculated as the average of the Liberal and Country parties

** The British LIB refers to Liberal s 1945-87 and Liberal Democrats thereafter.

*** The CDU-CDS is the joint program score of the two regionally based parties.
<table>
<thead>
<tr>
<th></th>
<th>High Volatility Electorate</th>
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<th>Low Volatility Electorate</th>
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<td></td>
<td>Responsiveness</td>
<td>Bias</td>
<td>Incongruence</td>
<td>Responsiveness</td>
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<tr>
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<td>Mean</td>
<td>Median</td>
<td>Pr&lt;6</td>
<td>Pr&gt;13</td>
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<td>Baseline</td>
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<tr>
<td></td>
<td>(.07)</td>
<td>(.36)</td>
<td>(7.0)</td>
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<tr>
<td>Corr=.5</td>
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<td>-.09</td>
<td>8.1</td>
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<td></td>
<td>(.06)</td>
<td>(.32)</td>
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<td>Corr=1.0</td>
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<td>7.1</td>
<td>6.8</td>
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<td>(.36)</td>
<td>(7.0)</td>
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<td>Asymmetry</td>
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<td>(.08)</td>
<td>(.42)</td>
<td>(8.4)</td>
<td>(8.4)</td>
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</table>

Note: Numbers in parentheses indicate standard errors. Direct Responsiveness is represented by the value of 1.0. Values of Responsiveness that are greater than 1.0 indicate more polarized outcomes, whereas values less than 1.0 indicate more centralized outcomes than tracking the median voter would warrant. Higher values for Bias and Incongruence, and values that are further away from 1.0 for Responsiveness indicate less accurate representation.
Figure 1: Schematic of Hypothetical Elector and Party Locations
Figure 2: Responsiveness, Bias, and Congruence in Two-party Systems, with Parties Presenting Fixed Positions

\[ E(MPP_i) = .05 + 2.08 MV_i \]

\[ (0.25) \quad (0.05) \]
Figure 3: Responsiveness, Bias, and Congruence in Two-party Systems, with Parties Presenting Varied Positions

\[ E(MPP_i) = -0.54 + 1.07 MV_i \]

\[ (0.36) \quad (0.07) \]

Mean = 9.1
Std dev = 7.0
Median = 7.6
Pr < 6 = .401
Pr > 13 = .254
Figure 4: Responsiveness, Bias, and Congruence in Three-party Systems, with Parties Presenting Fixed Positions

\[ E(MPP_i) = -0.08 + 0.88 \text{MV}_i \]

\[ (0.11) \ (0.02) \]

Mean = 3.1
Std dev = 1.9
Median = 3.1
Pr < 6 = .931
Pr > 13 = .000
Figure 5: Responsiveness, Bias, and Congruence in Three-party Systems, with Parties Presenting Varied Positions

$$E(MPP_i) = -0.24 + 0.86 MV_1$$

Mean = 5.9
Std dev = 5.0
Median = 4.6
Pr < 6 = .616
Pr > 13 = .095