

Research Note

Re-evaluating the relationship between electoral rules and ideological congruence

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Abstract. Two new studies challenge the prevailing consensus that proportional representation (PR) systems produce greater ideological congruence between governments and their citizens than majoritarian ones. This has led to what has become known as the ‘ideological congruence controversy’. G. Bingham Powell claims to resolve this controversy in favour of PR systems. Specifically, he argues that the results from the two new studies are based on an anomalous decade and that PR systems generally do produce greater government congruence. In addition, he also asserts that PR systems exhibit less variability in government congruence. In this article, the empirical evidence for these two claims is re-evaluated using exactly the same data as employed by Powell. The analysis indicates that although PR systems produce better and more consistent representation in the legislature, they do not hold an advantage when it comes to representation at the governmental level.

Keywords: ideological congruence; electoral institutions

Introduction

Democratic governments are supposed to reflect the policy preferences of their citizens (Mill 1991 [1859]; Dahl 1956; Pitkin 1967). In the debate over the relative merits of majoritarian and proportional visions of democracy (Lijphart 1999; Powell 2000), a consensus has emerged that democracies employing proportional representation (PR) electoral rules are superior at producing ideological congruence between citizens and their representatives. A key claim in this consensus is that *governments* in proportional democracies do a better job of representing citizen preferences than their counterparts in majoritarian democracies (Huber & Powell 1994; Powell 2000, 2006; Powell & Vanberg 2000; McDonald et al. 2004; McDonald & Budge 2005; Budge & McDonald 2007).¹ If this claim were true, it would provide considerable support for those who advocate the adoption of proportional-style democracy around the world (Lijphart 1968, 1977, 1999). Recently, though, two studies have suggested that proportional democracies do not, in fact, enjoy a consistent advantage when it comes to government ideological congruence (Blais & Bodet 2006; Golder & Stramski 2010). This has led to what has become known as the ‘ideological congruence controversy’ (Powell 2009).

In his article, Powell (2009) claims to resolve the controversy in favour of proportional democracies. He notes that the two studies by Blais and Bodet (2006) and Golder and

Stramski (2010) employ different methods – a different data source and a more recent time period – to evaluate the effect of electoral rules on government ideological congruence than those used previously. By extending the methodology used in earlier research into the most recent time period, Powell (2009: 1481, 1492) concludes that the differing results are entirely due to the different time frame (1996–2004) used in the new studies. He states that ‘in most decades [of the postwar period] the PR systems have a . . . significant advantage in government ideological congruence’ but ‘this advantage completely vanishes in 1996–2004 (Powell 2009: 1492). In effect, he suggests that the results from the two most recent studies are based on an anomalous decade and that PR systems generally do produce greater government ideological congruence as was thought all along.

In addition to claiming that proportional democracies enjoy a higher *level* of government congruence than majoritarian ones, Powell also states that proportional systems exhibit less *variability* in government congruence. For example, he writes that ‘average levels of ideological congruence in the PR systems are roughly consistent across decades; it is the average congruence in the [majoritarian] systems that varies over time’ (Powell 2009: 1492–1493). He goes on to conjecture that the greater variability in government congruence exhibited by majoritarian systems is due to the fact that the conditions required to produce ideological congruence are more stringent in these types of systems.

In this article, we re-evaluate the claims made by Powell (2009) regarding the relationship between electoral rules and government ideological congruence. We start by investigating whether PR systems really do produce greater *levels* of government congruence than majoritarian ones. Using exactly the same data employed by Powell (2009) and a variety of statistical tests, we find almost no evidence to suggest that PR systems outperform majoritarian ones. In fact, the only decade in the postwar period in which PR systems have a statistically significant advantage over majoritarian ones is 1986–1995. We then use a heteroskedastic regression model to examine the effect of electoral rules on the *variability* of government ideological congruence. Contrary to the claims made by Powell, there is no evidence that there is significantly more variability in government congruence in countries that employ majoritarian electoral rules than those that use proportional ones.

Despite these results, we believe there is merit in Powell’s claim that electoral rules might influence the observed variability of ideological congruence. In the remainder of our article, we extend existing theory by discussing how electoral rules influence the variability of ideological congruence at both the legislative and governmental levels. Our discussion suggests that majoritarian systems exhibit greater variability in *legislative* ideological congruence but that, controlling for this, PR systems exhibit greater variability in *government* ideological congruence. A series of heteroskedastic regression models provide considerable support for our hypotheses. Overall, our analyses indicate that although PR systems produce better and more consistent representation in the legislature, they do not hold an advantage when it comes to representation at the governmental level.

Electoral rules and the *level* of government ideological congruence

Using data on 328 elections in twenty countries from 1946 through 2003, Powell (2009: 1492) claims that PR systems generally enjoy a statistically significant advantage when it

comes to producing government ideological congruence.² Specifically, he states that PR systems produce significantly higher levels of government congruence in most decades of the postwar period. In line with virtually all previous studies, Powell measures government ideological congruence as

$$\text{Government Ideological Congruence} = |MV - G|, \quad (1)$$

where MV is the ideological position of the median voter and G is the location of the government. The government's location is calculated as the weighted average of the positions of the parties in the cabinet, where the weights are the parties' share of legislative seats controlled by the government.³ The left-right ideological positions of the governmental parties and the median voter are based on data from the Comparative Manifesto Project (Klingemann et al. 2006).⁴ Powell operationalises electoral systems as majoritarian if they employ single-member electoral districts and as proportional if they employ multi-member districts.

In order to examine the importance of different time periods, Powell compares the mean level of government congruence across electoral systems in each decade of the postwar period. His results, which we were able to replicate perfectly, are shown in the first two columns of Table 1. Standard deviations have been added in parentheses. In the third column, we report the difference in the mean level of government congruence between proportional and majoritarian systems. Negative values indicate that proportional systems have higher average levels of government congruence than majoritarian ones. The information in the third column suggests that mean government congruence is greater in PR systems in four of the six postwar decades and in the postwar period as a whole. It is on the basis of this evidence that Powell asserts that PR systems generally outperform majoritarian ones.

But are these differences in government congruence across electoral systems statistically significant? In the fourth column of Table 1, we present p -values from a series of small-sample difference-in-means tests.⁵ Using an $\alpha = 0.10$ level of significance, the results suggest that proportional systems outperform majoritarian ones in just two, *not most*, of the six postwar decades. These initial tests, which already run contrary to the claims of Powell (2009), actually overstate the relative performance of PR systems. The problem is that we have ignored the fact that observations of government congruence are clustered by country, thus violating the assumption in the standard difference-in-means test that observations are independently and identically distributed (Zorn 2006: 330). It is widely known that ignoring clustering can produce 'severely misleading' estimates of one's standard errors (Arcenaux & Nickerson 2009; Wooldridge 2003; Green & Vavreck 2008: 144).⁶ In the fifth column, we present results from a series of difference-in-means tests where we employ cluster-robust standard errors to take account of clustering (Williams 2000; Freedman 2006). Using the same level of significance as before, the results indicate that PR systems now outperform majoritarian ones in just one of the six postwar decades (1986–1995). Moreover, there is no longer any evidence that PR systems enjoy greater government congruence in the postwar period as a whole. One potential criticism of this last set of tests is that cluster-robust standard errors are asymptotic in the number of clusters, and we only have 20 countries.⁷ To

Table 1. Electoral rules and government ideological congruence by decade

	Proportional	Majoritarian	Difference	Difference in means test	Difference in means test (clustering)	Difference in means test (clustering via bootstrap)
1945–1955	12.4 (12.1)	15.2 (9.3)	-2.75	$p = 0.36$	$p = 0.52$	$p = 0.54$
N	43	16				
1956–1965	9.0 (8.3)	7.8 (4.9)	1.23	$p = 0.51$	$p = 0.55$	$p = 0.56$
N	38	15				
1966–1975	10.5 (10.4)	11.8 (8.9)	-1.30	$p = 0.63$	$p = 0.68$	$p = 0.71$
N	38	19				
1976–1985	7.9 (8.4)	13.1 (9.0)	-5.15	$p = 0.07$	$p = 0.12$	$p = 0.17$
N	47	14				
1986–1995	6.9 (7.7)	15.7 (9.1)	-8.80	$p = 0.01$	$p = 0.04$	$p = 0.04$
N	46	12				
1996–2003	8.0 (5.1)	5.9 (7.8)	2.15	$p = 0.45$	$p = 0.44$	$p = 0.50$
N	31	9				
Whole period	9.12 (9.2)	11.86 (8.8)	-2.74	$p = 0.02$	$p = 0.22$	$p = 0.24$
N	243	85				

Notes: The first two columns indicate the mean level of government ideological congruence – the average absolute distance between the government and the median voter – in proportional and majoritarian democracies. Standard deviations are shown in parentheses. The third column indicates the difference in government ideological congruence across the two types of democracy. The last three columns present results from a series of difference in means tests, where the tests differ in terms of whether we employ (bootstrapped) cluster-robust standard errors or not. The results from the bootstrap procedure are based on 400 replications.

address this concern, we report, in the sixth column, the p -values from a series of difference-in-means tests where we employ a cluster-robust *bootstrap* procedure (Cameron & Trivedi 2009: 420–421). Again, the results indicate that PR systems outperform majoritarian ones in only one of the six postwar decades and not in the postwar period as a whole.⁸

Not only is the difference in the average postwar level of government congruence across PR and majoritarian systems not *statistically* significant, but it is not *substantively* significant either (Achen 1982: 41–51). The difference in average government congruence across electoral systems is only 2.74 on a 0–100 scale – a difference that equates to just 10.3 per cent of the ideological spread of the typical party system.⁹ In sum, there is little compelling evidence, either statistical or substantive, to suggest that governments in proportional democracies represent their citizens any better than governments in majoritarian democracies. Far from being anomalous, the results found in Blais and Bodet (2006) and Golder and Stramski (2010) appear to be the rule.

Electoral rules and *variability* in government ideological congruence

Powell (2009: 1492–1493) expands upon the existing literature by suggesting that electoral rules influence not only the level of government congruence, but also its variability. Using the information on mean ideological congruence presented in the first two columns of Table 1, he claims that majoritarian systems exhibit greater variability in government congruence than proportional ones. He goes on to conjecture that this is because the conditions required to produce government congruence in majoritarian systems are harder to achieve.

But does the empirical evidence truly support Powell's claim? We begin by noting that the standard deviations shown in parentheses in Table 1 suggest that majoritarian systems actually exhibit *less* variability in government congruence than proportional systems in four of the six postwar decades.¹⁰ To examine Powell's claim in the context of the postwar period as a whole, we employ a heteroskedastic regression model that allows both the mean and variance of government congruence to vary as a function of the electoral rules (Harvey 1976; Alvarez & Brehm 1995). Our key independent variable, *Majoritarian*, equals 1 if the electoral system is majoritarian, 0 otherwise. To account for the fact that our observations are not independent, we employ cluster-robust standard errors by country. The results, shown in Table 2, indicate that electoral rules have no effect on either the level of government congruence (*Mean effects*) or the variability of government congruence (*Variance*). This is indicated by the statistically insignificant coefficients on the two *Majoritarian* variables. In effect, we find no evidence to support Powell's claim that majoritarian systems produce greater variability in government congruence than proportional systems.

Electoral rules and ideological congruence

Despite these results regarding government congruence, we are not willing to dismiss the suggestion that electoral rules influence the variability of ideological congruence. Ideological congruence can be examined at either the legislative or governmental level, and there

Table 2. Electoral rules and government ideological congruence

Regressor	Model 1
<i>Mean effects</i>	
Majoritarian	2.74 (2.16)
Constant	9.12*** (1.40)
<i>Variance</i>	
Majoritarian	-0.09 (0.63)
Constant	4.43*** (0.39)
N	328
Country clusters	20
Log likelihood	-1187.18

Notes: Dependent variable: Absolute distance between government and median voter. Results are from a heteroskedastic regression. Cluster-robust standard errors by country are shown in parentheses. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$ (two-tailed).

are reasons to believe that electoral rules might have different effects on the variability of ideological congruence depending on the level in which one is interested.

Legislative ideological congruence

Legislative congruence is typically measured as the absolute distance between the median legislative party and the median voter (Powell 2000, 2009; McDonald et al. 2004).¹¹ Duverger's theory (Duverger 1963; Clark & Golder 2006) and (one-dimensional) spatial theories of party competition (Downs 1957; Cox 1990, 1997) together suggest that majoritarian and proportional democracies can both produce good legislative congruence given the right conditions. For example, theory predicts that majoritarian electoral rules produce two-party systems in which both parties converge to the position of the median voter. Theory also predicts that proportional electoral rules produce multiparty systems with centrifugal tendencies in which parties carve out niche electorates. By dispersing throughout the policy space, there is good reason to believe that at least one of the parties in a proportional democracy will be located close to the median voter (Budge et al. 2012; Powell 2009: 1485).

While legislative congruence *can* be achieved in both majoritarian and proportional democracies, several scholars have suggested that the necessary theoretical conditions required to produce legislative congruence in majoritarian democracies are more stringent and demanding than those for producing congruence in proportional ones (Pinto-Duschinsky 1999; Powell 2000, 2006, 2009; Grofman 2004). An implication of this is that legislative congruence will not only be lower in majoritarian democracies, but also that it will be more variable. In presenting what might be called a 'theory of gaps', Budge et al. (2012) imply exactly the same thing when they write that:

Parties stand in divergent locations, and thus the positions of parties . . . leave gaps along a policy dimension. A median voter position almost assuredly resides at a

position in one of the gaps, barring some quirk. . . . Relatively speaking, however, the presence of more parties under PR leaves smaller gaps. . . . Thus, [proportional] systems have an advantage in their likelihood to match up relatively closer to a median voter position compared to [majoritarian] systems. In terms of legislative congruence, then, we have the following hypothesis:

Legislative Congruence Hypothesis: Legislative ideological congruence will be lower and more variable in majoritarian democracies than in proportional ones.

We evaluate this hypothesis using the same heteroskedastic regression model and data as before. The only difference is that we now use legislative ideological congruence as the dependent variable. We measure legislative ideological congruence as

$$\text{Legislative Ideological Congruence} = |MV - ML|, \quad (2)$$

where *MV* and *ML* are the ideological position of the median voter and median legislative party, respectively. The position of the median voter is estimated as before (see Note 4), and the position of the median legislative party is estimated by taking account of the estimated party positions from the Comparative Manifesto Project and the percentage of seats that these parties control in the legislature. The results from our heteroskedastic regression model are shown in Table 3.

As predicted by the *Legislative Congruence Hypothesis*, we find that legislative congruence is both lower – the absolute distance between the median legislative party and the median voter is greater – and more variable in *majoritarian democracies than in proportional ones*. This is indicated by the positive and statistically significant coefficients on the two *Majoritarian* variables. That majoritarian democracies are found to exhibit lower legislative congruence is consistent with previous findings (Powell & Vanberg 2000; Powell

Table 3. Electoral rules and legislative ideological congruence

Regressor	Model 1
<i>Mean effects</i>	
Majoritarian	6.48*** (1.40)
Constant	4.28*** (0.42)
<i>Variance</i>	
Majoritarian	1.27** (0.60)
Constant	2.99*** (0.32)
N	329
Country clusters	20
Log likelihood	-1012.21

Notes: Dependent variable: Absolute distance between median legislative party and median voter. Results are from a heteroskedastic regression. Cluster-robust standard errors by country are shown in parentheses. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$ (two-tailed).

2000; McDonald et al. 2004; McDonald & Budge 2005; Golder & Stramski 2010). That majoritarian democracies also exhibit more variable legislative congruence is, to our knowledge, a new empirical result.

Government ideological congruence

Government congruence results from a two-step causal process (Powell 2009: 1483). In the first step, party competition determines the size and ideological location of legislative parties. In the second step, the government formation process takes the legislature as its input and produces a government. In effect, there is a sequence of representation that first moves from the median voter to the legislature, and then from the legislature to the government. Our analysis of legislative ideological congruence focused on the first step of this representation sequence. We now focus on the second step. Specifically, we examine how the government formation process, taking the legislature as given, influences government congruence.

The requirement in parliamentary democracies that the government enjoy the support of a legislative majority places the median party in a position of power in the government formation process (Laver & Schofield 1990).¹² This is because, with a single issue-dimension, the median legislative party is a 'very strong' party whose support is necessary to form a government (Laver & Shepsle 1996). The fact that majoritarian electoral rules are expected to produce few political parties means that the median party in a majoritarian democracy has a good chance of being a majority party and, hence, being able to form a single-party government (Persson et al. 2007). Thus, theory would suggest that the position of the government is likely to be the same as that of the median legislative party in a majoritarian democracy, with the result that there should be no change in either the level or variability of ideological congruence as one moves from the legislative to the governmental level.

In contrast, the fact that PR electoral rules are expected to produce many political parties means that the median party in a proportional democracy is less likely to be a majority party and, hence, will have a greater need to build a coalition government (Laver & Schofield 1990; Powell 2000; Persson et al. 2007). The fact that the median legislative party must form coalitions with parties on either its left or its right means that the coalition-building process is likely to decrease the level of ideological congruence as one moves from the legislative to the governmental level. In effect, the coalition-building process that characterises proportional democracies frequently results in a government that is further from the median voter than the median legislative party is on its own (McDonald & Budge 2005: 125).¹³ While the position of the median legislative party is expected to be relatively close to that of the median voter in proportional democracies, the distance between the government that eventually forms and the median voter will depend quite strongly on the size and ideological location of the potential coalition partners in any given circumstance. This suggests that the coalition-building process in proportional democracies will not only reduce the level of ideological congruence as one moves from the legislative to the governmental level, but that it will also increase its variability. Thus, we have the following hypothesis regarding government ideological congruence:

Government Congruence Hypothesis: Controlling for the level of legislative ideological congruence, government ideological congruence will be higher and less variable in majoritarian democracies than in proportional ones.

It is important to recognise that this hypothesis does not say that majoritarian democracies produce better and more consistent representation at the governmental level overall. Indeed, our results in Table 2 already indicate that this is not the case. Recall that government congruence results from a two-step causal process. Proportional democracies, as we have demonstrated, have a representational advantage in the first step as we move from the median voter to the legislature. Our hypothesis here merely states that majoritarian democracies enjoy a representational advantage in the second step as we move from the legislature to the government. We evaluate our hypothesis using the same heteroskedastic regression model and data as we did in Table 2 except that we now control for the level of legislative ideological congruence produced in the first step of the representation sequence.¹⁴ The results from our model are shown in Table 4.

As predicted by the *Government Congruence Hypothesis*, we find that government congruence, controlling for legislative congruence, is both higher and less variable in majoritarian democracies than in proportional ones. This is indicated by the negative and statistically significant coefficients on the two *Majoritarian* variables. These results help to explain why there was no statistically significant difference in the level or variability of government congruence between majoritarian and proportional democracies in Table 2. In effect, the representational advantage enjoyed by proportional democracies when it comes to party competition and legislative congruence appears to be canceled out by the representational advantage enjoyed by majoritarian democracies in the government formation process. As one might expect, the results in Table 4 also indicate that government

Table 4. Electoral rules and government ideological congruence revisited

Regressor	Model 1
<i>Mean effects</i>	
Majoritarian	-2.85* (1.57)
Legislative ideological congruence	0.86*** (0.05)
Constant	5.41*** (1.36)
<i>Variance</i>	
Majoritarian	-1.52* (0.81)
Constant	4.37*** (0.40)
N	328
Country clusters	20
Log likelihood	-1116.94

Notes: Dependent variable: Absolute distance between government and median voter. Results are from a heteroskedastic regression. Cluster-robust standard errors by country are shown in parentheses. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$ (two-tailed).

representation is worse in countries where the legislative representation is already poor. This is indicated by the positive and statistically significant coefficient on *Legislative Ideological Congruence*.

Conclusion

It is a widely held belief that proportional democracies represent their citizens better than majoritarian ones – at least when it comes to ideological congruence (Huber & Powell 1994; Powell 2000, 2006, 2009; Powell & Vanberg 2000; McDonald et al. 2004; McDonald & Budge 2005; Budge & McDonald 2007). As we have demonstrated, though, this is only partly true. While PR systems do produce better and more consistent representation in the legislature, they do not hold an advantage when it comes to representation at the governmental level. To the extent that we ultimately care about how well the preferences of citizens are reflected in the government rather than the legislature, perhaps because governments in parliamentary democracies have the predominant role in shaping policy, then the evidence that we present suggests that democracies can adopt majoritarian institutions in the hope of promoting things like government identifiability and accountability (Powell 2000) without sacrificing citizen representation.

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Notes

1. Ideological congruence can occur between citizens and their legislative representatives or between citizens and their government. In this article, we refer to congruence between citizens and governments as *government* ideological congruence, and congruence between citizens and their legislators as *legislative* ideological congruence.
2. The countries included in his analysis are: Australia, Austria, Belgium, Britain, Canada, Denmark, Finland, France, Germany, Iceland, Ireland, Italy, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden and Switzerland.
3. More precisely, the location of the government is measured as

$$G = \sum_{i=1}^P \left(\frac{S_i}{S_{gov}} \right) P_i \quad (3)$$

where S_i is the number of legislative seats controlled by the i^{th} governmental party, S_{gov} is the number of seats controlled by the government as a whole, P_i is the ideological position of the i^{th} governmental party and P is the number of governmental parties.

4. In the Comparative Manifesto Project, party positions are estimated by subtracting the percentage of statements in a manifesto devoted to 13 issues that are construed as ‘left-wing’ from the percentage of statements devoted to 13 issues that are construed as ‘right-wing’. Powell (2009: 1481) re-scales these scores onto a 0–100 scale, where ‘0 is a manifesto based purely on rightist ideological statements and 100 is a manifesto based purely on leftist ideological statements’. The position of the median voter is estimated by taking account of the estimated party positions and the percentage of votes that these parties won at election time; all voters are assumed to vote sincerely for the party located closest to them.
5. In line with Powell’s claim that the variance of government congruence differs across electoral systems, we employed Welch’s t -test. Satterthwaite’s t -test, which also allows for unequal variances, produces identical results. We should note that our inferences are also robust to employing Student’s t -test, which assumes equal variances (Wackerly et al. 2008).
6. The source of any bias in the usual standard errors is the presence of an unobserved, group-level effect in the error term that creates dependence among clustered observations (Wooldridge 2003: 133). While *robust* standard errors (White 1980) are generally larger than normal standard errors, *cluster-robust* standard errors (Williams 2000) may be larger or smaller than either robust or normal standard errors (Zorn 2006: 330). Much depends on the ratio of variance within clusters to the overall variance in the model – something that is measured by the intracluster correlation coefficient. However, as Arcenaux and Nickerson (2009: 178) indicate, ‘when units are positively correlated within clusters (a typical case in political science) . . . [then this] causes researchers to underestimate the standard errors of causal estimates even in the presence of low levels of intracluster correlation’.
7. Scholars differ on exactly how many clusters one needs to obtain reliable estimates. Arcenaux and Nickerson (2009: 182) state that the typical rule of thumb in the medical literature is about 20 clusters. However, Wooldridge (2003: 135) claims that problems can still arise in some situations if the number of clusters is less than 40.
8. Governments differ in how long they last. As an alternative test of Powell’s claim that PR systems generally outperform majoritarian ones, we compared the average *daily* level of government congruence across the two electoral systems in each of the six postwar decades. Data on government duration came from Müller and Ström (2000), which we corrected and updated. We found that majoritarian systems perform better in three of the postwar decades, while PR systems perform better in the other three.
9. The ideological spread of a party system is measured as the distance on the 0–100 scale from the leftmost party to the rightmost party. The average ideological spread in the sample is 26.6.
10. Tests indicate that 1956–1965 is the only decade in which there is a statistically significant difference ($p < 0.10$) in the variability of government congruence across majoritarian and PR democracies. Significantly, it is majoritarian democracies, contrary to Powell’s claim, that exhibit lower variability in this decade.
11. Golder and Stramski (2010) present an alternative measure of legislative congruence that compares the *distribution* of citizen preferences to the *distribution* of representative preferences in the legislature.
12. The government formation process in parliamentary and presidential democracies differs in a number of important respects (Cheibub et al. 2004; Clark et al. 2012: 499–500). The argument we present here applies specifically to the government formation process in parliamentary democracies. Of the 20 countries in Powell’s dataset, all but one (i.e., Switzerland) are parliamentary. Our inferences are robust to the exclusion of Switzerland.
13. Technically, it is possible for the coalition-building process to increase ideological congruence as one moves from the legislative to the governmental level (McDonald & Budge 2005: 119). For example, one could imagine a median party that is to the left of the median voter forming a government with a party that is to the right of the median voter, with the result that the government’s position is actually closer to the median voter than the median legislative party is on its own. Relatively speaking, though, it is more common for coalition governments to form on one side of the political spectrum or the other rather than to cross the ideological divide in this way.
14. Note that we are not presenting a conditional theory here (Brambor et al. 2006; Berry et al. 2012). Our claim is not that the effect of legislative congruence on government congruence *depends* on whether electoral rules

are majoritarian or proportional. Rather, our claim is that, *given a level of legislative congruence*, government congruence will be lower and less variable in majoritarian democracies.

References

- Achen, C. (1982). *Interpreting and using regression*. London: Sage.
- Alvarez, R.M. & Brehm, J. (1995). American ambivalence towards abortion policy: Development of a heteroskedastic probit model of competing values. *American Journal of Political Science* 39(4): 1055–1082.
- Arcenaux, K. & Nickerson, D.W. (2009). Modeling certainty with clustered data: A comparison of methods. *Political Analysis* 17(2): 177–190.
- Berry, W., Golder, M. & Milton, D. (2012). Improving tests of theories positing interaction. *Journal of Politics* 74(3): 653–671.
- Blais, A. & Bodet, M.A. (2006). Does proportional representation foster closer congruence between citizens and policymakers? *Comparative Political Studies* 39(10): 1243–1262.
- Brambor, T., Clark, W. & Golder, M. (2006). Understanding interaction models: Improving empirical analyses. *Political Analysis* 14(1): 63–82.
- Budge, I. & McDonald, M.D. (2007). Election and party system effects on policy representation: Bringing time into comparative perspective. *Electoral Studies* 26(1): 168–179.
- Budge, I. et al. (2012). *Organizing democratic choice: The party mandate over time*. New York: Oxford University Press.
- Cameron, A.C. & Trivedi, P.K. (2009). *Microeconometrics using Stata*. College Station, TX: Stata Press.
- Cheibub, J., Przeworski, A. & Saiegh, S. (2004). Government coalitions and legislative effectiveness under presidentialism and parliamentarism. *British Journal of Political Science* 34(4): 565–587.
- Clark, W. & Golder, M. (2006). Rehabilitating Duverger's Theory: Testing the mechanical and strategic modifying effects of electoral laws. *Comparative Political Studies* 39(6): 679–708.
- Clark, W.R., Golder, M. & Golder, S.N. (2012). *Principles of comparative politics*. Washington, DC: Congressional Quarterly Press.
- Cox, G. (1990). Centripetal and centrifugal incentives in electoral systems. *American Journal of Political Science* 34(4): 903–935.
- Cox, G. (1997). *Making votes count: Strategic coordination in the world's electoral systems*. New York: Cambridge University Press.
- Dahl, R.A. (1956). *A preface to democratic theory*. Chicago, IL: University of Chicago Press.
- Downs, A. (1957). *An economic theory of democracy*. New York: Harper & Row.
- Duverger, M. (1963). *Political parties: Their organization and activity in the modern state*. New York: John Wiley & Sons.
- Freedman, D.A. (2006). On the so-called 'Huber Sandwich Estimator' and 'Robust Standard Errors'. *American Statistician* 60(4): 299–302.
- Golder, M. & Stramski, J. (2010). Ideological congruence and electoral institutions. *American Journal of Political Science* 54(1): 90–106.
- Green, D.P. & Vavreck, L. (2008). Analysis of cluster-randomized experiments: A comparison of alternative estimation approaches. *Political Analysis* 16(2): 138–152.
- Grofman, B. (2004). Downs and two-party convergence. *Annual Review of Political Science* 7: 25–46.
- Harvey, A. (1976). Estimating regression models with multiplicative heteroscedasticity. *Econometrica* 44(3): 461–465.
- Huber, J. & Powell, G.B. (1994). Congruence between citizens and policymakers in two visions of liberal democracy. *World Politics* 46(3): 291–326.
- Klingemann, H.-D. et al. (eds) (2006). *Mapping policy preferences II: Estimates for parties, electors and governments in Eastern Europe, European Union and OECD, 1990–2003*. New York: Oxford University Press.
- Laver, M. & Schofield, N. (1990). *Multiparty government*. New York: Oxford University Press.

- Laver, M. & Shepsle, K.A. (1996). *Making and breaking governments: Cabinets and legislatures in parliamentary democracies*. New York: Cambridge University Press.
- Lijphart, A. (1968). *The politics of accommodation: Pluralism and democracy in the Netherlands*. Berkeley, CA: University of California Press.
- Lijphart, A. (1977). *Democracy in plural societies: A comparative exploration*. New Haven, CT: Yale University Press.
- Lijphart, A. (1999). *Patterns of democracy: Government forms and performance in thirty-six countries*. New Haven, CT: Yale University Press.
- McDonald, M.D. & Budge, I. (2005). *Elections, parties, democracy: Conferring the median mandate*. New York: Oxford University Press.
- McDonald, M.D., Mendes, S.M. & Budge, I. (2004). What are elections for? Conferring the median mandate. *British Journal of Political Science* 34(1): 1–26.
- Mill, J.S. (1991 [1859]). On liberty. In J. Gray & G.W. Smith (eds), *J.S. Mill: On liberty*. London: Routledge.
- Müller, W.C. & Strøm, K. (eds) (2000). *Coalition governments in Western Europe*. Oxford: Oxford University Press.
- Persson, T., Roland, G. & Tabellini, G. (2007). Electoral rules and government spending in parliamentary democracies. *Quarterly Journal of Political Science* 2(2): 155–188.
- Pinto-Duschinsky, M. et al. (1999). Send the rascals packing! *Representation* 36(2): 117–155.
- Pitkin, H.F. (1967). *The concept of representation*. Berkeley, CA: University of California Press.
- Powell, G.B. (2000). *Elections as instruments of democracy*. New Haven, CT: Yale University Press.
- Powell, G.B. (2006). Election laws and representative governments: Beyond votes and seats. *British Journal of Political Science* 36(2): 291–315.
- Powell, G.B. (2009). The ideological congruence controversy: The impact of alternative measures, data and time periods on the effects of election rules. *Comparative Political Studies* 42(12): 1475–1497.
- Powell, G.B. & Vanberg, G. (2000). Election laws, disproportionality and the left-right dimension. *British Journal of Political Science* 30(3): 383–411.
- Wackerly, D.D., Mendenhall, W. & Scheaffer, R.L. (2008). *Mathematical statistics with applications*. New York: Thomson.
- White, H. (1980). A heteroscedasticity-consistent covariance matrix and a direct test for heteroscedasticity. *Econometrica* 48(4): 817–838.
- Williams, R.L. (2000). A note on robust variance estimation for cluster-correlated data. *Biometrics* 56(2): 645–646.
- Wooldridge, J.M. (2003). Cluster-sample methods in applied econometrics. *American Economic Review* 93(2): 133–138.
- Zorn, C. (2006). Comparing GEE and robust standard errors for conditionally dependent data. *Political Research Quarterly* 59(3): 329–341.

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