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**Government Instability with Perfect Spatial
Voting: France 1946-1958**

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Abstract

Recent methodological advances in legislative roll-call analysis can help make substantive contributions to the study of legislative behavior outside the setting of the United States Congress. First, we argue that Poole's (2000) optimal classification method for roll call analysis is preferable to parametric methods for studying legislatures that conform more closely to the standard model of spatial voting without error than does Congress. Second, we demonstrate the utility of the non-parametric approach in an analysis of government instability in the French Fourth Republic. We show that instability did not take the form of chaotic, non-spatial voting. Voting took place across two very stable cross-cutting dimensions: an economic left-right dimension and a dimension that permitted deputies of different economic ideologies to vote together in opposition to governments. Consistent with the generic disequilibrium of majority rule in multidimensional Euclidean spaces, perfect spatial voting in two-dimensions led to the instability of coalition governments.

Introduction

This essay joins two threads. One is methodological. We argue that Poole's (2000) new optimal classification method for roll call analysis is likely to be preferable to older methods for studying legislatures that conform more closely to the standard model of spatial voting without error than does the United States Congress. It is also appropriate for legislatures in which there is across-legislator variation in the degree of error when, for example, some political parties are more disciplined or cohesive than others. Poole's innovation is relevant to substantive studies. Roll call analysis methods or the scores derived from these methods are now used widely used in journal publications in the area of American politics and are increasingly applied to study other legislative settings.¹

We support our argument with an analysis of French National Assembly voting for 1946-58. We use the example for the essay's other objective, which is substantive. We find that voting in the National Assembly was highly structured along ideological lines, in fact much more so than in Congress. Instability in the political system did not take the form of chaotic, non-spatial voting as occurred in the United States in the run up to the Civil War (Poole and Rosenthal, 1997).

¹ For examples in the American context see Jenkins (1999), Poole and Rosenthal (1991, 1997), and Schickler (2000). Other applications include the European Parliament (Hix 2001, Noury 2002), the Czech Parliament (Noury and Mielcova 1997), and the United Nations General Assembly (Voeten 2000). Poole and Rosenthal (2001) provide a more comprehensive overview of recent developments.

Fourth Republic roll calls are best described by two spatial dimensions. One dimension can readily be thought of as classic economic left-right. The second dimension does not reflect a policy area, such as race in the United States that resulted in different alignments than economic left right. The French second dimension had a focus more directly related to political strategy. It permitted parties of different economic ideologies to vote together in opposition to Fourth Republic governments. Indeed, the improvements to classification provided by a second dimension are largely captured by amending the basic unidimensional spatial model to allow for both-ends-against-the-middle voting. Both-ends-against-the-middle voting was particularly evident in the third, terminal legislature. As events unfolded in the Fourth Republic, the roll calls that featured both-ends-against-the-middle-voting increasingly concerned policy in North Africa. Thus, the demise of the French Fourth Republic is likely to have been in the interaction between ideological voting in a pure parliamentary system and the strong external threat posed by the colonial war in Algeria.

Methodological Issues

Modern roll call analysis has undergone an increasingly sophisticated methodological development [Poole and Rosenthal (1985, 1991, 1997), Heckman and Snyder (1997), Snyder and Groseclose (2000), Londregan (1999), Poole (2000), McCarty, Poole, and Rosenthal (2001), Clinton and Meirowitz (2001), and Clinton, Jackman, and Rivers (2001)]. Most of the applications, however, were explicitly designed for the United States Congress. The assumptions underlying such methods may not be met in other legislative settings. We illustrate this point through an analysis of data from the three legislatures of the French National Assembly in the short-lived and not

lamented Fourth Republic (1946-58). The Assembly was the antithesis of Congress.

There were four important distinctions.

1. Party Discipline. A large fraction of the deputies were members of a totally disciplined party that voted as a bloc, the Communists. As we move to the right in the political spectrum, we find the Socialists, only somewhat less disciplined than the Communists. Even the Christian Democrats (MRP) tended to vote as a bloc. The other deputies, largely in the political center and right, were more freewheeling in their behavior.
2. Unstable Party Memberships. Changes in party affiliation were common (Riker, 1959). As we document later in this paper, almost 20 percent of the deputies elected to the Fourth Republic made at least one major change in party affiliation during the 12 years of the Republics.
3. Proxy Voting. Both discipline, making for more predictability, and vote trading, making for less, may have been influenced by the presence of proxy voting on most roll calls.
4. Pure Parliamentary Government. The prime minister and the members of the cabinet were chosen from the Assembly membership. Moreover, one could normally vote down one government and hope to become a Cabinet minister in the next without fear of dissolution and the need to run for reelection. Ministers did not need to resign their parliamentary seats. Thus, personal ambition could drive strategic voting by some members.

Consequently, the French data is likely to be inappropriate for parametric and stochastic models like the NOMINATE methods of Poole and Rosenthal, the Heckman-

Snyder method or the Bayesian methods developed by Clinton, Jackman, and Rivers (2001). The maintained hypothesis of these models is that roll call voting fits a probabilistic spatial model of voting (Enelow and Hinich, 1984). Points in a space represent both the legislators and the yea and nay outcomes on each roll call. A legislator is more likely to vote Yea on a roll call if the legislator's point is closer to the Yea point than to the Nay point. The vote is only more likely, not certain, because the votes are subject to error.

The various models assume errors that are independent and identically distributed across both legislators and roll calls. These assumptions about errors, doubtful enough for Congress, are almost surely wildly inappropriate for postwar France, and probably most other legislatures. In France, for example, proxy voting and cross-party variations in discipline make the assumptions of independence and identical distribution more questionable than in the United States. Moreover, identification of the parametric models relies heavily on the errors being relatively substantial.² Applying the models to a strongly ideological, small error legislature will be problematical. The Fourth Republic in turn constitutes a nearly spatially perfect legislature with a very low level of

² When the error or noise level is small, the linear probability assumptions of the Heckman-Snyder method will be violated. As for NOMINATE, it will seek to maximize the likelihood for a perfectly classified legislator who is "extremist" by putting the legislator far from the center of the space. The method therefore constrains the position of such legislators to lie on the boundary of the unit hypersphere (circle in two dimensions) that defines the limits of the space. This will lead to a largely circular or spherical configuration of legislators.

classification error. In such a case, the non-parametric optimal classification method of Poole (2000) might prove to be a more robust technology than parametric models.³ We here report that, in terms of face validity, the non-parametric method is much preferred.

The report is very much a tribute to Duncan MacRae, Jr., who produced seminal research in roll call analysis. We use the data he assembled for his award winning, *Parliament, Parties, and Society in France 1946-1958* (1967).⁴ MacRae, working at a time when the best university computers had a fraction of the power of today's bargain basement desktops, understandably chose to limit his analysis to the development of ordinal scales for four or five major party groupings in each of the three legislatures (MacRae, 1967, pp. 65-180). The voting patterns across, as against within, these groups were treated only informally.⁵ Large numbers of deputies, including all Communists and Poujadists, were not included.

³ To conserve space, we refer the reader to the published literature for description of the methods.

⁴ The book won the 1968 APSA Woodrow Wilson Foundation Award, for the best book published on government, politics or international affairs.

⁵ MacRae was previously criticized by Wood (1964, 1973) for considering only intra-party divisions. Wood himself, however, failed to provide an analysis of an entire legislature. Wood (1964) considers only 57 votes on European unification across all three legislatures of the Fourth Republic. Wood (1973) does consider all the *L'Année Politique* votes in MacRae's data for the Second Legislature but then scales the roll calls in seven separate analyses corresponding to the seven cabinets of this legislature.

MacRae's study inevitably emphasized internal party divisions rather than divisions between parties.⁶ Internal party divisions do not necessarily indicate political instability. Internal party splits can occur with a stable, one-dimensional left-right system as in the contemporary two-party United States (Poole and Rosenthal, 2000) or in the contemporary roughly eight-party Czech Republic (Noury and Mielcova, 1997). A spatial analysis that looks not only within but also across parties is required to see if roll call voting can fit into a low-dimensional space. Our analysis provides snapshots of the individual legislatures. Moreover, we conducted a combined analysis of the entire Fourth Republic. In separate analyses available from the authors, we show that these spatial maps or snapshots capture most of the internal party divisions summarized in MacRae's more detailed analyses. Indeed, our combined analysis shows that a two-dimensional model where individual deputies had stable positions throughout their careers captures almost all the information that is in the separate spatial maps for the three legislatures. The fit is improved, but only marginally, when we allow individuals who change political parties to change positions.

Political Instability

We use these maps to make our substantive points. These concern the stability of democracy and, in particular, the demise of the Fourth Republic. The Republic was notorious for instability. After running through 16 premiers and 24 cabinets in just 12

⁶ Two of the groups of deputies MacRae analyzed, the Radicals and the Right, were both amalgamations of two or more parliamentary groups. Consequently, it might be more appropriate to say that MacRae looked at internal divisions of parts of the ideological spectrum.

years, the Republic was cashiered not by a democratic vote by the electorate but by the revolt of military officers and *pieds noirs* settlers in Algeria. In contrast, the United States has had largely democratic and regular transitions, albeit punctuated by a civil war, for over two centuries.

Let us be clear about the concepts of stability we employ. One form of instability pertains to policy (Baumgartner and Jones, 1991). Policy instability, as the successive postwar nationalizations and privatizations of the British steel industry demonstrates, is not indicative of other forms of instability. This paper is not concerned with policy instability.

Governmental instability might be defined as the elapsed time between birth and death of governing coalitions.⁷ This type of instability was characteristic of the Fourth Republic.⁸ On the other hand, prolonged governmental stability contradicts the notion that *stable* democracies have peaceful *transitions* in power. The election of Franklin Delano Roosevelt to four presidential terms triggered the adoption of amendment XXII in the United States. Incumbency bias in legislative elections triggered the term limits movement. True governmental stability in democracies might be associated with some long run rate of governmental duration that is far less than infinite. The consensus view

⁷ There is a large and sophisticated comparative literature on cabinet instability (e.g. Diermeier and Stevenson 2000).

⁸ Some scholars have suggested that the frequency of cabinet turnovers is modified by the overlap between cabinets in the individuals holding ministerial positions. Huber and Martinez-Gallardo (2002) show that even defined in this way instability in the Fourth Republic was very large in comparative perspective.

would appear to be that the short durations of Fourth Republic governments were less than optimal. We do investigate whether the structure of roll call voting and strategic behavior of deputies contributed to governmental (cabinet) instability.

Regime instability can be defined by the duration or survival of a form of government (e.g. Gurr 1974). Historically, regime instability followed the French Revolution. Noteworthy among the regime collapses, those of 1812, 1815, 1871, 1940, and 1942-1944 all took place when the incumbent regime suffered military defeat while that of 1958 occurred in the midst of a protracted and unsuccessful war—using conscripts—in Algeria. In the two democratic collapses—1940 and 1958—legislative activity could have been an indirect cause of collapse. It is also noteworthy that, while prone to cabinet instability, the Third Republic was the most durable regime. It spanned a 70-year period that included France’s escaping defeat in World War I. Comparative studies suggest that genuinely effective and responsive legislatures enhance the stability of democratic regimes, but when societal cleavages are severe and complementary democratic institutions are lacking, legislatures may exacerbate political disorder (Mishler and Hildreth, 1984). We are concerned with how legislative activity related to the collapse of the Fourth Republic.

In addition to institutional features, ideologies are an important source for stability and instability in legislative activity. For the Euclidean preferences assumed by the spatial model of voting, the Plott-McKelvey-Schofield theorems tell us that, once there is more than one dimension of preference, majority voting is generically unstable. The theorems led Riker (1980) to refer to political science as the “dismal” science since political processes would lack equilibria and be unstable.

Consequently, the dimensionality of roll call voting might be a major marker for instability. In this paper, we compare the dimensionality and fit of spatial models for the Fourth Republic's National Assembly to similar measures for the United States Congress in the same historical period. We find that the National Assembly was closer to a perfect model of spatial voting than was or is either the House or the Senate. On the other hand, at least a second dimension is required to obtain the near-perfect fit to the data. An important second dimension, civil rights, existed in the United States for the 1946-58 period. This dimension is not directly associated with instability in the American political system. The American system, it can be argued, only fell apart once, in the Civil War. This was preceded by a period of chaotic, non-spatial voting following the collapse of the Compromise of 1850 and the emergence of a dimensional realignment (Poole and Rosenthal, 1997). The National Assembly did not provide an indication of chaotic voting.

In addition to looking for possible instability in the overall pattern of roll call voting, we study instability from the perspective of strategic behavior both of powerful deputies and on important roll call votes. The experience of the Fourth Republic is particularly fascinating to political scientists interested in the strategic incentives that institutions create for legislators. Under the rules of the Republic, a cabinet that lacked sufficient (majority) support in the Assembly would resign. This would typically lead not to new general elections, but to formation of a new cabinet from within the Assembly. Thus, a deputy who was not part of the current cabinet had the opportunity to obtain a ministerial position when a cabinet would lose majority support. Moreover, a vote against the cabinet would not expose the deputy to the costs and risks inherent in new

elections. This institutional setting created clear incentives for enterprising deputies to undermine a cabinet in order to satisfy personal ambitions. Those with the prestige or power to obtain a cabinet position were known as the *ministrables*. One group of scholars points to opportunistic behavior by *ministrables* as the main source of cabinet instability. Others point to more substantive and ideological differences between parties and deputies.⁹ In this view, cabinet instability stems mostly from variations in opinions on central issues such as the European Defense Community, Indochina and North Africa. These external events would determine whether deputies defected from the governing coalition. In examining the behavior of *ministrables*, we find largely in favor of the ideological hypothesis against the opportunistic hypothesis.

Of course, the *ministrables* might look unexceptional if they succeeded in persuading a number of their supporters, those who were not *ministrables*, to join in strategic manipulation. Such manipulation might be most expected to occur on the handful of votes that represent votes of confidence (for sitting prime ministers) and investiture (for candidate prime ministers). We therefore analyzed these votes separately. Confidence and investiture votes, we find, are at least as ideological as other roll call votes in the Assembly. Most governments rose and fell, therefore, because of changes in allegiance of deputies that largely respected the ideological lineup of the Assembly. Out-of-character shifts were quite rare. As with our findings on *ministrables*, our analysis of confidence and investiture votes does not turn up indications of instability in spatial voting. On the other hand, we also find that opposition to the Fourth Republic regime in

⁹ See Wood (1973) for discussion and references to both sides of the debate.

itself always constituted one of the two primary dimensions of the space. Consequently, it might be claimed that ideology per se was an important source of instability.

Ideology, in the technical sense of being a systematic pattern of spatial voting, spelled instability because opposition to the regime was an issue fundamental to defining the space. This is most dramatically evidenced in the regime, rather than left right, constituting the primary dimension in the first legislature. The regime was not sabotaged because of tricky, out-of-character, voting on just a few roll calls. *Au contraire*, the regime was constantly under attack. Consequently, both conflicts over institutions, particularly the electoral law, and over policy, particularly Algeria, fit into a more general pattern of pro-regime, anti-regime voting.

Of course, there are many other explanations for instability:

- Those that go under the rubric of **culture**, national character, etc., can be questioned since France has been stable since 1958 under a democratic regime that enjoys a high degree of legitimacy. Despite De Gaulle's famous crack about governing a people that makes hundreds of cheeses¹⁰, France is not inherently unstable.
- Another possible explanation would be **institutional factors** in addition to the rules, discussed above, that directly affect cabinet duration. In contrast to the United States, which has separation of powers and checks and balances, the Fourth Republic was very much a 'pure' parliamentary government dominated by one chamber of the

¹⁰ "Googling" the crack disclosed innumerable references in French, English, and other languages disclosed wide variation in the exact form of the quote and, especially, the number of cheeses. The counts ranged from a low of 246 to a high of 700, found, one of us is glad to report, in a Dutch source. Perhaps the entire matter is a nice urban legend.

legislature. Moreover, whereas in the United States the constitution fixes elections at regular intervals and Congress long ago imposed the single-member district system, the electoral system in France is highly endogenous. The Fourth Republic legislature devoted substantial energy, in 1951, to imposing the complex *apparentement* system (McKelvey, and Rosenthal, 1978) on top of a proportional representation system, and, in 1956, to failing to revise the law. Roll calls on the electoral law in fact accounted for much of the “both-ends-against-the-middle” voting in the first two legislatures. In contrast, the Fifth Republic has less power in the legislature (Assembly), and more power in an elected president and the cabinet or *Conseil des Ministres*. A single-member district electoral system has been relatively stable.¹¹ The contrast between the Fourth and Fifth Republics suggests that institutions matter. That “institutions did it”, however, can be questioned by comparing France to Italy. Postwar Italy had similar institutions and similar internal divisions to those of France, but the Italian system, despite similar cabinet instability, was always one of democratic transitions. In both the French and the Italian cases, institutions may have resulted in cabinet instability as a consequence of ideological conflict but the Italian postwar regime endured into the 1990s.

- Where France and Italy differed, of course, is that Italy did not have to deal with colonial revolts after the war. Indeed, the main charge against the Fourth Republic governments had been their impotence (*immobilisme*) to act in foreign and military

¹¹ Proportional representation was used in one legislative election, 1986, when the Socialists tampered with the system. There is also some degree of malapportionment.

affairs, in particular in the Algerian crisis. Thus, **external threat** may have been the source of instability.

In turn, our two major findings—highly spatial, ideological voting and the absence of clear strategic behavior by *ministrables*—allow us to suggest that instability resulted from external threats that, given ideological differences, could not be dealt with by a parliamentary government.

Summary

On balance, our reanalysis of the Fourth Republic data suggests that the Republic's problems were more ones of “irreconcilable ideologies” than of “excessive concern of the deputies with their private parliamentary ‘game’ and their careers, without sufficient care about principles *or* policy” (MacRae, 1964, 4). The main piece of evidence here is the extremely high fit of one and two-dimensional spatial models of roll call voting.

A huge chunk of “irreconcilable” ideology was contributed by the Communists, who represented about one-fourth of the electorate and the Parliament. The external event here was the Cold War. The Communists sought to take France behind the Iron Curtain. Governments and policies would therefore have to be formed by a supermajority of the remaining deputies.

In the course of the first legislature, De Gaulle decided to reenter politics and challenge the regime. The electoral success in the 1951 elections of his RPF party resulted in anti-regime dimension voting in the second legislature. The Communists and Gaullists would often vote together to topple governments and block policies such as the European Defense Community. The second dimension, then, reflected the political

opportunism and strategy of the Gaullists, not the career concerns of the regime parties. The Gaullists also exploited another aspect—lay vs. church—of ideology in France but conflict here was subservient to the Gaullists’ political ambitions rather than the direct cause of conflict.

The Gaullists were defeated. They were unable to use the career concerns of the regime deputies to bring about the fall of the Fourth Republic during the second legislature. De Gaulle withdrew from politics; his deputies largely were absorbed into the regime. He returned only when the third legislature was terminated by another external event, the Algerian war.

The elections to the third legislature produced a new challenge to the regime, the Poujadists. These anti-tax, populist deputies (Jean-Marie Le Pen was one of them) joined the Communists in opposing the regime. The Poujadists and remaining Gaullists are largely responsible for an anti-regime dimension in the last legislature of the Republic.

On balance, then, elections, not internal games, are the cause of important shifts in voting patterns within the Assembly. Within each legislature, voting is highly ideological (spatial). Of course, the inability of the legislature to make policy (*immobilisme*) contributed to the electoral outcomes.

Methods

We carry out separate spatial analyses of the three legislatures of the Fourth Republic. We compare the W-NOMINATE method of Poole and Rosenthal (1997) to the optimal classification algorithm of Poole (2000). For data from the first 100 United States Congresses, the W-NOMINATE results are highly similar to the results from the Heckman-Snyder method (Poole and Rosenthal, 1997). Thus, we take W-NOMINATE

as illustrative of a parametric method that, as said in the introduction, assumes that the errors in the spatial utility functions are i.i.d. In contrast, the optimal classification method simply seeks to find ideal points for legislators and separating hyperplanes for roll calls such that the number of classification errors is minimized. A classification error for a legislator on a roll call occurs when the legislator's ideal point is such that his or her vote is inconsistent with the separating hyperplane for the roll call. This procedure is likely to be highly robust to the stochastic nature of the data. Note that for optimal classification all errors are weighted equally. No single vote decision is likely to make a large difference in an estimate. In contrast, the parametric methods will adjust estimates based on the most serious errors, such as a Communist voting in favor of the European Defense Community.

There is, of course, a price to be paid for using the non-parametric method. Metric information about ideal point locations and separating hyperplanes cannot be identified. In one dimension, this problem is a serious one. Only a rank order of legislator ideal points (and roll call cutting points) can be recovered. For the United States, the metric recovery generated by W-NOMINATE appears to have face validity in that it shows a bimodal distribution of ideal points corresponding to the two-party system. But, as we show later, in two dimensions W-NOMINATE does not have face validity for the French data. In contrast, optimal classification does generate a reasonable map.

How does optimal classification recover metric information in more than one dimension? The two dimensional case illustrates the basic answer. If there is not much error to voting and we have many unique separating hyperplanes from the roll calls, each legislator's ideal point will typically be pinned down to a small cell generated by the

intersections of hyperplanes. This cell does not generate a precise point estimate (Poole's method picks a point in the cell), but if the cells are small, the imprecision is small.

Moreover, as Londregan (1999) has shown, any roll call method, including a parametric one, will suffer from this imprecision because of the coarseness or granularity of roll call data. The coarseness of the data appears to be much less problematic for the non-parametric method than for parametric methods. On the basis of our experience with the Fourth Republic data, we advocate the Poole non-parametric method as the preferred method for roll call analysis in large, multi-dimensional legislatures.

Data

The sample of roll calls consists of two parts:¹²

1. All 739 roll calls mentioned in *L'Année Politique*. Sampling in this way is roughly similar to constructing a sample for Congress using only "key" votes reported in *Congressional Quarterly Weekly*. *L'Année Politique* includes important votes, such as investitures, confidence votes, important budget votes, and other policy votes.
2. A random sample of 50 votes per legislature was taken from the remainder of all roll call votes.

Following Poole and Rosenthal (1997), we exclude all roll calls with fewer than 2.5% of those voting on the minority side. This reduces the sample from 889 to 855 votes, which is exactly one-tenth of the total of 8550 roll calls taken during the Fourth Republic. The sample includes votes on topics such as NATO, the European Defense Community, Algeria, Indo-China, Italy treaty, Paris accords, military budget, atomic energy development, labor strike regulations, taxes, public health, Parisian transportation,

¹² See MacRae (1964, Appendix A) for more detail.

colliery schools, National Assembly reform, agriculture, land reform, fiscal reform, anti-inflation, salary scale, and amnesty. It includes a total of 33 votes to invest a new prime minister, and 136 votes of confidence: votes that decide the fate of sitting cabinets. To check if our results are strongly influenced by the entire sample being heavily weighted by the *L'Année Politique* votes, we will report on results for the random sample.

We exclude all deputies with fewer than 25 votes, which leaves a total of 1149 deputies. Abstentions of any form are disregarded.¹³ One overall characteristic of the roll calls is strikingly similar to that for the United State Congress throughout its history—the average majority is a little under two-thirds.¹⁴

The data contains coding for the political party (technically, parliamentary group) of each deputy. In our analysis, we combine, in a straightforward manner, some of these codes. The major party groups include Communists, Socialists, Radicals (and UDSR), a collection of parties grouped as Right,¹⁵ and the Gaullists.¹⁶ Basic to the Communist-Socialist split was a pro-anti Soviet split. The Socialists diverged from the Radicals on issues of state ownership and intervention in the economy. In distinction to the Right, the Radicals were historically anti-clerical. Two parties, the MRP and the Gaullists had

¹³ MacRae (1967), in contrast, included abstentions. On the basis of pre-scaling adjustments, he would treat abstentions as equivalent to either No or Yes votes. The analysis of (strategic) abstentions is an important topic for future research.

¹⁴ 62.3% in the first legislature, 64.4% in the second, 66.6% in the third legislature.

¹⁵ The Right includes Parti Républicain de la Liberté, Républicains Indépendants, Indépendants, Paysans, Indépendants d'Outremer, Indépendants Paysans, Paysan, IPAS)

¹⁶ The Gaullists include RPF, URAS, and ARS.

origins in the Resistance. Both, particularly the MRP, had some affinity for social democracy. The two parties differed sharply over working within the Fourth Republic regime and over European unification. The Poujadists were a “Populist”, “flash” party that arose for the 1956 elections and vanished after De Gaulle came to power in 1958.

Table 1 summarizes the composition of legislatures by party affiliation (based on the first roll-call in each legislature). The data show that elections led to rather substantial shifts in partisanship between legislatures. In particular, the introduction of the Gaullists in the second legislature caused a major shift in the political landscape.

Results

We first evaluate the extent to which a low-dimensional ideological structure constrains roll call voting in the French Fourth Republic. We then present a visual representation of the spatial ideological map and compare the two methods. The latter parts of this section include a more detailed interpretation of the ideological divisions and how these contributed to government, and ultimately regime, instability.

Fit to Spatial Models

We fit three different spatial models to the data. The three models make different assumptions about the stability of deputy ideal points, and are nested. First, we estimate a **pooled** model, which assumes that deputies who serve in more than one legislature hold constant ideal points during the entire Fourth Republic. The model thus estimates one ideal point for each deputy who served. There are 234 deputies present in all three

legislatures and an additional 288 deputies who voted in two of the three legislatures.¹⁷ A total of 627 deputies belonged to only one of the three legislatures.

Second, we estimate a **party-switcher** model that nests the pooled model. The party-switcher model assumes that only those deputies that remain loyal in their party affiliation have constant ideal points over time. This model takes into account that deputies who switch parties may shift their voting behavior accordingly.¹⁸ Party switching was fairly common during the Fourth Republic. Given that MacRae assigned party codes for each individual roll call, we are able to identify exactly when deputies decided to change their party affiliation. We only count alterations if these endured for at least 25 votes and if they involved shifts between the parliamentary groups identified in the appendix. We include shifts that involve deputies who decided to become unaffiliated with any party. Following these definitions, we find 202 deputies that changed party affiliation at least once, with 57 of shifting their allegiance multiple times. The voting records of party-switchers are broken up following these alterations in party affiliation. The party-switcher model thus estimates multiple ideal points for those deputies who switched parties.

Third, the **legislature-specific** model relaxes the assumptions underlying the party-switcher model further by assuming that deputies may also shift their ideal points following legislative elections. As shown in table one, elections caused significant shifts

¹⁷ 124 in both the 1st and 2nd, 116 in the 2nd and 3rd, and 48 in the 1st and 3rd.

¹⁸ McCarty, Poole, and Rosenthal (2000) show that the rare party-switches in the United States Congress are accompanied by substantial, significant shifts in the ideological positions of the switchers.

in both the individual and partisan composition of the legislatures. Moreover, the issues on the agenda changed considerably between 1946 and 1958. In particular, the concerns posed by the Algerian war became more prominent in the latter stages of the 4th Republic. If this led to shifts in the structure of ideological conflict, these legislature-specific models should fit the data better than models that assume continuity in legislator ideal points across legislatures.

Table 2 summarizes the overall fit of the spatial models as estimated by the non-parametric Optimal Classification algorithm. We compare these to the W-NOMINATE results later in this section.¹⁹ The table shows results for estimated one, two, and three-dimensional models.²⁰ As summary statistics, we present the classification percentages, and the Average Proportion Reductions in Error (APRE), which are classification gains relative to the marginals. The APRE denotes the extent to which the spatial model better

¹⁹ In general, classification percentages for W-NOMINATE are about 2% lower than the Optimal Classification results. This is comparable to the results reported by Poole (2000) for U.S. Congress.

²⁰ Very small additions to fit were provided by considering four or more dimensions. Indeed, to two decimal places, with three dimensions we correctly classify 98% of the individual voting decisions in each of the three legislatures, using the legislature-specific model. Any addition beyond this point is likely to be simply an over fitting of noise in the data.

accounts for observed vote choices than a model that simply predicts that each deputy always votes with the majority.²¹

TABLE TWO ABOUT HERE

The results in table 2 demonstrate that a stable two-dimensional spatial configuration explains deputies' vote choices in the 4th Republic extraordinarily well. Fixing ideal points in a two-dimensional space throughout the 12-year duration of the Republic successfully accounts for 96.2% of all vote choices. This fit is extremely high not only in absolute terms but also from a comparative perspective. For example, Poole (2000) reports that optimal classification for the United States Senate for the period of our study is about 85% in one dimension with another 5% added by a second dimension.

Ideological conflict in the Fourth Republic appears to be two-dimensional. Whereas introducing a second dimension reduces the proportion of errors by about 10%, a third dimension adds only 2.5% to the explanatory value of the spatial model. In comparing the fit of the three nested models we should take into account that the most restrictive (Pooled) model estimates only 1149 ideal points (one for each deputy), whereas the least restrictive (Legislature-specific) model estimates an additional 915

²¹ $APRE = \frac{\sum_{j=1}^n (\text{Minority Vote} - \text{Classification Errors})_j}{\sum_{j=1}^n (\text{Minority Vote})_j}$

ideal points to account for shifts in party allegiance and legislatures.²² The results show that both allowing deputies to shift their ideal points following changes in party affiliation and (in addition) following elections leads to a modest improvement in the ability of the model to classify observed votes correctly.²³ In two dimensions, party-switching leads to a 0.4% improvement over the pooled model. The legislature-specific model adds another 0.4% over party-switching. Thus, party switching gives a bigger bang for the parameter since it requires only 265 additional parameters to be estimated, whereas the further assumption that the ideological structure is legislature specific requires 648 extra parameters (ideal points).²⁴

The gain in classification from allowing deputies to change their ideal points following elections is thus very small considering the number of additional parameters that need to be estimated.²⁵ This indicates that although turnover between legislatures

²² We conducted the analysis in a manner that guaranteed that the same choices were covered by all three models. For example, if a deputy was not included in the legislature-specific analysis because he had voted fewer than 25 times in that legislature, his votes for that legislature were also excluded from the pooled analysis.

²³ The fit of the model cannot decrease as parameters are added.

²⁴ We perform no significance tests to evaluate the relative performance of these models. See Voeten (2001) for an example of such a significance test based upon a randomization experiment.

²⁵ We also estimated a model that assumes deputies alter ideal points only following elections (not after party switches). In two dimensions, this model classifies 96.9% correctly, with an APRE of 91.3. The model estimates 1891 ideal points.

was large, the structure of ideological conflict was remarkably stable from 1946 to 1958. Consequently, most of the analyses reported in this paper are based on the party-switcher model. Nevertheless, we do find that the relative importance of the ideological dimensions changes over time. We will return to this point in the substantive interpretation of the results.

One might think that our results largely reflect an ability to correctly classify the Communists and other parties exhibiting discipline. This is not the case. Accounting for party switching, the fit in two-dimensions for less disciplined parties such as the Gaullists (95%), the Right (95%), and the Radicals (92%) is also extremely good. Moreover, the spatial model has a much tighter theoretical focus than does a party cohesion model. Party cohesion says nothing about which way a party will vote on a particular roll call. The spatial model says that party voting must obey a consistent relationship to how other parties vote, the relationship being defined by the location of the ideal points of the party members. Later in this paper we demonstrate that the spatial model not only illuminates roll call votes that divide one party from another but also accounts well for the intra-party splits that were the focus of MacRae's study.

Visual Interpretation of the Dimensions

Figure 1 presents the estimated deputy ideal points from the party-switcher model. The points appear in a two-dimensional scatter plot that facilitates the substantive interpretation of the two main dimensions of conflict. To facilitate visualization, only those deputies who voted at least 100 times while they belonged to one of our seven main party groups are displayed.

Our substantive interpretation of the dimensions focuses on two orthogonal axes, one running from Northwest to Southeast, which we label Pro-Anti Regime, and another from Southwest to Northeast, which we label Left-Right. Communists, Poujadists, and Gaullists anchor the anti-regime pole, with a smattering of the Right. The Socialists, MRP, and many Radicals are pro-regime. Most of the Right and some Radicals occupy intermediate positions. The Left-Right dimension runs from the Communists and Socialists on one end to the Right parties on the other pole. MRP, Radicals, Gaullists, and Poujadists occupy intermediate positions. (The dispersion of Communist points in the plots masks heavy overstriking at the center of the cluster. A few infrequently voting Communists have their positions influenced by the set of roll calls they voted on.)

It is noteworthy that when the First Legislature is scaled separately, the Regime axis becomes the horizontal dimension of the scaling. In contrast, for the Second and Third Legislatures, Left-Right is horizontal and the Regime becomes the second dimension. This reflects the relative frequency of Regime vs. Left-Right issues in the legislatures. However, as table 2 demonstrates, the basic space is stable—one general space can classify all the votes as well as one space per legislature. Legislatures simply differ in the relative frequencies of roll calls on the dimensions.

[FIGURE ONE ABOUT HERE]

Comparison of the Two Methods

Figure 2 is the equivalent of figure 1, but is based on a W-NOMINATE scaling (of the party-switching model) rather than the non-parametric Optimal Classification method. We have applied an orthogonal Procrustes rotation to the deputy coordinates

such that the two scalings are maximally comparable.²⁶ The Pearson R-Squares between the corresponding first and second dimensions are .83 and .88 respectively. These are low in comparison to similar exercises for Congress (Poole 2000). This indicates that the correspondence between the two methods is smaller than in Congress. A comparison between Optimal Classification and W-NOMINATE discloses important differences.

1. Whereas the Optimal Classification coordinates show a relatively smooth distribution throughout the space, the W-NOMINATE coordinates are concentrated at or near the unit circle that defines the boundary of the space for the W-NOMINATE algorithm. In fact, one-third of the deputies are placed on the rim.²⁷ This is largely because classification is high and there is little error to voting. In order to maximize the log-likelihood, W-NOMINATE will place a “perfect” (errorless) legislator as far from the roll call cutting lines as possible. Such a circular distribution of ideal points seems implausible. As we said in the introduction, parametric techniques need error to identify ideal points. With low error and a relatively low number of votes, the rim problem is aggravated. Indeed, the proportion of deputies on the rim is higher when

²⁶ The rotation was applied to the W-NOMINATE results with the optimal classification coordinates as the target. The rotation procedure is based on Schonemann (1966) and performed by a FORTRAN program written by Keith Poole.

²⁷ More precisely, these are the deputies for whom the sum of squares of the coordinates exceeded 0.99. A deputy exactly on the rim would have a sum of squares of 1.0. We use 0.99 as the cutoff, because the coordinates are only precise up to two decimals. The reduced percentage on the rim with pooled data reflects greater estimate stability from a larger sample size.

we analyze the legislatures separately. In comparison to 33% of the deputies on the rim in the party-switching W-NOMINATE estimation, 42%, 36%, and 49% are on the rim in the separate scalings of the first, second, and third legislature respectively. Therefore, Optimal Classification is particularly advantageous when there are relatively few roll calls.

2. The W-NOMINATE results fail, unlike those for Optimal Classification, to fill the space, leaving the right side of the space open. We suspect that is because the Communists are more error free than the other deputies. On votes that oppose the Communists to others, the horizontal dimension in figure 2, these differences in error are accommodated by placing the Communists on or near the rim and all others in the center.
3. The pro-anti regime axis, where Gaullists, Communists, and Poujadists, split off from other parties is less clear in the W-NOMINATE scaling.
4. In separate plots (not shown) for the second and third legislatures, there is an enormous gap between the Communists and all other parties in the W-NOMINATE results, less so in Optimal Classification.²⁸ This again largely reflects the Communists voting in a disciplined and errorless way.²⁹ W-NOMINATE captures

²⁸ It is interesting to note that eliminating the Communists from the sample does not solve the problems with W-NOMINATE. One is left with a large gap between the Socialists and all other members.

²⁹ The fact that the Communists do not all have exactly the same ideal point reflects variations in abstention. Each deputy's position is determined by placing the deputy relative to the cutting lines for the roll calls on which he or she in fact voted.

the “perfectness” of the Communists by making them very distant from everyone else. The gap seems implausible, particularly on the left-right or economic dimension where the Socialists, particularly in the 1940s and 50s, shared goals of redistribution and public ownership with the Communists.

French Politics and the Dimensions

Having established the greater face validity of Optimal Classification, we now relate the results to major issues in French politics. Some of the results reported in this section refer to the findings from the legislature-specific scalings. The appendix includes a table with the means and standard deviations of parties in the three individual legislatures.

First Legislature

In the first legislature, most roll calls concerned the regime. What seems anomalous is that the Right is, of the four anti-Communist party groups, closest to the Communists. But the result is understandable in terms of regime support. The governments of the first legislature were basically center-left. All the prime ministers were Socialists, Radicals, or Christian Democrats, and a large chunk of Right deputies always voted against investiture of these governments. The Right also, by shifting from abstention to opposition, as between Ramadier’s investiture vote in Jan. 1947 and the vote to reorganize his cabinet in October (MacRae, 1967, p. 72), showed only limited support for the regime. Similarly, after voting for Schuman’s investiture in November, 1947, the Right either abstained or voted against on all other major votes during Schuman’s premiership (MacRae, 1967, p. 74). The Right also joined the Communists on votes related to finance, the budget, and taxes. The Right was objecting to

government intervention in the economy and redistribution; the Communists were systematically attempting to undermine the government. On more standard left-right issues, the Right opposed the Communists. In fact, the Right opposes all the other parties on some economic issues and on proposals to release the Vichy ruler, Petain, from prison.

Second Legislature

In the second legislature, standard left-right voting predominated. The Gaullists, in line with their relative leftism on social and economic policy in combination with a more right-wing position on foreign and military policy, locate close to the Radicals on the Left-Right dimension. They are still sharply different from the Socialists and, a fortiori, the Communists. A majority of Gaullists nonetheless vote with the Socialists and Communists to bring down the Pinay government over the budget in December 1952 and the Mayer government over tax reform in May 1953; Pinay and Mayer had majority support from all the other parties (MacRae, 1967, pp. 119, 121). The Right is as expected, furthest to the right.

The Gaullists and Communists do have nearly identical positions on the regime dimension. The Socialists and Radicals are the most pro-regime. They vote en bloc, with some Christian Democrat support, for Mèndes-France's failed investiture attempt in June 1953. Similarly, the Socialists, Radicals, and Christian Democrats are the only parties to support Pineau's failed investiture attempt in February 1955 (MacRae, 1967, p. 130).

It should be noted that the lay-Catholic conflict does not appear to generate a separate dimension. Votes on both the Marie education bill and the Barangé bill in September 1951, have -45° cutting lines in the space shown in figure 1. Such cutting lines allow a fraction of the Radicals, the Socialists, and the Communists, to oppose all

other deputies. If education was a wedge issue (for the Gaullists), the wedge was simply to pick an issue whose cutting line was interior to the governing coalition.

The second legislature marked a sharp shift to the right. (See the party Ns in table 1.) The prime ministers were either from the Right or the Radicals. Nonetheless, the Socialists and Christian Democrats continued to support the regime. Socialist support was forthcoming on all but one investiture vote except Mayer's; similarly, the Christian Democrats supported all prime ministers other than Mèndes-France. In contrast, the Gaullists supported only Mayer and the Communists only Mèndes. On investiture votes, the Right only opposed Pineal, but a majority of the Right voted against the government on 11 of the 51 votes of confidence during the second legislature.

Third Legislature

The left-right dimension also predominates in the third legislature. The Socialists vote with parties to their right in support of many of the policies during the premiership of Guy Mollet, a Socialist. Some Socialists join the Communists in refusing to invest De Gaulle in June 1958 (MacRae, 1967, p. 163). The Poujadists are not as far to the right as the classical Right, perhaps because of their support for some populist economic measures. The Poujadists do join the Communists in opposition to the regime. The Poujadists distinguish themselves from the Communists by, for example, being the only party to solidly oppose Mollet's Algerian policy in March 1956 (MacRae, 1967, p. 159). As in the first legislature, the Right shows itself as not fully supportive of the regime. They, for example, join the Communists and Poujadists in voting to bring down the Mollet government over a Finance bill in May 1957 (MacRae, 1967, p. 159) and in voting not to invest Mollet in October 1957. (MacRae, 1967, p. 163). A majority of the

Right voted against the government on 17 out of the 44 votes of confidence in the third legislature. Many of these votes came on socio-economic issues, in particular the Old Age Fund, paid vacations, and the civil budget. On other issues, including the Algerian question, they were mostly loyal to the government.

Strategic Voting on Cabinets

Did the Fourth Republic fall because deputies voted strategically on motions of confidence and on motions of investiture of prime ministers? Were deputies highly ideological only on those important roll calls selected by *L'Année Politique*? Table 3 helps to answer this question by breaking out the APREs from each legislature-specific scaling into four mutually exclusive and exhaustive categories: Investiture votes, Motions of confidence, Other *L'Année Politique* (important) votes, and Random Sample votes. The results for the individual legislatures are based on the legislature-specific models, whereas the pooled results keep deputies at a fixed ideal point throughout their tenure.

Table 3A has results for models that do not control for party switching. Table 3B shows the results where deputies are allowed to shift their ideal point following a change in partisan adherence. The difference is important, because party-switches may be indicative of strategic behavior. The results indicate that the impact of party switching most strongly impacts the fit of the model on investiture votes, and barely has an effect on the roll calls from the random sample. A possible explanation is that on investiture votes, parties put more pressure on their members to vote along party lines. If party-switchers adjust their ideal point towards the center of the party they are changing to, controlling for changes in party affiliation affects the fit of the model more on votes where parties are more cohesive. A complementary explanation is that dissatisfaction

with the original party's position on issues directly affecting cabinet performance caused most party-switchers to leave. As a result, they may not change their voting behavior on general issues much, but do alter their choices on roll calls that involve the fate of cabinets. For obvious reasons, party switching has the least effect in the third legislature, which has the fewest votes, and the strongest effect in the pooled estimation.

TABLE 3 ABOUT HERE

All roll call voting was highly ideological with important votes that led to the birth and death of cabinets being especially ideological. The votes randomly selected by MacRae fit the model only slightly less well in the first and third legislatures than do important votes that do not involve the cabinet. In the second legislature, however, the random votes fit especially well. In two dimensions, investiture and confidence votes generally fit better than other votes. There is little evidence that suggests systematic strategic voting on roll calls that involved the formation or breakdown of cabinets.

On the other hand, the existence of the Fourth Republic may have itself been an important source of consistent, spatially ideological voting. We earlier identified the major conflict in the first legislature not as a standard left-right dimension but as a pro-anti regime dimension. This interpretation is reinforced by noting that investiture and confidence votes in the first legislature, fit exceptionally well on the regime (first) dimension. The story for the second and third legislatures is somewhat different. Investiture votes are mainly along the left-right dimension while confidence votes are more along the regime dimension. Cabinets appear to have been chosen in terms of standard left-right policy splits but then cashiered in attacks on the regime. (The low first

dimension PRE of 78.4 for third legislature investitures reflects an outlier, the failed investiture vote for Mollet on October 28, 1957. Without this vote, the APRE is 86.0).

Confidence votes in the second legislature are the exception to all this. The two-dimensional model explains these votes (somewhat) less well than any other category of votes. Perhaps the behavior of deputies on these votes has important strategic origins, for example caused by the opportunistic behavior of *ministrables*. MacRae operationalizes a *ministrable* as a deputy who was a member of a cabinet at some point in the Republic, but is not a member of a cabinet at the time of a particular motion of confidence. Such deputies may have an interest in voting against cabinets not because of their ideological positions, but in order to increase the probability of obtaining a prestigious cabinet position. To test this hypothesis, we ran a probit analysis on a pooled data set with all 51 motions of confidence brought before the second legislature. Besides the *ministrable* variable, we included a dummy variable that indicates membership in a cabinet, and the first and second dimension coordinates for deputies.³⁰

The coefficient on the “ministrable” variable is significant in the expected direction (-.12, $z=-2.5$, $p=.014$), indicating that ministrables were indeed more likely to vote against matters of confidence than were other deputies.³¹ If we run the same model on the individual votes of confidence, however, we find only three votes of confidence,

³⁰ In order to capture the polarity correctly, all coordinate variables were interacted with a dummy for each roll call.

³¹ Panel-corrected standard errors. Log likelihood = -8571.2103, Pseudo R2= 0.55.

Coefficient on the cabinet dummy is .78 ($z=10.1$, $p=.000$).

two on Faure and one on Mendès-France³² where the variable explains variation in voting behavior at least at a 5% significance level.³³ Of these, however, only in once case, Faure, was confidence denied to the government. Thus, we can only find one case in which the fate of a cabinet was partly determined by opportunistic behavior from *ministrables*: the first Faure cabinet.³⁴ On this roll call, several Radicals that had been cabinet members under Mendès and a few *ministrables* from the MRP and the Right broke party lines in order to undermine the cabinet.³⁵

Both Ends Against the Middle

The fact that confidence votes fall mainly along the regime dimension suggests that government instability arose simply because both ends voted against the middle within a standard one-dimensional left-right perspective. To test this, we estimated, using a program created by Keith Poole, a one-dimensional model with two cutpoints. Whereas standard Euclidean models of voting predict the existence of a single cutpoint on each roll call that splits legislators into “left” and “right” camps, a two-cutpoint model allows both left and right extremists to vote against the center.

³² *Scrutin* numbers 696, 771, and 2821. The coefficients on these votes exceeded the coefficient in the ministrable variable in the pooled analysis: (-4,18 (p=.00); -2,21 (p=.027); -2,28 (p-.022)).

³³ Note that coefficients could not be estimated for those votes that were explained perfectly by the ideological variables.

³⁴ The first dimension coordinates are insignificant, but the second dimension coordinates are highly significant: 3.98 (z=15.48, p=.000).

³⁵ This case was also identified by MacRae, p. 199.

Not surprisingly, a two-cutpoint model failed to improve results very much in the first legislature where votes were mainly along a regime dimension, with the Right out of place and adjacent to the Communists. Classification increases only from 95.1% to 96.2%.

In the second legislature, the improvement is somewhat greater, from 91.6% to 93.3% whereas a two-dimensional model classifies at 95.7%. The reason that both ends against the middle fails to fully capture anti-regime voting in the second legislature is that the anti-regime Gaullists were a center party on the left-right dimension, where most of the votes took place.

Only in the third legislature, can attacks on the regime be truly viewed as “both ends against the middle.” Classification increases from 93.7% to 97.0%. This is nearly as much as the two-dimensional classification percentage of 97.6%. The result is all the more impressive in that there is considerably less parameter fitting in a two-cutpoint, one-dimensional model than in a standard two-dimensional model. In the two-cutpoint model, one simply adds one parameter per roll call. In a two-dimensional model, one not only adds one parameter per roll call but one parameter per deputy. Since the third legislature includes 599 deputies but only, as a result of the brief life of the legislature, only 163 roll calls, the two-cutpoint model is very parsimonious compared to the two-dimensional model.

The third legislature results emphasize that the Right, not the Poujadists, brought down the Fourth Republic. The Poujadists were centrist on the left-right dimension. A two-cutpoint model would not allow them to become parts of attacks on the regime. But it does allow the Right to vote with the Communists. Indeed, the Right failed to rally to

Mollet when the Communists withdrew support for his government in 1957, brought down Bourgès-Maunoury over Algeria in September, 1957, failed to invest Mollet in October, and brought down Gaillard, again over Algeria, in April of 1958. The investiture vote on Mollet represents the biggest single improvement of a two-cutpoint model over a one-cutpoint model in the entire Fourth Republic. The second cutpoint corrects 131 errors from the one-cutpoint model. In a nutshell, both-ends-against-the-middle voting on Algeria brought down the regime.

Conclusion

Methodology:

The methodological thread in our paper evaluates the applicability of two different empirical spatial models to analyze roll call data: W-NOMINATE (Poole and Rosenthal 1991, 1997) and Optimal Classification (Poole 2000). The crucial difference between these methods lies in how they treat errors in voting. There are three reasons why Poole's non-parametric method better captures the ideological divisions in the French Fourth Republic than the more common parametric approaches. First, the varying degrees of cohesiveness of French parties strongly violate the i.i.d. assumption about the distribution of errors. Second, the absence of substantial errors in the voting behavior of deputies makes identification of parametric models problematical. Third, the optimal classification algorithm is more robust to both-ends-against-the-middle voting, which violates both the assumptions about the distribution of errors and the utility function underlying parametric models.

We believe that future studies should consider these points when analyzing roll call voting in settings other than the United States Congress. Most legislatures have

stronger party systems than Congress, which may lead to both severe violations of the i.i.d. assumption and near perfect ideological voting. The extreme left and right voting together against the center is common in Europe. For example, in the European Parliament, the second dimension consists of conflict over European integration, which both the extreme left and right disapprove (Noury, 2002).

The analyses in this paper have demonstrated that Poole's non-parametric method provides a viable alternative when the assumptions underlying parametric models are violated.

Substantive:

Our results show that governmental instability in the French Fourth Republic occurred despite the existence of a rather stable ideological structure. In fact, our findings indicate that persistent ideological divisions combined with the absence of a strong majoritarian system are largely responsible for the high degree of cabinet instability. Most cabinets were invested by a coalition that formed along an ideological left-right division. But, most cabinets were undermined by a coalition that formed along a crosscutting cleavage that captured opposition to the institutions of the Republic and external issues, in particular Algeria and European integration. In particular in the third, and final legislature of the Fourth Republic, this coalition included members of both the extreme left and right. The absence of stable, majoritarian coalitions and significance of the issues along this anti-regime dimension, in particular the war in Algeria, combined to produce the downfall of the Republic.

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Table 1. Party Affiliations

<i>Party</i>	<i>1st Legislature (1946-51)</i>	<i>2nd Legislature (1951-56)</i>	<i>3rd Legislature (1956-58)</i>
Communist	178	98	144
Socialist	108	108	96
Radical and UDSR	79	107	94
Christian Democrat	169	93	73
Right (<i>Modéré</i>) Parties	79	116	107
Gaullist	-	117	21
Poujadist	-	-	46
Other	16	5	5
Not Affiliated	15	4	7

Table 2. Fit Statistics For Optimal Classification

		Pooled	Party Switchers	Legislature Specific
Number of Ideal Points		1149	1416	2064
1 Dimension	Class. %	92.4	93.2	93.6
	APRE	78.8	81.0	82.0
2 Dimensions	Class. %	96.2	96.6	97.0
	APRE	89.3	90.5	91.6
3 Dimensions	Class. %	97.0	97.5	98.2
	APRE	91.8	93.0	94.7
APRE2-APRE1 ^a		10.5	9.5	9.6
APRE3-APRE2 ^b		2.5	2.5	3.1

^a Difference between APRE in two-dimensional model and one-dimensional model.

^b Difference between APRE in three-dimensional model and two-dimensional model.

Table 3: Mean PRE by Roll-call Type for One - and Two -Dimensional Optimal Classification

3A: No Party-Switching

Type	1 st Legislature			2 nd Legislature			3 rd Legislature			Pooled		
	1D	2D	N	1D	2D	N	1D	2D	N	1D	2D	N
	Reg	L-R		L-R	Reg		L-R	Reg				
Investiture	90.7	91.0	13	89.0	94.6	13	79.7	94.1	7	84.3	91.5	33
Confidence	91.2	95.5	44	73.8	86.7	51	81.9	93.3	41	76.6	88.5	136
Random	77.8	89.9	44	88.9	94.3	47	80.3	90.9	45	81.2	88.9	136
Other	83.2	92.7	245	74.8	87.4	235	84.2	92.0	70	78.0	88.2	550

3B: Party Switching

Type	1 st Legislature			2 nd Legislature			3 rd Legislature			Pooled		
	1D	2D	N	1D	2D	N	1D	2D	N	1D	2D	
	Reg	L-R		L-R	Reg		L-R	Reg				
Investiture	91.7	92.3	13	89.7	94.8	13	78.4	94.1	7	87.1	93.7	33
Confidence	92.6	96.4	44	74.4	87.4	51	83.3	93.5	41	79.9	90.0	136
Random	78.0	90.8	44	88.8	94.1	47	80.3	91.9	45	82.7	90.3	136
Other	84.1	93.3	245	75.2	87.6	235	84.1	92.2	70	79.7	89.6	550

Note: Reg means that the dimension mostly corresponds to conflict over the regime, L-R that it mostly concerns Left-Right conflict.

Table: Party Means and Standard Deviations from Legislature -Specific Models

A. First Legislature				
Party	<i>1st Dimension</i>		<i>2nd Dimension</i>	
	<i>Mean</i>	<i>Std. Dev.</i>	<i>Mean</i>	<i>Std. Dev.</i>
Communist (N=177)	-.99	.08	-.44	.12
Socialist (N=108)	.43	.14	-.79	.19
Radical (N=79)	.37	.30	.61	.46
Christian Democrat (N=169)	.52	.21	.07	.37
Right (N=77)	.26	.24	1.18	.45

B. Second Legislature				
Party	<i>1st Dimension</i>		<i>2nd Dimension</i>	
	<i>Mean</i>	<i>Std. Dev.</i>	<i>Mean</i>	<i>Std. Dev.</i>
Communist (N=98)	-1.01	.06	-.32	.02
Socialist (N=108)	-.65	.03	.37	.03
Radical (N=107)	.33	.21	.39	.18
Christian Democrat (N=92)	.38	.07	.05	.05
Right (N=116)	.59	.21	-.03	.18
Gaullists (N=117)	.26	.14	-.33	.13

C. Third Legislature				
Party	<i>1st Dimension</i>		<i>2nd Dimension</i>	
	<i>Mean</i>	<i>Std. Dev.</i>	<i>Mean</i>	<i>Std. Dev.</i>
Communist (N=144)	-1.19	.11	-.41	.06
Socialist (N=93)	.01	.10	.66	.13
Radical (N=93)	.14	.23	.23	.29
Christian Democrat (N=73)	.30	.02	.26	.03
Right (N=107)	.54	.14	-.22	.22
Gaullist (N=21)	.28	.13	.00	.45
Poujadist (N=45)	.20	.15	-1.01	.13

Figure 1: Legislator Coordinates, Optimal Classification

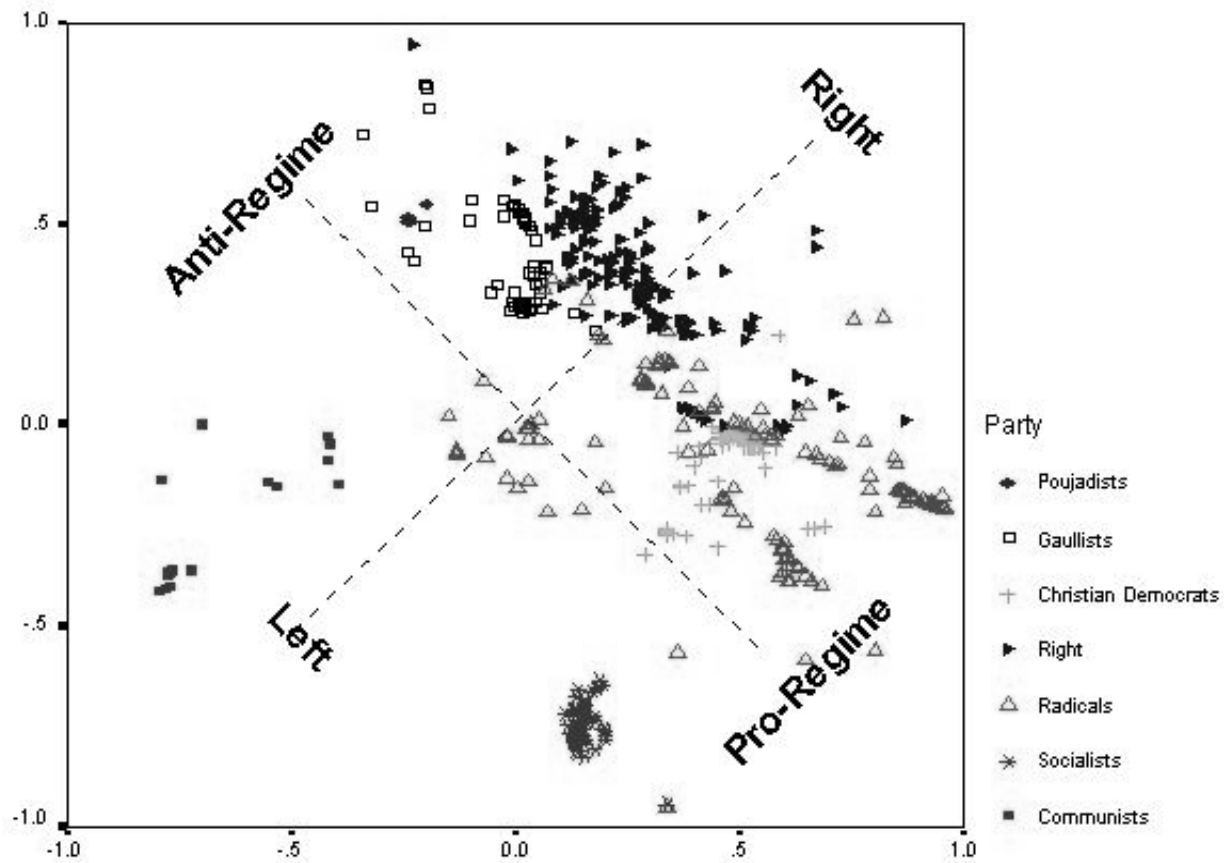


Figure 2: Legislator Coordinates, W-NOMINATE

