

# **A ‘Normal’ Parliament?**

## **Party Cohesion and Competition in the European Parliament, 1979-2001\***

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## **Abstract**

How cohesive are political parties in the European Parliament? On what basis do they compete with each other and form coalitions? These questions are central in understanding the impact of the European Parliament on European Union policies, and on the possibility of establishing a democratic European Union via the European Parliament. To answer these questions we have collected the total population of roll-call votes in the European Parliament, from the first directly-elected parliament, in 1979, to the end of 2001 (over 11,500 votes). Analyzing this data we find growing levels of party cohesion. Moreover, coalitions in the European Parliament form mainly around a left-right dimension. We find that ideological distance between parties is the strongest predictor of a party group's coalition preferences and that increased powers given to the European Parliament by the Maastricht and Amsterdam Treaty have increased cohesion of the party groups.

## 1. Introduction

Since the first European Parliament elections in June 1979, the European Parliament has evolved from a weak consultative ‘assembly’ into one of the most powerful institutions in the European Union system. As a result of a series of changes to the European Union Treaties between the mid 1980s and the late 1990s, the European Parliament now has the power to enact legislation in many areas, amend most lines in the European Union budget, veto the governments’ nominee for the European Union Commission President, and sack the Commission.<sup>1</sup> In addition, as the European Union undertakes a new period of institutional reform, the future role of the European Parliament – in a more democratic European Union system – is one of the key subjects for debate. Hence, how Members of the European Parliament (MEPs) vote, and how political organization and competition works in the European Parliament, is now vital for understanding both the outputs of the European Union system as well as the likely political impact of establishing the European Parliament as the main institution in a pan-European polity.

The European Parliament is also interesting from a more general political science perspective. The European Parliament is an excellent laboratory for testing general theories of legislative, parliamentary and party behavior and organization. At an institutional level, the European Parliament looks somewhat like the US Congress – a separate legislative chamber in a separation-of-powers political system. At the level of the party system, however, the European Parliament seems closer to domestic parliaments in Europe, where the

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<sup>1</sup> Since the Treaty of Rome, in 1957, the European Parliament has had the power to censure the Commission. In 1987, the Single European Act introduced the ‘cooperation procedure’, under which the European Parliament had two readings of some legislation. In 1993, the Maastricht Treaty replaced this procedure with the ‘codecision procedure’, with a right of legislative veto for the European Parliament, and also granted the European Parliament a right to be consulted on the EU governments’ choice for the Commission President. Finally, in 1999, the Amsterdam Treaty reformed and extended the codecision procedure, giving the European Parliament equal legislative power with the Council in many areas, and introduced a veto power for the European Parliament in the selection of the Commission President. For more details of the powers of the European Parliament see, *inter alia*, Hix (1999), pp. 56-98.

party system is organized around the classic European ideological ‘party families’.

Nevertheless, the European Union is also not a parliamentary system. The executive (the European Commission) is not formed from a coalition of parties commanding a majority in the European Parliament, and so cannot use the threat of a vote of confidence to create cohesion among the parties of the majority coalition in the parliament (Huber, 1996; Diermeier and Feddersen, 1998; Persson, Roland and Tabellini, 2000).<sup>2</sup> Another notable feature of the European Parliament is that MEPs are elected under different electoral and candidate selection rules in each member state, a unique observatory for those trying to understand the effects of different electoral systems. In other words, the European Parliament is a very rich source of data that can be usefully exploited to improve our understanding of parliamentary behavior and of the relationship between electoral institutions and legislative behavior, beyond the confines of the particular institutional and political contexts of the US Congress or domestic European parliaments.

However, until now, there has not been a systematic analysis of voting in the European Parliament. There is a vast and fast-growing academic literature on the European Parliament. And some of the main claims in the literature are now well-rehearsed. For example, a commonly held view is that the party groups in the European Parliament are highly cohesive, and that this has increased over time (e.g. Attinà, 1990; Brzinski, 1995; Raunio, 1997). Also, it is often claimed that the dominant structure of voting in the European Parliament is an implicit ‘grand coalition’ between the two main party groups – the socialists and the Christian Democrats/conservatives (e.g., Bardi, 1994; Hix and Lord, 1997; Kreppel, 2001). But, these claims are either based on *ad hoc* observations or samples of votes from particular parliaments (such as 1979-1984 or 1989-1994). Noury (2002) was the first to use

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<sup>2</sup> The European Parliament nevertheless has the power to censure the commission with a two-thirds majority and this power led to the resignation of the Santer commission.

complete roll-call votes for the Third and the Fourth parliaments to analyze the dimensionality of voting behavior in the European Parliament.

This paper goes further by presenting a complete and comprehensive dataset covering all votes in the European Parliament from 1979 to 2001. Only such a dataset can fully test these hypotheses about behavior in the European Parliament. As a comparison, the complete dataset of roll-call votes in the US Congress from 1798 to 1985, collected and analyzed by Keith Poole and Howard Rosenthal (1997), has had a profound impact on the way theories of legislative organization and behavior in the US Congress are tested. A complete dataset of roll-call votes from the European Parliament might have a similar impact on how we understand voting in the European Parliament, and also how we understand the more general processes of political bargaining and coalition-formation in the political system of the European Union.

Such systematic research may also shed light on, and influence, the ongoing debates on the future political institutions of the European Union, and in particular proposals to increase the power of the European Parliament relative to the Council and the Commission. The functioning of the European Parliament is not well known and its debates are not followed by the general public. Knowledge of the European Parliament has not gone much beyond a small circle of expert observers. The use of a systematic database like the one in this paper allows us to convey empirical regularities in political behavior in the European Parliament in a convincing way, and to make the European Parliament better known to the outside world.

So, what we have done is collect, collate and analyze all of the roll-call votes in the five European Parliaments since the first direct elections: from the first vote on 19 July 1979 to the last vote on 13 December 2001 (half-way through the Fifth parliament). This is a total of over 11,500 votes, and involves votes by over 2,000 MEPs. For every vote we coded: (1)

which way each MEP voted – either yes, no, abstain, present-but-did-not-vote, absent, or not an MEP at the time of the vote; and (2) the ‘characteristics’ of the vote - such as the policy issue, the voting rule (simple majority or absolute majority), whether it was a legislative or non-legislative issue, and so on. This data took over three years to collect, and constitutes an extremely rich dataset, which we hope should spawn a new generation of empirical research on the European Parliament.

Not all votes in the European Parliament are by ‘roll-call’; where how each individual legislator votes is recorded in the minutes. Most votes in the European Parliament are either by a show of hands or by ‘electronic vote’, where how each individual MEP votes is not recorded. Under the European Parliament’s rules, a ‘political group’ or at least thirty-two MEPs can request any vote to be taken by roll-call. In practice, roughly a third of votes in the European Parliament are by roll-call, but their share of all votes has increased (Corbett, Jacobs and Shackleton, 2000: 160). We cannot exclude the possibility that MEP behavior is different in roll-call votes than in other votes. However, it is reasonable to assume that roll-call votes are used for the more important decisions. Also, roll-call votes are the only votes we can study in detail, the number of roll-call votes has increased over time, roll-call votes are called on the full range of issues in the European Parliament, and roll-call votes do not appear to be called disproportionately by any party group. We can thus be confident that the systematic analysis of roll-call votes provides an accurate picture of the European Parliament.

In this article we use the roll-call data to describe the main aggregate patterns of MEP voting behavior in the twenty-two years since the first European-wide election of the parliament. We do not intend to specify a particular theoretical model of individual or aggregate level political behavior in the European Parliament. Instead, our aim is to use the data to establish a set of empirical regularities in the history of roll-call voting in the European Parliament. We want to see how far these regularities support or refute our existing

knowledge of voting in the European Parliament. By establishing the empirical regularities first, and then testing the existing theories on the data, we hope to encourage new theoretical research to explain these observed regularities.<sup>3</sup>

To orient our analysis, we focus on the two classic dimensions of the party system identified by Giovanni Sartori (1976): (1) party organization – the internal cohesion of the party groups in the European Parliament, and the relations between the party groups and the component national member parties of these supranational parties; and (2) party competition – the pattern of relations between the party groups in the European Parliament, the frequency of coalitions between the party groups. In most theoretical and normative accounts of liberal democracy, these two elements go hand-in-hand: democracy works because groups of elites with competing policy agendas and candidates for political leadership organize to secure these goals (i.e. Michels, 1961 [1911]; Weber, 1946 [1918]; Schumpeter, 1943; Panebianco, 1988 [1982]; Klingemann, Hofferbert and Budge, 1994; Mair, 1994). The same principles have been asserted about the European Parliament: that European Union-wide democracy will only be secured through the European Parliament if the party groups compete on policies and candidates, and then organize cohesively to secure these aims (e.g. Attinà, 1992; Andeweg, 1995; van der Eijk and Franklin, 1996; Hix and Lord, 1997).

With these aims in mind, we have organized the article as follows. Section two looks at party cohesion and coalition patterns at an aggregate level for each of the five directly-elected parliaments. Section three then investigates what factors explain the changing party cohesion levels and coalition patterns in the long run between July 1979 and June 2001.

Our main findings are: (1) coalition-formation happens clearly on the basis of the classical left-right dimension, (2) the cohesion of party groups has grown as the European Parliament received more power as a result of the Maastricht and Amsterdam Treaties.

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<sup>3</sup> For a similar argument about the importance of ‘data first, theory later’ see Cameron (2000). Cameron describes ‘A Natural History of Veto Bargaining, 1945-1992’ in the US Congress, before then developing and

## 2. Party Organization and Competition at the Aggregate Level

Table 1 shows the strengths of the party groups in the European Parliament after each of the five direct elections. As the table reveals, the European Parliament has been dominated by two main party groups – the Socialists on the center-left, and the European People’s Party (EPP) on the center-right. These two parties controlled 54 percent of the seats in First directly-elected parliament (1979-1984) and 66 percent of the seats in Fifth parliament (1999-2004). The share of the Socialists increased between the First and the Fourth parliament, from 27.6 percent to 34.9 percent, but fell sharply in the Fifth parliament, to 28.8 percent. The share of the EPP fell between the First and Third parliaments, increased in the Fourth, when the British Conservatives joined the group, and increased strongly in the Fifth to 37.2 percent, following the inclusion of Berlusconi’s Forza Europa and the main French Gaullist party (RPR) in the group and the increased vote-shares of several other EPP parties in the 1999 European elections. Three other political forces have been present in all five parliaments: the Liberals, the Radical Left, and the French Gaullists and their allies (such as Irish Fianna Fail, Portuguese Popular Party and Italian National Alliance). And one political force has been present in every parliament since 1984: the Greens and allies (such as the regionalist parties from Scotland, Flanders and Spain).

TABLE 1 ABOUT HERE



Together, these six political forces – Socialists, Christian-Democrats/Conservatives (EPP), Liberals, Greens, Radical Left, and Gaullists – have controlled 85 percent of seats in the directly-elected EPs: rising from 80 percent of MEPs in the First parliament to 93 percent in Fifth parliament. When looking at the aggregate levels of party cohesion and coalition patterns we shall look at all the party groups in the European Parliament since 1979. However, when we turn to explaining the levels of cohesion we focus on these six main political forces.

## **2.1. Cohesion**

Existing research on the European Parliament, using samples of roll-call votes, has produced three ‘standard claims’ about the cohesion of the party groups (Attinà, 1990; Quanjel and Wolters, 1993; Brzinski, 1995; Hix and Lord, 1997: 134-9; Raunio, 1997: 106-17).

1. Party cohesion in the European Parliament is lower than in domestic parliaments in Europe, but higher than in the United States, and hence parties in the European Parliament are relatively coherent organizations – with ‘cohesion scores’ up in the high eighties and even low nineties.
2. The three party groups in the European Parliament that are the ‘parliamentary parties’ of the transnational party federations – the Party of European Socialists (PES), the European People’s Party, and the European Liberal, Democrat and Reform Party (ELDR) – are more cohesive than the party groups that do not possess these external party organizations.
3. The party groups have become more cohesive as their internal organizations have developed and as the powers of the European Parliament have increased – on the assumption that greater opportunity to influence policy outcomes increases the incentives for the MEPs to act cohesively to secure their policy goals.

We investigate these claims by calculating the average level of cohesion of the party groups in the total population of roll-call votes in each of the five directly-elected EPs. We use an ‘Agreement Index’ as follows:

$$AI_i = \frac{\max\{Y_i, N_i, A_i\} - \frac{1}{2}[(Y_i + N_i + A_i) - \max\{Y_i, N_i, A_i\}]}{(Y_i + N_i + A_i)}$$

where  $Y_i$  denotes the number of ‘Yes’ votes expressed by group  $i$  on a given vote,  $N_i$  the number of ‘No’ votes and  $A_i$  the number of ‘Abstain’ votes. As a result, the AI is equal to 1 when a group of legislators vote as a block and is equal to 0 when the group is equally divided between all three of these voting options. For example, if deputies of a party cast 30 ballots on a given vote and if all these deputies vote ‘Yes’, then the cohesion index is 1. On the other hand, if these deputies are completely divided – for example, 10 vote ‘Yes’, 10 vote ‘No’ and 10 ‘Abstain’ – then the cohesion index is 0.

This cohesion index is similar but not identical to other measures of the voting cohesion of parties in legislatures. For example, Rice (1928) developed an ‘index of voting likeness’ for parties in the United States Congress, where the absolute difference between the number of Yes and No votes of members of the same party was divided by the sum of the Yes and No votes. However, the problem with the Rice index for studying the European Parliament is that MEPs have three voting options: Yes, No and Abstain. Attinà (1990) consequently developed a measure of cohesion specifically for the European Parliament, where the highest voting option minus the sum of the second and third options was divided by the sum of all three options. But, the problem with the Attinà index is that it can produce negative scores on individual votes (i.e. it is not scaled between 0 and 1), since if a party is split equally between all three voting options the Attinà index produces a score of -.333.

As a result, by enabling all three voting choices to be taken into account, and by producing cohesion scores on a scale from 0 to 1, we believe our Agreement Index is an improvement on the Rice and Attinà indices for measuring party cohesion in the European Parliament (or in any parliament with three voting options). Nevertheless, the cohesion scores produced by our index can be compared to scores produced by these other two indices. Our results are perfectly correlated with the Attinà scores, as our index is simply a rescaling of the scores from 0 to 1, and correlate at the .98 level with the Rice scores using the same data for the European Parliament as a whole. Note, however, that the difference between our scores and the Rice scores are higher for parties that tend to Abstain as a block (for example, when parties Abstain strategically). For example, if a party is split between 10 Yes votes, 10 No votes and 100 Abstain votes, whereas the Rice index would measure the party as completely divided (.00), our index would show that the party was relatively cohesive in the vote (.75).

#### TABLE 2 ABOUT HERE

Table 2 shows the mean Agreement Index of the party groups in the roll-call votes in each European Parliament. The standard deviations are also reported to indicate the significance of these scores. These results confirm that the six main political forces in the European Parliament are remarkably cohesive party organizations: with an average score between them of .823 in the First parliament, and .842 in the Fifth parliament. In addition, the three genuine ‘Euro-parties’ – the PES, EPP and ELDR – were more cohesive than the other party groups: with an average score between them of .835 in the First parliament, rising to .891 in the Fifth parliament. However, the claim that for most party groups, cohesion has increased as the powers of the European Parliament have increased, is not clear from this data

alone. For example, the trend has been upwards for the PES, ELDR and Greens (GRN), but downwards for the EPP since the Second Parliament, and rising and then falling for the Radical Left (LEFT) and the Gaullists and allies (GAUL).

FIGURE 1 ABOUT HERE

Nevertheless, when looking at the cohesion of the party groups it is necessary to take into account the high occurrence of near-unanimity votes in the European Parliament. Votes in national parliaments are usually divided between majority and opposition. In the European Parliament, however, many votes represent the opinion of the European Parliament as a whole relative to a proposal from the Commission or a decision of the Council. MEPs thus have a common stake in joining their votes to increase the influence of the European Parliament in European Union decision-making. Figure 1 shows the evolution of the average majority size on an annual basis and also of the Agreement Index for the European Parliament as a whole. We see that the average majority size is over 60 percent and even sometimes higher than 70 percent. The dynamic of the majority size is however very interesting. We see an upward trend until 1988, but a downward trend after that. This suggests that since 1989 voting behavior in the European Parliament has evolved in the direction of a ‘normal’ parliament, where votes are split between a winning majority and a losing opposition.

TABLE 3 ABOUT HERE

Consequently, Table 3 looks at party cohesion controlling for the overall level of cohesion of the European Parliament as a whole – by dividing each party’s Agreement Index in a vote by the Agreement Index of the parliament as a whole. These relative agreement

scores reveal a very different pattern of cohesion for the 1979-84 and 1999-01 periods compared to the other periods. Despite low absolute cohesion scores for most party groups in these parliaments compared to the Second, Third and Fourth parliaments, when the cohesion of the parliament as a whole is taken into account, this pattern is reversed for some of the party groups. This is most striking for the EPP. In absolute terms, the EPP was least cohesive in the Fifth parliament, but in relative terms the EPP was more cohesive in this parliament than in the Second, Third or Fourth parliaments. Hence, even for the EPP, the cohesion trend has been upwards, at least since 1984. For the PES, ELDR and Greens, the relative scores reveal an even stronger upward trend in cohesion. But, for the Radical Left and the Gaullists, the relative scores reveal a strong downward trend since 1979, rather than a peak and then decline.

#### TABLES 4a AND 4b ABOUT HERE

Because the European Union is a separated-powers system, where the executive does not command a majority in the parliament, party cohesion in the European Parliament is lower than in most domestic parliaments in Europe – where executive and legislative majorities are ‘fused’. But, compared to the United States Congress, another separate-powers system, the party groups in the European Parliament are highly cohesive. The Rice indices for Democrats and Republicans were respectively 0.78 and 0.82 during the 106th Congress(1999-2000). These numbers are much lower than the Rice scores for the six largest party groups in the European Parliament, which range from 0.79 to 0.89 during 1994-1999. But, these high scores for the European Parliament result from the large majority sizes in the European Parliament. When taking into account the size of majorities (dividing each party’s Rice index by the Parliament’s index) we find that the relative average party score in the

United States Congress (1.53) is only slightly higher than the relative average party group score in the European Parliament (1.50).<sup>4</sup>

Furthermore, cohesion of the party groups in the European Parliament is much higher than the cohesion of MEPs within each member state group, as can be seen in tables 4a and 4b. Also, cohesion of MEPs by their member state has declined over time. This decline is even more pronounced when we look at the relative Agreement Index, in Table 4b. In other words, voting in the European Parliament has become more ‘partisan’ and less ‘nationalist’ or ‘intergovernmental’ over time.

## **2.2. Coalition Patterns Between the Party Groups**

Existing research on the European Parliament, either using samples of votes or from the analysis of a sub-set of the elected EPs, has produced two main claims about coalition behavior between the party groups (Bardi, 1994; Hix and Lord, 1997: 158-66; Raunio, 1997: 101-6; Bowler and Farrell, 1999; Corbett, Jacobs and Shackleton, 2000: 90-1; Kreppel and Tsebelis, 1999; Hix, 2001; Noury, 2002; Kreppel, 2001):

1. The dominant dimension of coalition formation is the left-right, where the party groups are more likely to vote with parties closer to them on the left-right dimension than further away.
2. The main coalition in the European Parliament is a ‘grand coalition’ between the two largest party groups, the PES and EPP, but this coalition was stronger in the Third and Fourth parliaments than in the Fifth parliament, where the emergence of a clearer ‘left’ vs. ‘right’ pattern has emerged.

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<sup>4</sup> The data for the United States Congress are made available by Keith Poole on [http://voteview.uh.edu/default\\_nomdata.htm](http://voteview.uh.edu/default_nomdata.htm).

## TABLE 5 ABOUT HERE

Table 5 shows the percent of times the majority in one party group voted the same way as the majority in another party group in all the roll-call votes in each of the five directly-elected parliaments. The party groups in the table are ordered from left to right, except for the three ‘protest’ forces that do not fit easily into this dimension: the Anti-Europeans (ANTI), Independents (IND), and non-attached MEPs (NA).

The results confirm the claim that coalition patterns across all five EPs follow a left-right dimension. Apart from a few minor exceptions, the party groups vote more with groups next to them on the left-right dimension than parties further away. For example, in the First parliament, the EPP was more likely to vote with the Liberals (ELDR) than the Socialists (PES), and with the Socialists more than the Radical Left (LEFT). Similarly, in the Fifth parliament, the PES was more likely to vote with the Greens than the Radical Left and with the ELDR than the EPP. What is also striking is that the line-up of the party groups on this dimension has been remarkably stable. The only exception is the position of the Gaullists and allies (GAUL) and British Conservatives and allies (CON): where the British Conservatives and allies moved from the right of the Gaullists and allies in the First parliament to the left of the Gaullists and allies in the subsequent parliaments.

However, these results question the claims relating to the coalition between the PES and EPP. Contrary to popular wisdom, the PES-EPP coalition was not a dominant coalition in all the EPs. The peak of the PES-EPP coalition was in the Third parliament (1989-1994). This was the only parliament when these two groups voted with each other more than 70 percent of the time, and when the PES voted more with the EPP than with the ELDR. In the First and Second parliaments, the PES was more likely to vote with the Liberals (ELDR) and the parties to the left of the PES, the Greens and Radical Left, than the EPP. Furthermore, a

new pattern of coalition-formation appeared in the Fourth and Fifth parliaments, with the PES-EPP coalition as an important but not dominant pattern. In these parliaments, the PES was more likely to vote with the ELDR than with the EPP, but was less likely to vote with the Radical Left than with the EPP. Also, in these two parliaments, and in contrast to the three previous parliaments, the ELDR was more likely to vote with the PES than the EPP. Hence, there seems to have been a break in coalition patterns between the Third and Fourth parliaments, rather than between the Fourth and Fifth parliaments, as is often claimed. The statistical analysis will however give us a clearer picture of coalition formation.

### **3. Explaining Cohesion and Coalitions**

Having presented the cohesion scores and coalition patterns aggregated for each parliament, we will now seek to explain these patterns at a lower level of aggregation, using regression analysis. We calculated two dependent variables for each of the 44 six-month periods between July 1979 and June 2001:

1. REL\_COHESION - the mean relative cohesion (party AI divided by European Parliament AI) for each of the six main party groups in each period (Number of observations =  $(44 \text{ periods} \times 5 \text{ groups}) + (34 \text{ periods} \times 1 \text{ group}) = 254$ ); and
2. COALITION - the frequency that the majorities of any two of the six main party groups vote the same way in each period. There is one observation in each period for every coalition between any two of the six party groups – so ten coalitions for the first ten periods (in the first parliament) and fifteen coalitions for all the other periods. (Number of observations =  $(10 \text{ periods} \times 10 \text{ coalitions}) + (34 \text{ periods} \times 15 \text{ coalitions}) = 610$ ).



We avoid using annual data since this would limit the number of observations and reduce the degree of freedom. We also avoid using more disaggregated data (i.e. monthly or daily) mainly because we want to focus on the long-term variation of behavior in the European Parliament as several of our independent variables only change slowly. This long-term variation is well captured by six-month averages.

### **3.1. The Explanatory Variables**

We analyze these dependent variables as a function of three types of explanatory variables: (1) roll-call vote characteristics; (2) party group characteristics; and (3) the power of the European Parliament.

In the first type of variable, we include the number of roll-call votes in a given period ( $N\_RCV$ ), which varies between 10 and 786. Including this variable enables us to investigate whether more roll-call votes reduces or increases party cohesion or the propensity of certain coalitions to form. Since roll-call votes register individual MEP votes, a higher frequency of roll-call votes may signal a higher desire for cohesion by leaders of the party groups. The latter may thus check more frequently the voting discipline of their members by asking for more roll-call votes.

In the analysis of coalition patterns we also include the Agreement Index of the European Parliament as whole ( $AI\_EP$ ). This variable controls for the degree of consensus in a given period on the propensity of groups to vote together.

Turning to party group characteristics, in the analysis of party cohesion we look at a number of variables that measure the impact of group size and internal national and ideological diversity on party group cohesion – on the assumption that more internal diversity should reduce party cohesion. Here, we include the size of the party group as a percent of all MEPs ( $GRP\_SIZE$ ). This variable enables us to check the effect of variations in group size

on group cohesion. As seen in Table 1, there was significant variation in the size of the party groups across the five parliaments. We also found that cohesion was likely to be higher in larger party groups, who are more likely to be pivotal in votes. Also, bigger groups have generally more power both in their national countries and in other European Union institutions, which increases the stakes of votes for MEPs from these party groups. But, this effect can be captured by party dummies.

To measure national diversity in a party group we include two variables: (1) the number of national parties in the group (NP\_GRP); and (2) the ‘fractionalization’ of the group between the national parties (FRACTION). We use Rae’s (1967) method of measuring fractionalization of a political body, where the fractionalization of party group  $i$  was calculated as follows:

$$FRACTION_i = 1 - \sum_{j=1}^{n_i} s_{ji}^2$$

where  $s_{ji}$  is the share of national party  $j$  in party group  $i$  with  $n_i$  national parties.

Similarly, in the analysis of party coalitions we include a variable to measure the effect of the size of the party groups on the propensity to vote with each other – the size of the two parties in the coalition, as a percent of all MEPs (COAL\_SIZE). This variable investigates the effect of the ‘power’ of a coalition between two parties on its likelihood to effectively form.

To measure internal group ideological diversity we first use the Budge et al. (2001) party manifestos data to calculate the left-right position of each national party in a party group in each of the six-month periods between 1979 and 2001. From these national party locations we calculated the mean left-right position of each party group, by multiplying the position of each national party in the group by the percent of MEPs of that national party in the group. In

the analysis of party cohesion we then use these data to calculate two variables: (1) the distance between the mean left-right position of the party group and the mean left-right position of the European Parliament as a whole (GRP\_IDEO); and (2) the internal ideological variance from the mean position of the party group (IDEO\_DIV). This internal ideological variance of party group  $i$  was calculated as follows:

$$IDEO\_DIV_i = \sum_{j=1}^{n_i} |NP_j - MEAN_i| s_{ji}$$

where  $NP_j$  is the left-right location of national party  $j$ ,  $MEAN_i$  is the weighted mean location of party group  $i$ , and  $s_{ji}$  is the share of national party  $j$  in party group  $i$ .

Furthermore, in the analysis of coalition patterns, we used the ideological data to calculate the distance between the mean left-right positions of the two party groups in the coalition (IDEO\_DIST). This allows us to see if parties that are closer to each other on the left-right dimension are more likely to vote with each other than parties further away from each other, as we found at the higher aggregate level.

The last variable in this type of explanatory variables looks at internal diversity in a party is the percent of MEPs in a party group who are from national parties that are in government at the domestic level in Europe (PCT\_GVT). Here we use the data on the partisan make-up of governments in Europe in Müller and Strøm (2000). This variable allows us to investigate another claim from recent research on the European Parliament: that MEPs from parties in government are more likely to receive instructions from the national parties than MEPs from parties in opposition – and, hence, the more MEPs in a party group that are from parties in government, the less cohesive the party group is likely to be (Hix and Lord, 1995; Gabel and Hix, 2002; Hix, 2002). Nevertheless, the logic could work the other way round: national governments, who have a stake in votes in the European Parliament on

decisions taken in the Council, may try harder (either by direct pressure or by implicit or explicit logrolling) to discipline their MEPs to make sure Council agreements are adopted by the European Parliament.

In the third type of explanatory variables we include four variables that measure the power of the European Parliament. First, we include three dummy variables which represent the increases in the European Parliament's powers in the three Treaty reforms since the mid 1980s: the Single European Act – coded 0 for each period up to January-June 1987 and 1 thereafter (SEA); the Maastricht Treaty – coded 0 for each period up to January-June 1993 and 1 thereafter (MAAST); and the Amsterdam Treaty – coded 0 for each period up to January-June 1999 and 1 thereafter (AMST). Second, we include a variable (TREND) representing the time trend from 1979 to 2002, which takes the value 1 for the first six-month period in the sample (July-December 1979), 2 for the second period and so on.

Finally, in addition to a constant, the analysis of party cohesion includes five dummy variables indicating the party groups (EPP, ELDR, GAUL, LEFT, GRN). These dummies capture the effect of party-specific factors that do not vary over time. The estimates associated with these dummies represent the difference between the level of cohesion of these party groups and the PES, which is the reference party group. By including these dummies our focus is not on the variation between the party groups but rather on the variation within party groups. That is, we estimate fixed-effect models. This is important to bear in mind when interpreting the results of the regression.

Similarly, in addition to a constant, in the analysis of coalition patterns we include fourteen party-pair dummy variables (PES-ELDR, PES-LEFT, PES-GAUL, PES-GRN, EPP-ELDR, EPP-LEFT, EPP-GAUL, EPP-GRN, ELDR-LEFT, ELDR-GAUL, ELDR-GRN, LEFT-GAUL, LEFT-GRN, GAUL-GRN). The reference here is the PES-EPP coalition. In these equations, our focus is not on the comparison between two party-pairs, but rather on the

effect of within party-pair variation over time in the explanatory variables on the dependent variable.

Multicollinearity of several variables forces one or several of the variables to not be significant. For example, the three variables NP\_GRP, FRACTION and GRP\_SIZE, relating to internal party group diversity, are highly correlated. So too are the dummies indicating the power of the European Parliament (SEA, MAAST, AMST) and the TREND variable. To check for robustness of our results to this problem, we exclude one of the two correlated variables in separate models.

### **3.2. Statistical Analysis of Changes in Party Cohesion**

Table 6 shows the results for four linear regression models of changes in relative party cohesion in the European Parliament between 1979 and 2001. The estimates are not only statistically significant but in most cases are highly so. Several conclusions can be drawn from these results.

#### **TABLE 6 ABOUT HERE**

First, an increase in group size leads to more cohesion.

Second, although the number of national delegations in a group is irrelevant, increased fractionalization of a party group along national lines decreases party group cohesion.

Third, the ideological variables do not have any significant effect on party group cohesion. Either when a party group moves further away or nearer to the mean of the European Parliament as a whole, or when a group becomes more ideologically homogeneous (or heterogeneous), the group's cohesion is not affected.

Fourth, the percent of MEPs from parties in government has a significant effect, but in the opposite direction to that claimed in the literature. More MEPs from parties in government actually leads to higher, rather than lower, party group cohesion. Pressure from parties in national governments thus tends toward more cohesion rather than less. One must remember that the European Parliament generally does not initiate legislation. Legislation is initiated by the European Union Commission, who is usually most concerned about the prospect of a veto in the Council. If a decision is acceptable or desired by the Council, one may thus expect parties from national governments to put pressure on their MEPs to ensure this decision passes the hurdle of the European Parliament.

Fifth, over time, the European Parliament party groups have become more cohesive. In terms of specific Treaty reforms, the Single European Act had the effect of reducing party cohesion, whereas the Maastricht and Amsterdam Treaties had the effect of increasing internal party cohesion. Overall, the effects of Maastricht and Amsterdam Treaties, which introduced and extended the ‘codecision’ procedure, are stronger than the negative effect of the Single European Act. The sum of the effects of the Single European Act, Maastricht Treaty and Amsterdam Treaty is different from zero ( $F[1,238]=22.73$ ,  $p\text{-value}=0.000$ ). Thus the overall effect is statistically significant. This indicates that more power to the European Parliament has in fact led to more rather than less internal party group cohesion. Note also that the Single European Act dummy may capture the effect of the important increase in the size of the European Parliament from 434 to 518, after the entry of Spain and Portugal to the European Union. We would expect a drop in cohesion with an increase in the size of the European Parliament.

Sixth, turning to specific party group effects, we see that the EPP, the Liberals and the Greens tend to be more cohesive than the Socialists, everything else being equal.

### 3.3. Statistical Analysis of Changes in Coalition Patterns

Table 7 shows the results of four linear regression models of changes in coalition patterns between 1979 and 2001. Again, several of the variables are highly significant.

TABLE 7 ABOUT HERE

First, as one would expect, the size of the overall coalition in the European Parliament is a strong predictor of the propensity of two parties to vote together.

Second, controlling for this effect, the policy position of the parties is much more important than the likely power of the coalition for determining coalition patterns. The size ('power') of a coalition has no impact on the likelihood that the coalition will form. In contrast, an increase (or decrease) in the ideological distance between two parties on the left-right dimension is a very strong predictor of how often these two parties will vote together. The estimates on this variable (IDEO\_DIST) are not only statistically significant, but are also substantially large. A one percent decrease in the ideological distance between two parties implies an increase of approximately six percent in the probability that these parties will vote the same way. This result gives us a very strong indication of the crucial importance of left-right politics in the European Parliament.

TABLE 8 ABOUT HERE

Third, this left-right result is reinforced by comparisons of the frequency of pairs of coalitions to the frequency of PES-EPP coalitions. Here, we find all the expected signs. The Socialists vote more with the Radical Left and less with the Gaullists, the EPP vote more with Liberals, less with the Radical Left, the Greens and the Gaullists. The Greens vote more with

the Radical Left and less with the EPP. Table 8 gives the coefficients for the pairs of coalitions over the five parliaments. These results reinforce the basic effects found in the aggregate coefficients and in the aggregate percentages for each parliament. A few additional remarks are nevertheless worth making. The Socialists and Radical Left coalesced most in the Second parliament. In the Fourth parliament, a Socialist-Liberal coalition was more common than a Liberal-EPP coalition. Coefficients for the First and Fifth parliaments are not significant once taking into account the effect of all other variables. [As one can see from table 8, our time variant explanatory variables cannot totally explain the aggregate coalition-formation coefficients reported earlier, except for the First and Fifth parliaments. But from table 8 one can see that the higher the distance between two political groups, the smaller is the coalition coefficient between them. It thus suggests that not only the variation across time in the ideological distance explain the variation over time in coalition-formation but also the difference between party groups can be explained by ideological distance. This is confirmed by a between-group regression analysis (a regression that explains the mean dependent variable as a function of the mean explanatory variables) which shows that ideological distance is the only significant variable and explain over 66 percent of the variance.

Fourth, in contrast to the cohesion results, changes in the powers of the European Parliament in the Maastricht and Amsterdam Treaties do not have an effect on coalition patterns. But, changes in the powers of the European Parliament in the Single European Act did increase competition between the party groups. The overall effect is statistically significant and negative ( $F[1,588]=5.33$ ,  $p\text{-value}=0.021$ ), meaning that parties formed less coalitions.

To check for robustness of our regression results, in addition to specifying different models, we estimated a model with trend and square-trend to capture the effect of the non-linear increase in cohesion. We also estimated a model where we dropped ‘outliers’: coalition



numbers less than .40 and higher than .85 (a total of 31 observations). Similarly, to make sure that our cohesion equation results are not driven by outliers, we excluded observations with Agreement Index scores above .95 and below .65 (a total of 4 observations). The results were robust to these changes.<sup>5</sup> These findings indicate that our results are not driven by outliers and also that the results do not suffer from misspecification.

#### **4. Conclusions**

The European Parliament is very like any other parliament or legislative assembly in a democratic political system. The dominant political organizations in the European Parliament are party groups, which are organized along ideological rather than national or territorial lines. And, in roll-call votes in the plenary sessions of the European Parliament since 1979, these party groups behave in a highly organized and highly competitive fashion.

In terms of party organization, since the first directly-elected European Parliament in 1979, the main party groups in the European Parliament have shown high levels of cohesion in their voting behavior. Moreover, the cohesion of the party groups has increased over time, as the powers of the European Parliament increased. While cohesion of parties has grown, cohesion of the European Parliament as a whole has decreased steadily since 1988, due to a constant decline in the number of votes with near unanimity or high majority. As a result, voting in the European Parliament tends to follow a pattern of most democratic parliaments, of minimum-winning majorities against minimum-losing-oppositions. We also found that the main factor undermining internal party group cohesion was the degree of fragmentation of a

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<sup>5</sup> More detailed results can be obtained from the authors on request.

party group between its national member parties, and not the ideological diversity of the national member parties.

In contrast, ideology was the dominant force behind inter-party competition in all five directly-elected parliaments; where the party groups were more likely to vote with groups closer to them on the left-right dimension than groups further away. Increases in the ideological distance between any two party groups have a strong negative impact on coalition formation between these two groups. The left-right dimension of democratic politics is thus the main driving force between the propensity of party groups to form coalitions in the European Parliament. The size of pairs of groups, generally assumed to be a main determinant of coalition behavior (leading to the claim that EPP and PES form a grand coalition), does not appear to play a role in coalition formation. These results are rather remarkable given the specific institutional structure of the European Union. The Commission is not based on a coalition of parties commanding a majority in the Parliament. Moreover, voting in the Council is based mostly on member state interests. The European Parliament, the only European Union institution that is directly-elected, is also the only one where debates and votes dominantly follow the traditional left-right dimension.

What is also remarkable in our findings is the level of stability in these patterns of cohesion and competition across all five directly-elected parliaments, despite the fundamentally changes in the powers of the European Parliament, the political significance of the European Union, and the internal changes in the European Parliament party system. Yes, party cohesion has risen since 1979. But, this rise was small: only .056 for the three Euro-parties (the PES, EPP and ELDR), and relative cohesion (controlling for the level of cohesion of the European Parliament as a whole) was already high in the First parliament. Yes, competition patterns have changed since 1979. But, the relative positions of the party groups on the left-right dimension have not changed, and the two main party groups were only 9

percent more likely to vote with each other in the Fifth parliament than the First parliament. This should remind us of the fact that the powers of the European Parliament, while having significantly increased, are still far from those of a ‘normal’ parliament in a democratic polity. The current results suggest, nevertheless, that further increases in the role of the European Parliament should reinforce cohesion and competition in the European Parliament, and so make the European Parliament even more like the parliaments we are used to in the domestic arena in Europe.

This paper has looked at the long-term trends in cohesion and coalition formation. Much research remains to be done to improve our understanding of many other aspects of the European Parliament, such as the relationship between individual MEPs and their two party principals – their national parties and their European Parliament party groups (e.g. Hix, 2001, 2002a; Noury, 2002); the relationship between MEPs and their electorate; the effect of the different electoral systems on MEP behavior (Hix, 2002b); the career concerns of MEPs, and so on. We also need to delve more deeply into the subjects of the roll-call votes, to investigate if voting behavior differs across issues, whether special interest groups have an effect on voting in the European Parliament on the issues they care about, and so on. These issues and many more are left for future research. But we now have an important database, which should allow us to investigate many of these issues at both a theoretical and empirical level in a more sophisticated and thorough way.

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**Table 1. Party Group Strengths After the Five Direct-Elections**

Party Family (Party Group)	Abbr.	EP 1 (June 79)		EP 2 (June 84)		EP 3 (June 89)		EP 4 (June 94)		EP 5 (June 99)	
		Seats	%	Seats	%	Seats	%	Seats	%	Seats	%
Socialists (SOC, PES)	PES	113	27.6	130	30.0	180	34.7	198	34.9	180	28.8
Christian Dem.'s & Conservatives (EPP, EPP-ED)	EPP	107	26.1	110	25.3	121	23.4	157	27.7	233	37.2
Liberals (ELD, ELDR)	ELDR	40	9.8	31	7.1	49	9.5	43	7.6	51	8.1
Radical Left (COM, LU, EUL/NGL)	LEFT	44	10.7	43	9.9	14	2.7	28	4.9	42	6.7
Gaullists & allies (EDP, EDA, UFE, UEN)	GAUL	22	5.4	29	6.7	20	3.9	26	4.6	30	4.8
Greens & allies (RBW(84), G, G/EFA)	GRN			19	4.4	30	5.8	23	4.1	48	7.7
British Conservatives & allies (ED)	CON	64	15.6	50	11.5	34	6.6				
Extreme Right (ER)	RIGHT			16	3.7	17	3.3				
Regionalists & allies (RBW(89), ERA)	REG					13	2.5	19	3.4		
Italian Communists & allies (EUL)	-					28	5.4				
Anti-Europeans (EN, I-EN, EDD)	ANTI							19	3.4	16	2.6
Italian Conservatives (FE)	-							27	4.8		
Independents (TCDI, TGI)	IND	11	2.7							18	2.9
Non-attached members	NA	9	2.2	6	1.4	12	2.3	27	4.8	8	1.3
<b>Total MEPs</b>		<b>410</b>		<b>434</b>		<b>518</b>		<b>567</b>		<b>626</b>	

Key:

COM	Communist Group	EPP-ED	European People's Party-European Democrats	LU	Left Unity
ED	European Democrats	ER	European Right	PES	Party of European Socialists
EDA	European Democratic Alliance	ERA	European Radical Alliance	RBW	Rainbow Group
EDD	Europe of Democracies and Diversities	EUL	European United Left	SOC	Socialist Group
EDP	European Democratic Party	EUL/NGL	European United Left/Nordic Green Left	TCDI	Technical Coordination of Democrats and Independents
ELD	European Liberal Democratic Group	FE	Forza Europa		
ELDR	European Liberal, Democrat and Reform Party	G	Green Group	TGI	Technical Group of Independents
EN	Europe of Nations	G/EFA	Greens/European Free Alliance	UEN	Union for a Europe of Nations
EPP	European People's Party	I-EN	Independents for a Europe of Nations	UFE	Union for Europe

**Table 2. Cohesion of the Party Groups**

Party	EP 1 (1979-84)		EP 2 (1984-89)		EP 3 (1989-94)		EP 4 (1994-99)		EP 5 (1999-01)	
	A.I.	St.Dev.	A.I.	St.Dev.	A.I.	St.Dev.	A.I.	St.Dev.	A.I.	St.Dev.
PES	.757	.25	.869	.19	.900	.16	.901	.15	.904	.15
EPP	.899	.15	.934	.13	.907	.13	.898	.14	.859	.17
ELDR	.849	.21	.849	.22	.847	.22	.861	.17	.909	.15
LEFT	.812	.24	.871	.20	.861	.25	.804	.23	.756	.23
GAUL	.800	.26	.842	.23	.849	.22	.788	.24	.717	.27
GRN	-	-	.813	.26	.850	.19	.913	.16	.906	.16
CON	.894	.17	.918	.14	.892	.17	-	-	-	-
RIGHT	-	-	.932	.19	.878	.24	-	-	-	-
ANTI	-	-	-	-	.834	.29	.673	.28	.535	.27
REG	-	-	-	-	.872	.26	.907	.19	-	-
IND	.776	.30	-	-	-	-	-	-	.636	.29
NA	.740	.30	.794	.31	.805	.27	.634	.29	.651	.24
<b>No. of RCV's</b>	<b>886</b>		<b>2146</b>		<b>2732</b>		<b>3739</b>		<b>2124</b>	

Key: PES Party of European Socialists (SOC, PES)  
EPP European People's Party - Christian Democrats & Conservatives (EPP, EPP-ED) and Italian Conservatives (FE)  
ELDR European Liberal, Democrat and Reform Party (ELD, ELDR groups)  
LEFT Radical Left (COM, LU, EUL/NGL) and Italian Communists & allies (EUL)  
GAUL Gaullists & allies (EPD, EDA, UFE, UEN)  
GRN Greens & allies (RBW/84), G, G/EFA)  
CON British Conservatives & allies (ED)  
RIGHT Extreme Right (ER)  
REG Regionalists & allies (RBW/89), ERA)  
ANTI Anti-Europeans (EN, I-EN, EDD)  
IND Independents (TCDI, TGI)  
NA Non-attached members

Notes: A.I. = 'Agreement Index'. See the text for the calculation of the A.I. RCV = roll-call vote.

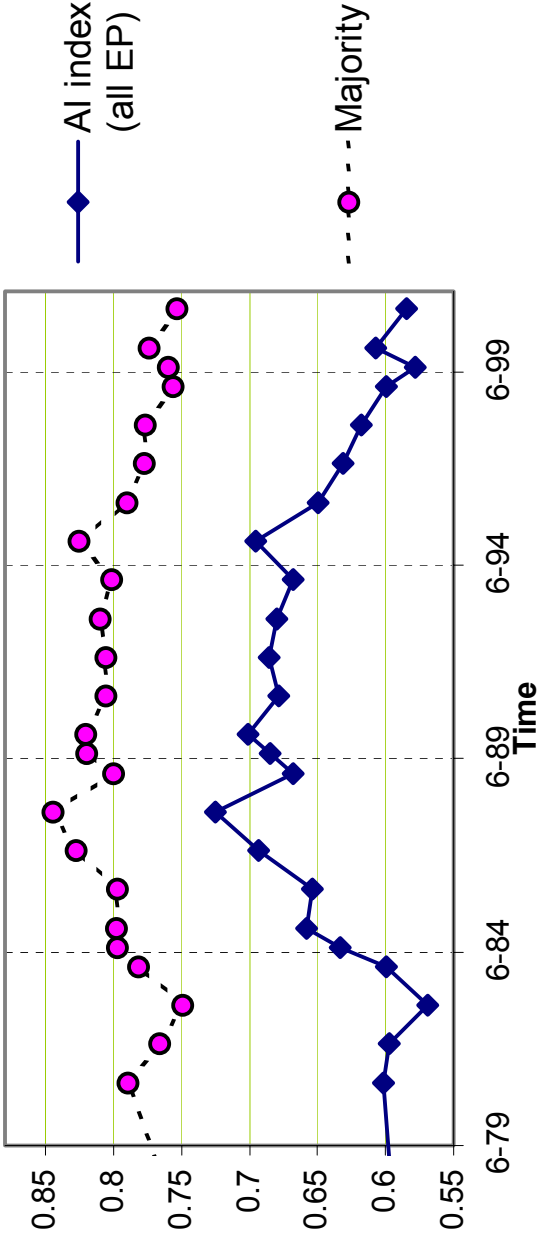


**Table 3. Cohesion of the Party Groups Relative to the Cohesion of the European Parliament as a Whole**

Party	EP 1 (1979-84)		EP 2 (1984-89)		EP 3 (1989-94)		EP 4 (1994-99)		EP 5 (1999-01)	
	Relative A.I.	St.Dev.	Relative A.I.	St.Dev.	Relative A.I.	St.Dev.	Relative A.I.	St.Dev.	Relative A.I.	St.Dev.
PES	1.508	.89	1.547	.88	1.540	.78	1.661	.86	1.796	.92
EPP	1.775	.82	1.683	.91	1.575	.83	1.664	.88	1.721	.94
ELDR	1.667	.80	1.507	.88	1.451	.81	1.584	.83	1.819	.95
LEFT	1.633	.90	1.595	.97	1.505	.90	1.511	.92	1.536	.95
GAUL	1.566	.89	1.506	.89	1.469	.83	1.467	.89	1.441	.94
GRN	-	-	1.500	.97	1.476	.79	1.719	.95	1.829	.98
CON	1.801	.94	1.660	.92	1.536	.808	-	-	-	-
RIGHT	-	-	1.738	1.01	1.546	.92	-	-	-	-
ANTI	-	-	-	-	1.510	.97	1.233	.81	1.041	.72
REG	-	-	-	-	1.528	.93	1.690	.91	-	-
IND	1.587	1.07	-	-	-	-	-	-	1.291	.94
NA	1.440	.86	1.382	.89	1.415	.88	1.182	.84	1.312	.83

Note: Relative A.I. = Party A.I. / A.I. of European Parliament as a whole.

Figure 1. Annual Size of European Parliament Majorities and Agreement Index (AI) of the European Parliament as a Whole



**Table 4a. Voting Cohesion by Member State**

Member State	EP 1 (1979-84)		EP 2 (1984-89)		EP 3 (1989-94)		EP 4 (1994-99)		EP 5 (1999-01)	
	A.I.	St.Dev.	A.I.	St.Dev.	A.I.	St.Dev.	A.I.	St.Dev.	A.I.	St.Dev.
Austria	-	-	-	-	-	-	.693	.27	.697	.27
Belgium	.669	.27	.731	.27	.674	.25	.637	.23	.655	.26
Denmark	.569	.30	.718	.29	.738	.28	.640	.29	.607	.26
Finland	-	-	-	-	-	-	.620	.26	.652	.26
France	.647	.29	.680	.26	.614	.24	.578	.25	.505	.22
Germany	.713	.29	.748	.29	.715	.26	.726	.28	.729	.27
Greece	.726	.29	.758	.27	.800	.26	.719	.27	.668	.24
Ireland	.744	.27	.822	.26	.744	.26	.663	.26	.634	.27
Italy	.693	.28	.758	.26	.719	.26	.678	.25	.611	.25
Luxembourg	.849	.25	.824	.26	.843	.26	.748	.29	.687	.28
Netherlands	.688	.28	.734	.27	.745	.25	.714	.24	.668	.24
Portugal	-	-	.755	.27	.762	.26	.682	.25	.680	.26
Spain	-	-	.810	.22	.800	.22	.725	.27	.698	.27
Sweden	-	-	-	-	-	-	.678	.26	.627	.26
UK	.779	.19	.715	.30	.772	.26	.820	.18	.620	.28

**Table 4b. Voting Cohesion by Member State, Relative to Cohesion of European Parliament as a Whole**

Member State	EP 1 (1979-84)		EP 2 (1984-89)		EP 3 (1989-94)		EP 4 (1994-99)		EP 5 (1999-01)	
	A.I.	St.Dev.	A.I.	St.Dev.	A.I.	St.Dev.	A.I.	St.Dev.	A.I.	St.Dev.
Austria	-	-	-	-	-	-	1.146	.46	1.224	.44
Belgium	1.228	.59	1.162	.47	1.033	.39	1.055	.39	1.164	.46
Denmark	1.106	.82	1.204	.68	1.219	.70	1.123	.68	1.149	.69
Finland	-	-	-	-	-	-	1.083	.59	1.174	.51
France	1.222	.76	1.111	.55	.965	.43	1.006	.56	.901	.42
Germany	1.246	.48	1.140	.36	1.071	.31	1.146	.32	1.250	.34
Greece	1.388	.78	1.214	.54	1.256	.52	1.177	.45	1.200	.49
Ireland	1.451	.87	1.449	.88	1.239	.70	1.163	.63	1.174	.63
Italy	1.272	.62	1.226	.50	1.121	.47	1.121	.42	1.056	.37
Luxembourg	1.641	.89	1.373	.71	1.383	.70	1.241	.57	1.220	.51
Netherlands	1.258	.67	1.149	.41	1.147	.41	1.204	.49	1.199	.44
Portugal	-	-	1.203	.55	1.201	.51	1.130	.44	1.187	.40
Spain	-	-	1.314	.50	1.254	.40	1.165	.38	1.188	.35
Sweden	-	-	-	-	-	-	1.147	.52	1.129	.52
UK	1.527	.75	1.139	.54	1.200	.49	1.437	.56	1.098	.52

**Table 5. Coalitions: Percent of Times the Party Groups Voted Together**

		Party Groups (Left to Right / Protest Groups)											
		LEFT	GRN	REG	PES	ELDR	EPP	CON	GAUL	RIGHT	ANTI	IND	NA
EP 1 (1979-84)	LEFT	-	-	-	.698	.546	.533	.422	.589	-	-	.595	.583
	PES	-	-	-	-	.590	.608	.601	.559	-	-	.568	.646
	ELDR	-	-	-	-	-	.847	.708	.776	-	-	.419	.634
	EPP	-	-	-	-	-	-	.739	.768	-	-	.392	.648
	CON	-	-	-	-	-	-	-	.620	-	-	.347	.551
	GAUL	-	-	-	-	-	-	-	-	-	-	.481	.612
	IND	-	-	-	-	-	-	-	-	-	-	-	.579
EP 2 (1984-89)	LEFT	-	.758	-	.861	.671	.653	.635	.596	.437	-	-	.752
	GRN	-	-	-	.760	.542	.541	.517	.512	.368	-	-	.713
	PES	-	-	-	-	.692	.682	.659	.591	.442	-	-	.801
	ELDR	-	-	-	-	-	.826	.802	.775	.637	-	-	.674
	EPP	-	-	-	-	-	-	.814	.779	.662	-	-	.687
	CON	-	-	-	-	-	-	-	.714	.618	-	-	.652
	GAUL	-	-	-	-	-	-	-	-	.696	-	-	.596
RIGHT	-	-	-	-	-	-	-	-	-	-	-	.484	
EP 3 (1989-94)	LEFT	-	.744	.735	.759	.614	.584	.561	.582	.439	.567	-	.470
	GRN	-	-	.731	.641	.568	.522	.499	.502	.436	.543	-	.430
	REG	-	-	-	.769	.650	.615	.603	.604	.444	.613	-	.476
	PES	-	-	-	-	.704	.710	.702	.625	.448	.612	-	.472
	ELDR	-	-	-	-	-	.794	.782	.717	.517	.680	-	.538
	EPP	-	-	-	-	-	-	.882	.733	.540	.749	-	.560
	CON	-	-	-	-	-	-	-	.704	.514	.711	-	.536
	GAUL	-	-	-	-	-	-	-	-	.562	.661	-	.589
	RIGHT	-	-	-	-	-	-	-	-	-	.609	-	.850
ANTI	-	-	-	-	-	-	-	-	-	-	-	.624	
EP 4 (1994-99)	LEFT	-	.748	.703	.669	.577	.522	-	.501	-	.512	-	.510
	GRN	-	-	.681	.657	.614	.509	-	.429	-	.476	-	.467
	REG	-	-	-	.733	.663	.617	-	.605	-	.508	-	.526
	PES	-	-	-	-	.738	.692	-	.572	-	.456	-	.489
	ELDR	-	-	-	-	-	.720	-	.604	-	.500	-	.537
	EPP	-	-	-	-	-	-	-	.724	-	.556	-	.607
	GAUL	-	-	-	-	-	-	-	-	-	.629	-	.661
ANTI	-	-	-	-	-	-	-	-	-	-	-	.703	
EP 5 (1999-01)	LEFT	-	.757	-	.649	.541	.461	-	.545	-	.630	.521	.582
	GRN	-	-	-	.721	.632	.517	-	.485	-	.577	.454	.585
	PES	-	-	-	-	.739	.694	-	.508	-	.548	.476	.600
	ELDR	-	-	-	-	-	.713	-	.483	-	.547	.480	.618
	EPP	-	-	-	-	-	-	-	.596	-	.531	.517	.658
	GAUL	-	-	-	-	-	-	-	-	-	.633	.635	.619
	ANTI	-	-	-	-	-	-	-	-	-	-	.587	.615
IND	-	-	-	-	-	-	-	-	-	-	-	.556	

**Table 6. Explaining Changes in Party Cohesion in the European Parliament**

	Dependent Variable: REL_COHESION			
	1	2	3	4
N_RCV	-.000 (2.90)***	-.000 (2.61)***	.000 (.22)	-.000 (2.90)***
GRP_SIZE	.480 (1.78)*	.682 (2.57)**	.652 (2.66)***	.489 (2.11)**
NP_GRP	.000 (.08)	-.003 (.81)		
FRACTION	-.340 (3.82)***		-.189 (2.05)**	-.338 (4.03)***
GRP_IDEO	-.001 (.79)	-.002 (2.06)**	-.001 (1.03)	-.001 (.79)
IDEO_DIV	.002 (1.30)	.003 (1.86)*	.004 (2.47)**	.002 (1.32)
PCT_GVT	.109 (3.08)***	.117 (3.18)***	.128 (3.31)***	.108 (3.11)***
SEA	-.116 (4.25)***	-.110 (3.96)***		-.116 (4.25)***
MAAST	.104 (3.79)***	.099 (3.37)***		.105 (3.80)***
AMST	.060 (2.19)**	.051 (1.83)*		.061 (2.16)**
TREND	.004 (1.51)	.003 (1.23)	.001 (.62)	.004 (1.62)
EPP	.098 (3.12)***	.114 (3.68)***	.102 (3.84)***	.099 (4.05)***
ELDR	.127 (1.76)*	.172 (2.39)**	.168 (2.45)**	.129 (1.99)**
LEFT	.067 (.92)	.186 (2.70)***	.160 (2.05)**	.067 (.94)
GAUL	-.032 (.41)	.093 (1.26)	.058 (.68)	-.032 (.41)
GRN	.152 (1.95)*	.224 (2.89)***	.210 (2.58)**	.154 (2.04)**
Constant	1.398 (12.61)***	1.102 (12.30)***	1.160 (1.21)***	1.396 (13.06)***
Observations	254	254	254	254
R-squared	.41	.37	.24	.41

Notes: Robust t-statistics in parentheses, \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.

**Table 7. Explaining Changes in Coalition Patterns in the European Parliament**

	Dependent Variable: COALITION			
	1	2	3	4
N_RCV	.000 (.34)	.000 (.36)	.000 (.51)	.000 (1.09)
AI_EP	.692 (4.91)***	.690 (4.88)***	.689 (5.02)***	.600 (6.43)***
COAL_SIZE	.101 (1.17)		.101 (1.16)	.099 (1.13)
IDEO_DIST	-.002 (5.14)***	-.002 (4.98)***	-.002 (5.14)***	-.002 (5.00)***
SEA	-.033 (1.85)*	-.033 (1.82)*	-.029 (2.98)***	
MAAS	-.008 (.58)	-.009 (.62)	-.005 (.54)	
AMST	-.000 (.02)	.000 (.02)	.001 (.08)	
TREND	.000 (.29)	.000 (.28)		-.001 (2.68)***
PES-ELDR	.033 (1.16)	.009 (.50)	.033 (1.15)	.032 (1.13)
PES-LEFT	.064 (2.01)**	.039 (2.04)**	.064 (2.01)**	.063 (1.98)**
PES-GAUL	-.073 (2.39)**	-.101 (6.19)***	-.073 (2.39)**	-.074 (2.39)**
PES-GRN	.005 (.15)	-.021 (1.17)	.005 (.15)	.005 (.16)
EPP-ELDR	.117 (3.40)***	.087 (5.11)***	.117 (3.40)***	.116 (3.38)***
EPP-LEFT	-.069 (1.91)*	-.100 (5.59)***	-.069 (1.91)*	-.069 (1.93)*
EPP-GAUL	.070 (1.83)*	.036 (1.95)*	.070 (1.83)*	.069 (1.81)*
EPP-GRN	-.120 (3.38)***	-.154 (1.57)***	-.119 (3.37)***	-.120 (3.37)***
ELDR-LEFT	-.015 (.26)	-.070 (3.95)***	-.015 (.26)	-.016 (.29)
ELDR-GAUL	.050 (.88)	-.007 (.34)	.050 (.87)	.049 (.85)
ELDR-GRN	-.039 (.70)	-.097 (5.58)***	-.039 (.69)	-.040 (.71)
LEFT-GAUL	-.038 (.68)	-.097 (6.23)***	-.038 (.68)	-.040 (.71)
LEFT-GRN	.105 (1.80)*	.045 (2.75)***	.106 (1.80)*	.105 (1.79)*
GAUL-GRN	-.135 (2.29)**	-.197 (11.85)***	-.134 (2.28)**	-.135 (2.30)**
Contant	.204 (1.54)	.279 (2.83)***	.209 (1.64)	.270 (2.47)**
Observations	610	610	610	610
R-squared	.60	.60	.60	.60

Notes: Robust t-statistics in parentheses, \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.

**Table 8. Coalition Regression Coefficients for Each Parliament**

Coalition	EP 1 (1979-84)	EP 2 (1984-89)	EP 3 (1989-94)	EP 4 (1994-99)	EP 5 (1999-01)
PES-ELDR	-.024	.005	-.006	.052*	.380
PES-LEFT	.018	.169*	.041	-.017	-.207
PES-GAUL	-.070	-.096*	-.081*	-.121*	.414
PES-GRN	-	.061*	-.093*	-.029	.428
EPP-ELDR	.202	.133*	.072*	.034*	.654
EPP-LEFT	-.083	-.030	-.120*	-.171*	-1.360
EPP-GAUL	.089	.088	.012	.033	.291
EPP-GRN	-	-.145*	-.185*	-.185*	-.757
ELDR-LEFT	-.083	-.012	-.088*	-.114*	-.956
ELDR-GAUL	.110	.081*	-.008	-.082*	.506
ELDR-GRN	-	-.150*	-.138*	-.078*	-.301
LEFT-GAUL	-.020	-.088*	-.114*	-.199*	-.688
LEFT-GRN	-	.053*	.027	.062*	.466
GAUL-GRN	-	-.184*	-.246*	-.223*	-.215*
Constant	.364	-.137	.338*	.206	-.664

Note: \* significant at 10%.

The PES-EPP reference value is captured by the regression constant.