Ideology, Nationality and Euro-Parliamentarians*

Abdul G. Noury†

This Version: September, 1999

*This research was undertaken with support from the European Commission's Phare ACE Program 1996, project No. P96-6252-R. I am grateful to Tom Coupé, Marjorie Gassner, Gérard Roland and Howard Rosenthal for helpful suggestions and comments and seminar participants at ULB (Brussels) for helpful discussions. I thank Vincenzo Verardi for preparing the data used in this paper. All errors are mine.

†Mail: CP 140, ULB, 50, Av. F. Roosevelt, B-1050-Brussels, Belgium

E-mail: anoury@ulb.ac.be

Abstract

This paper analyzes the voting behavior of Euro-parliamentarians. The roll call data from the plenary sessions of the European Parliament (EP) during the third and fourth legislatures is used to estimate legislators' preferences. Applying the spatial models of roll call voting to the EP, we investigate the dimensions underlying legislators' voting behavior. We focus on the relative importance of political party affiliation (i.e. ideology) versus nationality (i.e. the economic interest) as the main factor influencing the voting behavior. The results support the existence of a European political system where the main actors are political groups and not the delegations of nations. Also, the pattern of voting in the EP is found to be quite stable across time and issues. Moreover, after taking into account members' political party affiliations, nationality becomes, though to a lesser extent, statistically significant in explaining legislators' ideal positions.

1 Introduction

The construction of the European Union (EU) is a large scale reforme, one of the greatest of its kind of the end of the 20th century. As in all large scale reforms, most decision-making rules and policy measures at the EU level create winners and losers in different member countries. For instance the rules of the Single Market, the Convergence criteria or the European Social Policy, among other issues, imply substantial direct and indirect distributional impact. As a result, the ongoing political and academic debates concerning the EU are subject to serious controversies.

On the one hand, for some critics of the EU it represents nothing more than an international organization, a forum where the delegations of European nations bargain over their respective national interests. For instance, according to Greven (1992), "like almost all other actors on the European level, the parties and their members still act as nationalist". Likewise, for Reif and Schmitt (1980) "there is ample evidence that the election to the European Parliament are fought on national rather than European issues, by national rather than European parties, and that the electorate is voting according to their views on national rather than European political issues, and that consequently elections are no more than second order elections". They often emphasize the cultural and structural economic differences across European nations as the main obstacles against the construction of the EU. Some scholars even argue that economic and politcal weakness of the EU stimulate crisis scenarios (Feldstein, 1997).

On the other hand, for defenders of the EU, Europe as a unified entity with its own identity is not only an economic necessity but also politically desirable to reduce the probability of political conflicts. Along with an economically integrated Europe, they believe, a European political system is becoming an undeniable reality. There are even some academic studies devoted to showing the existence of a European political system. For example, using surveys of voters and candidates for the 1994 EP elections, Thomassen and Schmitt (1997) show that some policy positions of

representatives are constrained more by party group than by nationality. However, the results obtained by surveys have their own limits. Specifically, their results suffer from the problem of self selectivity of respondents and the subjectivity of responses.

In this paper, we examine related questions concerning the EU. We focus, however, on the legislative body of the EU, the European Parliament (EP). Thus, the first motivation for this paper is to examine the existence of a European-wide political system. For this, we examine the voting behavior of the Members of the EP (MEPs). More precisely, we examine the relative importance of nationality versus political party affiliation on MEPs voting behavior. That is, we test the hypothesis of "nationalist political parties".

Our study is also related, though indirectly, to the growing literature on fairness of the allocations of seats in the institutions of the EU. These papers use the tools of cooperative game theory like Shapley-Shubik or Banzhaf power indices to compute the power of different groups and coalitions in the institutions of the EU. Examples of such papers that considered the power of groups in the European Parliament are Colomer and Hosli (1997), Hosli (1997), and Turnovec (1997), among others. They typically start their analysis by considering the two following cases : "if MEPs vote according to their nationality, then..." and "if they vote according to their political group, then ..." without indicating how they actually vote. An examination of the state of the literature clearly suggests that there is a demand for an empirical assessment of MEPs' voting behavior. Thus, the second motivation for this paper is to identify who the actors are in the EP.

1.1 The related literature

For decades, decision-making in legislatures has been widely studied by economists and political scientists. Economists are interested in legislative decision-making processes since a large number of important economic decisions are made by legislatures. A legislator's decision-making outcome may reflect not only her/his own ideological preferences but also other factors such as loyalty

to the party leader, the interest of the constituency or interest group pressures. The point of departure of the economic analysis of legislation is Stigler (1971). In the context of regulation of large private corporations, he advanced the so called "no ideological effect" hypothesis (Stigler, 1971; Posener, 1974; Becker, 1974). According to this view, any economically relevant political decision can be analyzed by economic self-interest motives. To examine the validity of the proposed hypothesis, there are a large number of studies devoted to find empirically the determinants of the voting behavior in legislative assemblies. These studies used the roll call votes of legislators during parliamentary sessions. Examples of papers devoted to empirical analysis of legislators voting behavior are Kau and Rubin (1993), Kalt and Zupan (1984) and Poole and Rosenthal (1985, 1997). Almost all empirical studies in the literature used the data from the US Congress. In contrast, in this paper we focus on the voting in the European Parliament. Thus, the third motivation for this paper is to find out to what extent the voting behavior differs from that in other assemblies.

With the simultaneous presence of delegations of nations and members of political groups, the EP has a complex but interesting structure. It is the only democratic organization among European institutions. Presently, it is characterized by 11 languages, 8 political groups, 15 countries, 626 members[1] elected by 370 million European citizens. Although the number of academic studies devoted to the institutional structure of the EU is large, the EP has received far less attention relative to other organizations of the Union. There are several reasons explaining this lack of interest. The most important one may be the lack of power of the EP. However, over time and specially since the ratification of the Maastricht Treaty, the Parliament has acquired more power and responsibilities. It is, therefore, an interesting case for scholars interested in institutional features of the EU.

In this paper, we analyze the voting behavior of MEPs by using roll call data from the third and the fourth legislatures of the European Parliament.[2] More precisely, the aim of the paper is to find convincing answers to important questions like: (1) do legislators vote in accordance with their

political party affiliation or do they vote according to their nationality? (2) is the voting pattern, in the EP, issue-specific or stable across time and issues? (3) how many dimensions are needed to explain MEPs voting behavior? (4) what is the substantive meaning of the most important dimensions underlying MEPs voting behavior? In addition to issues mentioned above, with the data at hand one can examine the relevance of the median voter framework which is frequently used by political economics models. The dimensionality of the voting space and the relevance of the median voter theory are two related but highly debated ideas. To our knowledge, this is the first paper devoted to the voting behavior in the EP that systematically uses the MEPs roll call votes during the last two legislatures. Attina (1990) have focus on roll calls votes of MEPs to analyze the MEPs' voting behavior. He used the first two legislatures to compute an Agreement Index for political groups in the EP. There are two other studies devoted to EP that uses MEPs' votes. Hix (1998) analyzes the shape of the EU political space. His findings are in line with ours. That is, the shape of the EU political space is similare to our findings. But in addition we provide quantitative measures on the voting space. Kreppel and Tsebelis (1999) analyze the colaition formation in the EP. Their analysis differ from ours on several aspects. First their analysis is based only on a sample of 100 roll rall votes from the third legislature. Therefore, their estimates are not very precise. Second, and most importantly the unit of their analysis is not individual legislators but delegations (e.g. French Socialits, etc.). Third, they used a different method, correspondance analysis, whereas we use a spatial model of roll call voting. As a result although some of their conclusions are in line with ours, our results are not directly comrarable to theirs.

The paper is organized as follows. The next section gives an overview of the data used in this paper and a few plots of descriptive statistics of votes in the EP. Section three briefly presents the econometric model (i.e. the NOMINATE procedure) and the set of assumptions made to scale legislators. The results of the scaling procedure and their analysis are presented in the fourth section. Finally, concluding summaries and a discussion of further extentions end this paper.

2 Data

To conduct the analysis of legislators voting behavior we need to discover their ideal positions. The MEPs ideal positions can be estimated by using a data set and econometric tools. The data base used to perform the empirical analysis contains legislators individual roll call votes during the plenary sessions of the European Parliament.[3] It covers the third legislature entirely (from September, 1989 to July, 1994) and a large part of the fourth legislature (from September, 1994 to December, 1997). Overall, our data base contains more than 5000 votes of about 1080 Members. For each vote, we have information about the subject of the vote, the name of its rapporteur, the date of the vote, the place of the session (i.e. either Brussels or Strasbourg) and the type of vote (i.e. amendment, resolution, decision etc.).[4] As far as members are concerned, the data base includes observations on age, sex, nationality, national political party affiliation and European political group affiliation as well as information on reelection.

[Figure 1 about here]

For each member i and for each vote j the data base contains a record d_{ij}, representing the decision of legislator i on vote j, where $d_{ij} \in \{0, 1, 2, 3, 4\}$. That is, 1-"yes", 0-"no", 2-"abstention", 3-"absent" and 4-"present-did-not-vote".[5] "Present-did-not-vote" refers to the case where the legislator is present in the parliament and she/he is supposed to vote, but for some reason she/he does not vote. Figures 1 and 2 show the number of votes per session and the average share of absentees per session, respectively. On average, outliers apart, there are approximately 60 votes per session.[6] Figure 2 shows that, on average, about 20% of MEPs were not present during the last two legislatures.

[Figure 2 about here]

Most of non-voting were in the category "present-did-not-vote".[7] The average number of "yes" votes is slightly higher than the average number of "no". Overall, for 55% of votes a majority voted

"yes", whereas, for 45% of votes a majority voted "no". This can be explained by agenda setting.[8] The proposals with low probability of acceptance by a majority are discarded from the agenda. The share of legislators voting with the majority is very high. The average share of majority is 75%. Because decisions in the EU are taken by three different bodies (i.e. the Council, the Commission, and the EP), MEPs of all colors have to vote cohesively in order to get themselves noticed. Over time, however, as the EP acquired more power, the votes became closer (i.e. the majority declines relative to the minority).

During the last two legislatures, Members of the European Parliament voted on various proposals. The covered issues go from "Agriculture Prices" through "Animal Transport", "Bananas", "Common Agriculture Policy", "Drug Policy", "Employment", "Foodstuffs",..., "Single Market" to "Zaire", to give a few examples. A very large share of votes during the last two legislatures concerned economic issues like the regulation of national monopolies or the construction of the Single Market. Only a small fraction of votes treated political issues like Kosovo. Also, a non negligible share of votes is devoted to the Internal Functioning and Rules of Procedures in the Parliament.[9]

3 The Model

To scale legislators ideal positions we used W-NOMINATE, the roll call voting model developed by Poole and Rosenthal (1985, 1997).[10] The underlying behavioral model is a variant of the spatial model of roll call voting. The origins of the spatial model go back to Hotteling (1929), Downs (1954), and Black (1958). The spatial model assumes that each legislator's ideal position is located in a multidimensional space. Similarly, each vote's outcomes, "yes" and "no" outcomes, lie in the same space. Therefore, legislators, with Euclidean preferences, vote for the closest to their ideal position outcomes. More precisely, the utility of legislator i voting "yes" on roll call j has the

following specification (The utility of voting "no" is defined similarly)

$$U(x_i, z_{j,yes}) = \beta e^{-\delta^2_{ij,yes}} + \epsilon_{ij,yes} \tag{1}$$

where β is a constant common to all legislators that acts as a signal-to-noise-ratio. When β increases the vote outcomes become more predictable. That is, the probability of voting "yes" or "no" goes toward one. $\delta_{ij,yes}$ is the Euclidean distance

$$\delta_{ij,yes} = \sqrt{\sum_{k=1}^{s} (x_{ik} - z_{jk,yes})^2} \tag{2}$$

where s is the number of dimensions. x_i is the ideal position of legislator i. It is unknown to the analyst but the legislator takes her/his decision based on it. It is the main parameter of the model to be estimated. z_j denotes the outcome of the roll call vote j. The stochastic part of the utility function, ϵ_{ij} which represents the random noise, is assumed to have a logit distribution. The model assumes that all decision-makers have the same utility function. They only differ in the location of their ideal positions, x_i.

A rational legislator i who votes sincerely will choose "yes" for roll call j if and only if the utility of voting "yes" exceeds the utility of voting "no".

$$U(x_i, z_{j,yes}) \; > \; U(x_i, z_{j,no}) \tag{3}$$

The "rationality" assumption means that legislators choose the alternative closer to their ideal positions. "Sincerity" means that they do not act strategically. A further simplification assumption is that tied utilities are zero-probability events.

In the random utility literature, the assumption made is that tastes/preferences are determined prior to actions. Therefore, the outcomes of decision-making reveals the rational decision-makers' preferences. That is, the causality goes from taste to behavior. In fact, only if legislators vote sincerely, will there be a one-to-one relation between their ideal points and their behavior.[11] Now,

if legislators act strategically, the outcome will be affected by their strategic behavior. For example if they trade their votes (i.e. they logroll), the revealed ideal points will be influenced by logrolling. However, since we are interested in the relative importance of nationality versus political party on legislators' voting behavior, the estimated ideal points will still be useful to analyze their voting pattern. That is, one can still discriminate between competing theories.

With the above assumptions concerning the noise, namely that the noise term has a logit distribution, one can compute the probability of voting "yes" and "no". Specifically, the probability that legislator i votes "yes" for roll call j is given by

$$P_{ij,yes} = \frac{e^{u_{ij,yes}}}{e^{u_{ij,yes}} + e^{u_{ij,no}}} \tag{4}$$

where u_{ij} denotes the deterministic part of the utility function. With further assumptions that votes are independent across roll calls and legislators, the likelihood function can be computed as the product of probabilities. The constructed likelihood function is then maximized in order to obtain the parameters of the model, namely, β, x_i, and the z_j's.[12] Because the likelihood function is non-linear in parameters, "good" starting values are crucial to obtaining the global maximum. However, here we do not discuss how to obtain them.

4 Results

The results of the estimation procedure using the spatial model of roll call voting are the ideal positions of MEPs along different dimensions of the voting space. After determining the number of dimensions of the space, each dimension is to be interpreted consistently with the prior information on MEPs. Thus, the pattern of voting behavior in the EP can be analyzed once the ideal positions of Euro-parliamentarians are estimated. The validity of the estimation procedure and the performance of the spatial model depend on the accuracy of estimated parameters and the predictability of the outcomes. First we discuss the dimensionality of the underlying voting space. Then we give a

substantive interpretation to each dimension.

Because on average there are more than 450 Members present in a plenary session of the EP, a large number of votes is needed to precisely estimate legislators' ideal positions.[13] Therefore, one has to combine together data from different sessions. We first considered each legislature (the third and the fourth legislatures) separately. Then, to capture the dynamics of the voting pattern, we divided the whole sample into ten subsamples. That is, we grouped the data from different monthly sessions into 10 blocks of data. Each subsample corresponds to a one year period, approximately. We then estimated the model using the data from each subsample. Thus, with a more disaggregated view of ideal positions, one can analyze the pattern of voting over time.[14]

4.1 Goodness-of-fit and Dimensionality

Dimensionality of the voting space, by itself, has been an important issue in the political economy/political science literature. Political economy scholars frequently use a low dimensional spatial model (i.e. the median voter framework). However, the median voter framework is only valid in a one dimensional space. Therefore, the median voter theory as a good approximation for legislative decision-making must be empirically validated. Although it is not our main focus, with the set of results about the ideal positions of legislators, we can discuss the validity of this framework, at least in the case of the EP. A low dimensional voting space would support the median voter framework. On the contrary, a high dimensional voting space then would reject the relevance of the median voter framework. Instead, an interest group model, or other agency models of roll call voting would be a good approximation for legislative decision-making.

[Table 1 about here]

To determine the number of dimensions of the voting space, authors used a set of formal and informal tests (Heckman and Snyder, 1997; Poole and Rosenthal, 1997). Informal tests are usually based on classification scores.[15] Formal tests, on the other hand, are based on the rank of the

correlation matrix. The test statistics are constructed by the number of significant eigenvalues of the legislator by legislator correlation matrix. To see how well the spatial model fits the EP's roll call data, following the literature, we have computed two set of statistics. The first measure is the "Correct Classification" scores. This measure consists in counting the percentage of correct classifications across votes. The results are presented in Table 1. They show that a one dimensional model predicts, on average, 90% of the MEPs' votes. After adding a second dimension the classification scores increased by about 2 or 3 percent. While these are small numbers in absolute value, it is not at all obvious whether they are statistically significant. Therefore, one has to check further when selecting the number of dimensions. The increase in classification scores is almost negligible when the third and the fourth dimensions are added to the model.

The correct classification scores is not always a reliable test for goodness-of-fit. For instance, when the majority in a session is large, relative to the minority, the classification score does not give a satisfactory measure of fit. For example, with, say, a 80% majority a classification score of 90% would not be a remarkable fit. Because in this case, even a very naive prediction rule based on majority (i.e. everybody voted with the majority) would correctly classify 80% of votes. Consequently, using additional measures which take into account the size of the majority would give a better measure of fit. One such a measure used in the literature is the Proportional Reduction in Errors (PRE). Following the literature, to evaluate the overall goodness-of-fit we used the Aggregate Proportional Reduction in Errors(APRE)

$$APRE = \frac{\sum_j MV_j - \sum_j CE_j}{\sum_j MV_j} \tag{5}$$

where CE is the Classification Errors and MV is the Minority Vote. The APREs for different sessions of the EP are presented in Table 2. The APREs of the first dimensions range from 50% to 63%. Adding a second dimension to the model increases the fit of the model in terms of APRE by about 10%. In contrast with the Classification scores, with this measure, even the third and the

fourth dimensions increase the APRE statistics by about 5 percent.

[Table 2 about here]

So how many effective dimensions are there? What is the dimensionality of the voting space in the EP? The goodness-of-fit statistics suggest that at least two dimensions are significant. This is in accordance with Hix (1998) who finds two dominant dimensions in the EU political space. To check further, we rely on histograms of ideal positions on each dimension. The histograms of ideal positions for both legislatures, up to four dimensions, are presented in the Appendix. They suggest that in addition to the first and the second dimensions, the third and the fourth dimensions are more than random noises. Specifically, the distributions of ideal points along the third and the fourth dimensions are bimodal. Consequently, although these dimensions explain a very small share of variance, they do not result from noise fitting. Therefore, they must not be discarded from the analysis. Thus, in contrast to other assemblies, the voting space in the EP has a higher dimension.[16]

4.2 Stability

The literature on roll call voting considers stable voting behavior as evidence for ideological voting. On the contrary, it takes an issue-specific and unstable voting pattern as evidences for interest voting. However, a stable voting pattern is not necessarily the outcome of ideological voting. As a matter of fact, a legislator may be driven by several factors. Each factor may lead to stable or to an issue-specific and unstable voting pattern.

Consider first the case where the voting pattern is issue-specific. This case is in accordance with the predictions of the agency model. Economists have argued that a legislator is an agent of principals (constituents, interest groups, ...) and they are motivated by reelection. Therefore, she/he must vote according to the needs and interests of her/his principals. According to this view, two legislators coming from the same country or from countries with similar needs will vote similarly. Particularly, since they are motivated for reelection, they would act according to the needs

of the electorate when the debate is visible to them and their interests are at stack. The second factor that may lead to a unstable voting pattern is when legislators' votes reflect some interest groups' pressures. Note also that a unstable voting pattern occurs when legislators' preferences change over time.

There are, on the other hand, several factors that lead to a stable voting pattern. Consider the following illustrative but non exhaustive cases. First, legislators may vote according to their own ideology either because they are ideological or because they are not properly monitored by principals (i.e. they are shirking). Since it is hard for principals (the electorate, interest groups) to monitor the activity of the agent (legislator) on a daily basis, the latter may have a strong incentive to vote according to her/his own preferences, if she/he votes at all. That is, she/he is shirking by not voting according to the interest of principals but according to her/his ideological preferences. The second factor is logrolling. According to Tullock (1981), "so much stability" that characterizes legislatures can be explained by logrolling, explicit or implicit. Legislators may logroll with each other in order to obtain what is best for principals in the long run. The third factor leading to a stable voting pattern is party or party leader influence on legislators. Parties use several mechanisms to control their members loyalty. In the case of the EP, national parties control party lists for Elections. Voting against the national party means risking de-selection in the next EP election. Moreover, European parties may hand out to their loyal members important attributes like chairmanship of a committee or rapporteurship. Therefore, voting against party, European or national, implies costly consequences.

Thus, it is hard to take a stable voting pattern as evidence for ideological voting. Even if legislators voted according to their ideologies, one can not prove that they are not self interested (Anthony Downs, 1954). To find out whether legislators votes are issue-specific, we look at the stability of MEPs' positions across time in the voting space. Legislators change positions from one session to another either because their ideal positions (i.e. preferences) change across time or

because they adapt their voting behavior to the interest of principals. So it's not always an easy task to discriminate between the two factors. However, a stable spatial positions would indicate that legislators' voting pattern is not issue-specific.

To test the stability of legislators voting behavior we compute the correlation coefficients of legislators positions across different parliamentary sessions. A high correlation coefficient would indicate an absence of "movement" in the space across sessions. That is, legislators vote almost always in the same way regardless the issue of the vote. Table 3 shows the correlation coefficients between ten successive "sessions" of the EP during the last two legislatures.[17] The first and second dimensions are generally characterized by high correlation coefficients. That means that ideal positions of MEPs on the first two dimensions are very stable across time. In addition, it means that coalitions in the EP are quite stable. Not surprisingly, on the second dimension, the correlation between the last session of the third legislature and the first session of the fourth legislature (i.e. between session 5 and session 6 in table 3) is the smallest. This is because a non negligible fraction of Members who served in the third legislature were not reelected in the fourth legislature. In July 1994, out of 567 MEPs, there were 321 new members. In addition, after the admition of new members-Austria, Finland and Sweden-in 1995, 59 new MEPs joined the EP. Consequently, new MEPs had an impact on the voting behavior of those who were reelected and on the process of coalition-building.[18] The difference in positions of MEPs reflects thus the change in the compositions of the Parliament. The correlation coefficients for the third and fourth dimensions are far smaller, meaning that these dimensions are issue-specific. When the whole legislatures are considered, correlation coefficients remain high. This is true not only for the first and second dimensions, but also for the third and fourth dimensions. However, the correlation coefficients for the first dimension are significatively lower than those found for both houses of the US Congress.[19] But given that the EP is larger in size and it is a parliament in transition this finding is not very surprising.

[Table 3 about here]

4.3 Interpretation of the Results

One way to obtain the substantive meanings of dimensions is to inspect the scatter diagrams of the first dimension on the second dimension. This is a straightforward way of analyzing the pattern of legislators ideal positions, although one is limited to analyze only two dimensions at a time. If MEPs vote according to their political affiliation, the clusters must correspond to members of the political group. On the other hand if they vote according to their nationality, then members of the same nationality must form a distinct cluster.

The Figures 4 to 13 in the Appendix show the biplots (scatter diagrams) of estimated ideal positions of legislators in the two dimensional space. The horizontal axis is the first dimension, the vertical axis is the second dimension. Each point in the space represents one legislator's ideal position. By inspecting those figures one may give a substantive interpretation to the two dimensions of the underlying space. The first finding that emerges from the inspection of figures in the Appendix is that legislators form clusters or groups. Furthermore, each cluster corresponds to a political group. Note also that the dispersions (variance) of political groups along the first dimension is smaller than that of the second dimension. To examine the existence of clusters one can compare the within variance to the between variance of a given group's members. A clustering criterion suggested in the statistical literature (e.g. Everitt, 1993) is

$$\max \quad \frac{V_{between}}{V_{within}} \tag{6}$$

The within-group variance is given by

$$V_{within} = \frac{1}{n-g} \sum_{i=1}^{g} \sum_{j=1}^{n_i} (x_{ij} - \bar{x}_i)(x_{ij} - \bar{x}_i)' \tag{7}$$

and the between group variance by

$$V_{between} = \sum_{i=1}^{g} n_i(\bar{x}_i - \bar{x})(\bar{x}_i - \bar{x})' \tag{8}$$

where g is the number of groups and n is the number of legislators. We considered a slightly modified version of these formulas, namely, the within and between distances.[20] The two sets of candidates, to form clusters, are political groups and delegation of nations. Therefore, we compute the criterion statistics for both sets of candidates. The results are presented in the table 4. The within-group variance for political groups is substantially smaller than the between-group variance. As it can be seen in Table 4, the between/within distances are far bigger for political groups than for delegations of nations. This finding confirms that there are clusters formed by political groups. We will come back to this issue in the next section where the regression analysis is performed. There is an equivalence between the linear regression and the ANOVA analysis.

[Table 4 about here]

Next, we consider the dynamics of cohesion among members of political groups. As a measure of cohesion among members of political groups, we have computed the ratio of within/between distances. Figure 3 shows this ratio over time. That is, it shows the dynamics of cohesion among members of political groups in the EP. The decline of the ratio is sharp and almost monotonic. The figure emphasizes the rising importance of political groups as cohesive actors in the parliament. On the one hand, there is a decline in the within-group distance. The average growth rate is about -1.1%, meaning that the cohesion of political groups has increased over time. On the other hand, the between-group distance increases. The average growth rate over the period 1989-1997 is about 3%. It emphasizes the increase in polarization of political groups in the EP. In contrast, the ratio of within/between distances for members of the same country has remained stable over time.

[Figure 3 about here]

To find a substantive interpretation for the dimensions of the voting space we first focus on

the figures of ideal positions and then we use OLS regressions. A common pattern emerges from the inspection of the two-dimensional plots of the MEPs' ideal positions. On the first dimension, socialists (PES) together with Greens and other left-wing groups are located on the left part of the figures. In contrast, Christian Democrats and Conservatives (EPP) with other right-wing parties are located on the right hand side of the figures. Liberals are almost always at the center of the horizontal dimension. Consequently, this dimension is consistent with a Left-Right interpretation. On the second dimension, the two main political groups, namely Socialists (PES) and Christian Democrats and Conservatives (EPP), are located on the upper part of the voting space whereas all other political groups except Liberals (ELDR) are located in the lower part. Once again, Liberals hold the central position. Note that Socialists (PES) and Christian Democrats and Conservatives (EPP) are also the two largest groups in the Parliament. Thus, the second dimension is related to the size of political groups. Also, note that almost all small groups are extremists (e.g. Communists, Radicals, Independents) as opposed to centrist, and against European Integration (e.g. EdN, an anti-European political group). Therefore, the second dimension can also be interpreted as a pro-anti European Integration dimension. Also, one can interpret the second dimension as the "extremist against the centrist" dimension. These interpretations are in line with Hix (1998). Using the "content-analysis method", he found that the EU political space is essentially two-dimensional: an Integration-Independence dimension and a Left-Right dimension.

Additional findings emerging from the inspection of the figures in the Appendix are the followings. (1) In most cases, Christian Democrats are divided in two sub-clusters. British members (UK-Conservatives) form a distinct sub-cluster from the rest of the EPP members. They vote very cohesively but they are not located very far from other Christian Democrats. (2) Greens are almost always located at the extreme left of the first dimension. That is, they are the most leftist group in the EP. This is not so surprising if one take into account their positions in the national parliaments. (3) Surprisingly, Independents(IND, extreme right-wing Members who are

not affiliated to a European political group) are not always located on the extreme right hand side of the figures. These two facts make it hard to accept an interpretation like ideology for the first dimension. Note, however, that these extremist small groups' members have very unstable positions and unpredictable voting patterns. These members are characterized by relatively high rates of non-voting (abstention, absenteeism and present-did-not-vote). Therfore, the spatial model is not the best model to scale these members. Likewise, on the second dimension, Greens are close to other smaller political groups than to pro-European groups. They emerge as an anti-integrationist group at the European level. This is not so surprising if one recalls that they voted against the ratification of the Maastricht Treaty in the EP.[21]

A limit to the analysis based on diagrams, however, is that it is hard to visualize more than 500 Members located in the same space. An alternative way of analyzing the results is to use linear regressions. The regression of the MEPs' ideal positions on a given dimension on country and party dummy variables is performed below. The linear regression estimates the following equation

$$x_i = C + \sum_{j}^{J-1} \alpha_j \text{Party}_{ji} + \sum_{k}^{K-1} \beta_k \text{Country}_{ki} + \epsilon_i \tag{9}$$

where Party and Country are dummy variables, and C is a constant. Note that this is nothing else but an analysis of variance, ANOVA (i.e. comparison of means of different populations with the same variance.), using a linear model. The regression is performed for each dimension, up to the fourth dimension, and for both legislatures. The results of the regressions are presented in the Appendix. The regression equation explains the ideal positions on dummy independent variables and a global constant. To avoid the problem of perfect collinearity, one or two dummy variables are excluded. Consequently, all coefficients are to be interpreted as deviations from the excluded variables. As a result, we are not directly interested in individual coefficients but in their contributions to the global fit of the model. If MEPs vote according to their political affiliations, the party dummy variables will explain the largest share of the variance. In contrast, if they vote

according to their nationality, then the largest share of the variance will be explained by country dummy variables. Therefore, the focus is on the share of variance explained by a factor (i.e. the level of adjusted R-squared statistics resulting from regressions).

[Table 5 about here]

The results show that the largest share of variance for all dimensions is explained by political party groups. The adjusted R-squared statistics of the regressions of ideal points on party dummy variables are the highest for the first dimension. For the other three dimensions, this statistics declines slightly. In contrast, the country dummy variables explain a smaller share of the variance. Specifically, they do not have any explanatory power for the first dimension. On higher dimensions, they give an adjusted R-squared of about 25%. Thus, the relative importance of country dummy variables increases on higher dimensions. These results confirm what was found by the scatter diagrams in the Appendix: That almost every thing is explained by political group affiliation in the EP. These results are qualitatively the same for both legislatures. Some scholars (e.g. Peltzman, 1984) have argued that legislators do not represent a country (state in the US) as a whole but a political group in a country. If this hypothesis is true, one must obtain a very high goodness-of-fit statistics by introducing party and country interactive dummy variables. The results of these regressions, reported in the Table 5, show that, despite introducing a large number of interactive dummy variables, they do not improve significantly the goodness-of-fit of regressions. Although finding an interpretation for the third and the fourth dimensions is not straightforward, the results of the regressions indicate that country does explain these dimensions, to some extent, significantly. One can use these R-squared statistics to test the global significance of a set of variables.[22] Thus, to test the restriction that $\beta_1 = \beta_2 = \ldots = \beta_{K-1} = 0$, for the first dimension of the third legsilature we obtain $F[11, 562] = 2.08$. The critical value from the F table is 2.2793, so we can not reject the hypothesis of no country effect at 1% significance level. However, as far as other dimensions are concerned, the no country effect hypothesis is rejected. Moreover, for the fourth legislature, the

hypothesis of no country effect is always (i.e. for all dimensions) rejected. Thus, Country play a minor role in legislators voting behavior.

[Figure 4 about here]

To interpret the substantive meaning of the third and fourth dimensions, we focus on the results of the regression equations. A graphical presentation of the coefficients of the regression of ideal positions on country dummy variables (i.e. average ideal positions) is given in Figure 4. This figure illustrate a cultural division between northern and southern members. French, Italian, Greeks and Spanish members are located on one side while members from northern Europe lie on the other side of the space. While British members are far from all others, Austrians, Belgians and Germans hold a central position in the space. The average positions of members from Luxemburg, Ireland and Portugal are not significant. Nonetheless, they are presented in the Figure. Thus, after taking into account the impact of political group affiliation and the importance of European integration on MEPs' voting behavior, the 3rd and 4th dimensions classify them in accordance with their nationalities. The third dimension reflects the the positions of UK members against all the rest. The fourth dimension illustrates a north-south cultural division. Note, however, that not only these dimensions explain a smaller share of variance but also they are characterized by a high degree of instability.

5 Conclusions and Extensions

In this paper we used the recorded votes of MEPs in order to analyze their voting behavior. The question asked was whether legislators in the EP vote according to their party group (ideology) or according to their nationality (interest). The spatial model of roll call voting is used to scale MEPs. The main results obtained by this paper are as following:

1. *MEPs form clusters:*

The inspection of the figures in the Appendix illustrate that MEPs vote together. The same conclusion is obtained when one applies a clustering criterion.

2. *Each cluster correspond to a political group:*

The results show that MEPs vote mainly according to their political group affiliations. This is illustrated by the inspection of scatter diagrams of ideal positions on the first and second dimensions. The results of regressions of ideal positions on party and country dummy variables confirm this finding.

3. *The voting cohesion among members of political groups in the EP is increasing over time:*

During the last two legislatures, the party discipline has increased over time. The within-group distance has declined, whereas, the between-group distance has increased. As a result, the voting cohesion of political groups has increased over time.

4. *There are two dominant dimensions in the EP voting space:*

The first dimension is the Left-Right dimension. The results thus show that, at least as far as the EP is concerned, a European-wide political system does exist. The most important dimension that predicts about 90% of votes can be qualified as a Left-Right dimension. This finding that

MEPs vote according to their political affiliation and not according to their nationality has an important implication for the work of the scholars interested in the power of groups in the EP. Computing the a priori power indices does not make sense for delegations of countries since the probability that these members form a coalition is negligible. The second dimension is consistent with several interpretations. For instance, it is correlated with the size of political groups. Likewise, one can interpret this dimension as the one opposing federalists to Euro-sceptics. In addition, one can interpret the second dimension as opposing extremist and the centrist groups. The third and the fourth dimensions can be explained, although in a limited way, by issues related to national interests.

5. *The MEPs voting pattern is stable across time and issues:*

We also found that MEPs ideal points, at least on the first and second dimensions, are highly stable across time and issues. That is, legislators do not change their relative positions across time even though issues of votes are different. This is a unexpected result because over the last two legislatures, EP has increased in size and acquired more power and responsibility.

A natural extension of our analysis would be to explain why legislators vote as seen in preceeding section. We saw that legislators vote mainly according to their political party affiliation. Moreover, we found that their voting pattern is very stable across time and issues. This indicates that legislators' votes, at least on the first and the second dimensions, are not issue-specific. Instead, they vote according to their ideology. That is, no matter what the issue is, they map proposals into the Left-Right dimension. This may be because they are ideological or may be that they logroll with each other on different issues.

In addition to political group and nationality, considering the role of other important factors such as the role of national party as the list-controller, the role of personal ideology, and the role of the EP versus Council and Commission, would be a fruitful exercise. The other important question

to investigate is the importance of the issues of proposals on MEPs voting behavior.

Notes

[1]This number is increasing as new member countries join the EU. The total number of members in the EP has increased from 198 in 1979 to 626 at present.

[2]In the EP, electronic voting has almost completly replaced voting by show of hands (and voting by sitting and standing) and the formal roll call vote with members replying "yes", "no" or "I abstain" in alphabetical order. Formal roll call must be requested by at least 29 members or a political group before voting has begun. Roll call may be requested by political groups for several reasons: first to put the position of a group on an issue firmly on record; second to push another group to take a public position; and finally to control the participation of their members in a vote.

[3]The debates and votes of the MEPs are published in the Official Journal of the European Communities.

[4]We didnot make distinction between different type of the vote nor between different legislative procedures (i.e. Assent, Co-decision, Co-operation, Consultation, institutional or budgetary matters).

[5]In this paper we used only the "yes" and "no" outcomes. All other decisions, and in particular abstentions, are treated as missing values.

[6]Sessions refer to Parliament's plenary sessions which usually take place for a week each month in Strasbourg. Some additional shorter sessions are organized in Brussels. See Corbett et al. (1997) for more details.

[7]Further descriptive statistics concerning MEPs' votes are available on request from the author.

[8]Most proposals in the EP require an absolute majority of the vote cast. However, for some decisions like "motion of censure on the Commission" or the "final rejection of the budget" a two-

third majority of the vote cast and a majority of the EP members is required. Moreover, for the EP's right of initiatives a simple majority of members is needed.

[9]Further information on the EP can be found at the Web server of the EP: http://www.europarl.eu.int/sg/tree

[10]NOMINATE stands for NOMINAl Three-step Estimation.

[11]See, however, Poole and Rosenthal (1997, chapter 7) for a discussion as to how the NOMINATE estimates are robust to some forms of strategic behavior.

[12]See Poole and Rosenthal (1997) for more detailed description of how exactly the algorithm (W-NOMINATE) works and for a discussion of its statistical properties.

[13]Following the literature, we included all roll calls except lopsided votes, those for which minority was less than 2.5%. Similarly, members who voted less than 25 times were discarded from the sample.

[14]This choice of dividing the whole sample into 10 subsamples is arbitrary. A more natural way of doing this is to estimate each session separately, but given that on average there are only 60 votes per session it is not enough to scale about 600 MEPs.

[15]In the literature on binary choice models there are several other measures of goodness-of-fit such as Pseudo-R^2 or the likelihood ratio test.

[16]In particular, for the US Congress, Poole and Rosenthal (1997) found at most two dimensions. Using a linear probability model, Heckman and Snyder (1997) found more dimensions for the US Congress. Our results are not, however, fully comparable to theirs since they used a different scaling procedure.

[17]These "sessions" correspond approximately to a one year period.

[18]The correlation coefficients are computed for pairs of legislators who were present in both successive sessions.

[19]See Poole and Rosenthal (1997, Chapter 4).

[20]i.e. we computed within and between Euclidean distances by the following formulas

$$D_{within} = \frac{1}{n}\sum_{i=1}^{g}\sum_{j=1}^{n_i}\{\sum_{k=1}^{s}(x_{ijk} - \bar{x_{ik}})^2\}^{1/2} \tag{10}$$

and

$$D_{between} = \frac{1}{n}\sum_{i=1}^{g} n_i\{\sum_{k=1}^{s}(\bar{x_{ik}} - \bar{x_k})^2\}^{1/2} \tag{11}$$

[21]They (Greens) voted also against others on issues like BES (mad cow disease).

[22]To perform this, following Green (1997, pp. 344), we use the F-test

$$F[J, N-K] = \frac{(R^2 - R_*^2)/J}{(1-R^2)/(N-K)}$$

where R_*^2 is the coefficient of determination of the constrained model, J is the number of restrictions, N is the number of observations and K is the number of independent variables.

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Appendix

Powers and Responsibilities of the European Parliament

Like all parliaments, the European Parliament has three fundamental powers: the power to legislate, the power of the purse, and the power to supervise the executive. Depending on the nature of the proposal concerned, the EP may exercise its legislative power by four possible legislative procedures. A short description of the various procedures is as follows:

1. Consultation (single reading)

   Parliament's opinion must be obtained before a legislative proposal from the Commission is adopted by the Council.

2. Cooperation procedure (two readings)

   If the opinion Parliament delivered at its first reading is not sufficiently taken into account in the Council's common position, Parliament may reject the proposal at second reading. The Council can overturn Parliament's rejection only by a unanimous decision.

3. Co-decision procedure (three readings)

   Parliament shares decision-making power equally with the Council. If Council fails to take due account of Parliament's opinion in its common position, Parliament can prevent the adoption of the proposal.

4. The assent procedure

   Parliament's assent is now needed for decisions on the accession of new Member States, association agreements with third countries, the conclusion of international agreements, a uniform procedure for elections to the European Parliament, the right of residence for Union citizens, the organization and goals of the Structural Funds and the Cohesion Funds and the tasks and powers of the European Central Bank.

Political groups in the European Parliament

The political groups represent the various political tendencies within Parliament. Each is represented in the Conference of Presidents by its chairman, who also has the task of explaining the group's position on issues under discussion at plenary sessions.

The minimum number of Members required to form a political group is 29 if they come from one Member State, 23 if they come from two Member States, 18 if they come from three Member States and 14 if they come from four or more Member States.

The eight political groups in the 1994-1999 Parliament are presented in table bellow:

PES	Group of the Party of European Socialists	214
EPP	Group of the European People's Party	181
ELDR	Group of the Liberal Democratic and Reformist Party	43
V	Green Group in the European Parliament	28
UFE	Union for Europe Group	57
EUL/NGL	Confederal Group of the European United Left/Nordic Green Left	33
ERA	Group of the European Radical Alliance	20
EdN	Group of Independents for a Europe of Nations	18
IND	Independents	32

Table 1: Political groups and their size in the EP (4th parliament).

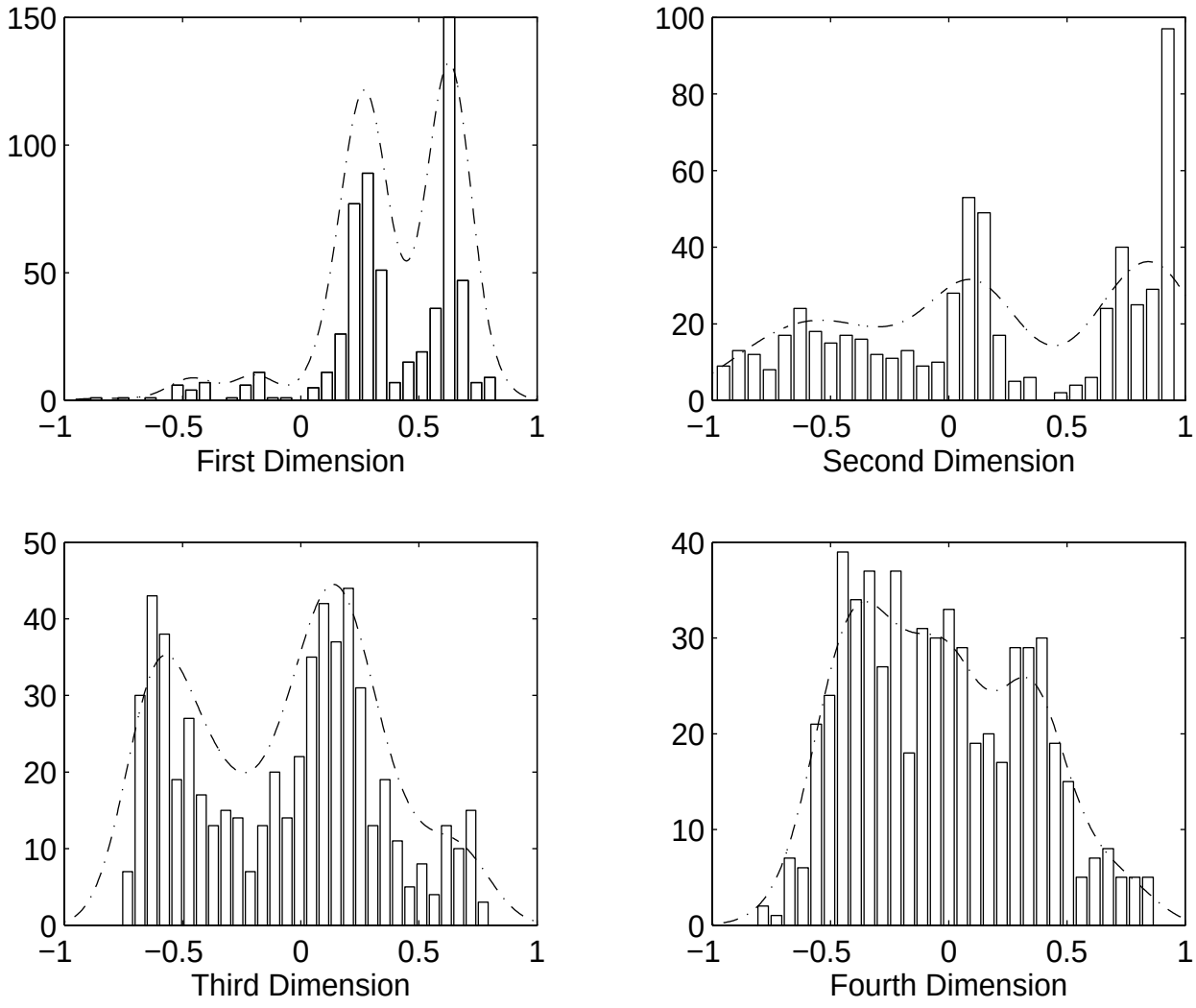

Figure 1: Histograms of MEPs' ideal positions, 3rd Parliament (9/89-7/94). Broken lines are the kernel estimations of the distributions with Gaussian kernel; optimal binwidth, h's are obtained with minimizing the Integrated Mean Squared Errors (IMSE) criterion.

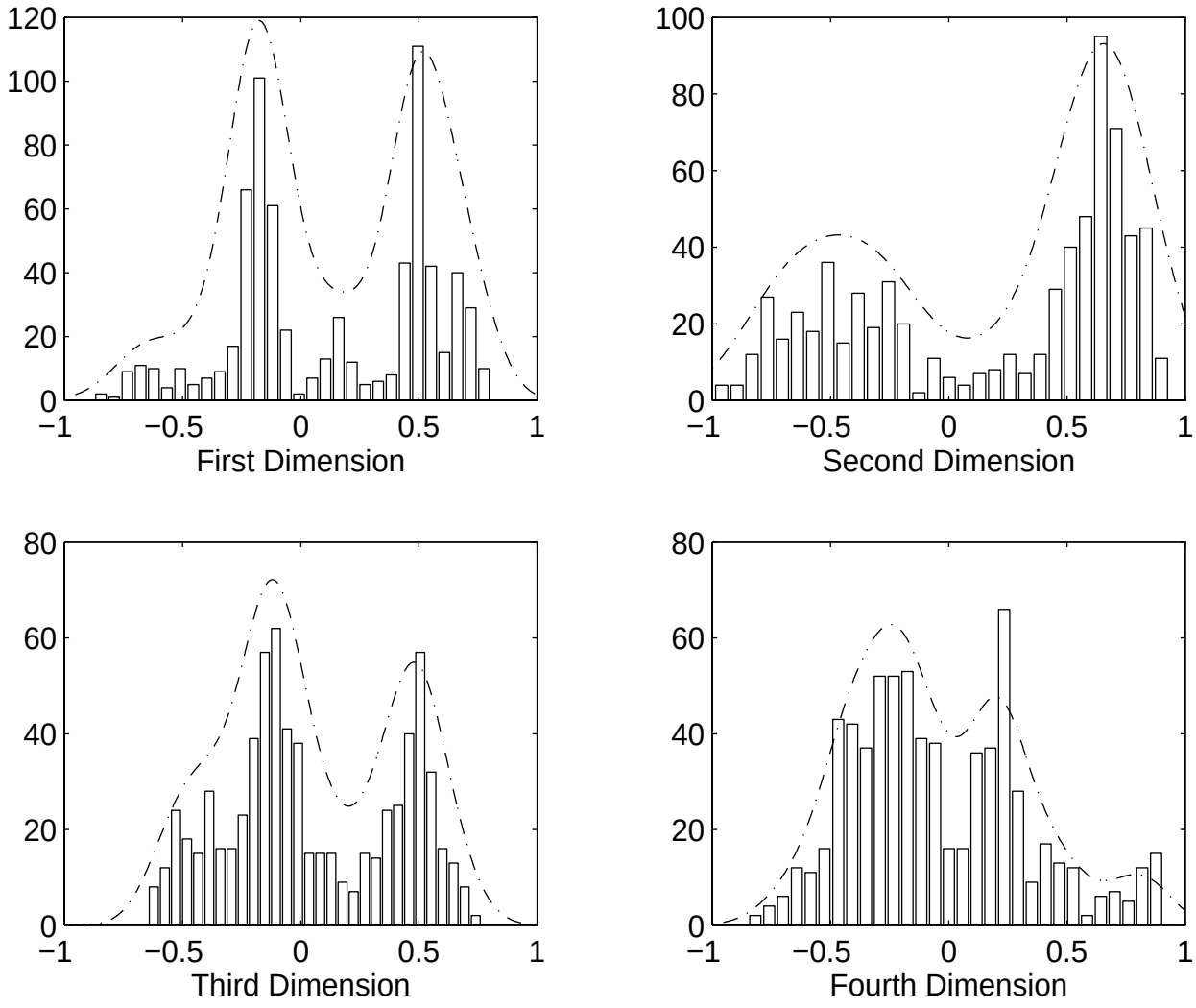

Figure 2: Histograms of MEPs' ideal positions, 4th Parliament (10/94-12/97). Broken lines are the kernel estimations of the distributions with Gaussian kernel; optimal binwidth, h's are obtained with minimizing the Integrated Mean Squared Errors (IMSE) criterion.

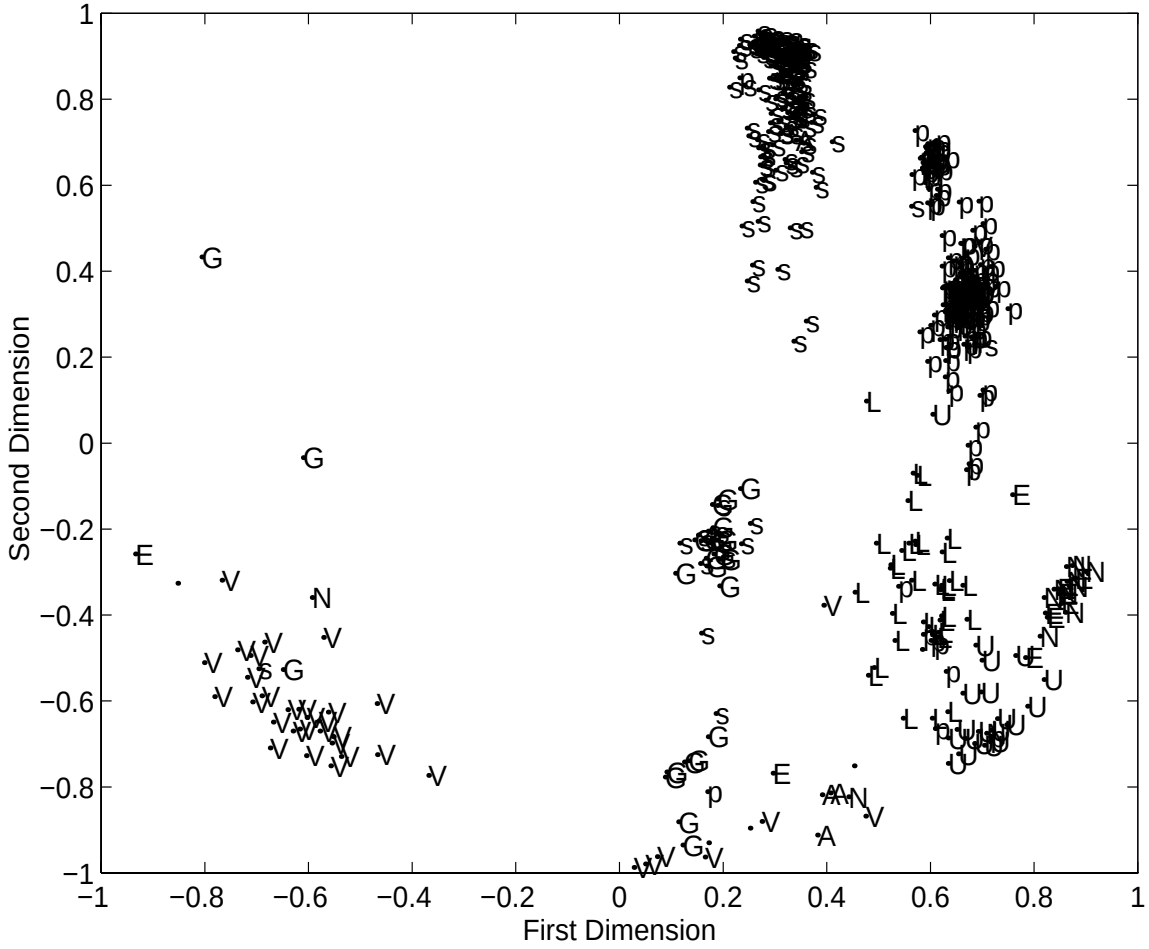

Figure 3: MEPs' estimated ideal positions, 3rd Parliament, from 1 to 12 (9/89-9/90). Symbols present political groups as follows: s=PES, p=EPP, L=ELDER, U=UFE, V=Greens, G=EUL/NGL, A=ERA, E=EdN, I=IND. Note that symbols correspond to the actual (1997) configuration of political groups in the EP.

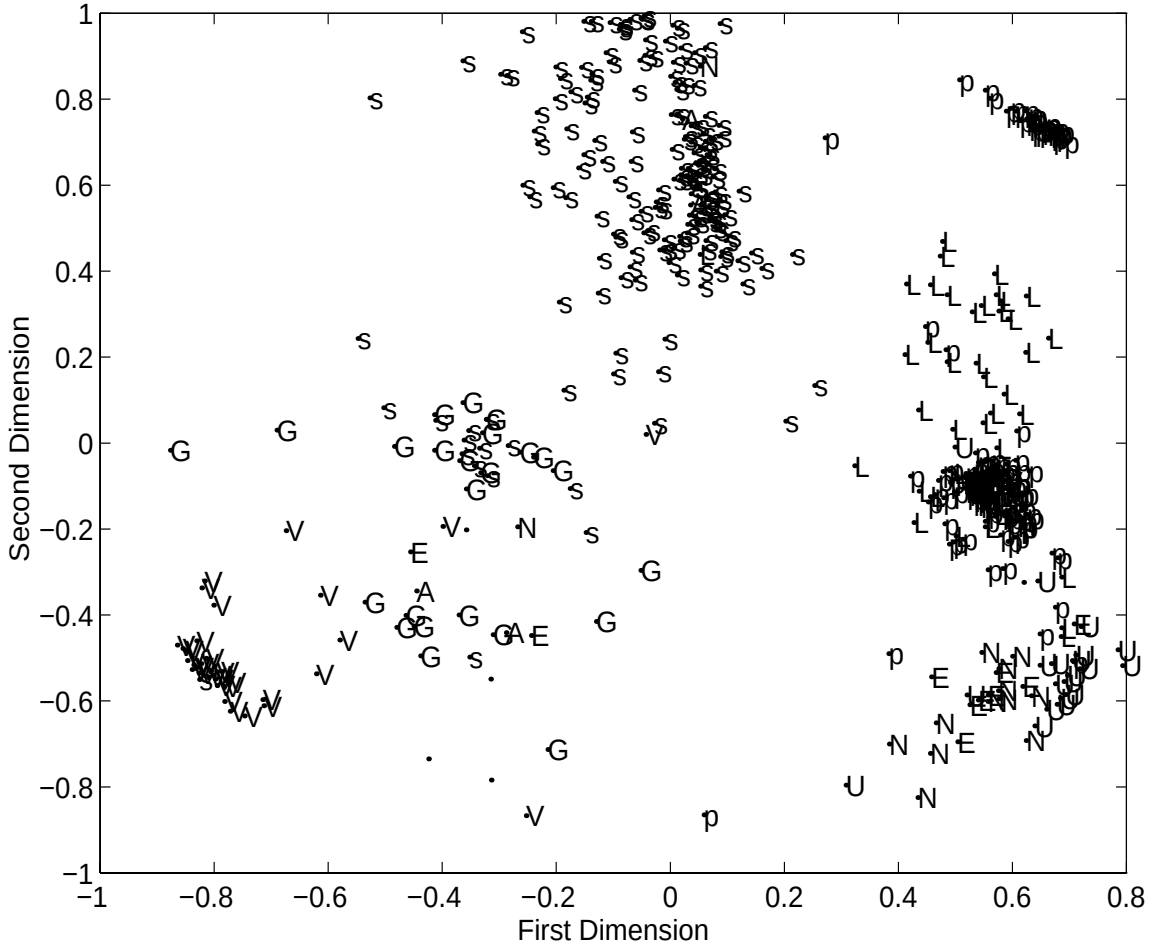

Figure 4: MEPs' estimated ideal positions, 3rd Parliament, from 13 to 23 (10/90-7/91). Symbols present political groups as follows: s=PES, p=EPP, L=ELDER, U=UFE, V=Greens, G=EUL/NGL, A=ERA, E=EdN, I=IND. Note that symbols correspond to the actual (1997) configuration of political groups in the EP.

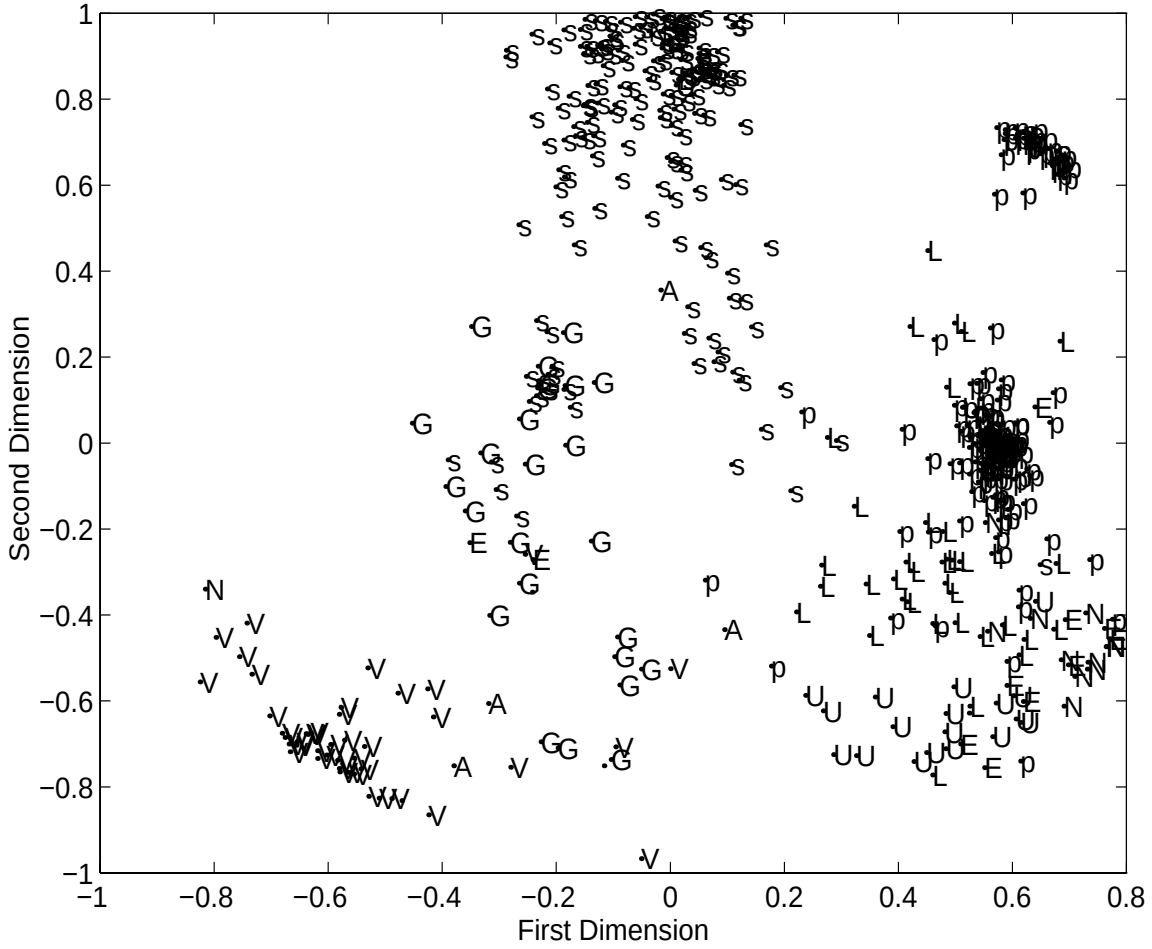

Figure 5: MEPs' estimated ideal positions, 3rd Parliament, from 24 to 35 (7/91-7/92). Symbols present political groups as follows:s=PES, p=EPP, L=ELDER, U=UFE, V=Greens, G=EUL/NGL, A=ERA, E=EdN, I=IND. Note that symbols correspond to the actual (1997) configuration of political groups in the EP.

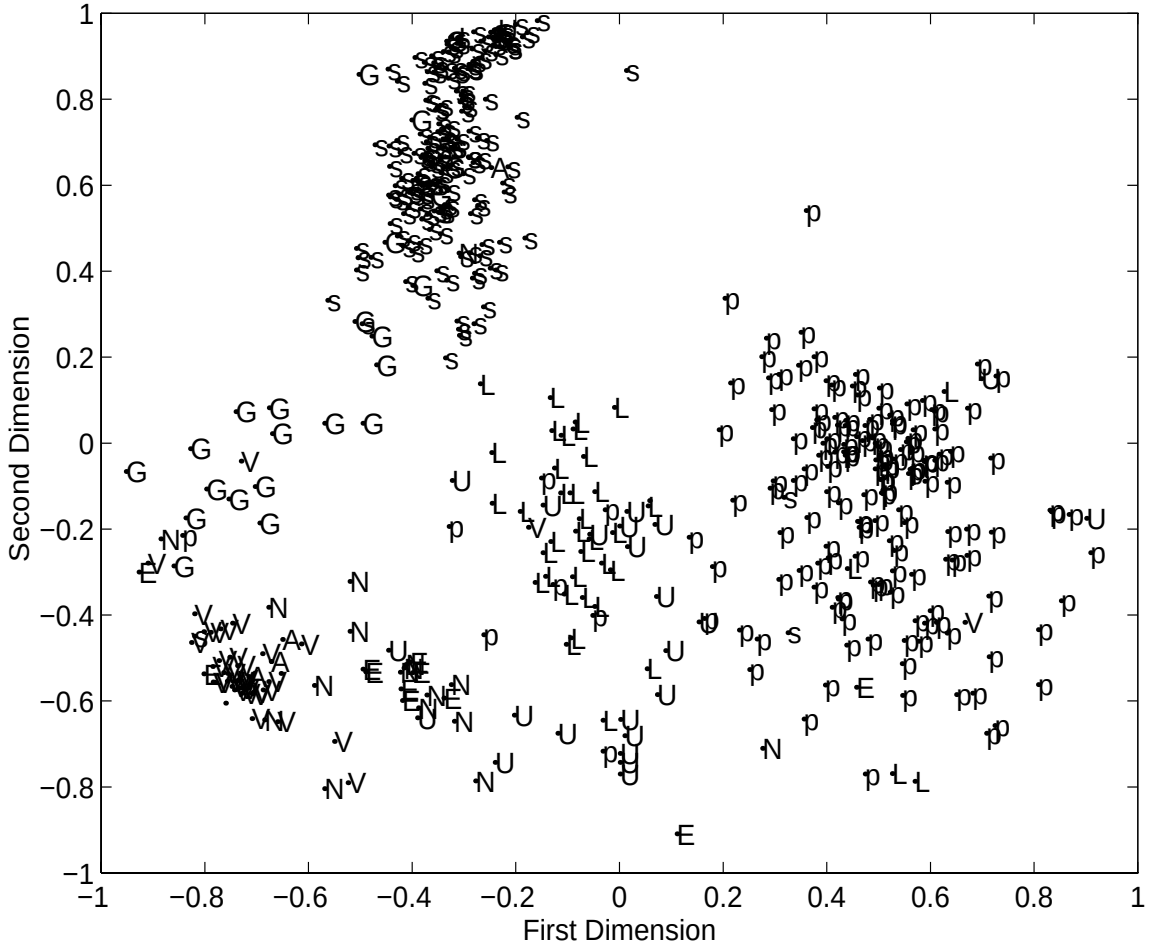

Figure 6: MEPs' estimated ideal positions, 3rd Parliament, from 36 to 48 (7/92-7/93). Symbols present political groups as follows: s=PES, p=EPP, L=ELDER, U=UFE, V=Greens, G=EUL/NGL, A=ERA, E=EdN, I=IND. Note that symbols correspond to the actual (1997) configuration of political groups in the EP.

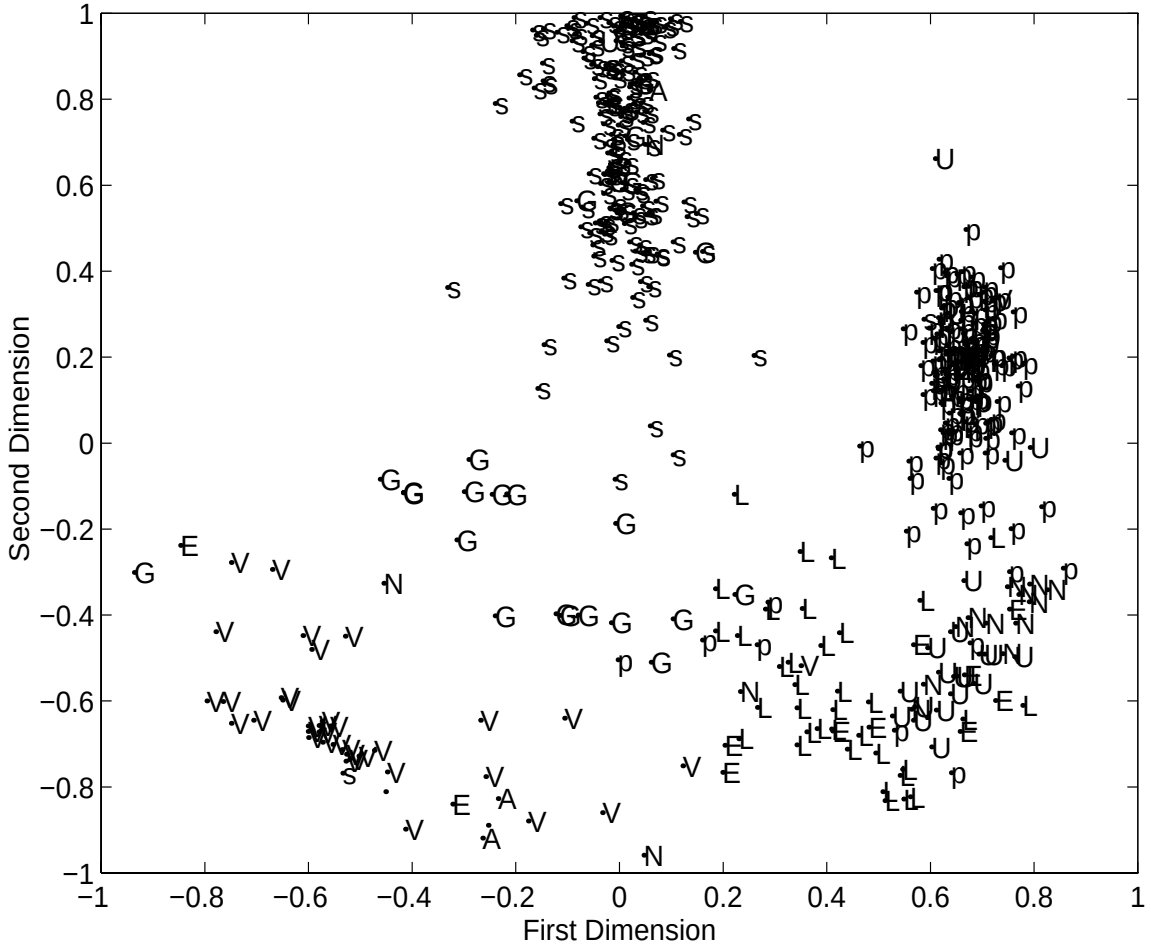

Figure 7: MEPs' estimated ideal positions, 3rd Parliament, from 49 to 64 (7/93-7/94). Symbols present political groups as follows: s=PES, p=EPP, L=ELDER, U=UFE, V=Greens, G=EUL/NGL, A=ERA, E=EdN, I=IND. Note that symbols correspond to the actual (1997) configuration of political groups in the EP.

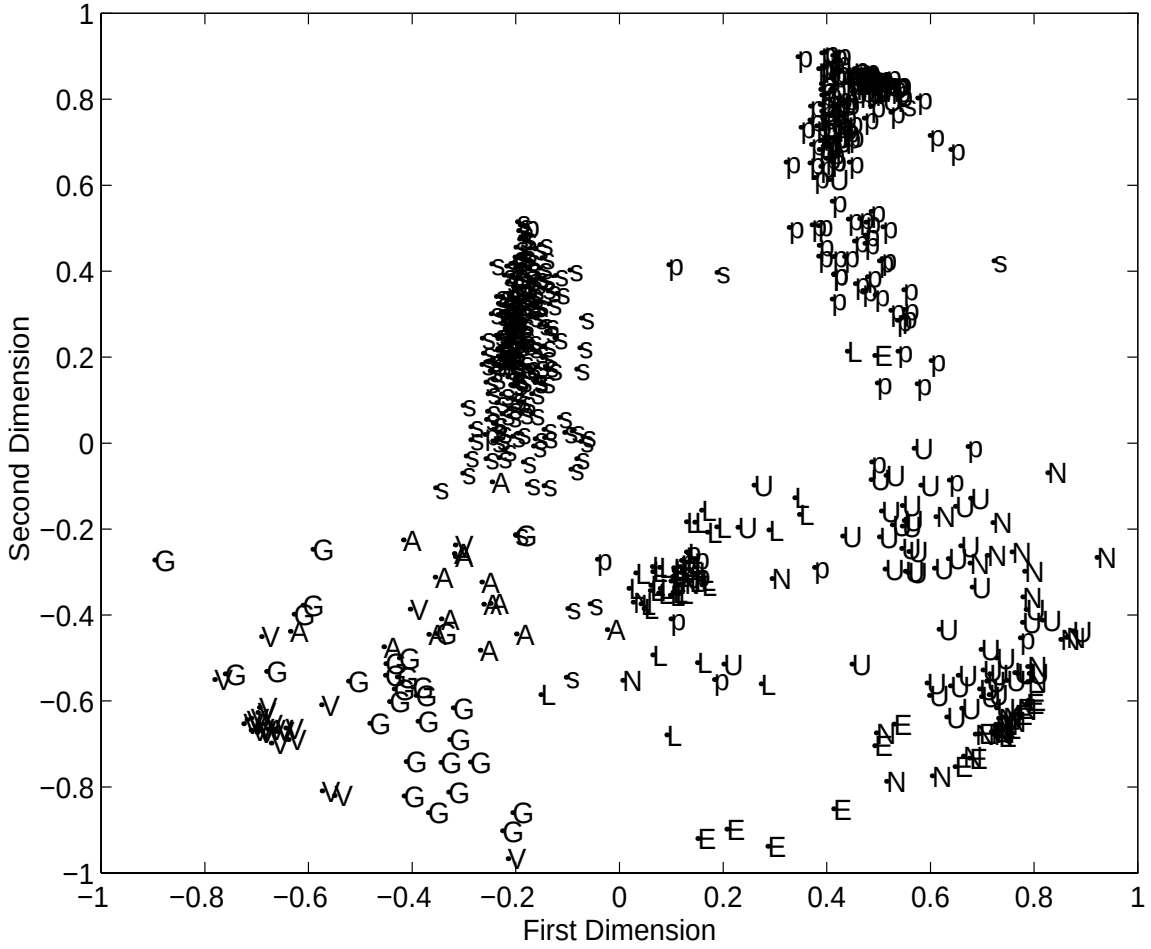

Figure 8: MEPs' estimated ideal positions, 4th Parliament, from 1 to 14 (9/94-7/95). Symbols present political groups as follows: s=PES, p=EPP, L=ELDER, U=UFE, V=Greens, G=EUL/NGL, A=ERA, E=EdN, I=IND. Note that symbols correspond to the actual (1997) configuration of political groups in the EP.

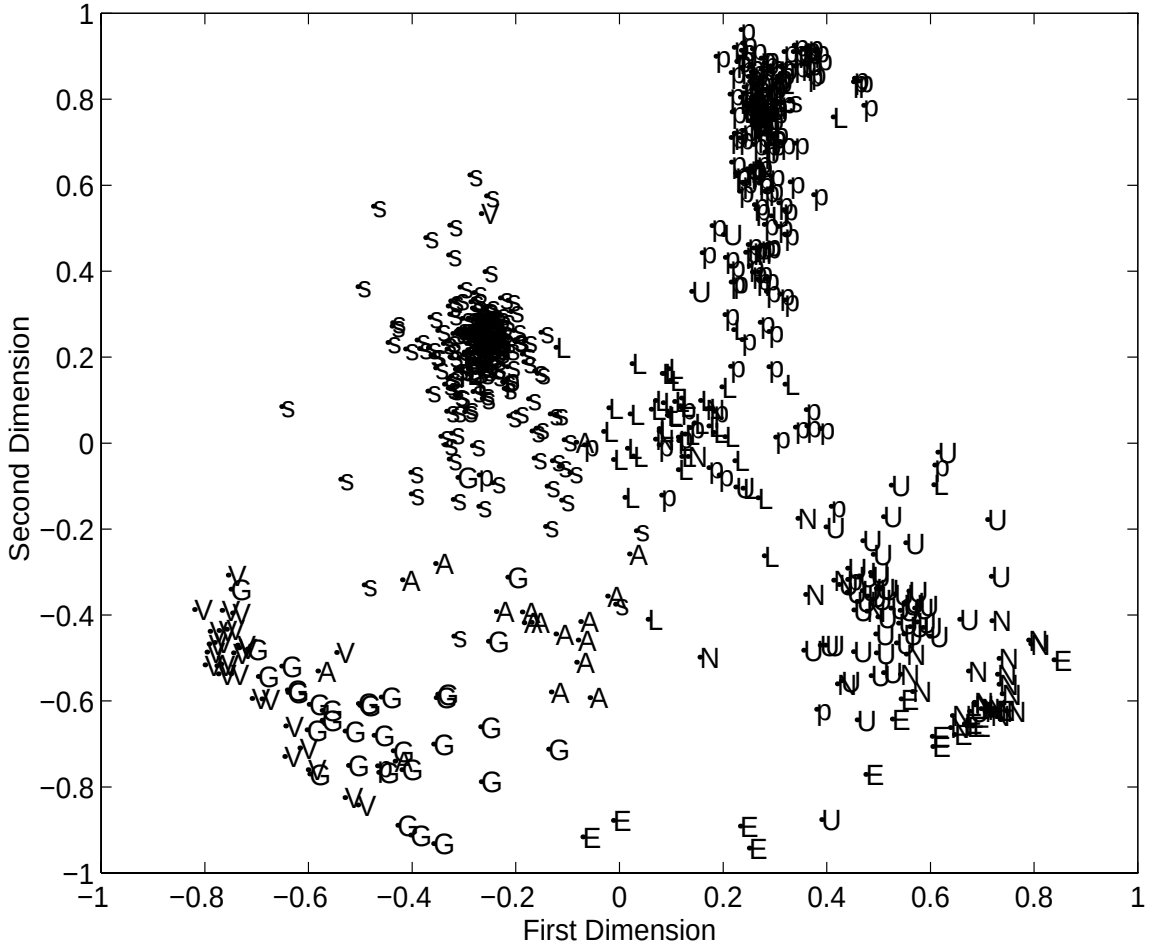

Figure 9: MEPs' estimated ideal positions, 4th Parliament, from 15 to 26 (7/95-2/96). Symbols present political groups as follows: s=PES, p=EPP, L=ELDER, U=UFE, V=Greens, G=EUL/NGL, A=ERA, E=EdN, I=IND. Note that symbols correspond to the actual (1997) configuration of political groups in the EP.

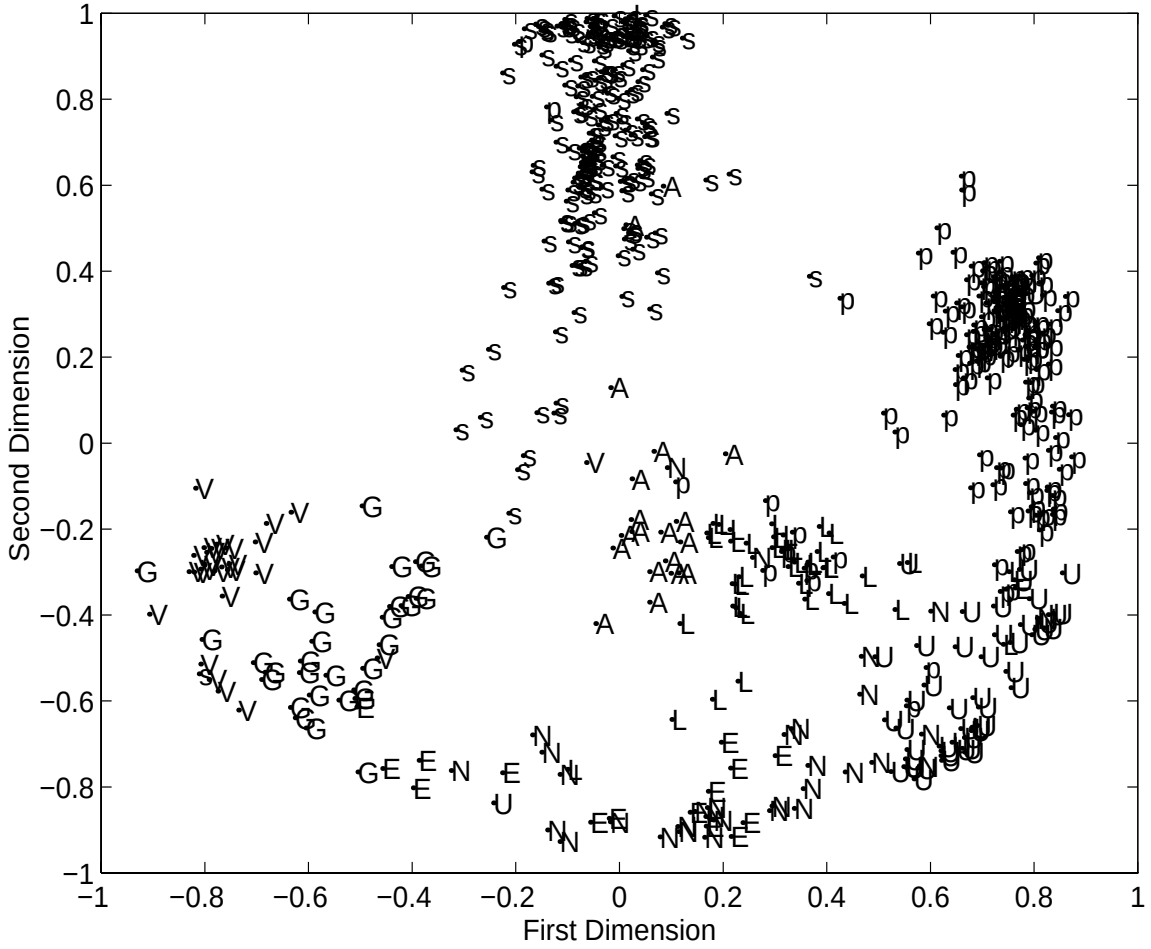

Figure 10: MEPs' estimated ideal positions, 4th Parliament, from 27 to 38 (3/96-9/96). Symbols present political groups as follows: s=PES, p=EPP, L=ELDER, U=UFE, V=Greens, G=EUL/NGL, A=ERA, E=EdN, I=IND. Note that symbols correspond to the actual (1997) configuration of political groups in the EP.

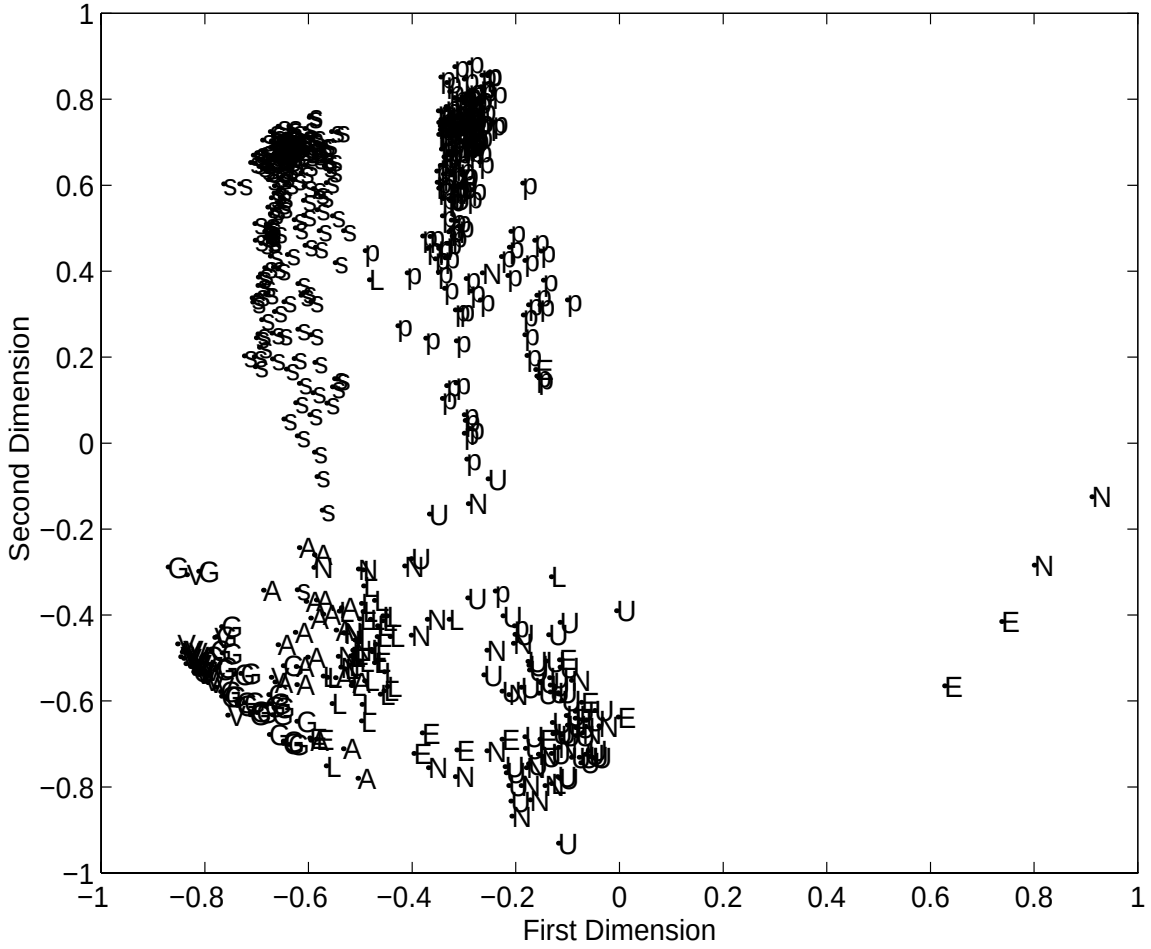

Figure 11: MEPs' estimated ideal positions, 4th Parliament, from 39 to 51 (10/96-5/97). Symbols present political groups as follows: s=PES, p=EPP, L=ELDER, U=UFE, V=Greens, G=EUL/NGL, A=ERA, E=EdN, I=IND. Note that symbols correspond to the actual (1997) configuration of political groups in the EP.

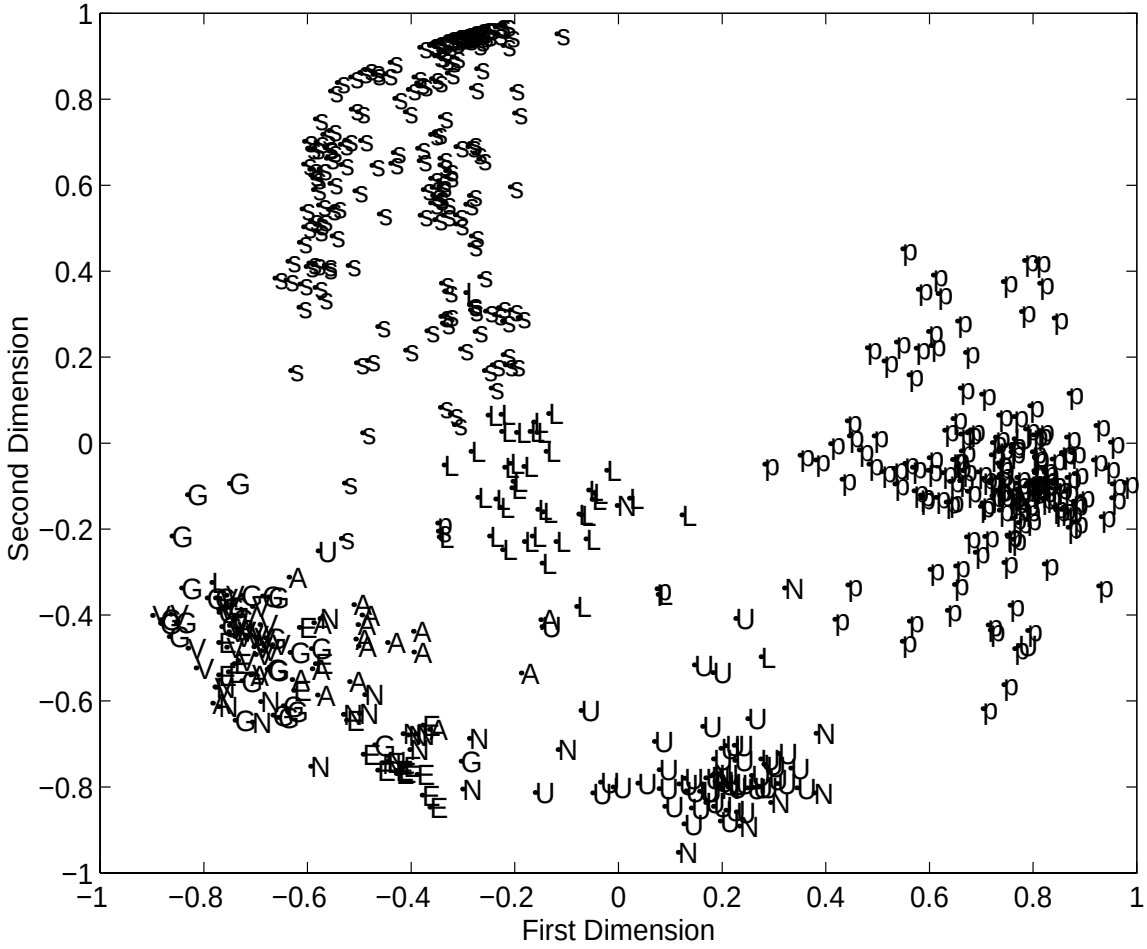

Figure 12: MEPs' estimated ideal positions, 4th Parliament, from 52 to 61 (5/97-12/97). Symbols present political groups as follows: s=PES, p=EPP, L=ELDER, U=UFE, V=Greens, G=EUL/NGL, A=ERA, E=EdN, I=IND. Note that symbols correspond to the actual (1997) configuration of political groups in the EP.

	I-a	I-b	II-a	II-b	III-a	III-b	IV-a	IV-b
C	0,576 **	0,592 **	-0,481 **	-0,306 **	0,184 **	0,220 *	0,231 **	0,281 **
	(0,029)	(0,053)	(0,063)	(0,108)	(0,059)	(0,101)	(0,048)	(0,075)
PES	-0,296 **	-0,287 **	0.120 **	0.115 **	-0,097	-0,123 *	-0,042	-0,042
	(0,030)	(0,031)	(0,066)	(0,062)	(0,061)	(0,059)	(0,051)	(0,044)
EPP	0,052	0,062 *	0,661 **	0,563 **	-0,593 **	-0,599 **	-0,564 **	-0,546 **
	(0,030)	(0,031)	(0,066)	(0,063)	(0,062)	(0,059)	(0,051)	(0,044)
ELDR	-0,060	-0,052	0,165 *	0,146 *	0,407 **	0,348 **	-0,592 **	-0,557 **
	(0,035)	(0,035)	(0,076)	(0,071)	(0,070)	(0,067)	(0,058)	(0,049)
V	-0,786 **	-0,788 **	-0,215 **	-0,219 **	-0,426 **	-0,434 **	-0,507 **	-0,474 **
	(0,035)	(0,034)	(0,076)	(0,070)	(0,070)	(0,066)	(0,058)	(0,049)
UPE	0,014	-0,002	-0,050	0,021	-0,171 *	-0,216 **	0,105	0,040
	(0,039)	(0,040)	(0,085)	(0,080)	(0,079)	(0,075)	(0,065)	(0,056)
EUL/NGL	-0,404 **	-0,395 **	0,284 **	0,293 **	-0,568 **	-0,558 **	0,265 **	0,263 **
	(0,037)	(0,038)	(0,082)	(0,076)	(0,076)	(0,072)	(0,063)	(0,053)
ERA	-0,344 **	-0,348 **	0,266 *	0,202	0,034	0,005	-0,118	-0,130
	(0,058)	(0,058)	(0,126)	(0,117)	(0,117)	(0,110)	(0,097)	(0,082)
EdN	-0,056	-0,041	0,012	-0,070	0,016	-0,039	0,021	0,050
	(0,048)	(0,048)	(0,105)	(0,098)	(0,097)	(0,092)	(0,080)	(0,068)
F		0,015		-0,270 **		0,036		0,044
		(0,047)		(0,094)		(0,088)		(0,066)
UK		-0,026		0,142		0,065		0,124
		(0,047)		(0,094)		(0,089)		(0,066)
I		-0,037		-0,173		-0,205 *		-0,149 *
		(0,047)		(0,094)		(0,089)		(0,066)
IRL		-0,006		-0,299 **		0,053		0,047
		(0,056)		(0,112)		(0,106)		(0,078)
D		-0,015		-0,074		-0,046		-0,177 **
		(0,047)		(0,094)		(0,088)		(0,066)
GR		-0,044		-0,089		-0,135		0,132
		(0,051)		(0,103)		(0,097)		(0,072)
NL		-0,036		-0,057		-0,026		-0,258 **
		(0,051)		(0,102)		(0,096)		(0,072)
E		-0,017		-0,058		-0,036		-0,146 *
		(0,047)		(0,095)		(0,089)		(0,066)
B		-0,027		-0,149		0,050		-0,182 *
		(0,051)		(0,103)		(0,096)		(0,072)
P		-0,044		-0,232 *		0,193 *		-0,061
		(0,051)		0,103		(0,097)		(0,072)
DK		-0,136 *		-0,018		0,155		-0,037
		(0,055)		0,110				0,077
A-R2	0,767	0,779	0,765	0,806	0,569	0,633	0,638	0,751
R2	0,770	0,772	0,762	0,799	0,563	0,621	0,633	0,743
N	582	582	582	582	582	582	582	582

Table 2: Regressions of MEPs' ideal positions (3rd legislature– 1989-1994) on country and party dummy variables, figures inside parenthesis represent standard errors, Luxembourg and IND or/are discarded. Regressions are performed for 4 dimensions.

	I-a	I-b	II-a	II-b	III-a	III-b	IV-a	IV-b
C	0,507 **	0,451 **	-0,614 **	-0,553 **	0,041	0,015	0,057	0,290 **
	(0,021)	(0,055)	(0,031)	(0,079)	(0,033)	(0,070)	(0,030)	(0,066)
F		0,162 **		-0,202 **		0,064		-0,384 **
		(0,052)		(0,075)		(0,067)		(0,062)
UK		0,030		0,084		-0,348 **		-0,001
		(0,052)		(0,076)		(0,067)		(0,062)
I		0,072		0,013		0,039		-0,299 **
		(0,053)		(0,076)		(0,067)		(0,063)
IRL		0,040		-0,037		-0,036		-0,201 **
		(0,061)		(0,088)		(0,077)		(0,072)
SWD		-0,018		0,043		-0,181 *		-0,040
		(0,056)		(0,081)		(0,071)		(0,067)
FND		0,050		-0,007		-0,254 **		0,007
		(0,055)		(0,079)		(0,070)		(0,066)
D		0,039		0,124		0,040		-0,096
		(0,052)		(0,075)		(0,067)		(0,062)
GR		0,048		-0,056		0,054		-0,289 **
		(0,056)		(0,081)		(0,072)		(0,067)
NL		-0,009		0,087		-0,079		-0,042
		(0,055)		(0,080)		(0,070)		(0,066)
E		0,061		0,067		0,095		-0,248 **
		(0,053)		(0,076)		(0,067)		(0,063)
B		0,053		-0,021		0,024		-0,160 *
		(0,056)		(0,081)		(0,072)		(0,067)
P		0,017		-0,125		-0,095		-0,089
		(0,055)		(0,080)		(0,071)		(0,066)
AUS		-0,055		-0,040		0,008		-0,054
		(0,055)		(0,079)		(0,070)		(0,065)
DK		-0,086		-0,107		-0,184 *		-0,011
		(0,059)		(0,085)		(0,075)		(0,070)
PES	-0,678 **	-0,665 **	1,249 **	1,168 **	-0,275 **	-0,154 **	-0,357 **	-0,465 **
	(0,023)	(0,023)	(0,034)	(0,033)	(0,035)	(0,029)	(0,033)	(0,027)
EPP	-0,037	-0,021	1,157 **	1,075 **	0,351 **	0,401 **	0,144 **	0,060 *
	(0,023)	(0,023)	(0,034)	(0,033)	(0,036)	(0,029)	(0,033)	(0,027)
ELDR	-0,327 **	-0,283 **	0,404 **	0,334 **	-0,355 **	-0,243 **	0,620 **	0,485 **
	(0,028)	(0,028)	(0,042)	(0,040)	(0,044)	(0,036)	(0,040)	(0,033)
V	-1.160 **	-1.150 **	0,019	-0,086	0,218 **	0,263 **	0,155 **	0,056
	(0,032)	(0,031)	(0,049)	(0,045)	(0,051)	(0,040)	(0,047)	(0,038)
UPE	0,154 **	0,122 **	0,228 **	0,240 **	-0,128 **	-0,124 **	-0,479 **	-0,426 **
	(0,027)	(0,026)	(0,041)	(0,038)	(0,042)	(0,034)	(0,039)	(0,031)
EUL/NGL	-0,989 **	-1.000 **	0,002	-0,020	0,356 **	0,386 **	-0,330 **	-0,337 **
	(0,030)	(0,029)	(0,045)	(0,042)	(0,047)	(0,038)	(0,043)	(0,035)
ERA	-0,642 **	-0,703 **	0,263 **	0,309 **	0,431 **	0,432 **	-0,372 **	-0,305 **
	(0,035)	(0,033)	(0,052)	(0,048)	(0,054)	(0,043)	(0,050)	(0,040)
EdN	-0,092 *	-0,119 **	-0,168 **	-0,100 *	-0,179 **	-0,129 **	-0,017	-0,004
	(0,036)	(0,035)	(0,054)	(0,051)	(0,056)	(0,045)	(0,052)	(0,042)
N	704	704	704	704	704	704	704	704
R2	0,892	0,910	0,875	0,903	0,668	0,815	0,729	0,844
A-R2	0,890	0,907	0,873	0,900	0,664	0,809	0,725	0,839

Table 3: Regressions of MEPs' ideal positions (4th legislature–1994-1997) on country and party dummy variables, figures inside parenthesis represent standard errors, Luxembourg and/or IND are discarded. Regressions are performed for 4 dimensions.