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## THE LOGIC OF POLITICAL ECOLOGY ANALYSIS

### *1. Introduction*

At elections voters express their preferences by partisanship and political parties attract sets of supporters whatever may distinguish these sets. Is there a social or environmental basis for voter alignments? Within political sociology two different traditions of research map factors that influence the electoral support of political parties. The *survey tradition* is oriented towards explaining the voting behavior of the individual with data of various kinds describing the individual. The *ecological tradition* sets out from the electoral outcomes of the political party at the local, regional or national levels and probes for ecological properties that explain differences in party strength at these levels.

Whereas the former school deals with the individual as the unit of analysis, the latter school is oriented towards aggregates of individuals as the units of analysis. Both traditions have a problem in common in that they inquire into whether the electoral support of a political party is related in some way to the environment.

(P) How is voting behavior or the support for political parties dependent on the environment?

Both schools employ a model in which voting behavior or the size of parties is hypothesized to be more or less determined by factors in the

<sup>1</sup> Some of the data used in the analysis in this paper were provided to us by national data archives. We wish to express our gratitude towards Danish Data Archives (Odense), Norwegian Social Sciences Data Services (Bergen), SSRC Survey Archive (Essex), Zentral Archiv für Empirische Sozialforschung (Köln), Frédéric Bon (Grenoble) and Göran Gustafsson (Lund). Neither the original collectors of the data nor the data archives bear any responsibility for the analyses or interpretations presented here.

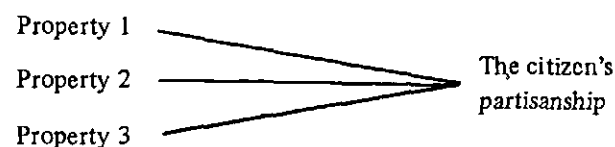
environment; the problem is, of course, to estimate how much environmental dependence there is. What is the logic of an environmental model? Is it potentially fertile?

The difference between the two schools concerns the focus of inquiry; whereas the survey tradition is oriented towards the voter, the ecological approach starts from the political party. Political participation is the process through which the individual voter aligns with a political party. Thus, the basic equation has two parts, voter and political party, and the functional relationship in (P) may deal with either how voters in their choice of parties depend upon their environment or how parties at various ecological levels vary in terms of voter support with environmental features. What differentiates the two methodological approaches is the unit of analysis, one focussing upon the voter and his partisanship, the other analyzing an organized collectivity of voters, the political party, and its relationships to other aggregate properties. What has confused this clear distinction between the survey and ecological tradition is the attempt to use the ecological approach as a substitute for the survey approach, making inferences from aggregates of voters to individual voters. The use of the ecological approach to make individual inferences has raised considerable methodological attention as well as severe criticism as it has been argued that it implies a fallacy, the so-called ecological fallacy (Dogan & Rokkan 1969, Stokes 1969, Hanushek, Jackson & Kain 1974, Hannan 1971, Shively 1969).

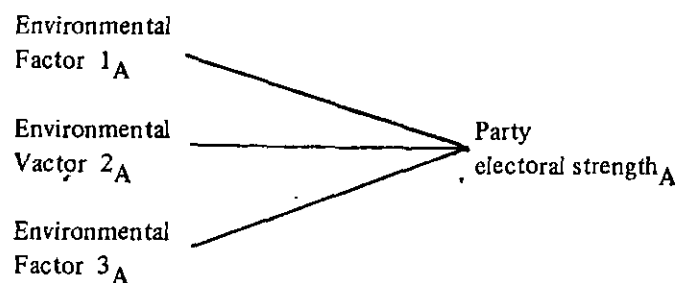
To us the ecological approach has a distinctive and interesting use besides its eventual employment to make inferences about individual voters' behavior, viz. *that of describing and modeling ecological political properties*. Even if the ecological fallacy restricts the use of the ecological approach to the ecological description and modeling of political parties, this would still constitute a proper justification of ecological analysis. To us, the survey tradition and the ecological tradition need not be in conflict because they may complement each other. Whereas the focus in survey analysis is on the individual, the focus in ecological analysis is on spatial patterns of party support. Ecological analysis of party support, whatever inferences may be drawn about its individual supporters, is a goal to itself. To us it seems difficult if not practically impossible to use the tools of the survey tradition to outline the variation in political party support on aggregate levels like the nation and the region. Because the survey tradition relies on the questionnaire

or the interview as its data source, its applicability for historical or comparative analysis is much more restricted than ecological analysis, which utilizes public data on voting and demography.

The dependent and the independent variables in the survey tradition are basically different from that of the ecological tradition. Broadly speaking, the survey model attempts to understand the choice of an individual of a political party by looking at properties of the individual like his pattern of socialization, preference schedules, candidate and issue orientation and socio-economic status. Thus we have.



All the properties employed for the explanation of the individual's vote for one or another party pertain of course to the individual. This is very different from the basic model of the ecological approach, which may be portrayed something like this:



The key to an understanding of this model is the suffix "A" denoting the aggregate unit. The explanatory variables are properties of aggregates such as nations, regions or localities. In the survey approach the problem is whether

there is a variation in the vote for a political party if an individual property of the voter changes; the problem in the ecological approach concerns a relationship between the variation in the electoral outcomes of a political party aggregated to a unit and a variation in the properties of the same units. To end this discussion we quote *Richard Rose*:

"Ecological studies can be used less confidently as a source of information about the voting behavior of individuals, because ecological data do not take the individual as the basic unit of account. Sample surveys usually provide the most reliable and valid information about individual partisanship. The accuracy of sample surveys is likely to decline — assuming a constant sample size — when the number of parties rises, because the numbers of respondents supporting smaller parties in a multiparty system will be limited. National cross section samples are also unlikely to have substantial data about small subgroups in the population, whether they are distinctive in territorial or social terms. Survey and ecological methods for studying voting are not mutually exclusive; they can be profitably combined or alternated, according to the problem at hand." (Rose 1974, 14)

## 2. *The environmental problem*

The extensive research whose point of departure is the ambition to elucidate the problem (P) from the two mentioned angles — how voting behavior and the size of parties are connected with the environment — has not resulted in any conclusive theory of how the function in (P) is to be conceived. Obviously, a number of factors have been identified that appear to have some kind of connection with voting behavior or party size. According to *M. Janowitz*:

"At the empirical level, the bulk of research in political sociology has been directed toward the investigation of the social bases of political cleavage and consensus. These studies are mainly derived from a social stratification theory of politics and have been characterized by a progressive refinement of categories of analysis, from broad concern of class and occupation to much more refined measures of social status." (Janowitz 1968, 300)

In political sociology the first question has been to confirm if one type of environmental factors denoted by the term "socio-economic structure" can explain variations in the strength of political parties at the national level or

some other level. The next question has concerned the importance of other types of environmental factors such as ethnic, class or religious structure, and how these different types of environmental factors relate to one another (Lijphart 1980).

One variant of the environmental theme is to stress the importance of class structure as a determinant for the electoral support of a political party. *R. Alford* is representative of this view:

"A relation between class position and voting behavior is a natural and expected association in the Western democracies, for a number of reasons: the existence of class interests, the representation of these interests by political parties, and the regular association of certain parties with certain interests. Given the character of the stratification order and the way political parties act as representatives of different class interests, it would be remarkable if such a relation were not found." (Alford 1967, 68-69)

However, there is no agreement on how far success has been achieved in solving or elucidating (P), in clarifying which environmental factors determine how much of the size of political parties; there are critics who consider that both the survey school and the ecological school, whatever differences there may be between these traditions, operate on the basis of a limited perspective at best and at worst on an inadequate approach to the understanding of the ability of political parties to mobilize electoral support. Thus *Giovanni Sartori* argues that an environmental model is not a feasible theory:

"Now, the greater the range of politics, the smaller the role of 'objective factors'. All our *objective factors* are increasingly exposed to, and conditioned by, *political uncertainty*. If so, it is an extraordinary paradox that the social sciences should be ever more prompted to explain politics by going *beyond* politics, by developing a fetishism for the 'invisible hand'. The foregoing is predicated upon the opposite assumption, namely, that the sociologist should catch up with the hazardous uncertainties of politics." (Sartori 1969, 93-94)

Our basic argument is that it is now time to bypass the debate whether political sociology and its main problem (P) is in an abstract sense meaningful and to abstain from formulating general contributions to the debate focusing upon (P); the ambition should be less methodological and more specific. By

specifying (P) into a couple of precise problems and by applying (P) to a clearly delimited set of data, it is possible to move one more step ahead by determining in a definite way how relevant (P) is to a delimited number of political systems. More specifically, we ask:

- (P') How much of the variation in electoral support for different parties in West European democracies can be explained with environmental factors at two ecological levels, the nation and the region?

It is possible that an application of environmental models to another set of political systems or to the same political systems during another period of time would give a different result; this would be of relevance to the test of the original formulation (P) of the environmental problem. However, it is better to leave out of the account the general question of the possibility of a political sociology; we argue that political sociology should remain satisfied if it can find some connections between the size of a party (party types) and its environment during a limited period for a limited selection of parties (types of parties) (P<sup>1</sup>). The objective should not be any kind of general judgment of the applicability of a general model, but to specify some precise models on the basis of a limited set of problems which can be handled with quantitative method. Instead of asking so generally formulated a question as (P) we content ourselves with investigating if the electoral support for parties (or some types of parties) during a delimited period of time can be explained to some extent with environmental factors.

If the object of analysis is the political party, then the choice of the ecological approach follows from the concern to describe and analyze the electoral variation in the support of political parties at various aggregate levels. The logic of political ecology analysis then becomes: firstly, to map the national and regional variation in electoral outcomes for the set of political parties; secondly, to estimate explanatory models suitable for the variation derived. We will not here carry the ecological analysis to a conclusion, but *outline* how one may go about doing ecological analysis once the interest is exclusively focussed on political parties and their electoral outcomes in units at different levels. Our aim is to prove the feasibility of an ecological model attempt for the analyses of both national and regional patterns of variation.

### 3. Method of analysis

From a logical point of view the mapping of the variation in the dependent variable precedes the specification of a set of independent variables which are supposed to explain this variation; before hypotheses about connections between the electoral strength of parties at different levels and environmental factors are put forward it may be appropriate to get an idea of how great the variation is that is to be explained. The logic of political ecology analysis requires a methodological distinction between:

- (a) the mapping of variation
- (b) the explanation of variation.

Before one proceeds to specify explanatory models containing a set of independent variables it is necessary to look into the nature of the dependent variable. Basically, the dependent variable is the set of political parties in our sixteen nations; they number 100 in 1975. The conduct of an ecological analysis of the variation in the electoral support for these parties may be handled in two different ways as a function of the choice of the unit of analysis, the region or the nation:

- (i) object of analysis = each single party
- (ii) object of analysis = types of parties.

The first approach is the appropriate one for the regional analysis of the variation for a single party; it is also the correct choice when one wishes to look into electoral trends and fluctuations of a party. However, it is not the best choice as one moves to analyze the national variation, because at that level the single parties have to be aggregated in order to construct comparable cases. Thus, we can compare how the Swedish Social Democratic Party (SAP) does in various parts of Sweden, but we may only compare the SAP with e.g. the British Labour Party once the inquiry is focussed on how different socialist parties do in various nations. The concept of *party type* is fundamental to the analysis of the national variation. How are such concepts of party types to be introduced? The classification of a large number of European political parties into types of parties is most problematic; is the CDU in Germany to be classified as a religious party or a conservative party? In what sense is the CDU comparable to the Italian DCI or the Austrian

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ÖVP? In a comparative perspective one simply has to do as good as possible being aware of all simplifications. We will suggest a list of party types the fertility of which will be an open question to be tested in the variance analysis. Thus, we have the following party types:

- (a) communist parties (N = 15)
- (b) socialist parties (N = 17)
- (c) religious parties (N = 16)
- (d) liberal parties (N = 16)
- (e) conservative parties (N = 11)
- (f) agrarian parties (N = 6)
- (g) ethnic parties (N = 8)

The aggregation of the political parties into party types has to recognize that two or more parties in each nation may belong to the same party type. In some nations there are more than one religious party and more than one socialist party; in these cases we have aggregated their scores on a national basis. The analysis of the national variation deals with how these seven party types occur in sixteen nations, whereas the regional analysis refers to how each single party does in the various regions of the nation in which that party occurs. Of course, the choice between (i) and (ii) – the choice of the object of analysis – has implications for the identification of independent variables. Though the national analysis is restricted to a few party types it covers a most considerable amount of the political party vote (roughly 90%).

#### 4. Paradigm for the mapping of the variation

The electoral strength of a certain type of party may vary between different countries in the same way as the electoral strength of a certain party within a country may vary between different regions. Two extreme distributions may be imagined: (i) minimum variation: an entirely even distribution so that the vote of the party is equally large in all countries or in all regions; (ii) maximum variation: each party occurs only in one country or in one region and lacks support in all other countries or regions. The probable variation is, of course, somewhere in between; how should the variation be described?

Among various measures of describing the variation in distributions the variability coefficient (CV) is considered to be simple and handy (see Blalock 1960, 73-74; Allison 1978, 877). The CV takes into account that the mean value can vary in different distributions and therefore renders comparisons between groups possible; it is obtained by dividing the standard deviation by the mean value, i.e.

$$CV = \frac{s}{\bar{x}}$$

The minimum value of the CV is 0, whereas its maximum value is the square root of the number of cases, i.e.  $\sqrt{N}$  (Martin & Gray 1971, 497). The coefficient of variation may be expressed by percentage scores, where values of about 35% and higher stand for much of variation.

#### 5. Model specification

The logic of political ecology analysis requires that the mapping of the variation in the electoral support for political parties is accompanied by attempts to relate this variation to variations of various kinds in the environment; of course, this is typical in the ecological tradition where one often faces the task of understanding or explaining how it comes about that one and the same type of party gets different support in different countries or one and the same party receives differential support in different regions in one and the same country. The expressions "different countries" and "different regions" are key concepts when specifying models with the aid of which the degree of *dependence on environment* could be estimated; if the variation in the electoral size of a party can be explained by means of factors in the environment it is possible to speak of dependence on environment. How can this concept of dependence be operationalized? Dependence on the environment is a causal relation between the environment and the political party (type of party). Schematically, we have a function:

$$(1) \text{ PES} = f(\text{EF})$$

where "PES" stands for the electoral strength of a political party and "EF" denotes environmental factors. How is this function to be estimated?

We describe the concept of social environment or social structure by using two traditional concepts within political sociology, viz. the concepts of socio-economic structure and of cleavages. In the social structure we identify socio-economic dimensions and the following kinds of cleavages:

- (a) ethnic cleavages
- (b) religious cleavages
- (c) class-based cleavages.

For the analysis of the national variation we specify two models; the first model captures the social structure or social environmental dependence. Its variables — measured by indices listed in Appendix I — include:

- (a) industry
- (b) urbanization
- (c) affluence
- (d) ethnicity
- (e) religious structure
- (f) class structure.

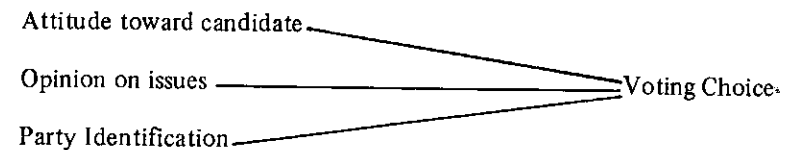
The second model contain political variables pertaining to the political environment of parties.

- (i) trade union organization
- (ii) strike inclination
- (iii) party membership.

For the analysis of the regional variation we specify one model covering the social environment:

- (a) industry
- (b) agricultural structure
- (c) affluence
- (d) religious structure
- (e) religious and cultural orientation
- (f) ethnicity and language.

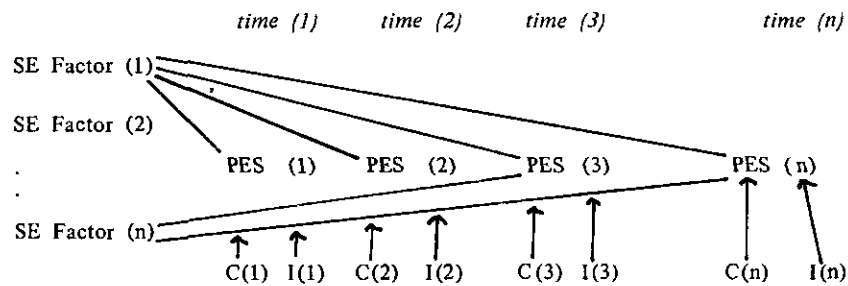
The lesson to be learned from the findings of the survey approach is that the function (1) will never be complete. Electoral choices are not simply strictly determined by environmental forces in operation over substantial periods of time. In traditional survey research, an individual's voting choice in an election at time  $t$  is regarded as a function of the voter's attitude toward a particular candidate or party leader, the voter's opinion on the current election issues, and the voter's party identification:



The first two variables, attitudes toward candidates and opinions on issues, tend to be election-specific and thus are regarded as "short-term" forces. The third, party identification, is regarded as more enduring and thus a "long-term" voting predisposition resulting from the process of political socialization.

In ecological research, data are unavailable on the short-term forces associated with voters' views of candidates and issues. Although the ecological researcher also lacks data on voters' party identification, he can probe the causal structure by studying the structural characteristics of the voters' social environments. Thus the focus of ecological research of electoral behavior tends to be on underlying environmental causes of party preferences rather than on the determinants of candidate choice more generally. Such ecological research assumes that ecological characteristics change relatively slowly. Consequently, the "long-term" forces that determine party preference will tend to be constant within the same space (the same aggregation of voters) from time  $t$  to time  $t + 1$  and will thus tend to have exert the same effects in adjacent elections, with equality of effects varying according to the length of time between elections. These considerations give rise to this model:





where SE = Social environmental, PES = Party Electoral Strength, C = Candidate factor, I = Issue factor.

The implications is that the function (1) has to be replaced by the more accurate function

$$(2) \text{ PES} = f(\text{SE}, \text{C}, \text{I}).$$

According to this model and assuming little change in ecological characteristics over time  $t$  to  $t + 1$ , factors SE(1) to SE(n) should have the same effects on party strength in each election year. Ecological analyses of the social environment and party strength over time will never explain all the variance in party strength over social areas due to the missing candidate and issue factors. Not only will the overall explanatory power be less than perfect but the exact effects of the structural factors in each election will be inaccurately estimated because the missing factors. In practice, this means that the R-squared values in a regression analysis will be less than 1 and the coefficients in the associated equations will vary across elections. The greater the candidate and issue effects, the lower the R-squared value from regressing party strength on environmental factors and the greater the variation in coefficients across equations. These observations are not new, but reconsidering them can lead to a different approach to ecological analysis of electoral behavior to provide a better estimate of structural effects on party strength.

Our idea is to introduce into the analysis the differential effects of candidates and issues in adjacent elections to produce alternative estimates of

ecological effects on party strength. Two alternative models will be considered. The "mean party vote" estimates the effects of candidates and issues across elections by averaging the percent vote cast for the same party across  $n$  elections and using the structural factors to predict to the *average* party strength. Thus we have:

$$(3) (\text{PES}_T + \dots + \text{PES}_{T-N})/N = F(\text{EF})$$

The other model, the "merged party votes" approach consists of treating all the data points from different election years as cases in one analysis, which would double the number of cases when combining two elections, triple the cases when combining three elections, and so on. Thus, we have:

$$(4) \text{ PES}_T, \dots, \text{ PES}_{T-N} = F(\text{EF})$$

Social structures are not constant meaning that models (3) and (4) have to be applied with care. When the time spans between the elections years become large there is every reason to expect that the environmental impact will be reduced due simply to the fact that the social structure has changed. This problem should be handled by using data on the social structure at different points of time.

In addition to the mean party vote model and the merged party vote model we will estimate environmental dependence indirectly by estimating on the one hand a time model and on the other a variance model.

If there is environmental dependence then we should find little fluctuation from one election to another and whatever trends occur in the development of a political party these trends should be a function of the development of the environment. To the extent that this is not true the environmental models have less relevance.

By estimating the time pattern of political parties indirect evidence of environmental forces may be gained. Concepts relevant for the analysis of time patterns may be introduced in the following way: The electoral strength of political parties varies not only in space but their electoral strength varies also over time. A description of the variation in time may focus on a pair of concepts: stability and instability. We distinguish between two types of instability: occurrence of *trend* and occurrence of *fluctuation*. Stability

implies the absence of both trend and fluctuation, whereas there are of course three variants of instability since both trend *and* fluctuation can occur. The concept of instability over time is operationalized by testing the model

$$(5) P_t = \beta \text{election year} + \varepsilon$$

for a definite series of time. The CV value of the equation is used to identify fluctuation. On the basis of the same time series equation it is also possible to decide if the electoral strength of the party has changed or not during a certain period of time, i.e. if there is a trend. A trend in the electoral development of the party or of the type of party occurs when the time series equation is significant; the level of significance can vary, but for our purposes the level .01 is appropriate. Finally, a different approach may be employed to estimate the total environmental effects, not merely the effects captured by the selected social factors. Patently idiographic, it relates the *region* itself to party votes, using the identity of the region in a one-way analysis of variance of the party vote over separate elections, as in model (4). This method assesses the impact of candidates and issues as well as the social environment. Because it uses the identity of the region as a nominal variable to capture the idiographic configuration of all environmental variables — social, political, economic, and geographic — it estimates the percentage of variation attributable to the peculiar set of factors associated with each region, as expressed in the eta squared statistic. Thus we have:

$$(6) F(EF) = \frac{TSS - WSS}{TSS}$$

where TSS = total variation (total sum of squares), WSS = variation within a group (nation, region).

The estimation of the environment models (3) — (4) is based on multiple regression equations, where only significant values are relevant. The model estimation will be done on the basis of tests of the significance of the parameters: parameters that do not meet the restriction of a significance-level lower than .05 will not be considered. The significance test is resorted to as a method of sorting out chance results from real relationships, "significant" here meaning "very probable not by chance alone" in a statistical decision

approach (Winch & Campbell 1969). Parties or types of parties are said to be dependent on the environment to the extent that connections can be identified between the electoral strength of the parties at time T and the environment at T or some preceding T. It must be born in mind that the analysis of the national data is based on a small number of cases. The data set is described in Appendix 1.

### 6. National determinants

A principal feature of the party systems of the West European countries is that a limited number of types of parties secure a considerable majority of the votes. Moreover, the fact is that these types of parties occur in practically all the political systems in Europe that can be called democratic. However, this impression of homogeneity — to be balanced, of course, by the fact that there are politically essential minor parties outside these types of parties — is lost when we look at the electoral strength of these types of parties in different countries; maybe no explanation is needed of the fact that the *same* types of parties occur in *different* countries as in political sociology the interest has focussed on why the same type of party gets differential support in different countries. To explain this cross-national variation has been regarded as a main problem in ecology analysis. How large is the cross-national variation? Table 1 has the CV-scores and the E<sup>2</sup>-measures.

Table 1. Measures of national variation (CV & E<sup>2</sup>).

CV	1945	1950	1960	1970:I	1970:II	E <sup>2</sup> 1970:I-II
Communist Type	64.0	90.1	106.6	105.9	113.9	.97
Socialist Type	34.2	38.2	38.2	34.9	36.5	.84
Religious Type	45.9	48.6	57.8	79.3	72.4	.98
Liberal Type	78.2	78.9	80.8	78.3	92.1	.93
Conservative Type	88.8	67.2	63.0	61.5	55.1	.93
Ethnic Type	160.9	153.0	114.0	136.4	101.5	.92
Agrarian Type	55.5	73.0	59.0	28.7	25.8	.82

It is obvious that all the main types of parties meet with different support in different countries. To no type of party does it apply that much the same support is obtained in different countries. Ethnic parties have a representation that is uneven to say the least; the support for Communist parties, the Religious party type and the Conservative party type also display heavy imbalances. The support for Socialist parties is the most even among all the types of parties, but it is not possible to speak of balance. The Liberal party type has greater imbalance in the variation than the Socialist parties, but less imbalance than the ethnic type of party. The table clearly indicates that the national imbalances for the various types of parties have *not* decreased during the 1960's and the 1970's. The pattern of national differences appears to be stable as the between nation differences are larger than the within nation differences over a decade as indicated by the Eta-scores. How is this extensive variation to be explained? Of what importance is the social environment and the political environment respectively in a country? The Eta-scores indicate that roughly 90% of the variation to be explained stems from factors peculiar to the nation. One such set of relevant factors are the variables pertaining to the social structure of a nation. We use the merged model (4) to estimate the dependence of the five party types on their social environment. The Table 2 has the regression analysis.

Table 2. Environmental dependence (Regression analysis).

		Beta	Significance
Communist type	Agriculture	.32	.04
	Urbanization	-.37	.00
	Ethnicity	-.13	.35
	Catholicism	.13	.43
	Income distribu- tion	.16	.29
	$\bar{R}^2 = .39$ ( $R^2 = .45$ ) F-ratio = 6.638		
Socialist type	Agriculture	-.12	.36
	Urbanization	.24	.04
	Ethnicity	-.16	.18
	Religious con- sciousness	-.44	.00
	Income distribu- tion	-.23	.08
$\bar{R}^2 = .42$ ( $R^2 = .49$ ) F-ratio = 8.074			

Table 2 cont.		Beta	Significance
Liberal type	Industrialization	-.26	.05
	Affluence	.19	.24
	Ethnicity	.18	.19
	Religious con- sciousness	.66	.00
	Income distribu- tion	.07	.59
$\bar{R}^2 = .45$ ( $R^2 = .52$ ) F-ratio = 8.455			
Religious type	Industrialization	.78	.00
	Affluence	-.21	.04
	Ethnicity	-.46	.00
	Religious con- sciousness	.69	.00
	Income distribu- tion	-.04	.62
$\bar{R}^2 = .79$ ( $R^2 = .82$ ) F-ratio = 31.596			
Conserva- tive type	Service	-.63	.01
	Urbanization	.37	.02
	Ethnicity	.33	.05
	Religious frag- mentation	.62	.00
	Income distribu- tion	-.28	.14
$\bar{R}^2 = .44$ ( $R^2 = .54$ ) F-ratio = 5.314			

Firstly, it may be established that the environment does not explain everything on the national level. Actually, the  $R^2$ -values amount to about half of the Eta-scores, meaning that our five-variable ecological models recapture about half the estimated environmental effects as determined by the analysis of variance. The exception is the religious party type; the finding is that the national variation in alignments with religious parties is almost totally a function of the social structure of the nation as represented by our model.

Secondly, another finding is that the ecology model explains well with regard to the major party types: the communist, the socialist, the liberal and

the conservative party types. Strong communist parties are to be found in less advanced nations, where the extent of the population employed in agriculture is high and the percentage of the population living in urban areas is low. The socialist parties draw upon the opposite environment: the more urbanized a nation and the less of its population employed in agriculture the higher the election results for the socialist party. Particularly important for the liberal vote is the degree to which the citizens of a nation show religious consciousness. There are two possible interpretations: either the liberal vote expresses a religious orientation of some kind or the liberal vote draws upon an anti-clericalism that is often reflected in some of the liberal party's ideologies. It is no surprise that religious consciousness is a good predictor for the strength of the religious vote; the connection with the level of industrialization is more difficult to make sense of. Conservative parties appear to be strong in nations with religious cleavages and less advanced economic structure.

Concerning the social basis of the ethnic and agrarian party types one has to be more cautious, because their small number does not admit of any refined econometric techniques. However, simple correlations may be resorted to in order to get a gross picture: ethnic parties is to a very high extent a function of ethnic structure, the correlation between the ethnic vote and the index on ethnic fragmentation being .87 (.00). The agrarian party type has some rather strong negative correlations with ethnic and religious structure as well as with the level of industrialization -.43 (.05).

On the national level, the environment or the social structure is a set of determinants of political party support — but its impact is not overwhelming. The finding is in relation to the literature on politics and society that ecology factors should neither be underemphasized nor overemphasized. It may be established that economic variables like income distribution and wealth matters little; far more important is socioeconomic structure as well as religious structure.

The concept of the environment may be expanded to include also the political environment in the sense of that concept which covers more durable factors like trade union organization, party membership and strike inclination. It appears from Table 3 that such factors are just as relevant as social environment variables, estimated by the merged model.

Table 3. Political factors (Regression analysis).

		Beta	Significance
Communist type	Trade union organization	-.16	.02
	Strikes	.53	.00
	Membership	.39	.00
	$\bar{R}^2 = .84$ ( $R^2 = .85$ ) F-ratio = 67.886		
Socialist type	Trade union organization	-.08	.45
	Strikes	-.45	.00
	Membership	.65	.00
$\bar{R}^2 = .66$ ( $R^2 = .69$ ) F-ratio = 28.367			
Liberal type	Trade union organization	.03	.80
	Strikes	-.07	.59
	Membership	.66	.00
$\bar{R}^2 = .42$ ( $R^2 = .47$ ) F-ratio = 9.530			
Religious type	Trade union organization	-.55	.00
	Strikes	-.07	.59
	Membership	.46	.00
$\bar{R}^2 = .52$ ( $R^2 = .56$ ) F-ratio = 12.355			
Conservative type	Trade union organization	-.70	.00
	Strikes	-.06	.68
	Membership	-.22	.17
$\bar{R}^2 = .56$ ( $R^2 = .63$ ) F-ratio = 9.785			

The pattern of political environmental impact is that strike inclination and membership structure affect the strength of the communist and socialist party types whereas trade union organization is the best predictor of the vote for the religious and conservative type. Both the liberal and the religious type depend upon the size of its membership.

By way of summary it can be established that the communist, the socialist, the religious, the liberal, the conservative, the agrarian and the ethnic types of parties are supported in such a different way that the question must be asked if social structure differences between countries determine or condition this national variation. On the basis of the estimation of the cross-sectional models we have specified identifying determinants in the social environment, socio-economic, class-based, ethnic, and religious determinants, we may confirm the hypothesis of the importance of the social structure for national election results.

Longitudinally, the social environment changes, but it changes slowly. Therefore there is reason to assume that the types of parties that have strong structural bindings are more stable over time than the types of parties that are less determined by the social structure. We will now test this implication by means of time series data (Table 4).

Our test implication that we derived from the estimation of the environmental model is partly confirmed by data on the variation in time of the different types of parties. Stable parties are to be found either within the socialist or the religious type of party; and of these two types of parties the religious type has very strong structural ties. Some of the other types of parties are characterized by a special type of instability, the combination of both trend and fluctuation; moreover, there is another type of instability, the combination of a trend but little of a fluctuation, in several cases. It can be established that the communist type of party, the liberal type of party like the conservative type of party on the whole are characterized by fluctuations but also by trends in various countries. These results corroborate the general finding that social environment has a clear and measurable impact on the electoral outcomes, but that its impact is *limited*.

### 7. Regional determinants

There is no self-evident criterion of what should be meant by regional variation in electoral support for any kind of type of party. Of course, this follows from the fact that the concept of national level has an unambiguity that does not recur, when one goes to concepts of sublevels within a political system. Our investigation into the social determinants of a regional variation is based on the following considerations:

Table 4. Variation over time 1944-1980.

Country	Communist		Socialist		Religious		Liberal		Conservative		Agrarian		Ethnic	
	CV	Sign	CV	Sign	CV	Sign	CV	Sign	CV	Sign	CV	Sign	CV	Sign
Austria	28.1	.00	5.2	.00	5.5	.17	49.5	.69						
Belgium	54.1	.03	11.5	.01	9.7	.00	20.7	.05					45.1	.00
Denmark	67.4	.01	12.0	.14			30.7	.47	29.6	.07	15.5	.00		
F.R. Germany	158.6	.05	6.9	.00	7.7	.52	22.2	.31						
Finland	8.5	.01	9.0	.46			24.0	.40	13.3	.01	7.7	.00	2.6	.00
France	8.6	.00	22.9	.56			23.4	.27	31.1	.01				
Greece	63.3	.34					28.2	.06	16.6	.53				
Ireland			17.1	.16	12.3	.00	5.9	.23						
Italy	7.4	.00	8.9	.00	9.4	.38	37.0	.57						
the Netherlands	36.4	.00	10.7	.25	5.3	.00	14.0	.00						
Norway	48.9	.00	9.2	.34	12.7	.03	12.6	.00	9.9	.06	7.7	.00		
Sweden	33.0	.14	4.4	.19	4.4	.94	24.3	.02	17.6	.64	21.1	.00		
Switzerland	25.9	.05	4.7	.07			4.3	.04	10.4	.29	4.7	.01		
United Kingdom			5.4	.00			43.7	.02					52.2	.00

- (a) the division into regions takes place within the nation, i.e. to every division into regions applies that it does not cross national borders;
- (b) the division into regions connects onto the administrative division of a country. The choice of the administrative level is on the principle that the regional level should be larger than the voting districts but smaller than federal state level; it admits both of an analysis of how different types of parties vary in electoral strength at regional level and of how different countries show regional variations, in the support for different types of parties.

Before one begins to look for determinants one should give a brief account of the explanandum and to what extent regional variation for a party is a reality. It has been maintained that regional variation in the support for political parties is not a noteworthy phenomenon in Western Europe (Rose and Urwin 1975). However, we find that there are stable patterns of regional imbalances in Western Europe (Table 5), as the CV-scores and the Eta-scores indicate for the political party support in the 1970ies.

Communist parties are characterized by regional imbalance in a way entirely different from socialist parties. As a matter of fact one does not find many communist parties that are about equally strong in all the regions of a country, whereas one must make an effort to find socialist parties that do not have an even regional support. Among the other types there are both regionally uneven parties and parties with regional balance. This mixture of balance and imbalances characterizes especially the religious and the liberal parties. What is typical of ethnic parties — to attract votes in certain but not all the regions — is captured in the index for the occurrence of regional imbalance. One wonders if these differences between regional support for different types of parties is systematically connected with the country in which the type of party occurs. The following mean values for total regional imbalance for various countries can give an answer to this question (Table 6):

Table 5. Measures of regional variation (CV & E<sup>2</sup>).

	1970:I	1970:II	E <sup>2</sup>
COMMUNIST PARTIES			
KPÖ (A)	93.6	64.8	.63
PCB (B)	122.8	114.3	.98
DKP (DK)	70.5	64.5	.92
DKP (D)	51.1	59.4	.92
SKDL (SF)	61.6	62.0	.99
PCF (F)	39.6	36.6	.97
KKE (GR)	76.6	57.1	.92
PCI (I)	38.2	28.5	.89
CPN (NL)	88.5	112.5	.77
NKP (N)	-	106.0	-
PCP (P)	110.9	91.2	.96
PCE (E)	69.9	57.0	.94
VPK (S)	130.7	101.7	.97
PDA (CH)	233.8	218.9	.97
SOCIALIST PARTIES			
SPÖ (A)	28.2	24.5	.93
PSB (B)	27.8	32.1	.98
SD (DK)	30.8	28.6	.92
SFC (D)	20.3	22.3	.96
SDP (SF)	60.5	58.5	.98
SFIO (F)	48.1	31.2	.86
PASOK (GR)	37.8	21.6	.38
LAB (IRL)	63.9	72.7	.93
PSI (I)	26.3	21.1	.94
PSDI (I)	34.2	38.2	.88
PVDA (NL)	25.2	19.6	.78
DNA (N)	21.8	21.0	.81
PSP (P)	27.0	21.1	.62
PSOE (E)	28.8	25.3	.87
SAP (S)	31.8	32.0	.97
SPS (CH)	69.7	63.5	.97
LAB (GB)	29.0	36.6	.90

Table 5 cont.	1970:I	1970:II	E <sup>2</sup>
<b>RELIGIOUS PARTIES</b>			
ÖVP (A)	29.3	27.3	.96
PSC (B)	35.3	31.6	.96
KRF (DK)	68.4	53.1	.94
CDU (D)	22.9	21.3	.96
SKL (SF)	141.7	69.2	.67
FG (IRL)	17.3	21.6	.79
DCI (I)	23.9	21.5	.98
CDA (NL)	28.2	26.8	.98
ARP (NL)	54.5	-	-
CHU (NL)	71.7	-	-
KVP (NL)	79.1	-	-
GPV (NL)	74.7	103.4	.85
KRF (N)	57.1	86.8	.98
CES (P)	68.7	49.8	.66
KDS (S)	-	83.8	-
CDV (CH)	105.0	92.2	.99
<b>LIBERAL PARTIES</b>			
FPÖ (A)	53.0	58.1	.89
PLB (B)	33.2	36.5	.90
RV (DK)	28.9	39.1	.62
LKP (SF)	85.7	76.0	.93
FDP (D)	32.9	29.4	.96
EDHIK (GR)	33.9	46.7	.61
FF (IRL)	10.8	8.9	.70
PLI (I)	55.2	76.1	.56
PRI (I)	66.3	56.4	.97
VVD (NL)	23.4	23.7	.80
D'66 (NL)	26.3	26.1	.66
VE (N)	134.2	103.7	.93
PPD (P)	57.5	47.4	.95
FP (S)	51.0	52.0	.91
FDP (CH)	85.0	73.6	.96
LIB (GB)	115.8	58.0	.64

Table 5 cont.	1970:I	1970:II	E <sup>2</sup>
<b>CONSERVATIVE PARTIES</b>			
KF (DK)	41.2	48.1	.71
KOK (SF)	62.6	59.2	.98
PDM (F)	76.9	42.0	.66
UDR (F)	20.4	23.3	.67
ND (GR)	19.9	18.5	.57
HOE (N)	46.7	41.5	.73
UCD (E)	34.2	28.9	.95
AP (E)	49.9	64.0	.80
AD (P)	30.4	29.4	.99
MOD (S)	47.4	51.5	.86
CONS (GB)	30.3	30.4	.83
<b>AGRARIAN PARTIES</b>			
VE (DK)	40.3	25.7	.60
KESK (SF)	60.1	61.8	.99
SMP (SF)	55.3	54.6	.95
SP (N)	109.3	70.1	.90
CP (S)	59.7	43.4	.93
SVP (CH)	172.6	165.0	.98
<b>ETHNIC PARTIES</b>			
CVU (B)	95.6	94.4	.96
RW-FDF (B)	122.6	118.9	.93
RKP (SF)	276.6	276.9	.99
ETHNIC (E)	-	201.1	-
SCOT (GB)	275.0	260.0	.88
WELSH (GB)	350.0	350.0	.87
<b>OTHER PARTIES</b>			
RFB (DK)	29.3	33.3	.59
SF (DK)	64.0	65.3	.95
VS (DK)	55.7	63.0	.83
CD (DK)	42.3	66.3	.35
FRP (DK)	16.5	19.5	.79
TPSL (SF)	135.8	126.8	.87
PSU (F)	83.2	110.0	.72

Table 5 cont.,	1970:I	1970:II	E <sup>2</sup>
MSI (I)	56.1	53.0	.88
BP (NL)	47.4	47.2	.50
PSP (NL)	40.4	39.6	.67
SF (N)	32.5	37.1	-
UN (E)	-	70.7	-
LDU (CH)	140.8	156.0	.91
NA (CH)	139.2	150.8	.86
SRB (CH)	169.4	175.9	.88

Table 6., Regional imbalances countrywise (CV & E<sup>2</sup>).

	1970:I	1970:II	E <sup>2</sup>
Austria	51.0	43.6	.85
Belgium	72.8	71.3	.95
Denmark	44.3	46.0	.75
F.R. Germany	34.3	35.3	.95
Finland	89.3	79.8	.93
France	53.6	48.2	.77
Greece	42.0	35.9	.62
Ireland	30.6	34.4	.80
Italy	42.8	42.1	.84
the Netherlands	50.8	49.8	.75
Norway	66.9	66.5	.87
Portugal	58.9	47.7	.83
Spain	45.7	75.8	.89
Sweden	64.1	60.7	.93
Switzerland	139.4	137.0	.93
United Kingdom	160.0	147.0	.82

The degree of regional imbalance is a property of the party system of a country, and there is a variation between the countries that can hardly be random. Thus, it is not only that our measures result in significant differences

between different types of parties as regards regional variation, but the party systems of the countries also show systematic differences (CV & E<sup>2</sup>). The overall impression is hardly that political parties in Western Europe are characterized by little regional imbalance. The interlocking question then becomes: are there determinants in the social environment to this variation at the regional level? The Eta-scores show that the regional differences constitute a persistent pattern enduring over time. The between region variation is larger than the within region variations between two elections.

If it is the case that the extent of regional variation in political party support is larger than has been alleged (Rose & Urwin), the search for a set of factors that are conducive to a regional pattern of voter alignments becomes more rewarding. The purpose of our analysis is a modest one: to identify a set of determinants that is relevant to a varying extent in different countries. We make no assumption concerning structural stability over all our nations, i.e. we remain content if we can explain the regional support for a party in one nation with one set of factors though we may use another set of factors in order to account for the variation of a similar party in another country. The goal of the analysis is to explain each separate country's regional pattern, not to find general factors that operate invariantly over all regional spaces. Let us see using the mean party vote model (3) how a set of ecological factors can explain differences between regional units in sixteen European democracies (Appendix 2).

#### Austria

The basic political cleavage in Austria between the socialistic parties — the SPÖ and the KPÖ — and the non-socialistic parties — the ÖVP and the FPÖ — is to a considerable extent a function of the shifting social structure; roughly 50% of the regional variation is explained by social factors. Agriculture versus industrialization is one fundamental determinant as the ÖVP is dependent upon an agricultural culture whereas the SPÖ and the KPÖ are stronger in industrialized areas. The religious factor is by no means insignificant, actually, the KPÖ and the SPÖ are more dependent upon the religious structure than the socio-economic structure.



## Belgium.

Social structure has an even more profound impact in Belgium. As for the two dominant parties — the PSC and the PSB — holds that their electoral variation very closely follows the changes in the social structure. On the one hand there are the economic factors, which affect the liberal party, and the PSB, but they are outweighed by the ethnic structure as well as the religious structure. The shares of the Flemish party and the French speaking party RW-FDF are determined to a considerable extent by language.

## Denmark.

Denmark is a small country but some of its parties have very special electoral niches. The leftist parties do much better in urban regions, more particularly in those urban regions characterized by apartment housing. They also do better in the university towns. The communist party — the DKP — is also a minor party and its social ecology resembles that of the leftist parties. The largest Danish party is Socialdemokratiet, whose variation is conditioned to some extent by level of industrialization, type of housing and level of education. It does much better in traditional industrial areas as well as in urban areas where there is much of apartment housing; however, it does not perform as well in advanced areas where the level of education is higher than the average. The agrarian party Venstre has a narrow electoral niche as its regional variation is almost exclusively a function of the variation in agricultural employment. The conservative party — the KF — feed on its strength in areas characterized by commercial services and a high level of education. In the set of non-socialist parties the Radikale Venstre, the Retsforbundet, the Kristelig Folkeparti and the two discontent parties the Fremskridtspartiet and the Centrumdemokraterne only the Kristelig Folkeparti appeals to units where non-conformism is strong. The Centrumdemokraterne has the very opposite electoral niche as it attracts a higher vote in economically advanced regions.

## Federal Republic of Germany

Political confrontation may have a correlate in the social structure; in West-Germany the dividing line between the CDU and the SPD corresponds to social cleavages. The CDU draws upon its strength in ecological units characterized by agriculture and catholicism, whereas the SPD comes out strong in the opposite social niche. The liberal party is stronger in more urbanized areas, and the communist party draw its support from densely populated areas.

## Finland

The Finnish party system has multiple social sources. The large agrarian party depends upon its electoral support in units where the proportion of the population employed in agriculture is large; the parties closest to the center — the SDP, the LKP and the KOK — are stronger the more modern a unit is as measured by industrialization and the amount of commercial employment. Ethnicity determines the strength of the Swedish People's Party. The Communist Party have no special social niche and their election results do not vary extensively between the units.

## France

Our ecological model does not perform as well in France; however, we find that the PCF display clear social links as they grow stronger the more a unit is characterized by anti-clericalism and the more a unit is characterized by sharecroppers (metayage). On the other, the rightist parties, draw its main support in units that have the opposite properties.

## Greece

The ecological analysis of the Greek party system reveals at most only one social dependence, that of the Communist Party. If we consult the variation

measures we find that election results are very instable in the ecological units in Greece, which means that personalism and issue orientation are stronger than social structure. The KKE parties are strong in urban units.

### Ireland

Maybe one would argue that social structure is more important when the political parties are easily placed on the left-right dimension or on a secular-religious dimension; when it comes to Irish political parties this hypothesis would imply that the regional imbalances would not be related to the social structure. However, the hypothesis that only programmatically different parties have structural determinants is not corroborated. Similar parties may have different ecological niches; the ecological correlates of Fianna G ael are different from those of the Fianna Fail and the Labour Party as the Fianna Fail draws upon ethnic and religious factors; the Labour Party is stronger in service dominated and industrial units, whereas the strength of Fianna Gail is counteracted by these very ecological factors. The Fianna Gail has its niche in agriculturally dominated units.

### Italy

Italian politics is a function of religious orientation, size of the agricultural units and poverty. The DCI has its niches in units that are characterized either by catholicism or by freeholders; the PCI draw upon the opposite niches, i.e. units with anti-clericalism and sharecroppers (mezzadria). The affluence dimension in the Italian social structure has implications for the Neo-Fascist Party feeding upon poverty as well as the Liberal Parties and the Social Democratic Party which are stronger in more affluent units.

### The Netherlands

Party systems may be one-dimensional in its social dependence; in the Netherlands religious structure affects the regional pattern for all parties except the

Liberal Party. Each of the religious parties — the ARP, the CHU, the KVP and the amalgated CDA — have their ecological niches. The regional variation in the electoral support for these parties do vary significantly and the variation do considerably follow a unit distinction between catholics and various types of calvinists. The religious cleavage has implications also for the non-religious parties, the PvdA is weak in catholic units whereas the Communist Party only do well in anti-clerical areas.

### Norway

Though the number of units in our ecological analysis of the Norwegian party systems are too few in relation to our number of social variables we have some findings. Not surprisingly the Agrarian Party does well in units characterized by agriculture; the Conservative Party has its niche in urban areas, in particular around the metropolis of Oslo. Religious and cultural structure affects the strength of the KRF and Venstre, which draw upon support in non-conformist and peripheral areas. Finally, the DNA tends to be stronger in poorer units.

### Portugal

The relationship between voter alignments and the social structure may be predominantly two-dimensional meaning that two factors in the social structure have a pervasive impact on all political parties. The closest to this situation is to be found in Portugese politics, where much centers around the implication of the ownership structure within agriculture and religious orientation. The strength of the Communist Party is much determined by the size of the agricultural units where the existence of latifundias is conducive to Communist Party voting; the Liberal and the Catholic parties draw upon an opposite ownership structure in which the number of small independent farmers is large. In addition to the ownership structure there is the variation in religious orientation, which means less of communist voting. Actually, the socialist party does not quite fit the agricultural pattern as its strength varies positively with urbanization and affluence.

## Spain

The Spanish political parties express to a considerable extent the cleavages between the agrarian society and the industrial society as well as between rich and poor areas though it should be pointed out that the social structure has less of an impact in Spain. Of course, the traditional agricultural culture supports the non-socialist parties — the UCD and the AP — whereas the socialist parties are stronger in poor areas. Regionalism dominates in the industrial and modern areas.

## Sweden

Typical of political parties in Sweden is the even degree of regional balance for the four major parties. Two factors determine much of whatever variation there is: agriculture and religious orientation. These factors push down the share of the Social Democratic Party — the SAP. The Conservative Party is strong in urban areas as well as in areas with large agricultural units. The former agrarian party — the Center Party — nourishes on the persistence of an agricultural economy wherever that may exist.

## Switzerland

The social ecology of the Federal Republic of Germany testifies to the fact that a high regional variation is not a necessary condition for the occurrence of ecological determinants: maybe a high regional imbalance is a sufficient condition for ecological determinism? A plausible hypothesis is that the more unbalanced a country's parties are regionally the more voter alignments depend upon the social structure. The political parties of Switzerland testify to that this is the case.

The Swiss party system institutionalizes regional variation without regional ideologies, regionalism in Swiss politics is so heavily entrenched in the institutions that it does not require ideological expressions. The parties have their special electoral niches, and they respect those niches belonging to other parties. The cleavages bases — industry, religion and language — creates

a system of voter alignments that is both very imbalanced and very stable. Maybe religion is the most profound cleavage basis, but the analysis shows that all three cleavage lines have significant partial effects.

## United Kingdom

Class structure explains a considerable proportion of the variation in the vote for the Labour Party, which tends to be weaker in units where the proportion of managers is high. The reversed tendency is to be found about with regard to the Conservative Party. Prosperity also conditions the regional variation where, of course, the Conservative Party does better the more prosperous the unit. The Liberal party has a much weaker connection with any social ecology; there is however an association between Liberal party strength and affluence. The social ecology of the Liberal party, though not significantly determining its electoral outcomes, resembles more the electoral niche of the Conservative party than that of the Labour party. The two regionalist parties — the Scottish Nationalist Party, SNP, and the Welsh Plaid Cymru, PC — depend upon their capacity to mobilize the votes in units that diverge from the typical British pattern; the Welsh nationalists are strong in areas where the English language has to compete with Welsh, and the Scottish nationalists attract a portion of the vote in units where religion is not very strong. The regional pattern tends to be stable over time.

## 8. Conclusion

We argue that the abstract debate whether political ecology analysis is possible or not should be replaced by a refined analysis of whatever ecological dependences may be found on the national level and the regional level. If one is prepared to accept a modest ambition when uncovering structural connections between an ecological variation in party support and the social environment, then the finding is that ecological models are relevant to the analysis of political party support in European democracies. We find both national determinants and regional factors that affect political alignments. It seems as if the extent of regional variation in Western Europe has been

underestimated. The ecological models seem to do what one may expect from them: they explain well in some countries and for some parties, but they do not capture all the variance. The question of a political ecology analysis is not one of everything or nothing. If one accepts the idea of *structural variability*; then there is much of environmental dependence to be uncovered in Western Europe, though we may fail to find truly invariant relations. Let us end by quoting a statement to the effect that the ecological approach may have an end whatever its contributions to the understanding of individual voting behavior may be:

"It seems to us that much safer solution to the problem lies in reconceptualizing our research questions, to state our hypotheses to refer to the aggregates for which we have data and reliable techniques for analysis. Too often aggregate data are treated as an inferior substitute for individual data as opposed to very high quality data about entities which are inherently interesting. And such aggregate units ought to be inherently interesting to analysts whose discipline has traditionally been concerned with aggregate concepts such as 'competitiveness', the 'rural vote', 'areas of rapid growth', etc. To use ecological data to study such collective concepts encounters none of the statistical pathologies discussed above." (Flanigan & Zingale 1981, 14).

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#### APPENDIX I. Data Base.

When analyzing the variation in space we use national as well as regional data. The national data comprises 16 countries in Western Europe. The regional data refer mainly to the 1970's. The selection of the regional level is:

Country	Level	Number of cases
Austria	Politischer Bezirk	117
Belgium	Arrondissement electoral	30
Denmark	Kommun	278
F. R. Germany	Wahlkreis	248
Finland	Kommun	496
France	Département	95
Greece	Nomos	52
Ireland	Country	18
Italy	Provincia	92

Country	Level	Number of cases
the Netherlands	Regio	40
Norway	Fylke	20
Portugal	Distrito	20
Spain	Provincia	50
Sweden	Kommun	1012
Switzerland	Kanton	25
United Kingdom	Constant unit	161

Data for the independent variables have been collected by means of the following indicators:

- industry: indicators measuring the proportion of those within different branches of industry as reported in censuses. For the regional level the agricultural structure has been broken down so that the structure of ownership may appear.
- affluence: it is the matter on the one hand of construction of indices for national data describing the socio-economic structure of a country, on the other hand of data on regional distribution of income etc.
- ethnic and religious structure: on the one hand variables over the share of the population belonging to a certain linguistic group or a certain creed or the share of religiously active, on the other hand constructions of indices for national data showing the ethnic or religious fragmentation of a country.
- class-structure: only national data on income distributions.
- political environment: only national data on the size of the memberships of the parties, trade unions and frequency of strikes are included.

#### Main data sources:

For the national data we have relied on statistical reports, yearbooks from ILO, UN, OECD and the World Bank as well as handbooks like Taylor 1972 and Banks 1971.

For the regional data we have relied on national population censuse, national statistical yearbooks, official election statistics.

#### APPENDIX 2. Regression analysis: Regional determinants.<sup>1</sup>

Party	Independent variables	r	Beta Weight	Sign.	R <sup>2</sup>	$\bar{R}^2$	F-Ratio	
<b>AUSTRIA</b>								
ÖVP	I: Industrial employment	-.68	-.61	.00	.71	.69	54.899	
	A: Small units	.32	-.03	.62				
	W: -							
	C: Catholics	.67	.50	.00				
	RO: Divorces	-.55	.10	.23				
SPÖ	I: Industrial employment	.63	.46	.00	.63	.61	37.907	
	A: Small units	-.28	.08	.28				
	W: -							
	C: No affiliation	.63	.79	.00				
	RO: Divorces	.45	.42	.00				
FPÖ	I: Commercial employment	.31	.58	.00	.22	.19	6.531	
	W: -							
	C: Evangelicals	.32	.32	.00				
	RO: Divorces	.19	-.36	.06				
	L: German	.02	.01	.90				
KPÖ	I: Industrial employment	.61	.25	.00	.55	.53	26.655	
	A: Small units	-.33	.12	.12				
	W: -							
	C: No affiliation	.71	.71	.00				
	RO: Divorces	.59	-.11	.42				
L: German		.10	-.03	.54				
	<b>BELGIUM</b>							
	PSC	I: Commercial employment	-.49	-.03	.67	.89	.86	39.782
		A: Big units	-.63	-.17	.07			
		W: Car density	-.49	.02	.81			
C: *								
RO: Church attendance		.82	.60	.00				
L: Dutch	.74	.37	.00					

<sup>1</sup> I = industry, A = size or type of agricultural units, W = wealth, C = confession, RO = religious orientation, L = language or regional-cultural orientation; \* = not relevant for the country studied; - = data not available.

Party	Independent variables	r	Beta Weight	Sign.	R <sup>2</sup>	$\bar{R}^2$	F-Ratio
PSB	I: Agricultural employment	-.30	-.39	.04	.73	.67	13.110
	A: Big units	.56	.21	.20			
	W: Car density	.27	-.39	.01			
	C: *						
	RO: Church attendance	-.69	-.23	.22			
	L: French	.64	.67	.00			
PLB	I: Agricultural employment	.49	.63	.05	.25	.10	1.675
	A: Small units	.15	-.15	.50			
	W: Income	-.17	.01	.93			
	C: *						
	RO: Church attendance	.28	-.08	.77			
	L: French	.06	.00	.99			
PCB	I: Commercial employment	.19	-.29	.03	.72	.66	12.460
	A: Small units	.23	.30	.03			
	W: Car density	.24	-.06	.65			
	C: *						
	RO: Church attendance	-.74	-.85	.00			
	L: French	.52	.16	.33			
CVU	I: Agricultural employment	-.11	.10	.34	.92	.91	60.489
	A: Small units	-.40	.10	.17			
	W: Car density	-.59	.01	.90			
	C: *						
	RO: Church attendance	.34	-.17	.08			
	L: Dutch	.95	1.10	.00			
RW-FDF	I: Commercial employment	.45	.17	.05	.87	.84	32.256
	A: Big units	.73	.13	.24			
	W: Car density	.76	.40	.00			
	C: *						
	RO: Church attendance	-.50	-.09	.29			
	L: French	.81	.41	.00			
DENMARK							
SD	I: Industrial employment	.45	.46	.00	.33	.32	45.323
	W: Educational level	.11	-.21	.00			
	W: Apartment housing	.37	.37	.00			
	C: -						
	RO: -						
	L: -						

Party	Independent variables	r	Beta Weight	Sign.	R <sup>2</sup>	$\bar{R}^2$	F-Ratio
RV	I: Agriculture employment	.22	-.00	.93	.07	.06	7.586
	W: Educational level	-.20	-.13	.14			
	W: Apartment housing	-.25	-.20	.00			
	C: -						
	RO: -						
	L: -						
KF	I: Commercial employment	.47	.29	.00	.32	.31	43.380
	W: Educational level	.53	.39	.00			
	W: Apartment housing	.30	-.08	.22			
	C: -						
	R: -						
	L: -						
RFB	I: Commercial employment	.30	.06	.32	.19	.18	22.220
	W: Educational level	.42	.21	.06			
	W: New dwellings	.42	.19	.09			
	C: -						
	RO: -						
	L: -						
SF	I: Agriculture employment	-.76	-.52	.00	.64	.64	168.374
	W: Educational level	.60	.19	.00			
	W: Apartment housing	.63	.20	.00			
	C: -						
	RO: -						
	L: -						
DKP	I: Agriculture employment	-.70	-.16	.01	.61	.61	147.993
	W: Educational level	.64	.36	.00			
	W: Apartment housing	.65	.40	.00			
	C: -						
	RO: -						
	L: -						
KRF	I: Agriculture employment	.53	.69	.00	.30	.29	39.491
	W: Educational level	-.38	.15	.02			
	W: Apartment housing	-.26	.07	.30			
	C: -						
	RO: -						
	L: -						

Party	Independent variables	r	Beta Weight	Sign.	R <sup>2</sup>	$\bar{R}^2$	F-Ratio
VE	I: Agriculture employment	.80	.72	.00	.65	.65	177.214
	W: Educational level	-.61	-.04	.45			
	W: Appartment housing	-.57	-.08	.06			
	C: -						
	RO: -						
VS	I: Commercial employment	.53	.00	.96	.61	.61	148.394
	W: Educational level	.77	.68	.00			
	W: New dwellings	.51	.17	.00			
	C: -						
	RO: -						
CD	I: Agriculture employment	-.48	-.04	.50	.39	.38	58.896
	W: Educational level	.62	.54	.00			
	W: New dwellings	.56	.04	.62			
	C: -						
	RO: -						
FRP	I: Agriculture employment	.24	.10	.19	.12	.11	13.395
	W: Educational level	-.09	.12	.08			
	W: Appartment housing	-.34	-.33	.00			
F.R. OF GERMANY							
SDP	I: Agricultural employment	-.65	-.35	.00	.65	.65	157.363
	A: -						
	W: Population density	.60	.24	.00			
	C: Catholics	-.59	-.46	.00			
	RO: -						
CDU	I: Agricultural employment	.71	.38	.00	.80	.79	328.411
	A: -						
	W: Population density	-.66	-.26	.00			
	C: Catholics	.66	.52	.00			
	RO: -						
L: *							

Party	Independent variables	r	Beta Weight	Sign.	R <sup>2</sup>	$\bar{R}^2$	F-Ratio	
FDP	I: Employees	.51	-.16	.02	.58	.58	116.871	
	A: -							
	W: Educational level	-.68	-.71	.00				
	C: Catholics	-.50	-.35	.00				
	RO: -							
DKP	I: Agricultural employment	-.60	-.12	.08	.51	.50	85.639	
	A: -							
	W: Population density	.69	-.14	.00				
	C: Catholics	-.28	-.14	.00				
	RO: -							
FINLAND	L: *							
	SKDL	I: Agricultural employment	-.29	-.44	.00	.21	.20	32.488
		A: Medium units	-.22	-.13	.00			
		W: Income	.10	-.21	.00			
		C: -						
RO: -								
TPSL	L: Finnish	.28	.25	.00				
	I: Industrial employment	.35	.34	.00	.18	.17	27.346	
	A: Medium units	-.13	-.13	.00				
	W: Income	.23	.03	.52				
	C: -							
SDP	RO: -							
	L: Finnish	.18	.19	.00				
	I: Industrial employment	.67	.46	.00	.51	.51	132.239	
	A: Big units	.22	-.02	.48				
	W: Income	.61	.34	.00				
SMP	C: -							
	RO: -							
	L: Finnish	.04	.13	.00				
	I: Agricultural employment	.56	.40	.00	.52	.52	137.100	
	A: Big units	-.28	-.08	.02				
SMP	W: Income	-.59	-.14	.01				
	C: -							
	RO: -							
SMP	L: Finnish	.46	.40	.00				

Party	Independent variables	r	Beta Weight	Sign.	R <sup>2</sup>	$\bar{R}^2$	F-Ratio
SKL	I: Agricultural employment	-.10	-.00	.96	.15	.14	21.571
	A: Medium units	-.13	-.09	.03			
	W: Income	.06	.12	.10			
	C: -						
	RO: -						
KESK	I: Agriculture employment	.67	.49	.00	.74	.73	348.196
	A: Big units	-.26	-.00	.94			
	W: Income	-.69	-.20	.00			
	C: -						
	RO: -						
LKP	I: Commercial employment	.65	.45	.00	.56	.55	156.898
	A: Medium units	-.30	-.14	.00			
	W: Income	.48	.23	.00			
	C: -						
	RO: -						
KOK	I: Agriculture employment	-.42	-.17	.00	.48	.48	115.899
	A: Big units	.30	.19	.00			
	W: Income	.39	.27	.00			
	C: -						
	RO: -						
RKP	I: Commercial employment	-.05	-.01	.15	.95	.95	2419.111
	A: Big units	.08	.00	.97			
	W: Income	.17	-.00	.74			
	C: -						
	RO: -						
FRANCE	I: Industrial employment	.08	.13	.17	.54	.51	18.997
	A: Sharecroppers	.28	.12	.13			
	W: Urbanization	.25	.15	.10			
	C: -						
	RO: Church attendance	-.65	-.67	.00			
L: Frenchspeaking	-.06	-.21	.01				

Party	Independent variables	r	Beta Weight	Sign.	R <sup>2</sup>	$\bar{R}^2$	F-Ratio
SFIO	I: Industrial employment	-.08	.18	.14	.30	.26	6.871
	A: Leaseholders	-.40	-.46	.00			
	W: Urbanization	-.09	-.18	.09			
	C: -						
	RO: Church attendance	-.31	-.36	.00			
PSU	I: Agriculture employment	-.15	.12	.47	.13	.08	2.475
	A: Medium units	-.05	.08	.49			
	W: Income	.29	.45	.01			
	C: -						
	RO: Church attendance	.12	.13	.20			
PDM	I: Agriculture employment	.33	.55	.00	.25	.20	5.165
	A: Big units	-.20	-.05	.69			
	W: Income	-.14	.47	.00			
	C: -						
	RO: Church attendance	.35	.34	.00			
UDR	I: Industrial employment	.14	-.02	.86	.39	.35	10.134
	A: Leaseholders	.41	.40	.00			
	W: Urbanization	-.08	-.06	.53			
	C: -						
	RO: Church attendance	.41	.46	.00			
GREECE	L: Frenchspeaking	.03	.11	.39			
	I: Industrial employment	.14	-.02	.86	.39	.35	10.134
	A: Leaseholders	.41	.40	.00			
	W: Urbanization	-.08	-.06	.53			
	C: -						
ND	RO: Church attendance	.41	.46	.00			
	L: Frenchspeaking	.16	.15	.10			
	I: Commercial employment	-.11	-.08	.57	.03	0	0.659
	A: Size of units	-.18	-.16	.27			
	W: Electricity consumption	.04	.00	.96			
EDHIK	C: *						
	RO: -						
	L: *						
	I: Industrial employment	-.19	-.12	.38	.11	.05	2.042
	A: Size of units	-.29	-.27	.05			
EDHIK	W: Electricity consumption	-.11	-.08	.54			
	C: *						
	RO: -						
	L: *						



Party	Independent variables	r	Beta Weight	Sign.	R <sup>2</sup>	$\bar{R}^2$	F-Ratio
PASOK	I: Commercial employment	.16	.12	.40	.04	0	0.745
	A: Size of units	.12	.08	.58			
	W: Electricity consumption	.12	.11	.41			
	C: *						
	RO: -						
KKE	I: Commercial employment	.33	.27	.06	.14	.09	2.814
	A: Size of units	.29	.20	.16			
	W: Electricity consumption	-.00	-.01	.92			
	C: *						
	RO: -						
IRELAND	I: Service employment	-.34	-.12	.56	.47	.35	4.178
	A: -						
	W: -						
	C: Catholics	.58	.35	.14			
	RO: -						
FG	I: Service employment	-.64	-.67	.00	.55	.46	5.900
	A: -						
	W: -						
	C: Catholics	-.21	-.45	.05			
	RO: -						
LAB	I: Service employment	.68	.66	.00	.55	.45	5.471
	A: -						
	W: -						
	C: Catholics	-.17	.29	.21			
	RO: -						
ITALY	I: Commercial employment	-.31	-.11	.29	.43	.41	16.477
	A: Freeholders	.42	.42	.00			
	W: Infant mortality	.12	-.07	.40			
	C: *						
	RO: -						

Party	Independent variables	r	Beta Weight	Sign.	R <sup>2</sup>	$\bar{R}^2$	F-Ratio
PCI	C: *						
	RO: Catholic weddings	.51	.44	.00			
	L: *						
	I: Industrial employment	.13	-.01	.84	.43	.40	16.360
	A: Sharecroppers	.58	.55	.00			
PSI	W: Infant mortality	-.24	.02	.81			
	C: *						
	RO: Catholic weddings	-.37	-.30	.00			
	L: *						
	I: Industrial employment	.24	.11	.42	.14	.10	3.651
PSDI	A: Small units	-.11	-.19	.06			
	W: Analfabetism	-.20	-.25	.12			
	C: *						
	RO: Catholic weddings	.16	.26	.01			
	L: *						
MSI	I: Industrial employment	.33	.01	.88	.34	.31	11.184
	A: Freeholders	.37	.33	.00			
	W: Analfabetism	-.47	-.46	.00			
	C: *						
	RO: Catholic weddings	-.04	.08	.34			
PLI	L: *						
	I: Industrial employment	-.57	-.20	.02	.66	.65	43.361
	A: Small units	-.59	-.45	.00			
	W: Analfabetism	.66	.43	.00			
	C: *						
PRI	RO: Catholic weddings	.07	-.07	.26			
	L: *						
	I: Industrial employment	.25	.15	.30	.24	.19	5.308
	A: Freeholders	.34	.32	.00			
	W: Analfabetism	-.33	-.18	.21			
PRI	C: *						
	RO: Catholic weddings	-.19	-.16	.13			
	L: *						
	I: Commercial employment	.29	.07	.56	.18	.15	4.944
	A: Sharecroppers	.24	.15	.16			
PRI	W: Infant mortality	-.23	-.10	.35			
	C: *						
	RO: Catholic weddings	-.36	-.28	.01			
	L: *						

Party	Independent variables	r	Beta Weight	Sign.	R <sup>2</sup>	$\bar{R}^2$	F-Ratio
THE NETHERLANDS							
BP	I: Commercial employment	-.41	-.13	.43	.47	.41	7.808
	A: Freeholders	.37	.16	.21			
	W: Regional product	-.19	.01	.94			
	C: No affiliation	-.66	-.54	.00			
	RO: - L: *						
ARP	I: Agricultural employment	.42	-.06	.28	.91	.90	87.691
	A: Freeholders	-.13	.03	.48			
	W: Regional product	-.22	-.09	.10			
	C: Gereformed	.94	.97	.00			
	RO: - L: *						
CHU	I: Agricultural employment	.45	.23	.05	.63	.59	14.832
	A: Freeholders	.00	-.03	.72			
	W: Regional product	-.25	-.04	.69			
	C: Hervormed	.76	.68	.00			
	RO: - L: *						
KVP	I: Industrial employment	.29	.01	.67	.95	.95	199.983
	A: Freeholders	.26	.11	.00			
	W: Car density	-.14	-.06	.06			
	C: Catholics	.97	.93	.00			
	RO: - L: *						
CDA	I: Commercial employment	-.49	-.13	.33	.64	.59	15.158
	A: Freeholders	.33	.08	.44			
	W: Regional product	-.27	-.04	.75			
	C: No affiliation	-.78	-.68	.00			
	RO: - L: *						
VVD	I: Industrial employment	-.56	-.49	.00	.49	.43	8.287
	A: Freeholders	-.23	-.19	.18			
	W: Car density	.40	.43	.00			
	C: No affiliation	.18	-.05	.67			
	RO: - L: *						

Party	Independent variables	r	Beta Weight	Sign.	R <sup>2</sup>	$\bar{R}^2$	F-Ratio
PVDA	I: Industrial employment	.09	.44	.00	.58	.53	12.056
	A: Freeholders	-.19	-.20	.09			
	W: Regional product	.11	.29	.01			
	C: Catholics	-.64	-.73	.00			
	RO: - L: *						
CPN	I: Commercial employment	.28	-.13	.35	.61	.56	13.503
	A: Freeholders	-.16	.08	.43			
	W: Regional product	.17	.06	.61			
	C: No affiliation	.77	.84	.00			
	RO: - L: *						
D'66	I: Commercial employment	.61	.43	.01	.46	.40	7.346
	A: Freeholders	-.21	-.02	.86			
	W: Regional product	.38	.06	.69			
	C: No affiliation	.53	.31	.04			
	RO: - L: *						
GPV	I: Industrial employment	-.19	.00	.99	.65	.61	16.098
	A: Freeholders	-.09	.01	.89			
	W: Car density	.04	.16	.12			
	C: Gereformed	.79	.81	.00			
	RO: - L: *						
PSP	I: Commercial employment	.53	.22	.18	.48	.41	7.845
	A: Freeholders	-.23	-.02	.86			
	W: Regional product	.36	.12	.43			
	C: No affiliation	.63	.48	.00			
	RO: - L: *						
NORWAY							
DNA	I: Agricultural employment	.14	.11	.73	.68	.56	5.999
	A: -						
	W: Income	-.20	-.52	.09			
	C: Non-Conformist	-.05	-.17	.49			
	RO: Abortions L: Bokmål	.30 .62	.22 .76	.43 .00			

Party	Independent variables	r	Beta Weight	Sign.	R <sup>2</sup>	$\bar{R}^2$	F-Ratio
HOE	I: Commercial employment	.68	.20	.61	.67	.55	5.461
	A: -						
	W: Income	.79	.93	.06			
	C: No affiliation	.72	.17	.60			
	RO: Abortions	.49	-.22	.52			
KRF	L: Bokmål	.33	.20	.49			
	I: Commercial employment	-.19	-.14	.73	.76	.65	6.578
	A: -						
	W: Income	-.13	.15	.75			
	C: Non-Conformist	.28	.62	.01			
RO: Abortions	-.63	.00	.98				
NKP	L: Bokmål	-.65	-.89	.01			
	I: Agricultural employment	.33	.14	.71	.36	.12	1.505
	A: -						
	W: Car density	-.20	-.18	.49			
	C: Non-Conformist	-.34	-.30	.37			
RO: Abortions	.16	.17	.68				
SP	L: Bokmål	.34	.58	.11			
	I: Agricultural employment	.85	.82	.01	.83	.73	8.874
	A: -						
	W: Telephone density	-.62	.45	.15			
	C: State Church	.80	.61	.06			
RO: Abortions	-.13	-.33	.28				
SF	L: Bokmål	-.39	.34	.31			
	I: Commercial employment	.34	-.71	.17	.53	.37	3.269
	A: -						
	W: Income	.39	.26	.62			
	C: No affiliation	.48	.42	.27			
RO: Abortions	.56	.50	.18				
VE	L: Bokmål	.62	.29	.32			
	I: Agricultural employment	-.19	-.27	.38	.56	.39	3.355
	A: -						
	W: Car density	-.21	-.36	.13			
	C: Non-Conformist	.38	.53	.07			
RO: Abortions	-.27	-.02	.94				
L: Bokmål	-.41	-.52	.08				

Party	Independent variables	r	Beta Weight	Sign.	R <sup>2</sup>	$\bar{R}^2$	F-Ratio	
PORTUGAL								
PSP	I: Commercial employment	.63	.95	.00	.56	.43	4.305	
	A: Medium units	-.13	.22	.31				
	W: Infant mortality	-.45	-.42	.09				
	C: *							
	RO: Catholic weddings	-.30	.66	.06				
PPD	L: *							
	I: Commercial employment	-.49	-.18	.17	.90	.88	32.807	
	A: Big units	-.74	-.58	.00				
	W: Infant mortality	.67	.22	.05				
	C: *							
RO: Catholic weddings	.76	.30	.05					
CDS	L: *							
	I: Commercial employment	-.56	-.28	.23	.70	.61	7.788	
	A: Big units	-.55	-.41	.03				
	W: Infant mortality	.60	.17	.39				
	C: *							
RO: Catholic weddings	.73	.28	.29					
PCP	L: *							
	I: Commercial employment	.34	-.07	.38	.95	.94	73.404	
	A: Big units	.82	.62	.00				
	W: Infant mortality	-.54	-.03	.61				
	C: *							
RO: Catholic weddings	-.76	-.58	.00					
AD	L: *							
	I: Commercial employment	-.49	-.20	.20	.87	.83	22.329	
	A: Big units	-.73	-.59	.00				
	W: Infant mortality	.58	.08	.49				
	C: *							
RO: Catholic weddings	.76	.36	.04					
L: *								
	SPAIN							
	PSOE	I: Industrial employment	-.13	.16	.29	.31	.23	4.020
		A: Big units	.28	.22	.11			
		W: Income	-.26	-.35	.00			
C: *								
RO: Catholic weddings		.24	.07	.61				
L: Unitarian orientation	.40	.39	.02					

Party	Independent variables	r	Beta Weight	Sign.	R <sup>2</sup>	$\bar{R}^2$	F-Ratio
UCD	I: Industrial employment	-.70	-.63	.00	.52	.47	9.750
	A: Big units	-.00	-.11	.30			
	W: Telephone density	-.50	-.15	.39			
	C: *						
	RO: Catholic weddings	.33	-.15	.34			
	L: Unitarian orientation	.41	.12	.38			
PCE	I: Agricultural employment	-.23	-.32	.07	.33	.26	4.504
	A: Big units	.21	.31	.03			
	W: Income	-.40	-.47	.00			
	C: *						
	RO: Catholic weddings	-.01	.18	.33			
	L: Unitarian orientation	-.03	-.06	.68			
AP	I: Agricultural employment	.45	.54	.07	.24	.15	2.715
	A: Big units	-.16	-.19	.22			
	W: Telephone density	-.35	.23	.47			
	C: *						
	RO: Catholic weddings	.32	.15	.49			
	L: Unitarian orientation	.10	.02	.89			
UN	I: Commercial employment	-.19	-.16	.37	.14	.04	1.442
	A: Big units	.27	.16	.28			
	W: Telephone density	-.11	.25	.31			
	C: *						
	RO: Catholic weddings	.20	.09	.67			
	L: Unitarian orientation	.28	.27	.16			
ETHNIC	I: Industrial employment	.65	.52	.00	.49	.43	8.544
	A: Medium units	.19	.19	.09			
	W: Telephone density	.42	-.09	.61			
	C: *						
	RO: Catholic weddings	-.39	-.08	.59			
	L: Unitarian orientation	-.48	-.23	.08			
SWEDEN	I: Commercial employment	.28	.47	.00	.32	.32	121.828
	A: -						
	W: Urbanization	-.04	-.04	.00			
	C: Non-Conformist	-.09	.04	.11			
	RO: Church attendance	.38	.50	.00			
	L: *						

Party	Independent variables	r	Beta Weight	Sign.	R <sup>2</sup>	$\bar{R}^2$	F-Ratio
CP	I: Agricultural employment	.77	.43	.00	.66	.66	510.140
	A: -						
	W: Urbanization	-.75	-.26	.00			
	C: Non-Conformist	.02	.02	.26			
	RO: Church attendance	.57	.22	.00			
	L: *						
FP	I: Commercial employment	.42	.49	.00	.33	.32	125.098
	A: -						
	W: Urbanization	.29	.11	.00			
	C: Non-Conformists	.25	.37	.00			
	RO: Church attendance	-.03	.19	.00			
	L: *						
SAP	I: Agricultural employment	-.60	-.42	.00	.53	.52	284.798
	A: -						
	W: Urbanization	.44	-.08	.00			
	C: Non-Conformists	-.11	-.15	.00			
	RO: Church attendance	-.62	-.47	.00			
	L: *						
VPK	I: Agricultural employment	-.23	-.07	.13	.14	.14	42.941
	A: -						
	W: Urbanization	.23	-.01	.81			
	C: Non-Conformists	-.09	-.12	.00			
	RO: Church attendance	-.35	-.33	.00			
	L: *						
KDS	I: Commercial employment	-.17	-.00	.76	.47	.47	228.935
	A: -						
	W: Urbanization	-.08	-.03	.22			
	C: Non-Conformists	.68	.68	.00			
	RO: Church attendance	-.00	.04	.07			
	L: *						
SWITZERLAND	I: Agricultural employment	-.14	-.12	.63	.10	0	0.616
	A: Medium units	-.28	-.33	.17			
	W: -						
	C: Protestants	.04	.06	.79			
	RO: -						
	L: German	-.06	.08	.72			

Party	Independent variables	r	Beta Weight	Sign.	R <sup>2</sup>	$\bar{R}^2$	F-Ratio
CDV	I: Agriculture employment	.72	.47	.00	.66	.59	9.821
	A: Big units	-.35	.02	.89			
	W: -						
	C: Protestants	-.70	-.45	.01			
	RO: -						
SPS	L: German	.16	.04	.81			
	I: Industrial employment	.54	.36	.03	.62	.54	8.271
	A: Big units	.25	-.13	.52			
	W: -						
	C: Protestants	.71	.59	.00			
RO: -							
SVP	L: French	.13	.27	.19			
	I: Commercial employment	.28	.09	.67	.25	.10	1.697
	A: Medium units	.31	.15	.48			
	W: -						
	C: Protestants	.45	.37	.09			
RO: -							
LDU	L: German	.10	.06	.77			
	I: Agriculture employment	-.52	-.42	.05	.45	.34	4.198
	A: Medium units	.07	-.14	.44			
	W: -						
	C: Protestants	.52	.35	.10			
RO: -							
PDA	L: German	.16	.34	.07			
	I: Agriculture employment	-.45	-.21	.12	.78	.74	18.766
	A: Big units	.85	.61	.00			
	W: -						
	C: Catholics	-.26	.10	.42			
RO: -							
NA	L: French	.71	.26	.09			
	I: Commercial employment	.49	.32	.10	.37	.25	3.045
	A: Big units	.08	-.03	.87			
	W: Catholics	-.52	-.40	.06			
	RO: -						
L: German	.08	.08	.71				
SRB	I: Commercial employment	.46	.35	.10	.28	.13	1.976
	A: Medium units	.31	.13	.54			

Party	Independent variables	r	Beta Weight	Sign.	R <sup>2</sup>	$\bar{R}^2$	F-Ratio
	W: -						
	C: Catholics	-.34	-.17	.42			
	RO: -						
	L: German	.14	.10	.60			
UNITED KINGDOM							
CONS	I: Employers & Man.	.60	.33	.00	.69	.68	78.327
	A: -						
	W: Car density	.52	.31	.00			
	C: Anglicans	.38	.21	.00			
	RO: -						
LAB	L: Englishspeaking	.42	.57	.00			
	I: Employers & Man.	-.79	-.58	.00	.70	.69	81.642
	A: -						
	W: Car density	-.70	-.37	.00			
	C: Anglicans	-.42	.05	.40			
RO: -							
LIB	L: Englishspeaking	.05	-.05	.30			
	I: Employers & Man.	.45	.21	.02	.29	.27	14.060
	A: -						
	W: Car density	.50	.30	.00			
	C: Anglicans	.37	.08	.35			
RO: -							
SCOT	L: Englishspeaking	-.13	-.02	.71			
	I: Prof. Workers	-.15	-.09	.27	.14	.12	5.826
	A: -						
	W: Car density	-.13	.15	.13			
	C: Anglicans	-.35	-.41	.00			
RO: -							
WELSH	L: Englishspeaking	.11	.02	.75			
	I: Unskilled Workers	-.03	-.09	.21	.66	.65	69.332
	A: -						
	W: Car density	.12	-.12	.12			
	C: Non-Conformists	.70	-.05	.66			
RO: -							
L: Englishspeaking		-.81	-.89	.00			