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Applying Ideal Point Estimation Methods to the Council of Ministers

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ABSTRACT

This research note addresses an increasingly popular topic in the EU literature, namely the measurement of policy preferences in the Council of Ministers. It aims to provide conclusions on three issues: (1) what data are in fact available from the Council, (2) how preferences are measured in other legislatures, and (3) whether these methods would be suitable for analyses of Council members' preference positions given the available data. Applying the popular scaling method NOMINATE and a Bayesian MCMC model to a data set consisting of all legislation adopted by the Council in 1999–2004, it is found that, although the two methods show similar voting patterns at the general level, the failure to report standard errors by NOMINATE in particular proves to be a severe problem when trying to identify individual governments' policy location. Conversely, the Bayesian approach provides a convincing method for analyses of Council decision records and is easily extended to include more advanced empirical information than merely the governments' decisions to support or oppose a proposal.

KEY WORDS

- Council
- MCMC
- NOMINATE
- preferences
- voting

Introduction

Empirical investigations into voting behaviour and preference locations of members in the European Union's (EU) Council of Ministers[1] have recently become a popular topic in the academic EU literature. Yet, although the field is still in its infancy, much disagreement has already emerged over appropriate methods of measurement. In some cases different studies have even presented contradictory evidence on the same issues, owing to a difference in research methods and underlying assumptions about the actors' preference configurations.

This research note wishes to discuss and provide conclusions on three issues: (1) what data are in fact available from the Council, (2) how preferences are measured in other legislatures based on decision records, and (3) whether these methods would also be suitable for analyses of Council members' preference positions given the available data. Two popular methods are considered in detail, namely a Bayesian simulation approach and the NOMINATE scaling method technique. When applying these methods to a large data set covering all legislation adopted from January 1999 to May 2004, it is found that a Bayesian model offers several attractive possibilities for measuring the governments' revealed preferences. NOMINATE is less convincing in its results, mainly owing to the failure to report standard errors around the governments' ideal point estimates. The simulation-based Bayesian Monte Carlo Markov Chain (MCMC) model implicitly addresses such issues and furthermore makes it possible to advance the analysis to include factors other than merely the voting outcomes. These aspects are particularly valuable in the complex Council scenario, where it may be of relevance to take into account also national political effects, vote trading, policy substance or even changes in the political agenda and institutional set-up.

Existing accounts of conflict structures and preferences in the Council

The past decade has seen a number of different theoretical models applied to the EU context in order to assess and analyse the relative impact of EU institutions, the consequences of the decision rules and, most recently, the effect of party configurations. The models have come in various forms and are often presented in a spatial manner (e.g. Crombez, 1996, 2001; Garrett and Tsebelis, 1999; Steunenberg, 1997; Tsebelis and Garrett, 1996) or based on voting power indices (e.g. Felsenthal and Machover, 1997, 2001; Hosli, 1996, 1999; König and Bräuninger, 1998; Laurelle and Widgren, 1998; Leech, 2002; Pajala and

Widgren, 2004). However, common to most of these models is still a lack of rigorous empirical testing, making it hard to assess the explanatory validity of each of the models. In particular, the lack of data from the Council has posed a problem for scholars who have wished to engage with either positivist or normative evaluations of the Council members' preferences, voting behaviour and the consequences of the Council dynamics for EU legislative processes in general. Nevertheless, the literature has recently come some way in the empirical investigation of the functioning of the Council and, similarly to many other policy fields, the increasing number of empirical studies has started to divide into groups distinguished by a reliance on either qualitative or quantitative research methods. However, whereas the qualitative studies of politics and policies in the Council have indeed provided important and invaluable insights into the formal and informal processes – and should of course continue to be a permanent part of the research agenda – a demand for further quantitative investigations is dominant at this point in the research process. A recent increase in the accessibility of Council documents and voting records has started to enable such research, though a question has now also arisen about whether the information from the Council is actually suitable for deriving conclusions about behaviour and preferences.

Available data from the Council

Almost every study of Council decision-making begins with a complaint that the large amount of legislation adopted by unanimity makes it difficult for outsiders to get a proper insight into the institution. The criticism is well founded because it is quite difficult to analyse voting in the Council when between 70% and 95% of all legislation is adopted by unanimity (see Mattila, 2004; Hayes-Renshaw and Wallace, 2006). However, such findings result from analyses of Council members' behaviour at the very last adoption stage. Moreover, the data from which those results are derived are usually collected from the Council's monthly summaries or the summarized minutes, which provide only the title of the policy proposals together with the final conclusions of the negotiations.

With this focus, other important sources of information may be overlooked. First, decisions from stages prior to the final adoption stage are now publicly accessible via the public register of the Council and/or the PreLex database available on the EU website.[2] This means that the restriction of studies of voting behaviour to final stage decisions is no longer necessary and, to put it frankly, perhaps not even legitimate. At the adoption stage the governments decide whether to accept or to reject a proposal altogether, whereas the earlier stages can be assumed to include negotiations over the

content of the policy. Furthermore, the member states' voting behaviour may change in accordance with the exchange of information and strategies that prevail throughout the different stages of negotiations. Therefore, voting behaviour can be assumed to be different at the final adoption stage compared with prior readings, and hence it becomes of great importance to include decisions from earlier stages as well. Second, Council members often make formal statements following the adoption of a proposal, and these formal statements may reveal yet another level of contest in the Council. The formal statements indicate a country's disagreement with the policy and are often included even in cases where it may not have been expressed through formal voting. Or the formal statements are included in order to highlight country-specific standards related to the policy that a member state wishes to bring to the attention of other Council members or external actors. The first case is of course quite interesting from a political science perspective, because it requires some explanation why governments want to state their opposition after the adoption of a proposal or a common position, yet chose not to do so by formal voting.[3]

The above points are obviously not made to suggest that taking into account every legislative stage as well as the formal statements will solve all issues of transparency and provide full information about Council members' preference positions. The Council still adopts a large number of decisions by a high degree of recorded consensus, and the only formal accounts are the releases of the common position and related statements in the minutes of meetings held behind closed doors in the respective Council formations. Hence, it is difficult to evaluate any possible effect of political signalling or vote trading or whether the outcomes are in fact a product of preference alignments. Nevertheless, the point here is that the picture drawn in the current literature may not fully capture the data available from the Council; most scholars prefer to highlight what is *not* available.

But exactly what information *is* it possible to obtain regarding Council members' behaviour and preferences based on decision records? From the minutes of individual Council meetings it is usually possible to get information on the following issues related to policy proposals:

- the procedure,
- the date of introduction,
- the date of adoption,
- A and B points,
- the policy area (as categorized by the General Secretariat, preparatory bodies and the Commission),
- the title of the proposal,

- details about the policy content,
- an inter-institutional reference number,
- Sectoral Council,
- the stage of the legislative process when the vote was taken,
- the stage of the legislative process when the proposal was adopted,
- the identity of the member holding the presidency, and
- each country's decision to
  (a) support,
  (b) abstain,
  (c) oppose, and/or
  (d) make a formal statement. Formal statements are either included in the minutes or posted separately on the Council's website.

As mentioned, information on each of these points is available across the legislative stages. Combined with related information regarding, for example, voting outcomes in the Council's working groups or the European Parliament's plenary,[4] the conclusion must be that data are indeed available on several important aspects of legislative politics in the Council.

Biased results?

Using the above-mentioned data is of course only of interest if the recorded information from the Council provides an adequate picture of what goes on between the governments. Obviously, it does not make sense to draw any conclusions on the basis of decision outcomes if the individual governments' decisions do not reflect their preferences. And there are reasons to believe that the Council figures may be somewhat biased. First, opposing the majority is very costly in the Council because a member is more or less excluded from any further negotiations on a policy proposal once it states its opposition. Members will always be present at the negotiating table, though if a country decides not to join the majority coalition, it will not be considered in the construction of an agreement. The only exception is, of course, if the member is in the favourable position of being the pivotal legislator. In this case the threat to oppose is in effect a threat to veto and hence ensures inclusion. Second, the distribution of vote shares and the qualified majority voting (QMV) requirement make opposition by any single member in effect irrelevant to the policy outcome, most likely resulting in a tendency for members to oppose the majority only when there is a strong reason to do so. The decision actively to oppose may therefore be owing to a need to send signals to either internal or external actors. Conversely, this also means that, when a member decides to voice its disapproval, such a statement can be

interpreted as representing profound disagreement with the common position. The cost of going against the majority is simply too high unless there are very strong reasons to do so. In sum, conclusions drawn on the basis of recorded oppositions in the Council should hence be reliable; it is the underlying causes for the votes in favour of proposals, however, that are inconclusive.

Besides the relative certainty with which one can rely on the votes cast in opposition to the majority, another advantage of analysing minutes from individual Council meetings is that they include all decisions adopted. It would of course make the coding much easier if one could rely on records of roll-call votes similar to those from the European Parliament (e.g. Hix et al., 2007). However, voting records often include only a sub-set of the votes, which may have different characteristics from the full population of decisions. Hence, one advantage of quantitative analyses of data from individual Council meetings is that there is no risk of selection bias from analysing minutes as there is from analysing voting records if these do not cover all decisions made (Carruba et al., 2006). Furthermore, and as mentioned above, the Council minutes also make it possible to take into account members who do not wish to oppose by voting but who make strong points against a proposal in a formal statement. Similarly to disagreement expressed through voting, the formal statements can also be assumed to indicate Council members' sincere opposition to a vote since they cannot directly affect the proposal in question but mainly serve the purpose of stating a position. Hence, apart from elevating the figures for recorded disagreement, including the formal statements in analyses of decision records may indeed provide another step in the direction of more accurately capturing the conflict structures in the Council.

Measuring revealed preferences in the Council

How are legislators' preferences best measured? And which methods of measurement are suitable for analysing the information available from the Council? Researchers across the social sciences have undertaken a plethora of efforts to put the measurement of individuals' preferences on a firm footing. Yet there is not one final answer as to which method provides the most appropriate framework for such analyses. And the purpose of this research note is certainly not to undertake a full literature review and evaluation of the field. However, one recently developed method in particular appears to be a particularly interesting and convincing method for measuring actors' preferences in the case of the Council. The method is based on a Bayesian model for ideal point estimation and is a very convincing alternative to other

current and popular statistical methods of ideal point estimation such as NOMINATE and Optimal Classification (OC) (Poole and Rosenthal, 1997). Similarly to NOMINATE and OC estimates, the Bayesian MCMC method is concerned with the positioning of actors' ideal points (Davis et al., 1970).

The reason why it is important to find an appropriate method for estimating actors' ideal points is that the distribution of ideal point estimates indicates how legislators behave and which cleavages shape the policy space within which the legislators act (see Clinton et al., 2004; McCarty et al., 2001). Both the scaling method techniques and the Bayesian approach have proven substantively to advance insights into the legislative dynamics in other decision-making bodies and would allow for rigorous testing of the long list of predictions derived from the current literature's models of governments' voting behaviour and preferences in the Council.

A Bayesian method for analysing preferences in the Council

Scaling method techniques such as NOMINATE and OC have become increasingly popular for estimating legislators' ideal points and, subsequently, for making inferences about the policy space of a given legislative assembly (Hix et al., 2007; Morgenstern, 2004; Poole, 2005; Poole and Rosenthal, 1997; Rosenthal and Voeten, 2004; Schonhardt-Bailey, 2003; Voeten, 2000). However, at the same time that these methods are being applied to more and more empirical data sets, it is also becoming increasingly apparent that these methods suffer from both statistical and theoretical deficiencies (Clinton et al., 2004; Lewis and Poole, 2003).

The main criticism is that standard errors are not reported when generating ideal point estimates in either NOMINATE or OC, which makes it impossible to draw conclusions about the variance around the estimates. Consequently, a concern arises regarding whether the estimates are indeed consistent and provide fully reliable results (Poole and Rosenthal, 1997; Lewis and Poole, 2003; Jackman, 2001). Therefore, although these scaling method techniques have indeed provided important insights into the underlying structures and into actors' preferences in a number of legislatures, a recently developed Bayesian model seems more attractive because it includes estimates for both actors' ideal points and the issues voted upon, as well as reporting the standard errors around the estimates. Additionally, the model as described below can easily be extended to take into account more complex behavioural assumptions such as the number and nature of underlying dimensions, apparent party coalitions, determinants of legislator preferences, and the evolution of the legislative agenda. This may be particularly interesting in the complex setting of the Council where institutional, national and/or party political factors may have an impact on governments' voting behaviour. This

makes it generally inappropriate to use estimates of extant methods – usually generated under the assumption of sincere voting – to test models embodying alternative assumptions (e.g. vote trading) (Clinton et al., 2004: 355).

The standard model is characterized as follows.[5] Whereas spatial voting models usually include deterministic utility functions, the Bayesian model takes into account that in empirical analysis it is often more convenient to choose a parametric specification for the utilities and to add a stochastic disturbance (Poole and Rosenthal, 1997). Here, the utility function is assumed to be quadratic for legislators with normal errors. (For other examples see Heckman and Snyder, 1997; Poole and Rosenthal, 1997. See Clinton et al., 2004, for a comparison of the different specifications.) Assume that the data consist of n legislators voting on m different roll calls. Each roll call $j = 1, \ldots, m$ presents legislators $I = 1, \ldots, n$ with a choice between a 'Yes' position ζ_j and a 'No' position ψ_j, and locations in $\mathcal{R}_d$, where d denotes the dimension of the policy space. Let $y_{ij} = 1$ if legislator i votes 'Yes' on the jth roll call and $Y_{ij} = 0$ otherwise. As mentioned, legislators are assumed to have quadratic utility functions over the policy space, $U_i(\zeta_j) = -\| \mathbf{x}_i - \zeta_j \|^2 + \eta_{ij}$, and $U_i(\psi_j) = -\| \mathbf{x}_i - \psi_j \|^2 + v_{ij}$, where $\mathbf{x}_i \in \mathcal{R}_d$ is the *ideal point* of legislator i, η_{ij} and v_{ij} are the errors or stochastic elements of utility, and $\| \cdot \|$ is the Euclidean norm. Utility maximization implies that $y_{ij} = 1$ if $U_i(\zeta_j) > U_i(\psi_j)$ and $Y_{ij} = 0$ otherwise. The specification is completed by assigning a distribution to the errors. Here, the assumption is that the errors η_{ij} and v_{ij} have a joint normal distribution with $E(\eta_{ij}) = E(v_{ij})$, $\text{var}(\eta_{ij} - v_{ij}) = \sigma_j^2$ and the errors are independent across both legislators and roll calls. It then follows that

$$\begin{aligned} P(y_{ij} = 1) &= P(U_i(\zeta_j) > (U_i(\psi_j)) \\ &= P(v_{ij} - \eta_{ij} < \| \mathbf{x}_i - \psi_j \|^2 - \| \mathbf{x}_i \zeta_j \|^2) \\ &= P(v_{ij} - \eta_{ij} < 2(\zeta_j - \psi_j)' \mathbf{x}_i + \psi'_j \psi_j - \zeta'_j \zeta_j) \\ &= \Phi(\beta'_j - \alpha_j), \end{aligned}$$

where $\beta_j = 2(\zeta_j - \psi_j)/\sigma_j$, $\alpha_j = (\zeta'_j \zeta_j - \psi'_j \psi_j)/\sigma_j$, and $\Phi(\cdot)$ denotes the standard normal distribution function. This corresponds to a probit model with an unobserved regressor $\mathbf{x}_i$ corresponding to the legislator's ideal point (a logit model results if the errors have extreme value distributions). The coefficient vector β_j is the direction of the jth proposal in the policy space relative to the 'No' position.

Since it is assumed that there is independence across legislators and votes, the likelihood is

$$L((\mathbf{B}, \alpha, \mathbf{X} \mid \mathbf{Y}) = \prod_{i=1}^{n} \prod_{j=1}^{m} \Phi(\mathbf{x}'_i \beta_j - \alpha_j)^{yij} \times (1 - \Phi(\mathbf{x}'_i \beta j - \alpha_j))^{1 - yij},$$

where **B** is an m x d matrix with jth row β'_j, $\alpha = (a_1, \ldots, \alpha_m)'$, **X** is an n x d matrix with ith row $\mathbf{x}'_j$, and **Y** is the n x m matrix of observed votes the (i,j)th element y_{ij}. Then, rather than adopting certain restrictions and having to calculate appropriate starting values such as is done in NOMINATE and OC (Poole, 2005), the Bayesian approach treats the unknown ideal points and other parameters as random variables and conditions upon the observed roll-call data. A brief, non-technical explanation of the procedure is the following: the fundamental difficulty in roll-call analysis is that everything other than the votes is unobservable. The ideal points, bill parameters and utilities are unknowns. But, if it were possible to impute values to the bill parameters and utilities, then the ideal points could be estimated by regression. By the same logic, if it were possible to impute values for the ideal points and utilities, the bill parameters could also be estimated by regression. The MCMC algorithm repeatedly performs these imputations and regressions, starting from an arbitrary point and alternating between simulation of the ideal points, bill parameters and utilities. Under a wide set of conditions (e.g. Tierney, 1996) MCMC algorithms are guaranteed to generate samples from the posterior density of the model parameters, regardless of where in the parameter space the algorithm is initialized (Clinton et al., 2004: 357).

Applying NOMINATE and an MCMC model to Council data

I described the Bayesian MCMC model in the simplest possible form above. In this section I will present the results from applying the MCMC algorithm to a large data set consisting of all legislation adopted by the Council from January 1999 to May 2004.[6] I will also present the findings from running the data with NOMINATE and compare the suitability of the two methods for analysing the data.

I collected the data set used for producing the findings in this section from minutes of individual Council meetings[7] and the sources described in previous sections. In other words, the data cover all decisions from each stage of the legislative process, and also include the formal statements following a vote on 932 pieces of legislation. A government expressing serious concerns about a decision or stating direct disagreement in the formal statements has been treated as if it opposed the majority. The number of legislative decisions in the 1999–2004 period totals 1281 and results in (15 $\times$ 1281 =) 19,215 individual votes.[8]

Figure 1 shows Council members' ideal point estimates based on MCMC calculations using the 'MCMCpack' written by Martin and Quinn (2005). Figure 2 shows the ideal point estimates as measured by NOMINATE, and Table 1 presents the goodness-of-fit of using NOMINATE with the data set.

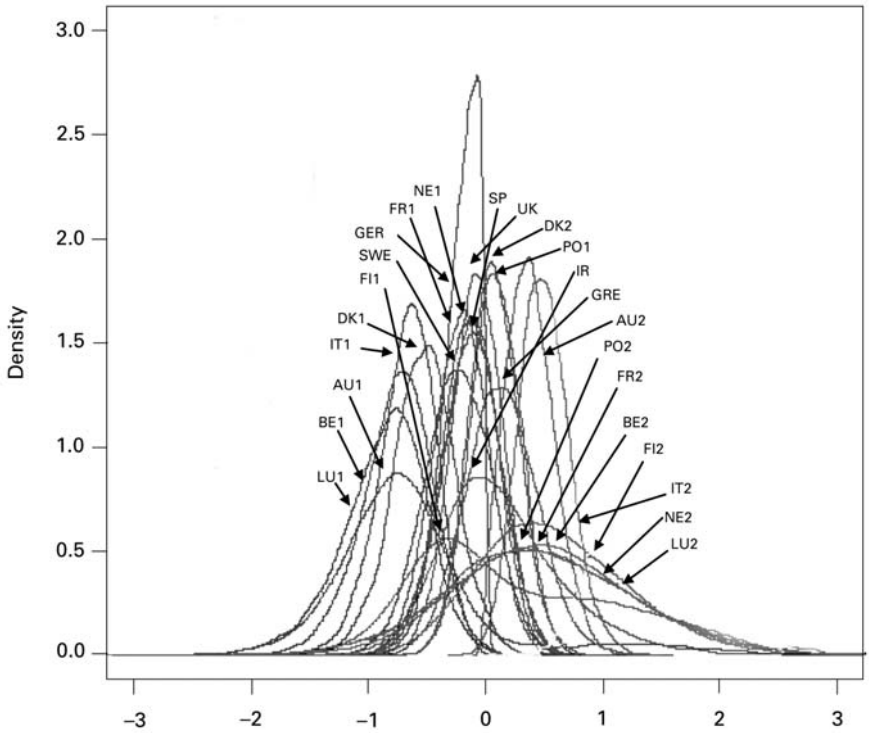

Figure 1 Governments' ideal point estimates, 1999–2004: MCMC.

Notes: AU1: First government of Austria in the 1999–2004 period.
AU2: Second government of Austria in the 1999–2004 period.
BE1: First government of Belgium in the 1999–2004 period.
BE2: Second government of Belgium in the 1999–2004 period.
DK1: First government of Denmark in the 1999–2004 period.
DK2: Second government of Denmark in the 1999–2004 period.
FI1: First government of Finland in the 1999–2004 period.
FI2: Second government of Finland in the 1999–2004 period.
FR1: First government of France in the 1999–2004 period.
FR2: Second government of France in the 1999–2004 period.
GER: The government of Germany.
GRE: The government of Greece.
IR: The government of Ireland.
IT1: First government of Italy in the 1999–2004 period.
IT2: Second government of Italy in the 1999–2004 period.
LU1: First government of Luxembourg in the 1999–2004 period.
LU2: Second government of Luxembourg in the 1999–2004 period.
NE1: First government of the Netherlands in the 1999–2004 period.
NE2: Second government of the Netherlands in the 1999–2004 period.
PO1: First government of Portugal in the 1999–2004 period.
PO2: Second government of Portugal in the 1999–2004 period.
SP: The government of Spain.
SWE: The government of Sweden.
UK: The government of the United Kingdom.

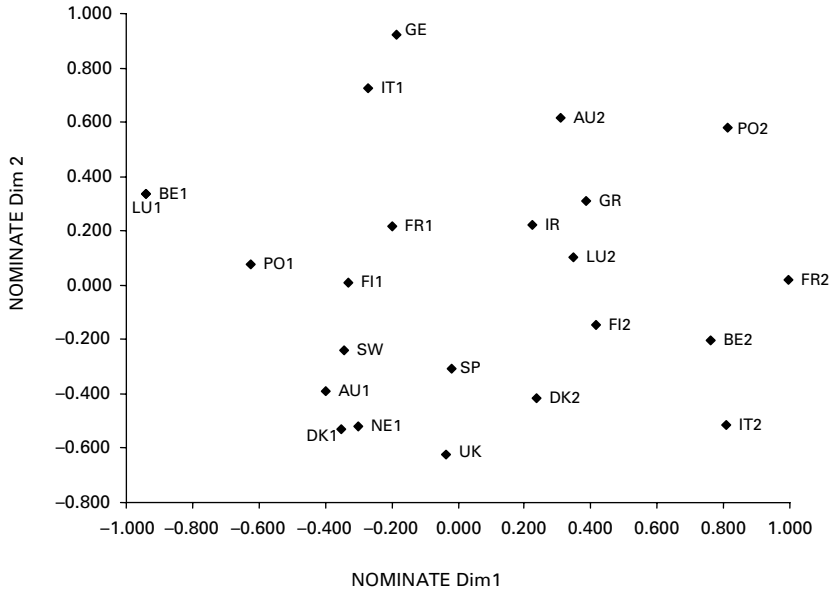

Figure 2 Governments' ideal point estimates, 1999–2004: NOMINATE.

Table 1 Data fit of NOMINATE

Dimension	*NOMINATE: cumulative % explained*	*NOMINATE: APRE*
1	53.499	.611
2	58.128	.442
3	62.043	.463
4	66.837	.679
5	67.593	.628
6	69.239	.702
8	71.082	.641
9	72.735	.502
10	73.844	.546

A first thing to note from the reported results is that the Aggregate Proportional Reduction of Error (APRE) values for NOMINATE show that 61% of the votes are classified in the first dimension by this model. Compared with the other above-mentioned research projects relying on NOMINATE, the method does not seem to perform quite as convincingly with this data set,

although a significant part of the votes is still captured by the scaling method. Including further dimensions from the NOMINATE outputs, and thereby increasing the percentage of votes classified by the method, does not count as a suitable way of getting NOMINATE to perform better either; NOMINATE can deliver outputs for any number of specified dimensions, yet this does not of course result in a better fit with the data if those dimensions are measured with high uncertainty, as might be the case here. In fact, since the MCMC method produces an output only for the number of dimensions it is able to estimate correctly, and since it can be observed here that MCMC does not even produce an output for any higher number of dimensions, accurate specifications are probably not possible above the first dimension at all with this data set. Indeed, the NOMINATE results in Figure 2 do not appear to include any 'readable' voting patterns in the second dimension either. Hence, it can be deduced that, according to the recorded behaviour, Council decision-making is actually one-dimensional.

Turning to the content of Figures 1 and 2, it should be noted that countries that in the years 1999–2004 had more than one government are represented in the figures with their acronym followed by either a 1 or a 2 depending on whether it is the first or the second government's ideal point estimate. Although the intention of this research note is not to provide an empirical analysis of voting behaviour in the Council but rather to discuss the suitability of the ideal point estimation methods, two observations should be mentioned from the findings. First, the fact that both Figure 1 and Figure 2 show distinct ideal point estimates for two governments from the same country indicates that a government change means a change in behaviour in the Council. Second, and probably related thereto, it is interesting to observe that the governments that are commonly assumed to promote centre-left or left-wing policies are all located towards the centre-left of the policy spectrum in the first dimension in both figures. Conversely, governments from a centre-right or right-wing background are almost all located towards the right-hand side of the picture. In other words, it appears as if both the NOMINATE results and the findings from the MCMC model indicate more of a party political divide than a cleavage based on geographical location or other national characteristics. Considering the complex Council scenario and taking into account previous findings from the literature, this result is rather interesting and probably deserves more attention in future empirical analyses of minutes from the Council.

The results generated by the two methods hence appear quite similar with regard to the number of policy dimensions and to governments' overall voting patterns: although the order of some countries changed from the first dimension in the NOMINATE findings to the order reported in the MCMC

results, the same groups of governments are still found on either side of the policy centre. However, from Figure 1 it is obvious that there are reasons to be cautious about the interpretation of the governments' ideal point estimates. The density curves show that the ideal point estimates have a high level of standard errors and the large area covered by each government in many cases makes it difficult to distinguish between governments adjacent to one another along the identified policy dimension. In particular, the governments located towards the extremes appear to have large standard errors, at the same time as several of the more centrally located governments are almost undistinguishable in their location in the policy space. These issues are not apparent in the densely estimated NOMINATE points, and a general concern therefore arises whether the method is at all useful with these data. Inferences about specific locations, such as the location of individual governments' ideal points or the exact location of the median position of the Council or that of the pivotal member(s), become especially problematic with these large confidence intervals around the estimates.

Furthermore, Figure 3 shows the relationship between the results from the two methods, and here it becomes evident that the high level of standard errors is challenging: the correlation between the estimates produced by the two methods is only moderate. Hence, the overall conclusion must be that, although one could reach similar conclusions regarding voting patterns in the Council by using either NOMINATE or the MCMC model when looking only at the order of governments' positions along the first dimension, the criticism

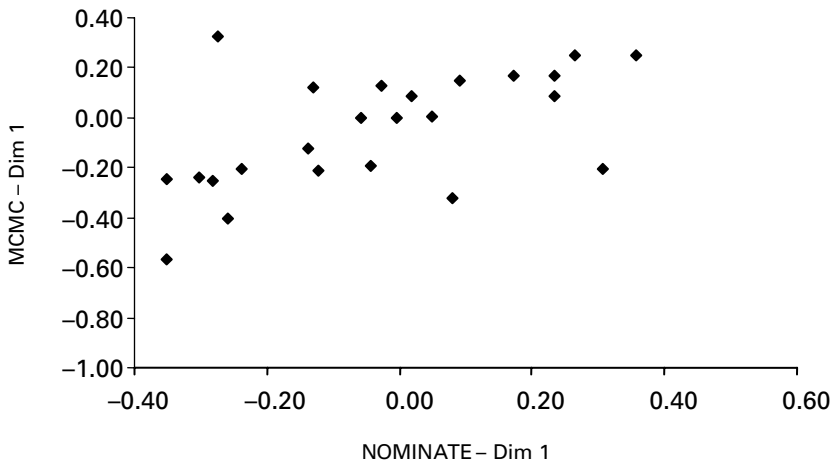

Figure 3 Correlation between NOMINATE and MCMC estimations of governments' ideal points.

of NOMINATE discussed in the first section is confirmed in the empirical results presented here. In particular, the failure to report standard errors causes somewhat misleading results and the MCMC output makes it clear that the order of governments' positions along the first dimension is not entirely accurate, at the same time as it is almost impossible to distinguish between some Council members' preference points.

As a very last point for the further research agenda I should mention that the above Bayesian model is easily extended to include more empirically advanced information. As already explained, it is possible to add different effects to the specification, for instance in the form of party effects, vote trading or policy substance.[9] Future research may choose to include, for example, assumptions about policy dimensions, the location of extremist legislators, coalition configurations between certain governments or the evolution of the legislative agenda. In particular, the possibility of incorporating coalition formations or political signalling into the model, by making the utility of one legislator dependent upon either the utility or the voting behaviour of another, may be hugely interesting when considering the empirical findings presented in this research note. Furthermore, it is even possible to permit ideal point estimates to change over time by modelling the process associated with change. Thus, the Bayesian method can make the study of data from Council minutes a way to test theoretically interesting and more informed and sophisticated models of legislative behaviour than have been used in the Council setting so far. Together with more extensive data sets, this could certainly be considered a convincing way of solving some of the empirical and theoretical contradictions in the current literature and advancing our current knowledge.

Conclusion

In this research note I have discussed the literature engaged with the measurement of policy preferences in the Council. I have made one general recommendation and one specific suggestion regarding the further advancement of existing knowledge on this issue.

On a general note, it is necessary to make more use of the data that are already available from the Council. The current literature has certainly provided important insights into the institution, but much about the Council dynamics remains to be explored. The information already available from the Council makes it possible to conduct rigorous quantitative analyses across all legislative stages and procedures, and also to take into account formal statements as a means of voicing opposition. Hence, the way forward from the

current position seems to be more quantitative tests of theoretical predictions; fortunately, this suggestion appears to be a motivation shared by many other scholars in the field.

My specific recommendation in this research note is related to the basic questions of how to address the issue of measuring governments' policy preferences and subsequently deriving inferences about the policy space within which the Council members act. These topics are of great importance to further research on legislative politics within the Council as well as in the inter-institutional setting and will most likely appear on the research agenda for a long time to come. The Bayesian model I presented in this research note provides a convincing method for addressing the issues. Unlike the densely estimated NOMINATE ideal points, a Bayesian model provides both individual ideal point estimates as well as standard errors around these estimates. The application of the two methods to a data set consisting of voting data from individual Council meetings and covering all legislation adopted by the Council from January 1999 to May 2004 showed that, owing to the high level of standard errors in the data from the Council, NOMINATE fails to identify correct ideal points for some governments. A Bayesian method is not affected by such characteristics and instead merely reports the ideal point estimates with large confidence intervals. Therefore, the Bayesian MCMC model presented in this research note performs better in terms of the accuracy of the ideal point estimates as well as when trying to assess the relative positions of governments positioned adjacent in the identified policy dimension. These characteristics are particularly valuable in view of the challenges posed by Council information, and I hope the results and suggestions made here can serve as an inspiration for new ways to address the measurement of preferences and conflict structures in the Council.

Notes

1 Hereafter referred to as 'the Council'.

2 http://www.europa.eu.int/prelex/apcnet.cfm?CL=en. See also http://www.europarl.eu.int/oeil/search.jsp. In order to follow the policy through the various steps in the process it is sufficient to know the COM reference number of the initial Commission proposal for the PreLex database, the complete title of the proposal or the inter-institutional file number for the public register of the Council. The inter-institutional file number will provide all the documents linked to the same proposal/dossier (also from working groups) and can be found through PreLex (when the COM number is known) or at the top of the page of a Council document.

3 In a forthcoming study I investigate the use of voting and formal statements before and after the 2004 enlargement. The findings are that, although the

period immediately following the enlargement saw a decrease in opposition both through voting and through formal statements, the figures have been on the increase since the beginning of January 2005, particularly for formal statements. Please refer to my forthcoming report for the Centre for European Policy Studies, 'Decision-making in the Council of Ministers: An evaluation of the consequences of the 2004 enlargement', January 2007.

4 http://www.europarl.eu.int/oeil/search.jsp.

5 The following presents a brief and very simplified description of the basic, statistical model as developed by Clinton et al. (2004). For a more rigorous explanation and comparison with other ideal point estimation methods, please refer to their work. Jackman (2000) and Martin and Quinn (2002), too, provide important research on this issue.

6 The data set has been extended to include legislation from the post-2004 enlargement until November 2006, but, because the use of voting and formal rules has changed somewhat in the Council during this time, only the data from before the enlargement will be included here.

7 http://www.consilium.europa.eu.

8 The data were collected during my PhD studies at the London School of Economics and are used in the empirical chapters in my thesis 'Decision-making in the European Union's Council of Ministers', as well as in a number of research papers. The relevant data and commands for obtaining the results in this research note are available upon request from s.hagemann@lse.ac.uk.

9 See also Clinton and Mierowitz (2001) on this last point.

References

Carruba, Clifford J., Matthew Gabel, Lacey Murrah, Ryan Clough, Elizabeth Montgomery and Rebecca Schambach (2006) 'Off the Record: Unrecorded Legislative Votes, Selection Bias and Roll Call Analysis', *British Journal of Political Science* 36: 691–704.

Clinton, Joshua D. and Mierowitz, Adam (2001) 'Agenda Constrained Legislator Ideal Points and the Spatial Voting Model', *Political Analysis* 9: 242–59.

Clinton, Joshua D., Simon D. Jackman and Douglas Rivers (2004) 'The Statistical Analysis of Roll Call Data', *American Political Science Review* 98(2): 355–70.

Crombez, Cristophe (1996) 'Legislative Procedures in the European Community', *British Journal of Political Science* 26: 199–228.

Crombez, Cristophe (2001) 'Institutional Reform and Codecision in the European Union', *Constitutional Political Economy* 11(1): 41–57.

Davis, Otto A., Melvin J. Hinich and Peter C. Ordeshook (1970) 'An Expository Development of a Mathematical Model of the Electoral Process', *American Political Science Review* 64: 426–48.

Felsenthal, Dan S. and Moshé Machover (1997) 'The Weighted Voting Rule in the EU's Council of Ministers, 1958–95: Intentions and Outcomes', *Electoral Studies* 16(1): 33–47.

Felsenthal, Dan S. and Moshé Machover (2001) 'The Treaty of Nice and Qualified Majority Voting', *Social Choice and Welfare* 18(3): 431–64.

Garrett, Geoffrey and George Tsebelis (1999) 'Why Resist the Temptation to Apply Power Indices to the European Union', *Journal of Theoretical Politics* 11(3): 291–308.
Hayes-Renshaw, Fiona and Hellen Wallace (2006) *The Council of Ministers*, 2nd edn. London: Macmillan.
Heckman, James J. and James M. Snyder (1997) 'Linear Probability Models of the Demand for Attributes with an Empirical Application to Estimating the Preferences of Legislators,' *RAND Journal of Economics* 28: 142–89.
Hix, Simon, Abdul Noury and Gerard Roland (2007) *Democracy in the European Parliament*. Cambridge: Cambridge University Press.
Hosli, Madeleine O. (1996) 'Coalitions and Power: Effects of Qualified Majority Voting in the Council of the European Union', *Journal of Common Market Studies* 34(2): 255–73.
Hosli, Madeleine O. (1999) 'Power, Connected Coalitions, and Efficiency: Challenges to the Council of the European Union', *International Political Science Review* 20(4): 371–91.
Jackman, Simon (2000) 'Estimation and Inference Are Missing Data Problems: Unifying Social Science Statistics via Bayesian Simulation', *Political Analysis* 8(4): 307–32.
Jackman, Simon (2001) 'Multidimensional Analysis of Roll Call Data via Bayesian Simulation: Identification, Estimation, Inference and Model Checking', *Political Analysis* 9(3): 227–41.
König, Thomas and Thomas Bräuninger (1998) 'The Inclusiveness of European Decision Rules', *Journal of Theoretical Politics* 10(1): 125–42.
Laurelle, Annick and Mikka Widgren (1998) 'Is the Allocation of Voting Power among the EU States Fair?', *Public Choice* 94: 317–39.
Leech, Dennis (2002) 'Designing the Voting System for the EU Council of Ministers', *Public Choice* 113(3): 437–64.
Lewis, Jeffrey B. and Keith T. Poole (2003) 'Measuring Bias and Uncertainty in Ideal Point Estimates via the Parametric Bootstrap', presented to the Annual Meetings of the Midwest Political Science Association, Chicago.
McCarty, Nolan, Keith T. Poole and Howard Rosenthal (2001) 'The Hunt for Party Discipline in Congress', *American Political Science Review* 95: 673–87.
Martin, Andrew D. and Kevin M. Quinn (2002) 'Dynamic Ideal Point Estimation via Markov Chain Monte Carlo for the U.S. Supreme Court, 1953–1999', *Political Analysis* 10(2): 134–53.
Martin, Andrew D. and Kevin M. Quinn (2005) 'Markov Chain Monte Carlo (MCMC) Package', URL (consulted Oct. 2006): http://mcmcpack.wustl.edu.
Mattila, Mikko (2004) 'Contested Decisions: Empirical Analysis of Voting in the European Union Council of Ministers', *European Journal of Political Research* 43(1): 29–50.
Morgenstern, Scott (2004) *Patterns of Legislative Politics*. Cambridge: Cambridge University Press.
Pajala, Antti and Mikka Widgren (2004) 'A Priori versus Empirical Voting Power in the EU Council of Ministers', *European Union Politics* 5(1): 73–97.
Poole, Keith T. (2005) *Spatial Models of Parliamentary Voting*. Cambridge: Cambridge University Press.
Poole, Keith T. and Howard Rosenthal (1997) *Congress: A Political-Economic History of Roll Call Voting*. New York: Oxford University Press.

Rosenthal, Howard and Erik Voeten (2004) 'Analyzing Roll Calls with Perfect Spatial Voting: France 1946–1958', *American Journal of Political Science* 48(3): 620–32.
Schonhardt-Bailey, Cheryl (2003) 'Ideology, Party and Interests in the British Parliament of 1841–1847', *British Journal of Political Science* 33(2): 581–605.
Steunenberg, Bernard (1997) 'Codecision and Its Reform: A Comparative Analysis of Decision-Making Rules in the European Union', in Bernard Steunenberg and F. van Vught (eds) *Political Institutions and Public Policy*. Dordrecht: Kluwer.
Tierney, Luke (1996) 'Introduction to General State-Space Markov Chain Theory', in Wally R. Gilks, Sylvia Richardson and David J. Spiegelhalter (eds) *Markov Chain Monte Carlo in Practice*, pp. 59–74. London: Chapman & Hall.
Tsebelis, George and Geoffrey Garrett (1996) 'An Institutional Critique of Intergovernmentalism', *International Organization* 50(2): 269–99.
Voeten, Erik (2000) 'Clashes of the Assembly', *International Organization* 54(2): 185–214.

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