Abstract

What variables have an influence on estimated ideal points of parties in three parliamentary systems? Only a few of the research utilizing ideal point estimation have been done on parliamentary systems. Using three datasets covering periods of around 60 years I estimate the ideal points of the parliamentary parties of Denmark, Norway and Ireland by employing a Bayesian item response theory model. In all three parliaments we observe a high degree of party cohesion, which makes them suitable to analyze the ideal points of the parliamentary parties instead of individual parliamentarians. With these estimates as dependent variables it is analyzed which variables have an influence. From the results we learn that only the estimated ideal point of the previous period have an influence across the cases, while there are much variation in which of the other variables that are significant.
Introduction

Much work in political science builds on assumption on the dimensionality and on the positioning of political parties. Information on the party positions is useful since political actors compete, whether for votes or some other payoff, thus the knowledge on the positions of the actors in a given arena becomes necessary in order for us to produce valid statements about the exact nature of the competition. This is also the case when studying legislatures. Indeed, Gary Cox (2001) describes the spatial model of party competition as the workhorse theory of the legislative studies of today. Many of the studies done in this area however, have been limited to the U.S. congress. The knowledge we have on the party positions of parliamentary systems relies on data which are not taken directly from the parliament. Hence, we have little knowledge on the actual positions of political parties in parliaments.

When estimating policy positions of any kind, one must address on which dimension the positions are estimated. Often times the left-right position is useful, since most if not all political actors can be placed on a left-right dimension. More dimensions may also be in play, McKelvey (1979) argued that more dimensions leads to instability while the argument from Shepsle (1979) was that institutions helped to ensure equilibrium, thus avoiding instability. In this paper I argue that the contents of the dimension on which the party positions are estimated vary across cases, and that positions estimated on one dimension captures the party competition well.

If we know the positions of the parliamentary parties and what influence these positions then we have a multitude of possibilities for further analysis, inspiration may be taken from the many studies using the positions of American legislative actors. However, before this is possible we must start with the basics; estimating the ideal points and analyzing the influences on these estimates. In this paper we estimate the ideal points of parties represented in the three parliamentary systems; Denmark, Norway and Ireland, and by doing so with long time-series for each case, over 60 years, we can address the question on what influences changes in legislative ideal points. We show that the most influential
variable on the estimated ideal points are the estimated ideal points of the period. However, we also find that there is variation across the cases on which variables have an influence.

**Studying legislative dimensionality through party positions**

The study of legislative voting behaviour has so far used a vast array of methods. Some have used more simple measures for deriving party positions, as the index of distances (e.g. Pedersen 1967; Damgaard & Rusk 1976); others have utilized multi-dimensional scaling (e.g. Pedersen et al. 1971; Shaffer 1998; Skjæveland 2003). However, the most common approach to ideal point estimation has become the Nominate approach (e.g. Poole & Rosenthal 1997; Voeten 2000; Hix 2001; Schonhardt-Bailey 2003; Morgenstern 2004), or the Optimal Classification procedure (e.g. Rosenthal & Voeten 2004). Recently a method based on Bayesian statistics has also been used (e.g. Martin & Quinn 2002; Jackman 2001; Clinton, Jackman & Rivers 2004a).

All the studies done so far, with the notable exception of Morgenstern (2004), have limited the comparison to be across time. Studies doing comparisons across countries are uncommon. The methodological advances have especially taken place in a U.S. context. Both the Nominate approach and the Bayesian approach has been developed on the basis of U.S. politics. The few studies done on European parliaments using some form of recorded votes has primarily used the index of distances or multi-dimensional scaling. The exceptions are mainly the articles on the European Parliament (e.g. Hix 2001; Hix, Noury & Roland 2006) and the studies done by Rosenthal & Voeten (2004) on the French fourth republic; Schonhardt-Bailey (2003) on the House of Commons 1841-47; and on the modern House of Commons (Spirling & McLean 2003; 2006) and on the Danish parliament 1920-2005 by Hansen (2006b).

As above mentioned, the most used method for ideal point estimation in last 15 years has been the Nominate method. The basic assumption of Nominate, and for that matter most of the other methods described in this paper, is that all legislative actors have an ideal point, and that they vote
according to this, i.e. they prefer the alternative that lies closest to their specific ideal point. The method produces ideal point estimates for any given number of dimensions. The content of the dimensions can not be determined by the method, for this we need to look at the positions of the legislative actors. Occasionally there are other legislatures studied with Nominate than the U.S. Congress and the European Parliament. Yet, in all of these it is the individual legislator and not the party that are in focus.

Recently another method has been frequently used, a method relying on Bayesian statistics. Among the first to employ this method is Jackman (2001; 2004) Clinton, Jackman & Rivers (2004a; 2004b) and Martin & Quinn (2002). Clinton et al. (2004a) argues that existing methods for ideal point estimation suffers from faults, which can be corrected by using a Bayesian approach to ideal point estimation. Where Clinton et al. (2004a; 2004b) focuses on the US congress, Martin & Quinn (2002) estimates the ideal points of the judges of the US Supreme Court arguing the their Bayesian model is well suited for a small number of actors and a small number of cases. A further benefit in using a Bayesian approach is the use of priors. This is an opportunity to invoke previous beliefs into our research and update these in light of data analyzed (Jackman 2004). While these approaches are still not as common as the Nominate approach, the arguments in favour of using them, especially when working with a small number of both cases and actors, is well documented especially by Martin & Quinn (2002).

Critique against using legislative voting behaviour

Criticism against using recorded votes or roll calls in multi-party parliaments has been put forward by a number of scholars. Among the sceptics we find Laver (forthcoming) who argues that using roll calls will not provide a measure of the parties participating in parliamentary governments since these will by norm always vote together. Another argument is that the usage of recorded votes does not capture the fact that there may be strategic voting in the parliaments. Finally it is argued, that
results derived from parliamentary votes cannot be used as independent variables in any research, since the votes on which the results builds is output from a complex institutional structures.

The argument against using roll calls in legislative settings where there is a risk for strategic voting by the actors is also made by Spirling & McLean (2006), who finds that the use of the Nominate like Optimal Classification method on votes in the British House of Commons might find the difference between parties, but not the various differences internally in the parties. Since we work with parliaments in which the parties are assumed to be unitary actors, the problem of determining the intra-party differences are absent. Further it is argued that ever so theoretically plausible that strategic voting is in legislatures it is equally absent empirically (Rasch 1995:510).

Another critique is raised by Hug (2005) who presents his main criticism as the problem with selection effects in roll call analysis, where not all votes are recorded, or the votes recorded differs systematically from the rest of the votes. This would lead to problems with selection bias and ultimately to misleading results. With regards to the analyses in this paper, the criticism raised by Hug (2005) is less severe. In Ireland all non-unanimous votes are published in the parliamentary proceedings, as is the case with Norway and in Denmark even unanimous votes can be found in the parliamentary yearbook. However, for all three cases the use of actual roll calls is extremely rare, defining actual roll calls as votes where every Member of Parliament is asked what they vote; as voting takes place in the US House of Representatives. The use of roll calls in parliamentary settings is not common; instead recorded votes are commonly used.4

*Party cohesion*

In the parliaments included in this analysis, parties are the key actors. Coalitions are normally formed between political parties and not each single legislator. This has implications for the use of recorded votes. In the Danish parliament votes are published with remarks on how the parties have voted, only in the very few occasions where one or more parliamentarians vote counter to their party we see an
indication on the action of the individual. In Norway we can determine whether the party was united in their voting behaviour, or there were dissent in the party. For Ireland the votes are a simple list of which legislators are for and which are against on the vote. This is the only country where it could be considered using individual legislators instead of parties. However, in most of the day to day work of the Irish parliament and especially in coalition formation, the parties are united.

To work under the assumption that the parties are in fact unitary actors, we need to briefly discuss whether it is a realistic assumption. Skjæveland (2001:35) finds that the party cohesion in Denmark is one of the highest levels in Europe; it is only around five percent of the votes where there are one or more parties who are not united. Yet it would seem lower than Norway where Shaffer (1998:146) finds that in his data which we use here, covering the period of 1981-94, the parties act united in 99.8 percent of the times. Gallagher (2005: 212-213) argues that the party cohesion in Ireland is even higher than the European average. In contrast party cohesion in other legislative settings are much lower, such as the European Parliament (e.g. Hix, Noury & Roland 2005), Latin American legislatures (e.g. Morgenstern 2004) and of course the U.S. Congress (e.g. Cox & McCubbins 1993). To assess Ireland and Norway to have the highest level of party cohesion is explained by the large control of candidate selection held by the national parties, and the special features of the electoral systems in the countries (Shaffer 1998; Gallagher 2005). Denmark, which has a somewhat lesser centralized candidate selection and a possibility for the electorate to reward mavericks, still have a level of party cohesion where the assumption of unitary actors is not problematic at all.

At the end of the day we can conclude, that the use of legislative voting behaviour in the analysis of legislatures and legislative politics is steadily growing, and that there exists are multitude of approaches which each have its strengths and weaknesses and where the suitability of the approaches depends on the analytic goals. Thus, it is not in the approaches to study legislative voting, that we encounter significant problems, they are all well established and used, though some more than others. Setting the more old-fashioned approaches aside as the index of distances and multi-dimensional
scaling, studies of European multi-party parliaments using parliamentary voting as a source for data are extremely rare.

Influences on the party positions

Estimating the positions of the parliamentary actors is a key element of this paper, as is the ability to infer which factors has an influence on the estimated positions, and thus on the dimensionality of the parliaments in question. A number of factors can be theorized to have an influence. In the following we will limit ourselves to four variables. Of course this puts a limit on the inference that can be drawn from the analysis, though as we will argue, the four selected variables that are hypothesized to have an effect are selected with on a sound theoretical basis.

When we assume that parliamentary parties are rational actors, we also accept the classical Downsian notion that political parties can not leapfrog over each other (Grofman 1993). In other words the position held by a party in one period must theoretically have an influence on the position held by the same party in the following period. However, this does not mean that the ideal point held in one period must be exactly the same in the following period. We expect to see variation in the estimated ideal points, parties will move left or right, to or from the nearest parties on each side, however, is theorized that they will not leapfrog other parties.

Even if political parties does not leapfrog each other, new parties emerge and old parties loses representation, in other words, there are changes in the political parties represented in parliament. New parties emerge when a place on the ideological continuum is unfilled by other parties, or where it is seen as possible that a new party will be able to push other parties to either side by entering the competition. When a new socialist party enters the competition, the other parties especially those in the near vicinity of the new party must respond to the challenger in some way. This is often done by moving their position on one or several dimensions, thus opening the possibility of changes occurring in the estimated ideal points from period to period.
Parties included in a government will see their choice of voting in parliament reduce to a simple: vote with the government, or vote against the government and then leave the government. The inclusion of this variable also creates an opportunity to see whether the parties in the government matters for the opposition or whether it is government itself that the opposition opposes. If the former is the case we expect the variable to be non-significant, since the opposition of today is the government of tomorrow, and the changes in government composition will cancel each other out. However, if the latter is the case the expectance would be, that we see a strong relationship in one direction, suggesting that the positions of opposition parties is not determined on whether there is a right or left government, more on the fact that there is a government to oppose.

The use of referenda can either be constitutionally required or it can be used strategically by the government. The former is the case in many of the EU referenda that we see in the countries in question, or it may be related to proposals regarding constitutional change. The latter being the case when a government does not have a majority for some policy in parliament but gambles that the majority may be found in the electorate. However, in both cases using the referenda institution may also change the importance of the proposal in the referenda, and thus creating shifts in the dimensionality which may lead to a direct effect in the estimated positions of the parliamentary parties.

Based on the above discussion, we develop four hypotheses which will guide the analysis and discussion in following the sections. The hypotheses are:

*Hypothesis 1:* The ideal position held by party $x$ in period $t_0$, has an influence on the position in period $t_i$

*Hypothesis 2:* The entry of new parliamentary actors will cause a change in party positions

*Hypothesis 3:* Government participation will influence the estimated positions

*Hypothesis 4:* When referendums are used it influences the positions of the parties

**Methods and Data**
The ideal points are estimated using three unique datasets. The Danish part consists of the final votes on every bill passed in the Danish parliament from 1945-2005, in all over 10000 votes. Using the final votes is tradition when using recorded votes from Denmark (e.g. Pedersen 1967; Pedersen et al. 1971). The Norwegian part covers 1945-2001, is not recorded votes; instead we use the committee recommendations as a source of the parties' actions. This procedure is used since recorded votes for Norway only exists from 1981 and onwards, and more importantly this is the procedure chosen by scholars of Norwegian politics as providing the best information on party actions (e.g. Rommetvedt 1984; Shaffer 1998), further it is found that there is little difference between the actual votes and the committee recommendations (Shaffer 1998). Thus, choosing the latter should not influence the results in any way. For Ireland the data employed is collected by the author and is at present a sample of approx. 50 percent of all votes in the Dáil Eireann. All unanimous votes in all parliaments are excluded from the analyses, since it will not yield any new information for the ideal points; this procedure follows both that of Poole & Rosenthal (1997) and others (e.g. Martin & Quinn 2002; Clinton et al. 2004a).

Using three datasets covering a lengthy period provides us with the possibility of many possibilities than selecting only a few years. First of all, the length of the period assures us that we did not fall into a period where party competition was in turmoil. If we for instance had limited the Danish case to 1973-2005, we would have had a period where the party system was very incoherent for the first third of the analysis. Second, the lengthy time series of the three countries provides enough data to perform regular statistical analysis on which variables influences the estimated positions. Both of these factors help ensure the validity of the findings in the analysis.

In the first part of the analysis, the estimating of the ideal points, we fit a one-dimensional item response theory models for each of the election periods in the datasets. The choice of model follows Martin & Quinn (2002) who, also using a 1-dimensional dynamic model, estimates the ideal points of the judges on the US Supreme Court. The US Supreme Court has nine members, a bit above the average number of parliamentary actors of which we will be estimating ideal points. The
number of cases heard by the court is smaller than the same average number of votes found in the datasets. However, the item response theory model is better suited to work with a small number of actors and cases (Martin & Quinn 2002). Here we choose not to use a dynamic model, due to changes in the number of actors; it would not be as beneficial as is the case for a setting where the number of actors is fixed. Instead we use the same fixed prior for all periods, in order to minimize the problems of comparability of the estimates.

To answer the question on what are the influences on the party positions we use the posterior means estimated in item response theory models as dependent variable in a number of OLS regressions. As the posterior means can vary from negative to positive infinity the choice of the OLS model is acceptable. Seven independent variables are used. Six of these occur in all models, while the seventh occurs in half of the models. Of the seven models, four are directly related to hypotheses put forward earlier in the paper: Ideal point previous period, referenda, government participation, and the number of parties, the remaining three variables: Socialdemocratic government, Fianna Fail government, and Majority government, are included as controls.

**Estimating the party positions**

The party positions from the three countries can be found in the tables 1, 2 and 3. From these tables it is possible to discuss the dimensionality of the three parliaments. The question is whether the dimension on which the parties are positioned is a left-right dimension, or has some other composition. Further it should be possible to determine whether one dimension captures the party competition well enough or more would be suitable. The problem is that we have little if any possibility of comparing the position with independent measures. The same arguments found against using other data sources are valid here as well; expert surveys lack a along time-series and have only been performed since the early 1980’es, the comparative manifesto data are poor, at least for Denmark. So the only possibility we
have is to address the estimates at a general level, and to see if the positions are akin to our expectations of the three countries party systems.

--- INSERT TABLE 1 AROUND HERE ---

In table 1 we find the estimated positions for Denmark. Overall there are some problems with the estimates; they do not suggest a clear left-right dimension for the entire period. Of the parties most problems with the positions seems to be with the Justice Party and the left-wing parties; DKP, VS, SF, which commonly from 1973-1981 is placed on the right together with the Progress Party. The problems with the Justice Party is not new, the position and nature of that party has haunted scholars of Danish politics for decades. The period in which the problems occur is not surprising, 1973 being the so-called “earthquake election”, and that the party system returns to a more “normal” state after the 1981 election is further corroborated by the findings of Hansen (2006b) and to some extent those of Skjæveland (2003). The overall judgement of the positions estimated are, that besides the period of 1973-1981, the problems found are minor, and we can accept the positions, though with the cautionary note that we do not enter into a discussion of the relative position of each and every party – the overall picture is acceptable and can be used for further analysis.

--- INSERT TABLE 2 AROUND HERE ---

In table 2 we have the positions for the Norwegian parties. Across time there are some problems with the positions, especially the period 1945-61, where the four bourgeois parties are consistently placed to the left of the Socialdemocratic party. This placement suggests that in this period it is not a left-right divide that is the most important more of an opposition to the socialdemocratic governments of the period. From the 1965 period an onwards the party placements seems to be in accordance with the
views held by most observers of Norwegian politics, though some parties may occupy a somewhat different positions than one would anticipate. However, overall we accept the position if the problems are limited to one party, and it is not self-evident that the estimated is flawed. This is for example the case with regards to the positions of the two small parties; FFF and KP, both regional lists and with no influence on policy.

--- INSERT TABLE 3 AROUND HERE ---

Finally in table 3 we find the estimated positions for Ireland. Remembering that the Irish party system supposedly is the odd man out of those found in the other countries of Western Europe, the estimated position does make some sense. In every period the party placed as most right-wing is Fianna Fail, one of the “old” parties of Ireland, and by far the most dominant in the history of the Republic. On the other side, most of the positions as the party on the far left-side is occupied either by Labour or Fine Gael, the former being a member of the European family of Labour parties and a plausible occupant of that position, the occurrence of the latter in this position suggests that something else is having an influence, Fine Gael normally being considered a centre-right party. This is probably because of the very strong feelings against Fianna Fail that is common among other Irish parties. The dimension, on which the parties are placed, is thus not a left-right dimension, but an anti-Fianna Fail/Pro-Fianna Fail dimension. However, as this is consistent across time there is little evidence pointing towards the need for more dimension to analyze Irish politics. It is just the case that Irish politics indeed is the odd man out.

As briefly mentioned earlier the party positions presented in the three tables are prone to at least one kind of criticism, the lack of external data sources in order to validate the findings presented here. This criticism is valid; though the data presented here covers a time series of which no other reliable source exists. The dataset of the Comparative Manifesto Project might be seen by some
to be useful in validating the findings. However, the problems with the CMP data are extensive, both
on a general level as argued by both Pelizzo (2003) and Benoit and Laver (2006) as well as more case
specific problems as presented by Hansen (2006a). Another external possibility is to use expert surveys,
as favoured by Benoit & Laver (2006) however, expert surveys are only available from around 1975 and
onwards, and with irregularity in both question formats and timing. Thus we have no external estimates
that can be used statistically to validate our findings; we are left with the general face validity judgement
and historical descriptions of the three countries. This is also the case when discussing the
dimensionality of the three cases.

The dimension of the Danish and Norwegian case is most likely a left-right dimension,
with exception to the periods where alternative party positions are found. This finding would be
consistent with other research for Denmark (e.g. Skjæveland 2003; Hansen 2006b) and Norway (e.g.
Shaeffer 1998). Another question is how much of the variation in the voting behaviour are captured by
the first dimension, and how much more can be explained by adding more dimensions. From most of
the ideal point estimation methods we can derive some measure of fit, the method used in this paper
included. However, all the measures of fit will point in the same direction, the first dimension will
capture most if not all of the variation, and adding a second dimension would move the overall fit to
nearly a 100 percent. Hence, the information we can derive from such measures are limited. In this
paper we do not employ any measures of fit. The method used in this paper limits the analysis to one
dimension; we then look at the face validity of the estimated positions. If that is acceptable, we accept
that one dimension captures the party competition of that period, if we reject the face validity of the
measure it would seem appropriate to add one or more dimension. The estimated positions found in
tables 1-3 shows us, that for most of the periods one dimension captures the party positions well. Only
in Denmark from 1973-1981 and in Norway from 1945-1961 more dimensions are probably needed to
make sense of the party positions. These findings makes it possible for us to continue with the analysis,
as one dimension is, even in period described above, at least needed, we can measure the influences of independent variables on the estimated ideal points.

Estimating the influences

From the previous section we estimated the party positions, and using the estimated posterior means for each party as dependent variable we are able to perform analyses which will allow us to make statements on the influences on the estimated positions. In table four we see the results from two models run once for each of the three countries. As reported previously there is not coherence in the content of the dimension on which the positions are estimated: Ireland being a pro-/anti-Fianna Fail, Denmark and Norway being a more classic left-right.

--- INSERT TABLE 4 AROUND HERE ---

When surveying the results it is clear that the models that include the lagged dependent variable performs much better as the models excluding this variable. It is also noteworthy that of the three control variables included only the variable for socialdemocratic governments comes out significant. Whether the parties participate in majority governments or not is not significant. For the Irish case it is neither significant whether or not Fianna Fail participates in the governments across time. For both the Danish models we see that a social democratic government leads to a move towards the left in the estimated ideal points. This may be due to the fact, that only two social democratic governments in Denmark had a majority and thus needed to negotiate their way through enacting policy and then drawing the other parties towards their own position.

Looking at the models country by country we see that the first two models which cover Denmark we see that in model one, only the number of new left-wing parties and whether or not there is a social democratic government. The overall fit of the model is not very convincing. Turning to
model two, we have a more convincing model. Beside the variable for social democratic government, the lagged dependent variable is highly significant. Turning to model three and four concerning Norway, we see that the model without the lagged dependent variable performs less well than model four where it is included. In model three the number of new right-wing parties and whether or not the parties are in government are the only significant variables. The lagged dependent variable is included in model four, where the other significant variables are the use of referenda, social democratic government and, as in model three, government participation. Model five and six covers the Irish case, and we here find a very high difference between the overall fit of the model with and without the lagged dependent variable. The only significant variable in model five is whether or not the parties participate in the government, this variable is also significant in model six, and including the lagged dependent variable we find a very high level of explanatory power.

From the results in table four we are also able to address the hypotheses put forward previously. Of the four put forward only one is confirmed across the three countries, which is the hypothesis that ideal point positions of a previous period has an influence on the following period. The relationship found is highly significant and the direction of the relationship is the same across all countries. The other hypotheses vary with regards to confirmation and cases. Hypothesis two on the influence of new parliamentary actors is only partially confirmed in Denmark and Norway, partially since in Denmark it is only significant with regards to new left-wing parties, in Norway it is right-wing parties that comes out significant. For Ireland we reject this hypothesis. The third hypothesis on the influence of government participation is clearly rejected for Denmark, and just as clearly confirmed for Norway and Ireland. The influence of referenda on the estimated ideal points is rejected for Denmark and Ireland, and surprisingly partially confirmed in Norway, which of the three countries, is the one with the fewest referenda held. In table five we find an overview of the hypotheses put forward and how they fared.
Concluding remarks

From the theoretical discussion, the estimation of the ideal points, and the analysis of the influences on the estimated position we are able to infer some general statements. First of all, to use parliamentary votes at party level can be used to estimate ideal positions for parliamentary parties, though the cases in this paper all have a high degree of party cohesion in the voting. Whether or not data at party level can be employed in legislative settings with low party cohesion is not examined in this paper. Secondly, the ideal points of the parties that were estimated using a Bayesian item response theory model are overall acceptable. However, there are a few periods where the model returns party positions that are incoherent with a general one-dimensional view of the cases. Thirdly, the estimated ideal points of a previous period have a strong significant influence on the ideal points in the following period. Through this finding we can safely conclude, that in order to present a model that explains the ideal points of the parliamentary parties we need to include such a variable. Though it is the only variable which can be used across the cases, all other variables vary with regards to the level of significance.

These results also have another influence. The variation in which of the independent variables that has a significant influence on the estimated ideal point positions suggests that a general theory on party positions in parliaments can not include other variables than the ideal points of the previous period. Just as we need to examine the contents of the dimension on which the party positions are estimated case-by-case, we also need to go in a case-by-case study of which of the other variables that turn out to be significant. In other words, the dimensionality and the influences on the estimated positions of the parties of Western European parliaments are not as universal as we would have liked it to be.
References


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Table 1 Ideal point estimates for Denmark 1945-2005

| Year | Party | Mean | Year | Party | Mean | Year | Party | Mean | Year | Party | Mean | Year | Party | Mean | Year | Party | Mean |
|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|------|
|      | S     | -.569  |      |       |       |      |       |       |      |       |       |      |       |       |      |       |       |
|      |       |       |      |      |       |      |       |       |      |       |       |      |       |       |      |       |       |
|      |       |       |      |      |       |      |       |       |      |       |       |      |       |       |      |       |       |

Table 2 Ideal point estimates for Norway 1945-2005

| Year | Party | Mean | Year | Party | Mean | Year | Party | Mean | Year | Party | Mean | Year | Party | Mean | Year | Party | Mean |
|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|------|
|      | SP    | -1.560 |      | H     | -1.598 |      | SP    | -1.782 |      | H     | -1.676 |      | H     | -1.710 |      | SF    | -1.106 |      | V     | -2.180 |      | KRF   | -1.042 |
|      | V     | -1.467 |      | KRF   | -1.460 |      | KRF   | -1.653 |      | KRF   | -1.531 |      | KRF   | -1.645 |      | V     | 2.180  |      | KRF   | .940   |      | SP    | .262   |
|      | KRF   | -1.344 |      | V     | -1.230 |      | V     | -1.425 |      | V     | -1.404 |      | V     | -1.503 |      | SP    | 2.519  |      | SP    | .983   |      | V     | .282   |
|      | NKJP  | 4.761  |      | A     | 6.177  |      | NKJP  | 1.723  |      | A     | 1.901  |      | KRF   | 2.632  |      | H     | 1.640  |      | DNF   | -1.283  |
| 1977 | A     | 6.177  |      | V     | -1.866 |      | SV    | -4.205 |      | SP    | -3.78 |      | RV    | -1.064 |      | SV    | -1.884 |      | SV    | -1.772 |
|      | V     | -1.866 |      | SV    | -1.697 |      | A     | -1.639 |      | FFF   | -1.344 |      | SV    | -1.037 |      | SP    | -1.799 |      | SP    | -1.359 |
|      | A     | -1.343 |      | V     | -1.981 |      | SP    | .494  |      | A     | -1.318 |      | SP    | -1.480 |      | KRF   | -1.721 |      | A     | -1.213 |
|      | SP    | .409   |      | KRF   | .708  |      | KRF   | .636  |      | KRF   | -1.179 |      | KRF   | -1.156 |      | V     | -1.671 |      | KP    | -1.187 |
|      | KRF   | .452   |      | H     | .749  |      | H     | 1.468 |      | H     | .119  |      | A     | -1.108 |      | A     | -1.637 |      | FRP   | .207   |
|      | H     | 2.848  |      | KRF   | .753  |      | FRP   | 2.040 |      | FRP   | 4.510 |      | V     | .226  |      | KP    | .541  |      | V     | 2.893  |
|      | FRP   | 2.250  |      | FRP   | 4.510 |      | FRP   | 4.510 |      | FRP   | 1.01  |      | H     | .638  |      | KRF   | 2.597  |      | FRP   | .207   |

### Table 3 Ideal point estimates for Ireland 1937-2002

<table>
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<tr>
<th>Year</th>
<th>FG</th>
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<tr>
<td>1938</td>
<td>-2.139</td>
<td>-1.909</td>
<td>-900</td>
<td>4.699</td>
</tr>
<tr>
<td>1943</td>
<td>-1.659</td>
<td>-1.448</td>
<td>-737</td>
<td>2.074</td>
</tr>
<tr>
<td>1944</td>
<td>-3.86</td>
<td>-2.451</td>
<td>-1.353</td>
<td>2.074</td>
</tr>
<tr>
<td>1948</td>
<td>-1.729</td>
<td>-2.125</td>
<td>-1.725</td>
<td>-1.220</td>
</tr>
<tr>
<td>1951</td>
<td>-1.914</td>
<td>-1.831</td>
<td>-1.574</td>
<td>-1.120</td>
</tr>
<tr>
<td>1957</td>
<td>-2.500</td>
<td>-1.614</td>
<td>-1.220</td>
<td>-1.614</td>
</tr>
</tbody>
</table>

### Table 4 Influences on the party positions

<table>
<thead>
<tr>
<th></th>
<th>Model 1 Denmark</th>
<th>Model 2 Denmark</th>
<th>Model 3 Norway</th>
<th>Model 4 Norway</th>
<th>Model 5 Ireland</th>
<th>Model 6 Ireland</th>
</tr>
</thead>
<tbody>
<tr>
<td># of new left-wing parties</td>
<td>-1.737** (.711)</td>
<td>-1.148 (.790)</td>
<td>-1.122 (.593)</td>
<td>-1.409</td>
<td>-1.545* (.789)</td>
<td>-1.082 (.884)</td>
</tr>
<tr>
<td># of new right-wing parties</td>
<td>1.077 (.755)</td>
<td>-1.148 (.790)</td>
<td>-1.122 (.593)</td>
<td>-1.409</td>
<td>-1.545* (.789)</td>
<td>-1.082 (.884)</td>
</tr>
<tr>
<td>Majority</td>
<td>-.122 (.299)</td>
<td>-1.188 (.504)</td>
<td>-1.159** (.345)</td>
<td>-.345</td>
<td>.287</td>
<td>-.345</td>
</tr>
<tr>
<td>government</td>
<td>.478 (.254)</td>
<td>.497 (.463)</td>
<td>-1.615** (.345)</td>
<td>-1.354</td>
<td>.287</td>
<td>-1.354</td>
</tr>
<tr>
<td>Referenda</td>
<td>.072 (.299)</td>
<td>.293 (.254)</td>
<td>-1.756 (.504)</td>
<td>-1.756</td>
<td>.287</td>
<td>-1.756</td>
</tr>
<tr>
<td>Government</td>
<td>.405 (.341)</td>
<td>.187 (.278)</td>
<td>1.902*** (.428)</td>
<td>1.902***</td>
<td>1.414*** (.430)</td>
<td>1.414*** (.430)</td>
</tr>
<tr>
<td>participant</td>
<td>.105 (.299)</td>
<td>.187 (.254)</td>
<td>.426 (.463)</td>
<td>.426</td>
<td>.663* (.394)</td>
<td>.663* (.394)</td>
</tr>
<tr>
<td>Ideal point</td>
<td>-.567*** (.063)</td>
<td>-.567*** (.098)</td>
<td>-.411*** (.098)</td>
<td>-.411***</td>
<td>.818*** (.057)</td>
<td>.818*** (.057)</td>
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<tr>
<td>previous period</td>
<td>-.940** (.299)</td>
<td>-.678** (.259)</td>
<td>.426 (.422)</td>
<td>.426</td>
<td>.663* (.394)</td>
<td>.663* (.394)</td>
</tr>
<tr>
<td>Socialdemocratic</td>
<td>-.940** (.299)</td>
<td>-.678** (.259)</td>
<td>.426 (.422)</td>
<td>.426</td>
<td>.663* (.394)</td>
<td>.663* (.394)</td>
</tr>
<tr>
<td>government</td>
<td>-.940** (.299)</td>
<td>-.678** (.259)</td>
<td>.426 (.422)</td>
<td>.426</td>
<td>.663* (.394)</td>
<td>.663* (.394)</td>
</tr>
<tr>
<td>Fianna Fail</td>
<td>-.940** (.299)</td>
<td>-.678** (.259)</td>
<td>.426 (.422)</td>
<td>.426</td>
<td>.663* (.394)</td>
<td>.663* (.394)</td>
</tr>
<tr>
<td>Constant</td>
<td>.508* (.282)</td>
<td>.289 (.241)</td>
<td>-.642* (.368)</td>
<td>-.642*</td>
<td>-1.218** (.422)</td>
<td>-1.218** (.422)</td>
</tr>
<tr>
<td>Adj. R²</td>
<td>.079 (.282)</td>
<td>.373 (.241)</td>
<td>.160 (.368)</td>
<td>.160</td>
<td>.327 (.336)</td>
<td>.327 (.336)</td>
</tr>
<tr>
<td>N</td>
<td>180</td>
<td>165</td>
<td>92</td>
<td>92</td>
<td>81</td>
<td>81</td>
</tr>
</tbody>
</table>

Note: All regressions are OLS. Numbers are un-standardized beta-coefficients; numbers in parentheses are standard errors. *p<.10, **p<.05, ***p<.001.

### Table 5 Overview of the hypotheses

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Denmark</th>
<th>Norway</th>
<th>Ireland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 1: The ideal position held by party ( x ) in period ( t_0 ) has an influence on the position in period ( t_1 )</td>
<td>Confirmed</td>
<td>Confirmed</td>
<td>Confirmed</td>
</tr>
<tr>
<td>Hypothesis 2: The entry of new parliamentary actors will cause a change in party positions</td>
<td>Partially confirmed</td>
<td>Partially confirmed</td>
<td>Rejected</td>
</tr>
<tr>
<td>Hypothesis 3: Government participation will influence the estimated positions</td>
<td>Rejected</td>
<td>Confirmed</td>
<td>Confirmed</td>
</tr>
<tr>
<td>Hypothesis 4: When referendums are used it influences the positions of the parties</td>
<td>Rejected</td>
<td>Partially confirmed</td>
<td>Rejected</td>
</tr>
</tbody>
</table>
Notes

1 I thank the University of Aarhus Research Fund for financial support.

2 For a full and complete methodological introduction to the Nominate approach, see Poole & Rosenthal (1997), as well as the numerous empirical applications of this method.

3 A deviation from this nearly law-like claim is found by the actions of the Justice Party, who participated in a majority government in Denmark from 1957-1960, yet on a few occasions did not vote with the government without it leading to their withdrawal from that government.

4 For a discussion of the use of recorded votes in parliaments, see Saalfeld (1995).

5 In order to ensure comparability we have for some periods relied on a random sample of committee recommendations due to differences in committee membership for the parties.

6 The sample will during summer 2006 become a complete dataset, covering all votes in the Dáil from 1937-2006, and it will eventually be made available to other researchers.

7 The periods are those between elections, which in Norway are fixed to four years, while in Denmark and Ireland there is variation.

8 See Hansen (2006b) for a discussion of the various attitudes taken with the Justice Party in previous research.