From Coordination to Cooperation.
Does Log-Rolling Guarantee The Union's Consensus?

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Question: Does Log-Rolling Guarantee the Union's Consensus?

Our understanding of the Union's legislative actors' procedural interplay has been witnessed by static models on European (EU) decision-making, particularly voting power and spatial analyses. This literature suggests that the reforms of the Union's procedural provisions had a considerable effect on legislative decision making (see for an overview JTP 3/99). Voting power analyses are primarily concerned with the differences between member states in the Council of Ministers – and sometimes between the parliamentary groups of the EP – in terms of a priori voting power. When describing the relative decisiveness of actors being pivotal under different procedures, they find that voting weights create advantages for large member states to influence EU decision-making under qualified majority voting - which are continuously decreasing due to previous and forthcoming enlargements (Hosli 1996, Lane/ Mæland/Berg 1997, König/Bräuninger 1998). Compared to voting power studies, spatial analyses address the question of how to evaluate the impact of agenda-setting, amendment and voting power on policy outcomes under different procedures. For one- and multidimensional policy spaces they derive the Commission's outstanding agenda-setting power under Council qualified majority voting (Steunenberg 1994, Garrett/Tsebelis 1996), the EP's conditional amendment power under the co-operation (Tsebelis 1994, 1996) and the decreasing voting power of member states (Schneider 1997, Crombez 1998) and parliamentary amendment power (Tsebelis/Garrett 1999) under the codecision procedure . In contrast to voting power analyses, their concern is the cooperation level of EU decision-making.

Most of these analyses, however, simplify the reality of EU decision-making in a number of respects. In voting power studies, actors have complete and perfect information, coordinate on yes/no-alternatives, and act as if they were in a one-shot game. In the world of spatial analyses, actors also reach decisions instantaneously - depending on the location of the status quo, policy is either changed or not. According to their static view, since there is no majority in support of a new policy, either the status quo prevails or the coalition loses. The reality of political decision-making is, however, more complicated than both approaches suggest. Actors favoring policy change may have an incentive to persuade others to vote for the proposed policy. For example, they may offer to compromise on another policy issue in return for the others' vote; or they may promise to compromise on a future issue (Tollison/Willett 1979). Linkage both across issues and across time are strategies to coordinate in situations in which the static view would predict losing coalitions or gridlock. However, even if we consider issue linkage, it is still an open question as to how policies are coordinated under the shadow of majority voting, and whether cooperation finally satisfies the demands of an ever-growing club of member states.

In this paper, EU decision-making is explained by an empirical log-rolling analysis considering multi-issue Commission proposals, member state unanimity or majority voting and parliamentary participation. Member states and the EP have different policy positions and vary in their saliency on the issues of Commission proposals, but EU decision-making is considered as a process of improving results by exchanging resources across issues. From a comparative view, the procedural analysis takes endogenously account of coordination effects of different political decision-making modes, of a median (absolute majority), modal (relative majority) and weighted mean (bargaining) modus operandi. However, even though it is likely that actors adapt their expectations under the shadow of majority voting in order to enhance the allocation of their resources on the coordination level, some actors may still prefer to maintain the status quo on the cooperation level. In this case, the fundamental question arises of whether the Union excludes a minority or even a majority of member states expecting their individual welfare to worsen. In this regard, the role of the Commission and the EP has to be closely scrutinized since both supranational actors may affect the welfare distribution among member states.

This study aims to shed light on four aspects of EU decision-making: first, it considers EU decision-making in light of two basic components, actors' preferences and resources; second, it presents different techniques of how to measure these components in the course of six Commission proposals; third, the question of log-rolling is empirically examined and contrasted to competing explanations of EU coordination; and finally, outcomes are assessed according to their welfare distribution among member states. The findings show that log-rolling is applied to draft Commission multi-issue proposals. Compared to several null-models the analysis of exchanged control resources correctly predicts the drafting of more than 90% of all results. Moreover, the Union's constitutional moving towards majority system has empirical implications for EU decision-making: in spite of their status quo preference, a minority is sometimes outvoted by a qualified majority of member states. In these cases, the Commission and the EP play an active role when favoring the most extreme shift from the status quo.

The remainder first categorizes political systems by hierarchies, majority and consensus systems with regard to the welfare distribution of outcomes. Next, the concept, data and measurement of EU decision-making are introduced. The following analysis compares the regulation of almost 80 issues of six Commission proposals. Finally, outcomes are classified according to their effects on actors' individual welfare, showing that the Union' legislature is moving towards a parliamentary majority system.

Theoretical Frame: Actors' Welfare in Hierarchies, Majority and Consensus Systems

The question of whether the Union is moving towards a majority system has attracted considerable attention from politics and science in the past. The famous 'empty chair' crisis and the subsequent Luxembourg compromise (1966) – an agreement to disagree – had impressively shattered the early hopes for applying majority voting among the original six member states. The Luxembourg formula – that allows any member state to postpone EU legislation when claiming its vital interest – guaranteed EU consensus until the beginning of the 1980s. The member states' failure to manage independently the economic crisis of the 1970s certainly promoted their objective of carrying out the internal market project that was successfully finished in the beginning of the 1990s. For this purpose, the twelve suspended the Luxembourg compromise by ratifying the Single European Act (1987) which also strengthened the role of the EP in EU decision-making. However, public reaction to the Maastricht Treaty (1993) drastically revealed that large parts of member state populations did not support the procedural feature of the Union's peculiar legislature: the Commission makes the agenda by its sole right to initiate binding proposals, and member states modify and adopt Commission proposals in the Council of Ministers according to the standard procedure. Commission and Council do thus not operate through parliament, but the EP received the right to propose amendments under the co-operation procedure in 1987.

Figure 1 about here

For the study of EU decision making it seems to be useful to start with a distinction of three topics of analysis: widening by enlargements, deepening by extending EU competencies or changing the modus operandi of decision making itself. Furthermore, these topics can be analyzed either on the constitutional level of treaty reforms or on the legislative level of EU decision making within the Union’s provisions. While legislative studies focus on choices within these rules –mostly given rules and preferences, constitutional analyses are primarily concerned with the choice of these topics, asking for rule choice by sometimes given preferences. This study focuses on the decision-making modus on the legislative level leading to results by log rolling or not. Given preferences and rules coordination by log rolling may improve the drafting of a proposal, but actors' welfare is ultimately determined by the decision to cooperate or not. Thus, in both cases the question arises of whether EU legislation finally increases the welfare of all actors, or whether it only improves the welfare of a majority or even of a minority.

This raises the question of how to assess the Union's cooperation scale that had previously excluded any legislation expected to worsen a member state's welfare. According to figure 2, the expected welfare of any member state (v) against the status quo (sq) with (u = v-sq) cannot be worsened by pareto-dominant outcomes (u_x,u_y >= 0 and u_y+u_y > 0) in consensus systems, while majority systems only require a Kaldor improvement of all member states (u_x+u_y > 0) allowing for redistribution (u_x < 0 or u_y < 0). Compared to the mutual risk of redistribution in majority systems, hierarchies are characterized by the distinction between a dictator (u_y > 0) and dummies (u_x < 0), the latter with a unilateral risk of being excluded.

Figure 2 about here

These systems are not exclusive but majority systems and hierarchies increase the likelihood of cooperation by offering a larger set of alternatives, while consensus systems drastically limit the space of possible outcomes. Consensus systems restrict cooperation to the pay-off zone of the upper right quarter that is also covered by the pay-off zone of majority systems and hierarchies (Benz/Scharpf/Zintl 1992). An additional criterion for assessing cooperation in consensus systems might be pareto-optimality requiring that no result may still improve a member state's welfare without worsening another member state. Similarly, individual rationality that demands enhancing any member states against the status quo (u_x,u_y > 0) is no parameter of their welfare function but it might be an additional criterion for cooperation (Roth 1979: 17). Therefore, pareto-dominant outcomes would still guarantee EU consensus, while outcomes with Kaldor pay-off would indicate the Union's change towards a majority system.

In order to examine the pay-off of outcomes from member states' individual perspectives, the following analysis assumes that actors' policy positions are Euclidean. This implies that actors prefer proposals closer to their ideal point, and that the utility for proposals declines as the distance from their policy position increases. Hence, the relationship between two distances is finally of importance: any actor may have a positive or negative balance of the distance between its policy position(s) from the status quo location(s) and from the (proposed) result (Uj = dUsq-dUre). While dUsq conceives the existing regulation as a static reference point for the status quo, dUre may be modified by coordination intended to increase actors' willingness to adopt the ultimate result r^w (see appendix, equation 1-3). For this purpose, actors may apply a log-rolling strategy to make a proposal s^w that improves the results by considering their saliency for the proposal's issues. In consensus systems, r^w leads to s^w in case of {j|dUj >= 0}, otherwise the status quo remains. Majority systems

require $\{\sum j|dUj > 0\}$, while hierarchies would allow for collective worsening by cooperation. Given the policy positions of actors and the location of the status quo, the crucial question of the procedural analysis is how actors coordinate s^w.

Concept and Measurement: Preferences and Resources on Six Commission Proposals

In order to assess the Union's cooperation scale, four problems of analysis can be distinguished. The first draws attention to the *conceptualisation* of EU decision making. This study is based on an actor-oriented concept assuming that all results are determined by actors' behavior, namely by member-state government, commission and parliamentary delegates. Disregarding the principal-agent relationship between governments and delegates, it conceives that delegates try to realize their preferences by resource allocation. The second problem concerns the *measurement* of actors' preferences and resources. It uses policy positions on issues by gathering the delegates' (ex ante) statements during the Council negotiations of Commission initiatives. Moreover, it measures how the delegates weight the relevance of issues by their number of statements they across issues during the negotiation process. Concerning actors' resource equipment it derives a formal resource distribution by Shapley values which indicate their share to transform a losing into a winning coalition. In addition, informal resources are measured by interviews on actors' information capacities and their bargaining effectiveness. The third problem refers to the *analysis* problem asking for a theory to explain EU results. In this regard, the standard criteria of predictiveness and parsimony are metaphorically supplemented by realism and understandibility in order to compare competing approaches. To generalize the findings – the fourth problem of *generalization* – it distinguishes cases with specific characteristics of EU legislation.

For the purpose of analysis, data have been collected by document analysis of six Commission proposals differing with regard to the Council's voting quota and parliamentary involvement: the Commission introduced a directive on Pregnant Women (8792/90 COM) in November 1990 under cooperation procedure, a directive on Working Hours (8073/90 COM) in October 1990 under cooperation procedure, a directive on Works Councils (4466/91 COM) in February 1991 under standard procedure with Council unanimity, a directive on Mass Dismissals (8377/91 COM to change the existing directive in November 1991 under standard procedure with Council unanimity, a directive on Subcontracting (7322/91 COM) in August 1991 under cooperation procedure, and a directive (5786/89 COM) and a regulation (5909/90 COM) to change the Free Movement under cooperation procedure. Besides availability of protocols the cases were selected based on their variation in the procedural background (unanimity or majority voting in the Council, and

parliamentary participation or abstinence) and their location of the status quo (new proposals or modifications).

The protocols of these proposals contain information on all statements of member-state delegations made during the negotiations, while the data of the Commission and the EP stem from their official opinions. Any mention that differs from either the status quo or the Commission proposal is coded as a policy position on an issue, with accordingly at least two alternatives on any issue. The directive on Pregnant Women thus includes eighteen issues, Working Hours twenty-four, Works Councils twelve, Mass Dismissals nine, Subcontracting fourteen and Free Movement twenty-two issues. In addition, the frequency of actors' statements during the whole negotiation process on each issue is regarded as expressing their individual saliency across the issues of a proposal. Actors may thus differ not only in their policy positions, but also in their saliency and resources. In closed systems, any actor distributes his saliency over all issues (see appendix, equation 4). These data allow for the study of how a change of the Council's voting quota and of EP inclusion transforms EU decision making. To show the impact of these procedural provisions, Figure 3a and 3b compare the configuration of actors' policy positions, the location of the status quo and of the results using multidimensional scaling.

Figure 3a about here

According to the spatial model of legislative choice, all actors must be closer to the results than to the status quo under unanimity rule. Figure 3a shows the distribution of actors' policy positions, the location of the status quo and of the results for proposals to be adopted under Council unanimity (Work Councils, Mass Dismissals). It indicates a north-south dimension on the horizontal axis and a distinction between new and old members on the vertical axis. Not surprisingly, results are primarily determined by the status quo location under unanimity rule. All new member states were closer to the status quo than the founding member states and both supranational actors. Great Britain was able to assert its policy position, while Portugal and Greece were less effective in spite of their comparable closeness to the status quo. Due to their greater distance from the status quo, all other member states had to make high concessions. This status quo-biased picture might be changed when Council majority voting allows for the exclusion of some member states.

Figure 3b about here

Under cooperation procedure, some member states can be outvoted by applying qualified majority voting in the Council. The question, however, is whether a specific minority of member states is continuously outvoted, and thus worse-off against the status quo. In Figure 3b, the results are less biased by the status quo located actors: they are in the middle of the actors indicating a bargain among member states. However, since Great Britain, Ireland, Portugal and Spain were closer to the status quo, they profited less from integration than Denmark, Germany, the Netherlands and Italy. But they would still profited as long as their distance from the status quo is greater than their distance from the results. Apart from these different groupings of member states, the Commission and the EP were almost located directly opposite from the status quo.

Besides preferences, this study also considers all resources controlling the issues which are completely distributed among the actors (see appendix, equation 5). Beneath surface, the allocation of resources may identify a more substantial argument on decision-making. If voting rights are assigned as a function of policy position extremity and saliency, and if this assignment allows actors to receive more resources to spend on those issues particularly important to them, then common welfare is increased by an equilibrium allocation of resources. Without these ifs, the then clause is tautological since a gain from exchange is by definition welfare enhancing or Pareto-efficient (Gilligan/Krehbiel 1995: 182). The theory should therefore ask how the resources are distributed and whether they are used for exchange.

Like the preference component, the distribution of resources raises conceptual and measurement questions. Conceptually, resources may contain a formal and a social component, the former derived from procedural settings distributing a priori voting power at the actor level.[1] These formal resources are endogenous parameters of decision-making, to be modeled as fixed (a priori) parameters with possible effects on outcomes (Snidal 1994: 456). In closed systems, any issue is completely controlled by formal resources of actors (see appendix, equation 6). Hereby, the six proposals offer a distinction between two aspects of the Union's formal resource distribution, the voting quota of the Council and the participation of the EP. Two proposals, Subcontracting and Mass Dismissals, provide for Council unanimity under standard procedure. Hence, all actors are equally decisive under unanimity rule meaning that they have the same share of formal resources in terms of relative voting power. By contrast, the other four proposals have been introduced under cooperation procedure

[1] Formally, a priori voting power can be measured by the Shapley/Shubik index in a simple game with actor set N and subset S, where a coalition v(S)=1 is winning and v(S)=0 is losing. For any actor the Shapley/Shubik index is defined as

$$\phi_i\ (v) = \underset{S \hat{e} N}{} \frac{s(n-s)!}{s!}\left[v(S) - v(S \setminus \{i\})\right],$$

allowing for Council qualified majority voting with EP participation. Considering the Commission's proposal power, the voting weights of the member states and the number of members of each parliamentary party group, the Commission had 28%, the Council 58% and the EP 14% of the formal resources when the four proposals were negotiated under cooperation procedure in the beginning of the 1990s.

In addition to formal resources, actors may differ with regard to their social embeddedness, which provides them with social resources. In addition to formal resources, social resources may capture the informal allocation component of actors' control resources.[2] According to Putnam (1993), actors vary with regard to their information capacity equipping them with different resources in coordination situations. Repeated interaction is also thought to create networks of actors (Keohane/Nye 1977: 19). Conceptually, this actor-by-actor relationship may have two elements, an individual and a collective element. The individual element refers to actors' self-control, the degree to which they are independent of other actors' social resources. At the extremes, they may either have exclusive information and exceptional bargaining capacities or they do not know each other. Conversely, the collective element describes their dependency on other actors (see appendix, equation 7).

To gather data on social resources, the deputies of the Council's secretary were interviewed on the information contacts between the working group delegations of the member states, the Commission and the EP during their negotiation of the six proposals. Apart from actors' share of individual self-control, their answers refer to thirteen different thematic subjects and contact roles, the latter distinguishing between sender (supplier) and receiver (demander) of information. This type of data allows for constructing networks of confirmed information contacts by checking whether an actor's demanded information is indeed supplied by the corresponding sender.[3] In spite of this confirmation, many relationships have an asymmetrical contact pattern, with a centrally located Commission as an often confirmed sender of information, while information from member states such as Germany or France is frequently demanded by others. For interpreting actors' relationships in terms of social resource values, the direction of the information contact is important. Actors are considered to

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with n and s as elements of N and S.

[2] Pappi/König/Knoke (1995) combined two actor-by-actor networks to form an access matrix expressing the mutual dependency of actors. The first network contains actors' demand for information, the second the supply side. Transposing the latter leads to a confirmed demand network that expresses the access to an actor demanding that information is supplied by others.

[3] An actor A has only a receiving contact to an actor B, when A is mentioned as receiving information from B, and B is regarded sending information to A. However, this does not mean that both must be symmetrically connected, i.e., when there is no confirmed receiving contact between B and A.

receive social resources because of their supply of demanded information. However, this collective element of social resource distribution is still dependent on the amount of actors' individual self-control. Actors only depend on the supply of other actors' information if they are not able to provide the required information on their own.

To sum up, the preference of the actors and their control resources raise questions of how to conceive and to measure them. Conceptually, preferences have been decomposed into policy positions and saliency, the latter considering the issue-specific interests of actors in multi-issue proposals. Their pattern reveals different groupings of member states and a cluster of the Commission and the EP. The measurement of preferences relies on document analysis of ex ante data, while resources stem from combined measurement techniques: actors' formal resource distribution is derived from Shapley values under different procedures, while data on social resources are gathered from expert interviews. Actors have the same share of formal resources under unanimity, but they always differ with regard to their social resources. Both resource elements are combined in the overall resource component of partial control over the regulation of issues (see appendix, equation 8). Resources and preferences serve as standardized components for modeling coordination processes by log-rolling. This generates the question of whether and how the actors coordinate the proposals' issues by log-rolling.

Analysis: Coordination and Cooperation in EU Decision-Making

Coordination by log-rolling suggests that influence is allocated in accord with the configuration and saliency of actors' preferences. Many studies claim that log-rolling not only avoids the unpredictability of outcomes under majority voting but also allocates resources to actors who then purchase the distributive goods their constituents value most (Gilligan/Krehbiel 1995: 181). While coordination by log-rolling seems uncontroversial if not incontrovertible, there is little knowledge about what is exchanged and what is gained in political decision-making. Using log-rolling as a metaphor, however, the form of gains from the log-rolling hypothesis is not a derivation from a precise set of assumptions but rather an imprecise statement of the assumptions. But if the intended meaning is that actors exchange resources – perhaps but not necessarily to improve results – then a nontrivial log-rolling theory might be articulated. This theory has to specify what kind of resources will be exchanged and when actors will and will not adopt a specific allocation of resources and why.

Modal, Median and Mean as Endogenous Decision-Making Modes

For the purpose of analysis, the macro-micro-macro paradigm of James Coleman (1990) will be applied and extended (Coleman 1990, Knoke et al. 1996). Basically, it considers the effects of procedural settings (macro), the interaction of actors with preferences, and resources (micro) leading to cooperation or not (macro). The standardized components of actors' preferences and resources are basic components of the Coleman exchange model that has been applied to study policy outcomes in different political systems (Coleman 1966, Laumann/Knoke 1987, Knoke et al. 1995). However, compared to Coleman's original market analogy excluding external effects, the following extension takes account of the likely effects of other actors' actions under different decision-making modes. This modification is particularly relevant for understanding the institutional background of EU decision-making. Even though outcomes may be still reached by member state consensus, it might be different to reach consensus under the shadow of majority voting from the shadow of the (Luxembourg) veto (Weiler 1999: 73). The possibility of breaking deadlocks by majority voting might drive coordination without resorting to the majority vote. This means that the Union's constitutional move towards a majority system may have endogenous implications on EU decision making. However, the question is not whether but how this development modifies the modus operandi of the proposals' coordination.

In general, there are three modes of political decision-making resulting in median, modal and (weighted) mean solutions. Besides the median under absolute, and the modal mode under relative majority voting, the (weighted) mean defines the common solution in (cooperative) bargaining analysis (Pappi/Henning 1998). However, since the weighted mean is a crude assumption rather than an explicit voting rule of decision-making systems, it does not provide much insight into the ways voting rules affect coordination. That is, instead of assuming a weighted mean mode it is more interesting to know how an explicit voting rule brings about the coordination of issues. In (spatial) voting analysis, the most prominent mode is certainly the median under absolute majority voting rule. Under the assumption of single-peaked preferences the median is the equilibrium solution in one-dimensional policy spaces, while its existence is unlikely in two- or more-dimensional spaces, and impossible if preferences are not single-peaked (Hinnich/Munger 1997: 37). Compared to absolute majority voting, we often find relative majority voting without equilibrium characteristics since the modal likelihood of a result depends on the number of alternatives (see appendix, equation 8-14).

For all three modes – the modal mode (MO) under relative, the median mode (MD) under absolute majority voting and the (weighted) mean (ME) under bargaining – we may accordingly calculate

actors' expectations considering the external costs of possible results. Taking account of external costs means that actors know the particular modus operandi, their own and other actors' preferences. They have complete information and act strategically in the sense that they endogenously adapt their expectations in accord with the external effects of other actors' actions. Actors thus recognize the likely issue results according to each modus operandi, and modify their initial preferences in order to optimize the stake of their resources. These expectations are the starting points for examining their log-rolling actions to coordinate issue results.

The Power of Actors and the Value of Issues

For the study of coordination, log-rolling is an often-cited behavioral assumption. In a simple world of few actors with two issues, barter exchange may be sufficient for coordination: if both actors have different saliency on the two issues, they may make concessions on their less salient issue in order to gain acceptance for their more salient issue. In more complex situations, however, two coordination aspects are of crucial relevance, the relative power of actors and the relative value of the issues. Relative power constrains actors' individual budgets derived from their degree of interdependence: the more other (powerful) actors depend on it the more powerful is an actor. The power of an actor reflects its control of the dependencies of other actors. Dependency is thus defined by the expectations for the alternative results that are controlled by other actors. To derive actors' mutual dependencies, their expectations X^{α} are multiplied by the control resources C. This matrix Z^{α} ($Z=X^{\alpha}C=X^{\alpha}AK$ with $\alpha=\delta,\omega,\kappa$) shows how much a row actor depends on all column actors, and the left eigenvector of eigenvalue 1.0 indicates the equilibrium power distribution ($p^{\alpha} \approx p^{\alpha}Z^{\alpha}$ and $\Sigma_j p^{\alpha}_j = 1.0$). Table 1 lists the power distribution for the six proposals under the three decision-making modes.

Table 1 about here

While there are few differences between the power distribution in the three decision-making modes, actors vary with regard to their share of power over the six proposals. Not surprisingly, member states have almost similar power shares under unanimity. However, the example of Italy shows that formal procedural settings do not always guarantee the respective power. The effects of the social component are nicely shown by the power distribution of the unanimous proposals. Belgium, Germany, France, Great Britain, the Netherlands, the Commission and partly Luxembourg have

more power, while formal resources have a particular impact on the power distribution under the cooperation procedure. Except for the Works Council proposal, the Commission has the highest power share, whereas the EP's value is primarily determined by the procedural setting of the cooperation procedure. These power shares correspond to the actors' budget enabling them to influence coordination.

Besides their individual availability of power, actors may vary with regard to their interest in the issues resulting in a different value of the issues. Like the power of actors, the value of issues reflects actors' saliency measured by the number of statements across the issues of each proposal. An issue is thus expensive when many (powerful) actors have expressed on their opinion about it, while a cheap issue has attracted less attention. The relative value of the issues can be calculated by multiplying C by X^{ω}. The value results from weighting the resource distribution by actors' expectations. ($W^{\alpha}=CX^{\alpha}=AKX^{\alpha}$ with $\alpha=\delta,\omega,\kappa$). In equilibrium, the relative value distribution is the left eigenvector of eigenvalue 1.0 ($v^{\alpha} \approx v^{\alpha}W^{\alpha}$ and $\Sigma_i v^{\alpha}_i = 1.0$). Table 2 shows the value distribution for the six proposals in the three decision-making modes.

Table 2 about here

The number of issues ranges from nine to twenty-four issues per proposal. According to Table 2, member states, Commission and EP differentiate between the issues, and decision-making modes affect the relative value of the issues. While the power distribution is primarily determined by the resource distribution, the values reflect the expectations of the actors. Issue #9, concerning dangerous materials, was the most expensive issue of the proposal on Pregnant Women, while the issues of the Working Hours proposal attracted rather similar attention from all actors. A particularly relevant issue of the Works Council proposal concerned definitions of exemptions (issue #2) and of the firm (issue #9), also relevant for Mass Dismissals (Issue #3). Acquiring resources on these issues is thus expensive.

Both relative power and relative values serve to provide insight into the coordination process and to the coordination analysis itself. For descriptive purposes, the power of actors can be derived from the mutual interest of (powerful) actors, as any power relation is considered to express an actor's relative chances to influence the result. Similarly, the values indicate the relative relevance of issues with regard to the interweaving of control resources. Concerning coordination, relative power and values are steering the resource exchange when actors try to optimize the allocation of their resources. They

already account for the external costs determined by different decision-making modes. These modes affect not only the distribution of power, but also the relative value of the issues. By and large, the power and value results of the (weighted mean) bargaining solution are in between those of the median and modal mode. The next question is whether and how these distributions affect the results.

Coordination by Log-Rolling

The relative value of issues and the relative power of actors are systemic elements, according to which actors may optimize resource allocation. This exchange presupposes the need for coordination among interdependent actors and a resource distribution that does not allow for dictatorship. Under these circumstances, actors may use their resource equipment to realize their preferences with respect to both their power and the value of the issues. This means that actors weight their expectations by their individual power ($X^{\alpha}p$). In addition to relative power, the final acquisition of all resources is related to the issues' value ($C^{*\alpha} = X^{\alpha}p / v$). Since all elements of exchange – the expectations of actors, their power and the value of issues – are standardized, the total final resource allocation also sums up to 1.0 for each issue ($\Sigma_j c^{*\alpha}_{ij} = \Sigma_j x^{\alpha}_{ij}(p^{\alpha}_j/v^{\alpha}_i) = 1.0$).

Considering the exogenous effects of voting rules, the issues' result will be determined by the policy position acquiring most resources under relative majority, while the alternative containing median resource share is selected under absolute majority. Compared to, the weighted mean determines the result under bargaining conditions. These predictions are contrasted with (parsimonious) null-models making no assumptions about actors' behavior in coordination processes. According to the first null-model (NP), the result is determined by the highest number of actors favoring an issue's policy position, while a second null-model on formal power (NM) weights these numbers according to the a priori power of the actors. Accordingly, it is assumed that the policy position with the highest voting power share will ultimately be adopted. The third null-model (NO) additionally includes the social resource distribution. Although the null-models do not specify the ways of coordination, they make it possible to test whether actors coordinate Commission proposals by log-rolling or not. Table 3 lists the predictiveness of the models: „+“ means a correct, and „-“ a false prediction of the result, while the last column indicates the predictiveness per proposal.

Table 3 about here

First and foremost, all approaches have a relatively high predictiveness, in particular in the case of the Pregnant Women proposal. For 15 of the 18 issues of this proposal, the final regulation changed the status quo location that was confirmed for five issues. Except for issue #9 and issue #14, the definition of dangerous materials and the regulation of leaves, most predictions are correct, and the modal exchange model perfectly predicts the results. For the Working Hours proposal, most approaches have a lower predictiveness: they cannot predict the results of issue #4 and #5, the definition of working hours and the application of the working rhythm, both changing the location of the status quo. The null-models on power (NM) and resources (NO) are correct in only half of the issues. Again, the modal exchange model (MO) has the highest predictiveness, while the quality of the median (MD) and the mean models (ME) is comparable to that of the null-model on policy positions (NP). Similar results are obtained for the Work Councils proposal with lower quality of the null-models because they cannot forecast employees' privileges and the definition of a European firm. Except for the application to shipping crews, all models correctly predict the results of the Mass Dismissals proposal, while the modal (MO) and mean (ME) exchange models correctly predict all subcontracting results. At first sight, the modal exchange model (MO) has the highest predictiveness with five false predictions. However, since the 77 issues differ with regard to the number of alternatives, their error term may vary due to these issue characteristics. Table 4 lists the quality of the models' predictiveness with regard to the number of issue alternatives.

Table 4 about here

Most of the 77 issues are dichotomous, and only three have five alternatives. All models best predict dichotomous issues but the modal exchange model (MO) correctly predicts 93.5% of the issue results and strikes 91.5% of their 200 alternatives. The other two exchange models still obtain a predictiveness of more than 80% of the issues, while the null-models correctly predict between 66.2% and 77.9%. However, the null-position model (NP) has a higher predictiveness on alternatives than the median exchange model (MD). In comparison, the modal exchange model (MO) predicts most of dichotomous (97.6%), trichotomous (88.2%) and tetratomous (90%) alternatives, but it misses one of the three pentatomous alternatives. This means that EU decision-making is characterized by log-rolling under the shadow of majority voting. However, even though log-rolling guarantees an efficient allocation of resources, the crucial question is whether these coordinated results still increase the welfare of all member states.

Predicting Cooperation

The high predictiveness of the modal exchange modal shows that actors consider majority voting when allocating their resources for the coordination of Commission proposals. However, the shadow of majority voting in drafting proposals does not necessarily mean that actors finally redistribute welfare through EU outcomes. The efficiency of EU decision-making rather depends on the amount of member state and parliamentary concession required to adopt (coordinated) Commission proposals. Due to the Union's constitutional development and its modus operandi towards a majority system the question arises of whether a welfare improvement of all member states is still necessary to change the status quo by EU legislation. And if it is possible to disregard a welfare improvement of some member states, the next question is whether this majority system has parliamentary characteristics.

To derive actors' welfare on each proposal, their distance from the status quo (d1) is set against their distance from the outcome (dU). A positive value indicates that an actor's welfare is enhanced by cooperation, a negative value shows it is worsened. In consensus systems, all actors must be better-off in case of cooperation, while majority systems allow for some actors being worse-off. Compared to hierarchies, however, a majority system must still guarantee collective improvement. Table 5 lists actors' welfare on the six proposals: the first columns (d1) show the individual distances from actors' policy positions and the status quo location, where individual distances are weighted by actors' saliency across issues. Regarding the proposal on Pregnant Women neither the Commission nor the EP had the largest distance from the status quo. Germany mostly preferred policy change, while Denmark and Luxembourg favored an extreme change of the regulations on Mass Dismissals and Works Councils. The Commission was particularly extreme on subcontracting and Free Movement.

Table 5 about here

The second columns list actors' distances from the outcomes, which are also weighted by their saliency. These distances express how far an actor is located from the outcome. France, Great Britain, Denmark and Germany made rather great concessions on the Pregnant Women outcome, while Great Britain and Ireland were far away from the outcome of the Working Hours results. The Commission had to accept large distances when the proposals on Works Councils, Mass Dismissals and Subcontracting were adopted under unanimity. The modal exchange predictions for the pending Free Movement proposal show an unyielding Commission, while Denmark and Portugal would have to make great concessions. In order to assess the individual welfare the third columns list the balance

of both distances (d1-d2). These balances show whether member states' welfare is improved or worsened by the outcome of the six proposals.

According to these balances, all member states benefited from the adoption of the Pregnant Women proposal which means that the Union successfully coordinated the proposal towards consensus decision-making. The most distant status quo actors Belgium, Luxembourg and the Commission profited the most, but even Great Britain was able to improve its welfare. By contrast, Great Britain and Ireland had a negative balance on the Working Hours outcome indicating that both had ultimately been outvoted under majority rule. Indeed, since Commission and EP also profited from these results, both member states were not able to block a qualified majority of 54 out of 72 votes. The Pregnant Women and Working Hours outcomes have a strong correlation between a large distance from the status quo and high welfare improvement, but the adoption of the Works Councils results mostly benefited Germany and Spain. Since unanimity rule was also formally provided, the results take account of the British positions located at the status quo. However, formal unanimity does not sufficiently explain the Mass Dismissals outcome that was adopted in spite of the negative balance of Greece. The Subcontracting proposal was also adopted by qualified majority vote excluding the sixteen votes of Denmark, Spain, Greece and Portugal which were not sufficient to block the adoption. Conversely, the negative balance of Germany, Denmark, Great Britain and Luxembourg indicates the reasons for postponing the Free Movement proposal. Figure 4 summarizes the findings on the six proposals.

Figure 4 about here

The vertical axis portrays actors' distances from the status quo, the horizontal axis shows their distance from the outcome. All points located below the diagonal enhance the welfare of the actors, while the points above the diagonal represent being worse-off than the status quo. The relationship between the distance from the status quo and from the outcome reveals that member states profit differently from EU legislation. While Denmark, Greece and Great Britain were often outvoted, and Portugal, Ireland and Spain were once overruled, Germany and Luxembourg were unaffected due to the pending proposal on Free Movement. Other member states, Commission and EP always benefited from outcomes. Briefly summarized, most member states mostly improve their welfare, while supranational actors are always represented in EU outcomes.

Outlook: Europe Towards a Parliamentary Majority System?

Decision-making analyses always simplify reality. Studying empirically the coordination in EU decision-making requires reducing the analysis to a minimum of relevant components that allow for predicting the results. Besides predictiveness, empirical applications can also be evaluated according to their parsimony and their verisimilitude (Pierce 1994: 4). Both criteria, parsimony and verisimilitude, are mutually dependent, since a higher degree of parsimony always means a higher abstraction from reality. Even though insiders often doubt that a simplifying parsimonious analysis can sufficiently capture the details of a coordination process, the scientific trade-off is neither a dichotomy between parsimony and verisimilitude (Fiorina 1975: 153), nor is it reduced to modeling analyses since additional variables only indicate a limitation of the generalizability level (Lindenberg 1992). Since even thick descriptions can only partially reproduce reality, any qualification of parsimony and verisimilitude is a gradual matter. This analysis attempted to minimize the trade-off between parsimony and verisimilitude by explicitly regarding elements of actors' preferences and resources as components of decision-making processes, and by using measurement techniques that allow for comparing the predictiveness of competing explanations.

Analytically, the question of log-rolling has empirically examined and contrasted to competing explanations of EU coordination. The detailed analysis of the six Commission proposals has finally shown that EU decision-making improves the welfare of member states in most but not all cases. Moreover, it found that member states profit differently from the Union's outcomes. This development from consensus towards a redistributive majority system may stimulate the critique on the ways of EU decision-making, particularly in the case of parliamentary exclusion

These findings have important consequences for the Union's future development. With the accession of Austria, Finland and Sweden in 1995 and forthcoming enlargement by Eastern and Southern European countries the Union will have to relax the Council's voting quota. Otherwise, it is likely that the Union's legislature will be threatened by a high gridlock danger when twenty or twenty-five member states have to form coalitions in order to change the status quo. In this regard, the analyses showed that both decreasing the Council's voting quota and increasing parliamentary participation have crucial implications for the member states' welfare. In spite of their coordination efforts to draft Commission proposals, a qualified majority of member states is already sufficient to pass EU legislation influenced by supranational actors. Thus, a further decrease of the Council's voting quota will not only increase the set of outvoted member states but also increase the supranational influence on EU legislation.

A. Evaluating Actors' Welfare

Formally, the amount dUsq totals the distance between of an actor's policy position and the status quo location resulting from all distances of all issues weighted by their relative saliency in multi-issue policy spaces:

(1) dUsq = $d_{1j} = \sqrt{\sum_{i=1}^{m} \left(\left(y_{ji} - sq_i \right) x_{ji} \right)^2}$.

Analogously, dUre is defined by an actor's distance from the proposed multi-issue result s^w.

(2) dUre = $d_{2j} = \sqrt{\sum_{i=1}^{m} \left(\left(y_{ji} - s_i \right) x_{ji} \right)^2}$.

The individual welfare results from

(3) dUj=d_{1j}-d_{j2}, where r^w equals s^w in case of {j|dUj >= 0}, otherwise the status quo remains.

B. Components of Coordination

In closed systems, any actor distributes its saliency over all issues

(4) $\sum_{i=1}^{m} x_{ji} = 1$, and

all resources controlling the issues are completely distributed among the actors

(5) $\sum_{j'=1}^{n} c_{ij'} = 1$.

In closed systems, any issue is completely controlled by formal resources of actors

(6) $\sum_{j'=1}^{n} a_{ij'} = 1$.

Informal resources capture two elements

(7) $k_{jj'} = \frac{\hat{k}_{jj'}}{\sum_{l ? j} \hat{k}_{jl}} (1 - g_j)$ with j≠j' and $k_{jj} = g_j$ as self-control,

where $\hat{K}$ is the actor-by-actor relationship K*K.

Formal and social resources are conceived as partial control resources of the issues:

(8) $c_{ij} = \sum_{j'=1}^{n} a_{ij'} k_{j'j}$

C. Coordination by Log-Rolling

Relative majority voting rule is defined by the weight of the resources s S:

(8) $$P(Z = s) = \sum_{i=1}^{m} \sum_{\substack{j \\ y_{ji} = s_i}} c_{ij} \; .$$

Without behavioral assumptions the likely outcome under relative majority rule is s^{ω} :

(10) $$s^{\omega} = \hat{s} \quad \text{with} \quad P(Z = \hat{s}) = \max\{P(Z = s) |\; s \in S\} \; .$$

For example, two issues each with three alternatives have 3^2 combinations (1/1, 1/2, 1/3, 2/1...3/3), and their probabilities result from multiplying by their resource shares. Based on these likely outcomes under relative majority rule, actors adjust their policy positions with regard to the likely external costs

(11) $$x_{ji}^{\omega} = \sum_{s \in S} P(Z = s) \frac{x_{ji} e^{\frac{1}{|y_{ji} - s_i|}}}{\sum_{l=1}^{m} x_{ji} e^{\frac{1}{|y_{ji} - s_i|}}} \, ,$$

where a monotone transformation 1/exponential function corresponds to the Maximin principle, according to which actors expect the most unfavorable alternative.

Under absolute majority rule, the equilibrium solution is the median voter if actors have single-peaked preferences. The (uni-dimensional) median mode results in

(12) $$x_{ji}^{\kappa} = \frac{x_{ji} \exp\left(-\left|y_{ji} - s_i^{\kappa}\right|\right)}{\sum_{l=1}^{m} x_{jl} \exp\left(-\left|y_{jl} - s_i^{\kappa}\right|\right)} \, ,$$

(13) with s^{κ} as the alternative that is controlled by the median resource share.

Another prominent mode is the (weighted) mean that characterizes bargaining outcomes. Applying a weighted mean mode, the expectations can be derived by

(14) $$x_{ji}^{\delta} = \frac{x_{ji} \exp\left(-\left|y_{ji} - s_i^{\delta}\right|\right)}{\sum_{l=1}^{m} x_{jl} \exp\left(-\left|y_{jl} - s_i^{\delta}\right|\right)} \quad \text{with} \quad s_i^{\delta} = \sum_{j=1}^{n} c_{ij} \, y_{ji} \; .$$

Due to standardization of total resources the total supply L_i equals the value v_i:

(15) $$L_i = \sum_{j=1}^{n} c_{ij} v_i = v_i \; .$$

Considering the power p_j of an actor j as its share of weighted control

(16) $$p_j = \sum_{i=1}^{m} v_i \, c_{ij} \; ,$$

the total weighted demand D_i for control results from proportional resource allocation

(17) $$D_i = \sum_{j=1}^{n} c_{ij}^{*} v_i = \sum_{j=1}^{n} x_{ji}^{\omega} p_j \ .$$

The equilibrium is determined by L_i and D_i with p_j

(18) $$v_i = \sum_{l=1}^{m} v_l \left(\sum_{j=1}^{n} c_{lj} x_{ji}^{\omega} \right) .$$

Log-rolling is based on expectations X^{ω} regarding power p and values v with final resource distribution C*

(19) $c_{ij}^{*} = x_{ij}^{\omega} \dfrac{p_j}{v_i}$ by the Cobb-Douglas-function $U_j^{\omega} = \prod_{i=1}^{m} c_{ij}^{x_{ji}^{\omega}}$.

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Figure 2: Hierarchies, Majority and Consensus Systems

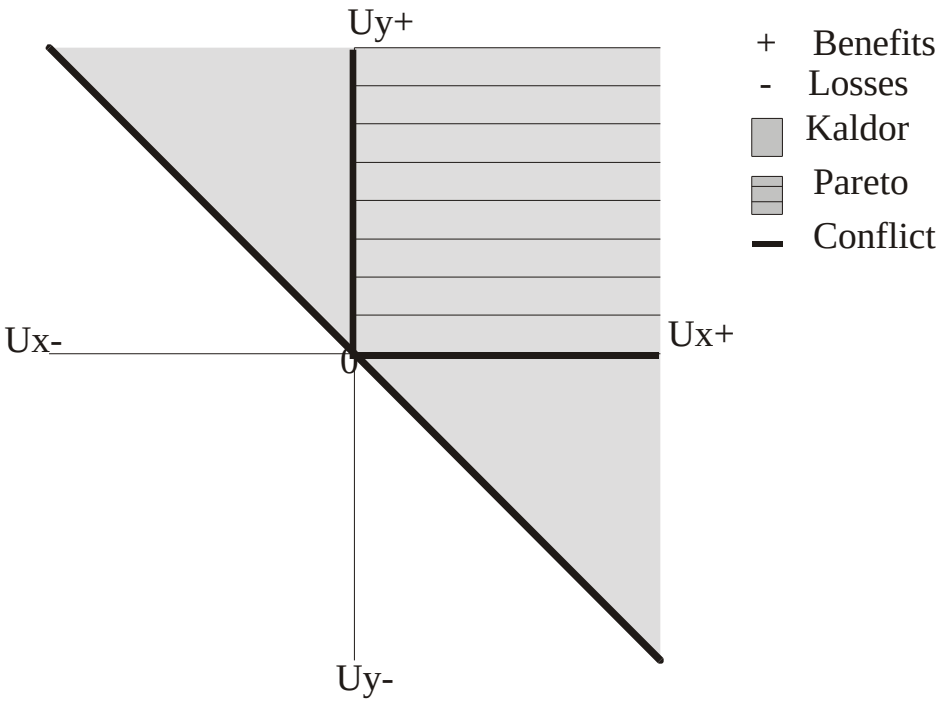
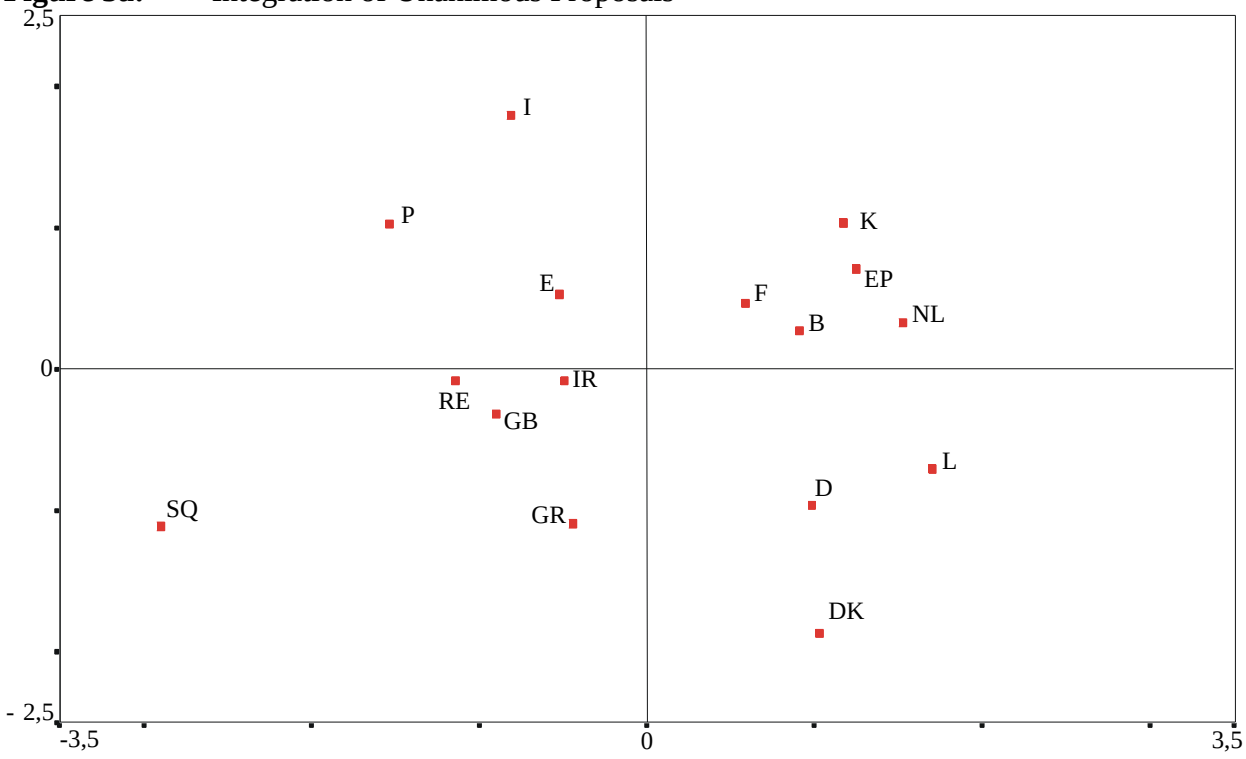
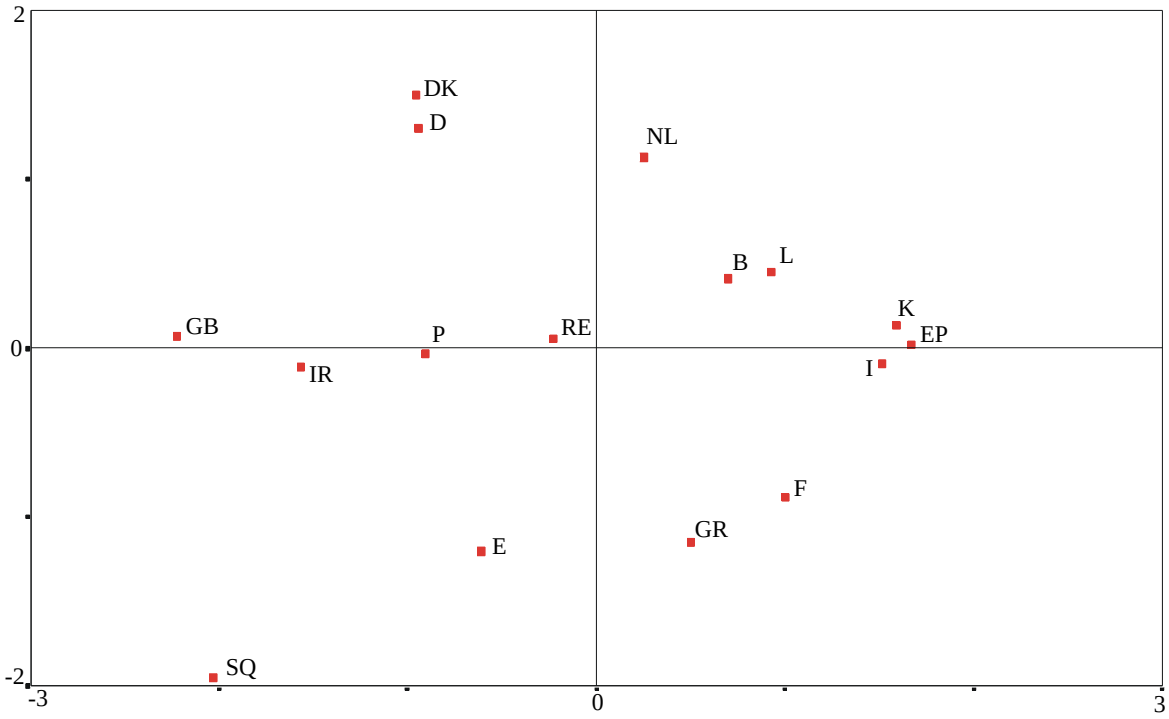


Figure 3a: Integration of Unanimous Proposals



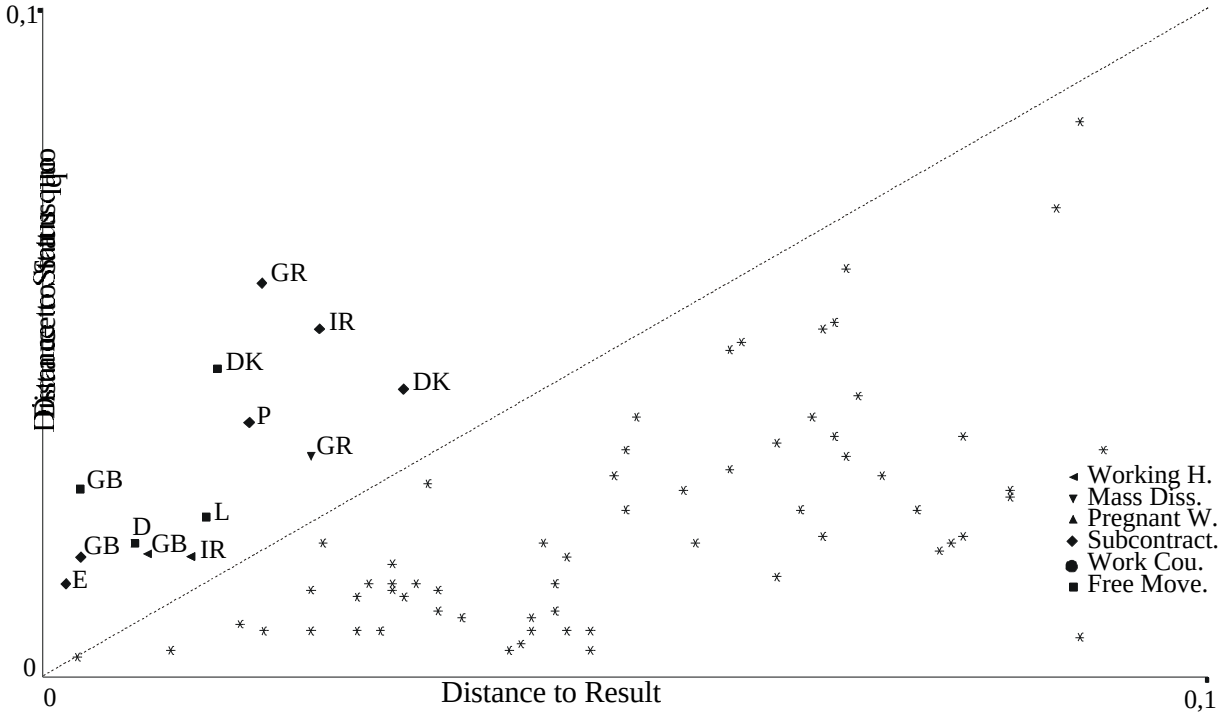
Two-dimensional Euclidean Distance; Kruskal Stress=0,24.
B-Belgium, DK-Denmark, D-Germany, E-Spain, F-France, GB-Great Britain, GR-Greece, IR-Ireland, I-Italy, L-Luxembourg, NL-Netherlands, P-Portugal, EP-Parliament, K-Commission, SQ–Status quo; RE-Results.

Figure 3b: Integration of Proposals under Cooperation Procedure



Two-dimensional Euclidean Distance; Kruskal Stress=0,27.
B-Belgium, DK-Denmark, D-Germany, E-Spain, F-France, GB-Great Britain, GR-Greece, IR-Ireland, I-Italy, L-Luxembourg, NL-Netherlands, P-Portugal, EP-Parliament, K-Commission, SQ–Status quo; RE-Results.

Figure 4: Relationship between Status Quo and Outcome



B-Belgium, DK-Denmark, D-Germany, E-Spain, F-France, GB-Great Britain, GR-Greece, IR-Ireland, I-Italy, L-Luxembourg, NL-Netherlands, P-Portugal, EP-Parliament, K-Commission.

Table 1: Power of Actors under Different Decision-Making Modes:

	Power Vector p^{α}																	
	Pregn. Women			*Working Hours*			*Works Councils*			*Mass Dismissals*			*Subcontracting*			*Free Movement*		
	MO	MD	ME	MO	MD	ME	MO	MD	ME	MO	MD	ME	MO	MD	ME	MO	MD	ME
Belgium	068	068	068	.048	048	048	.087	091	091	.071	074	074	.058	058	058	.044	044	044
Germany	.125	.126	.126	.091	.091	.091	.090	.094	.094	.080	.083	.083	.162	.162	.162	.085	.085	.085
Denmark	.042	.042	.042	.031	.030	.030	.055	.057	.057	.036	.037	.037	.017	.017	.017	.037	.037	.037
Spain	.062	.062	.062	.055	.056	.056	.063	.066	.066	.052	.054	.054	.045	.045	.045	.067	.067	.067
France	.105	.106	.106	.087	.088	.088	.086	.090	.090	.082	.085	.085	.078	.078	.078	.086	.086	.086
Great Britain	.123	.124	.124	.096	.096	.096	.086	.090	.090	.109	.112	.112	.078	.078	.078	.098	.098	.098
Greece	.021	.020	.020	.049	.050	.049	.047	.049	.049	.032	.033	.033	.018	.018	.018	.043	.043	.043
Italy	.036	.036	.036	.051	.052	.052	.055	.058	.058	.053	.055	.055	.039	.039	.039	.055	.055	.055
Ireland	.037	.037	.037	.036	.036	.036	.071	.074	.074	.060	.062	.062	.020	.020	.020	.040	.040	.040
Luxembourg	.022	.022	.023	.022	.022	.022	.078	.082	.082	.068	.070	.070	.009	.009	.009	.030	.030	.030
Netherlands	.078	.079	.079	.059	.059	.059	.080	.083	.083	.093	.097	.097	.075	.075	.075	.058	.058	.058
Portugal	.043	.043	.043	.043	.043	.043	.063	.066	.066	.052	.054	.054	.026	.026	.026	.049	.049	.049
Commission	.213	.214	.214	.226	.227	.227	.077	.081	.081	.140	.144	.144	.239	.239	.239	.232	.232	.232
Parliament	.027	.027	.027	.106	.107	.107	.013	.014	.014	.033	.034	.034	.140	.140	.140	.077	.077	.077
Sum	1.000			1.000			1.000			1.000			1.000			1.000		

MO-Modal Exchange; MD-Median Exchange; ME-Mean Exchange.

Table 2: Relative Value of the Issues under Different Decision-Making Modes

	Value Vectors v^{α}																	
	Pregn. Women			*Working Hours*			*Works Councils*			*Mass Dismissals*			*Subcontracting*			*Free Movement*		
	MO	MD	ME	MO	MD	ME	MO	MD	ME	MO	MD	ME	MO	MD	ME	MO	MD	ME
Issue 1	.094	099	095	.031	034	034	.014	.027	021	.054	.072	068	.107	.106	102	.068	.079	075
Issue 2	.013	.014	.014	.023	.019	.021	.130	.127	.121	.110	.123	.113	.122	.117	.115	.033	.032	.032
Issue 3	.014	.012	.012	.019	.015	.015	.080	.089	.075	.171	.153	.146	.014	.012	.013	.015	.011	.014
Issue 4	.011	.013	.012	.095	.093	.099	.036	.060	.042	.106	.146	.149	.180	.175	.164	.004	.004	.003
Issue 5	.064	.062	.065	.028	.030	.032	.089	.083	.088	.107	.119	.116	.073	.058	.066	.127	.153	.147
Issue 6	.098	.113	.118	.037	.031	.033	.104	.080	.106	.060	.064	.065	.092	.080	.083	.045	.038	.041
Issue 7	.016	.017	.015	.011	.010	.011	.098	.068	.086	.130	.106	.116	.152	.152	.138	.045	.038	.043
Issue 8	.023	.026	.025	.030	.035	.035	.104	.097	.095	.148	.134	.141	.205	.197	.197	.022	.026	.021
Issue 9	.257	.252	.264	.013	.012	.013	.123	.100	.125	.076	.079	.081	.021	.018	.020	.079	.068	.077
Issue 10	.027	.025	.024	.043	.034	.035	.067	.088	.073				.014	.012	.013	.014	.017	.013
Issue 11	.041	.043	.040	.028	.029	.031	.126	.086	.127				.049	.034	.044	.053	.053	.057
Issue 12	.042	.044	.041	.024	.028	.028	.024	.047	.037				.014	.012	.013	.011	.011	.012
Issue 13	.071	.066	.060	.024	.018	.019							.017	.014	.016	.031	.029	.031
Issue 14	.055	.054	.056	.032	.028	.029							.020	.017	.019	.022	.021	.022
Issue 15	.043	.043	.044	.062	.070	.070										.045	.054	.043
Issue 16	.060	.052	.055	.011	.013	.013										.105	.126	.109
Issue 17	.060	.058	.053	.056	.056	.050										.019	.022	.023
Issue 18	.012	.011	.011	.036	.029	.030										.022	.025	.024
Issue 19				.018	.016	.014										.041	.039	.039
Issue 20				.091	.098	.106										.118	.081	.102
Issue 21				.049	.056	.054										.033	.032	.032
Issue 22				.050	.054	.053										.047	.044	.044
Issue 23				.095	.095	.084												
Issue 24				.095	.098	.093												
Sum	1.000			1.000			1.000			1.000			1.000			1.000		

MO-Modal Exchange; MD-Median Exchange; ME-Mean Exchange.

Table 3: Correct and False Predictions on Issue Results of Six Proposals

	Pregnant Women						*Working Hours*						*Works Councils*						*Mass Dismissals*						*Subcontract.*						*Free Movement*				
	NP	NMO	NO	MOD	MD	ME	NP	NMO	NO	MOD	MD	ME	NP	NMO	NO	MOD	MD	ME	NP	NMO	NO	MOD	MD	ME	NP	NMO	NO	MOD	MD	ME	NP	NMO	NO	MOD	ME
Issue 1	+	+	+	+	+	+	+	+	+	+	+	+	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					
Issue 2	+	+	+	+	+	+	-	-	-	+	-	-	-	-	-	-	-	-	+	+	+	+	+	+	-	-	-	+	+	+					
Issue 3	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	-	-	-	-	-	-	+	+	+	+	+	+					
Issue 4	+	+	+	+	+	+	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					
Issue 5	+	+	+	+	+	+	-	-	-	-	-	-	+	+	+	+	+	-	+	+	+	+	+	+	-	+	+	+	-	+					
Issue 6	+	+	+	+	+	+	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+					
Issue 7	+	+	+	+	+	+	-	-	-	+	+	-	+	+	+	+	+	+	+	+	+	+	-	+	-	-	-	+	+	+					
Issue 8	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					
Issue 9	-	-	-	+	-	-	+	-	-	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					
Issue 10	+	+	+	+	+	+	+	-	-	+	-	+	-	-	-	+	-	-							+	+	+	+	+	+					
Issue 11	+	+	+	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+							-	-	-	+	+	+					
Issue 12	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+							+	+	+	+	+	+					
Issue 13	+	+	+	+	+	+	+	-	-	+	+	+													+	+	+	+	+	+					
Issue 14	-	+	-	+	-	+	-	+	-	+	+	-													+	+	+	+	+	+					
Issue 15	+	-	+	+	+	+	+	+	+	+	+	+																							
Issue 16	+	+	+	+	-	-	+	+	+	+	+	+																							
Issue 17	+	+	+	+	+	+	+	+	+	+	+	+																							
Issue 18	+	+	+	+	+	+	+	-	-	+	-	-																							
Issue 19							+	-	+	+	-	-																							
Issue 20							+	+	+	+	+	+																							
Issue 21							+	+	+	+	-	-																							
Issue 22							+	+	+	+	+	+																							
Issue 23							+	+	+	+	+	+																							
Issue 24							+	+	+	+	-	-																							
Sum	.9	.9	.9	1	.9	.9	.7	.5	.5	.9	.7	.6	.7	.6	.6	.9	.8	.8	.9	.9	.9	.9	.8	.9	.7	.8	.8	1	.9	1					

NP-Nullposition, NM-Nullpower; NO-Nullresources; MO-Modal Exchange; MD-Median Exchange; ME-Mean Exchange: „+“-Correct Prediction; „-“-False Prediction.

Table 4: Quality of Predictiveness by Issue Characteristics

	Null-Position		*Null-Power*		*Null-Resources*		*Modal Exchange*		*Median Exchange*		*Mean Exchange*	
	%	N	%	N	%	N	%	N	%	N	%	N
dichotomous p=.50 (N=47)	85.1	40	72.3	34	76.6	36	97.9	46	87.2	41	93.6	44
trichotomous p=.33 (N=17)	64.7	11	64.7	11	70.6	12	88.2	15	70.6	12	76.5	13
tetratomous p=.25 (N=10)	70.0	7	50.0	5	50.0	5	90.0	9	60.0	6	40.0	4
pentatomous p=.20 (N=3)	66.7	2	66.7	2	66.7	2	66.7	2	100	3	100	3
Total (N=77)	77.9	60	66.2	51	71.4	55	93.5	72	80.5	62	83.1	64
Alternatives (200)	77.0	154	63.0	126	69.0	138	91.5	183	73.5	147	79.0	158

Table 5: Welfare Distribution of Six Commission Proposals among Actors

	Individual Utility Differences $d_1=SQR(\Sigma_i (U_{ji}^{sq} - U_{ji}^{y})^2)$, $d_2=SQR(\Sigma_i (U_{ji}^{r} - U_{ji}^{y})^2)$;*r=MO																	
	Pregnant Women			*Working Hours*			*Works Councils*			*Mass Dismissals*			*Subcontracting*			*Free Movement*		
Actors	d_1	d_2	d_1-d_2	d_1	d_2	d_1-d_2	d_1	d_2	d_1-d_2	d_1	d_2	d_1-d_2	d_1	d_2	d_1-d_2	d_1	d_2	d_1-d_2
Belgium	0.279	0.141	0.138	0.200	0.067	0.133	0.260	0.231	0.029	0.269	0.173	0.096	0.129	0.091	0.038	0.189	0.093	0.096
Germany	0.288	0.163	0.125	0.164	0.108	0.056	0.251	0.124	0.127	0.261	0.191	0.070	0.053	0.053	0.000	0.087	0.141	-0.054
Denmark	0.235	0.167	0.068	0.185	0.101	0.083	0.406	0.391	0.015	0.203	0.137	0.065	0.176	0.208	-0.032	0.121	0.214	-0.094
Spain	0.173	0.115	0.059	0.167	0.118	0.049	0.289	0.167	0.122	0.226	0.198	0.028	0.040	0.170	-0.130	0.281	0.189	0.092
France	0.244	0.177	0.067	0.216	0.084	0.133	0.209	0.100	0.109	0.263	0.182	0.081	0.224	0.158	0.065	0.206	0.095	0.110
Great Britain	0.181	0.170	0.011	0.092	0.138	-0.046	0.104	0.066	0.038	0.175	0.108	0.068	0.050	0.132	-0.082	0.055	0.169	-0.114
Greece	0.258	0.144	0.115	0.174	0.131	0.043	0.139	0.081	0.058	0.151	0.181	-0.030	0.136	0.294	-0.158	0.210	0.119	0.090
Italy	0.256	0.158	0.098	0.206	0.082	0.124	0.262	0.247	0.014	0.185	0.112	0.073	0.298	0.288	0.010	0.251	0.186	0.065
Ireland	0.273	0.157	0.116	0.114	0.134	-0.020	0.153	0.083	0.069	0.258	0.197	0.061	0.156	0.228	-0.072	0.221	0.174	0.047
Luxembourg	0.282	0.146	0.136	0.216	0.062	0.154	0.180	0.118	0.061	0.310	0.152	0.158	0.245	0.224	0.021	0.117	0.155	-0.038
Netherlands	0.212	0.082	0.130	0.170	0.086	0.084	0.295	0.265	0.029	0.258	0.227	0.031	0.340	0.287	0.053	0.153	0.140	0.013
Portugal	0.213	0.136	0.077	0.152	0.112	0.040	0.127	0.114	0.013	0.244	0.220	0.023	0.132	0.245	-0.113	0.265	0.205	0.060
Commission	0.203	0.068	0.135	0.298	0.078	0.220	0.337	0.317	0.019	0.302	0.183	0.118	0.400	0.288	0.112	0.408	0.000	0.408
Parliament	0.164	0.084	0.079	0.172	0.118	0.054	0.224	0.184	0.041	0.278	0.136	0.142	0.237	0.124	0.113	0.208	0.140	0.068

* Exchange Prediction for Results

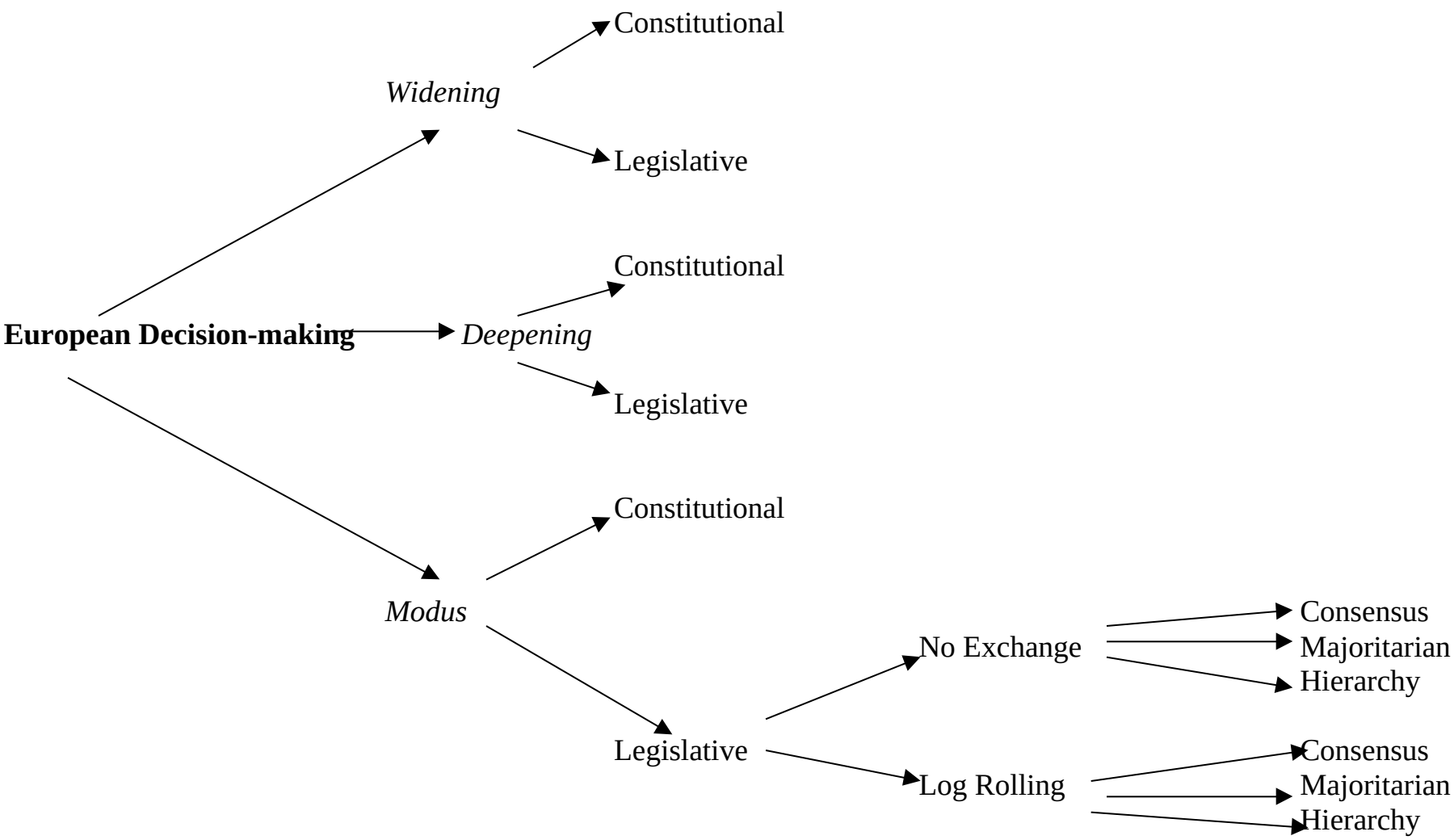



Figure 1: **Scheme and Aims of the Study**