

The Nice Treaty and Voting Rules in the Council:

A Reply to Moberg (2002)

Introduction

In his account of the negotiations surrounding the Nice 2000 Summit meeting of the European Union (EU), Axel Moberg (2002) – henceforth referred to briefly as ‘AM’ – provides much evidence as to the issues negotiated, the positions taken on them by member states, and the way deals were arrived at. While maintaining discretion on confidential matters, his revelations are particularly valuable, given the lack of transparency characteristic of intergovernmental dealings in the EU.

Reading AM, one is reminded of the fact that outcomes of European Council meetings are determined by political horse-trading and package deals. In itself, this is of course an unavoidable fact of life, to which it would be naïve to object. What is worrying, however, is that the political bargaining is evidently uninformed by any scientific analysis. This also appears to hold for the more recent negotiations on voting weights in the Council. An example is the rather striking fact that the EU has no straightforward formula for allocating seats and weights (votes) in two of its most important decision-making institutions, the European Parliament (EP) and the Council of Ministers (CM). Even the latest double-majority clause, introduced into the draft constitutional treaty by the Convention on the Future of Europe, was apparently decided upon at the last minute.¹ In the following, however, our focus will predominantly be on voting weight negotiations during the 2000 Nice Summit meeting.

Perhaps most alarming is the fact that the seat distribution in the EP appeared to be simply an ‘annex’ to the bargaining over new voting weights in the Council and the number of Commissioners; or, as Moberg puts it, quoting an earlier account by Gray and Stubb (2001: 16): seats in the EP were thrown around ‘like loose change’ to get an overall package deal during the final hours of the Nice negotiations (AM: 280). Hence the anomalies that resulted

¹ The adapted voting system was "proposed by the Convention on the Future of Europe in June, which claimed to be an open and democratic exercise. But the new voting system was decided upon at the last minute by the convention's presidium (steering committee)...". *The Economist*, November 29, 2003, p.

when comparing population sizes of EU states to the numbers of their EP seats, and the glaring absence of a formula that would provide a more theoretically justified and more transparent pattern of seat allocation.²

In fact, even where there are stable patterns, these are not backed by proper theoretical justification. Thus, although the threshold (quota) required for adopting an act under qualified majority voting (QMV) in the CM has been kept virtually constant as a proportion of the total weight,³ this constancy, as we shall see in Section II, is based on a dangerous fallacy. Similarly, the justification commonly given for the 'degressive' relationship between a member state's population and the weight allocated to it under QMV is fallacious; and the relationship itself is determined in an ad-hoc fashion. It appears that one rather straightforward formula was actually proposed during the pre-Nice negotiations: the 'square-root rule', according to which each EU member state would have a number of votes proportional to the square root of its population size. This formula was in fact tabled by the Swedish delegation, and one could only wish that such a clear allocation rule might have been adopted: a rule that would allocate votes in a transparent way and be applicable, without need for further negotiations, to all future EU states.⁴ Moreover, as we shall see in Section III, the square-root rule has a firmly established theoretical justification. Intriguingly, however, the

² For a recent paper that aims to derive a more transparent seat (and vote) distribution formula for the EP and the CM, based on more general theoretical insights on seat distributions in international institutions, see Taagepera and Hosli (2003); for the CM see also Laruelle and Widgrén (1998), Felsenthal and Machover (2001), Leech (2002c).

³ For an analysis of earlier voting weights and the finding that the QMV threshold has stayed remarkably stable since the start of the European Economic Community (EEC), see e.g. Hosli (1993), Felsenthal and Machover (1998).

⁴ The double-majority clause proposed by the Convention, based on the 'one EU state one vote' principle, in addition to a 60 percent population clause, would indeed have provided such a rule. On an earlier analysis of the effects of a double-majority clause, see Hosli (1995).

Swedish delegation disclaimed any such justification (AM: 273) and insisted that the formula is merely an arithmetically convenient artefact!

The upshot is that – as Moberg puts it so well – in the Treaty of Nice ‘There were no objective criteria for the changes. The degressivity is not consistent. The proportion between an increase in population between the clusters, and the increase in weight, is erratic.’ (AM: 275).

Moberg’s thorough account of the intergovernmental negotiations testifies to the significant communication gap between practitioners – especially government delegations of EU member states – and academics in relevant fields, particularly social choice. The author himself was probably one of the most ‘mathematically inclined’ persons involved in the negotiations, and acted for one of the foreign ministries of a smaller EU state (Sweden). But for the most part the practitioners seem to have been unaware of the very existence of a substantial body of academic work directly relevant to the problems they were grappling with. They certainly consulted no academic experts in this field. The contrast with the practical advice sought, for example, from theoretical economists is particularly glaring.⁵ One must hope that insights from social choice theory and (quantitative) political science may finally find their way into practical application. For this, bridges must be built, facilitating an exchange of insights and ideas between academics and practitioners,⁶ and the transmission of more thorough theoretical

⁵ Many of the reports of the European Commission on the internal market program, for example, benefited greatly from economic expertise and academic consultancy work conducted by well-known economists. Similarly, this is true for the preparations of the European Economic and Monetary Union (EMU).

⁶ Deliberate attempts to reach out to practitioners have been made by Baldwin et al. (2000) and Baldwin et al. (2001). On the latter, view e.g. <http://www.cepr.org/press/audio/P140/>. Baldwin et al. (2001) is a study highly critical of the Treaty of Nice on a range of issues (including the modes of operation of the European Commission and the CM and the effectiveness of the European Central Bank in view of enlargement), but aims to provide suggestions to 'repair' the decisions made at Nice.

background work into actual negotiations such as those conducted at Nice. There is a strong case for mutual interaction, and prospects for mutual gain: political bargaining is best conducted when properly informed by theory; while social science, evidently, must study carefully the reality about which it theorizes.

And the stakes are very high: the decisions in question are crucial for the further institutional development of the EU, the transparency of the EU's decision-making process, and hence, in a medium-term perspective, to the prospects of acceptance of the EU's institutional structure by the general public.

We welcome AM as an informative and remarkably frank opening of a dialogue on the part of a practitioner and long-time participant in negotiations. As such, that paper is – quite understandably – descriptive rather than theoretical. On our part, we would now like to respond to it by offering some qualifications and corrections. In addition, we aim to outline some issues that appear to be of more general importance. In essence, our approach will be normative in character. First, in Section I we shall clarify some fundamental methodological issues concerning the measurement of voting power in a normative constitutional context. Also, while agreeing with Moberg's claim that a driving rationale for many EU states in the Nice negotiations was to preserve their potential 'blocking power', we object to the way he measures this power. Next, in Section II we shall focus on the danger of 'inertia' in the prospective enlarged CM – a danger which Moberg dismisses as non-existent, but which we regard as very real. Finally, in Section III we show that the measure of over- and under-representation of EU states in the CM presented by Moberg, while being straightforward, is faulty. Section IV of our reply provides a short summary of our main claims.

Increased inertia in Council decision-making, according to this study, also implies a risk of enhanced intergovernmentalism in the EU.

I. Preliminary Clarifications

Moberg directs several dismissive remarks at the '[a]cademic discussion of voting rules in the EU'. This discussion, he notes, 'has been dominated by mathematical *a priori* models.'⁷ Most analyses have been based on Penrose's measure of voting power and have used Banzhaf's or Shapley-Shubik's power indices.' (AM: 260). In his view, 'this approach has serious weaknesses, which derive mainly from the basic assumptions of the theories', due to which 'it is very doubtful that this concept of power is relevant in EU politics.' (AM: 261).

The Need for A Priori Analysis

Moberg's most fundamental argument against this approach is its aprioristic mathematical postulate that 'all situations – that is, all theoretically imaginable coalitions of states – are equally likely'.⁸

The term 'coalition' is used here to mean any set of voters, and does not imply a long-term commitment of its members to act together as a bloc. When the CM is called upon to make a decision, it divides *for this particular purpose* into two coalitions: the 'yes' voters and the 'no' voters. (Under QMV, abstention counts as 'no'.) The a priori postulate at issue here is

⁷ In recent years, several authors have provided applications of power index analysis to EU institutions, in particular the CM (e.g. Brams 1985; Hosli 1993; Widgrén 1994; Peters 1996a,b; Lane and Mæland 1995, 2000; Felsenthal and Machover 1997, 2000; Bindseil and Handke 1997; Winkler 1998; Nurmi and Meskanen 1999) and the EP (e.g. Raunio 1996; Raunio 1997, Raunio and Wiberg 1998, Lane, Mæland and Berg 1996; Hosli 1997). There also are various applications of voting power analysis to public, supranational and international organizations. For an analysis of shareholder voting power in British companies, see Leech (2002a); for power within EMU, Sutter (2001). On power distributions in the International Monetary Fund (IMF) see Rapkin et al. (1997) and Leech (2002b); in the African Development Bank, see Strand (2001).

⁸ Similar criticism has been expressed most eloquently by Garrett and Tsebelis (1996): "The divisions in Europe do not resemble the motion of gas molecules in a container where at any point of time any two molecules may be close together" (Garrett and Tsebelis 1996: 278).

that all 2^n possible divisions are equally probable, where n is the total number of voters (at the time of writing, $n = 15$). Against this, Moberg argues:

‘Usually, states have a stable set of national interests, which in most cases are basically the same even after a change of government. This means that the positions of states are not at all random, and that the vast majority of the millions of theoretically conceivable coalitions are highly unlikely. The “veil of ignorance” that many academic studies rely on thus does not seem to be a very scientific approach.’
(AM: 261).

On the face of it, this argument – which has often been directed against a priori voting power analysis⁹ – is devastating. Even an academic must know that a state representative at the CM does not decide how to vote at random, say by tossing a coin. Evidently, the vote of each member state is determined by its interests (however these interests are assumed to be formed), so clearly not all possible divisions of the CM are equally likely. Surely, when Moberg describes the denial of such obvious facts as ‘not ... very scientific’, he is being too charitable: it is not just unscientific but plain silly.

However, the argument is based on a fundamental misunderstanding of the meaning and role of the a priori analysis and the equi-probability postulate. We must sort this out at the very outset, as it is the key to all that follows.

In a decision-making body operating under a given decision rule – here the CM under QMV – each member exercises a certain degree of influence over the outcomes, the sequence of decisions made by that body month after month, year after year. This influence is the member’s *actual* or *de facto* voting power. And it is the product of two components.

First, there is the power that a member derives from the decision rule itself.¹⁰ This is what we call the member’s *a priori* voting power. Second – and superimposed on this a priori power –

⁹ E.g. see Garrett and Tsebelis (1996).

¹⁰ Which will be different for the Nice and Convention results, for example.

is the (positive or negative) contribution of real-life political and conjunctural factors: interplay of the institutions and various preferences of the members (reflecting their different interests); and direct interactions among the members (such as pressures and other influences they may exert on one another).

Both kinds of power are important. The importance of actual power is obvious: other things being equal (and subject to certain constraints), each member state strives to maximize its own actual power, possibly by strategic behaviour. This is far from simple, because the contribution of real-life factors – the preferences, strategies and interactions – cannot be measured, let alone predicted, with any precision. General trends may be captured by these factors, but generally science is of limited help in assessing such actions.¹¹

But a priori voting power is also extremely important, especially when designing a decision rule such as QMV for future use. This has again been illustrated by the Convention and the inability of EU governments to agree upon the proposed rules during their December 2003 Summit meeting. The politicians and practitioners who re-design QMV, assigning new weights and fixing the quota each time the EU is enlarged, thereby directly decide about a priori rather than actual voting power. Awareness of this fact caused the issue of voting weights in the Council to be one of the major stumbling blocks during the December 2003 meeting.

For example, the fact that the four most populous EU member states – Germany, the UK (since its accession in 1973), France and Italy – have so far (that is, until Nice) always been assigned the same weight (number of votes) can only mean that these members were intended to have equal a priori voting power – the power bestowed on them by QMV itself. It could not have been intended – or indeed even possible – to ensure that they should have the same

¹¹ There are a number of elegant and sophisticated theories that take such real-life factors into account. Thus, for example, Owen (1977, 1982) provides a model that incorporates alliances; see also Felsenthal and Machover (2002).

actual power. Clearly, a member whose preferences are more in line with the EU mainstream, or who is able to exercise more pressure on other members, would be more often successful in getting its way in the CM, and hence wield more actual voting power than another member having exactly the same voting weight but less ‘popular’ preferences or less successful diplomacy.¹²

In order to guarantee several member states equal a priori voting power under QMV, it is not necessary to perform any complex calculation, let alone scientific analysis: the desired aim is clearly achieved by assigning all the members in question the same weight. But when the aim is to give member *a* more a priori voting power than member *b* it is important to know *how much* more; and here a simple comparison of the weights can be very misleading.

[Table 1 about here]

For example, in the period 1958–72 Luxembourg’s QMV weight was 1, half that of Belgium and one quarter that of Germany. But Luxembourg did not have half the voting power of Belgium or one quarter that of Germany. In fact, Luxembourg had no power at all under QMV (Brams 1985), because its vote could never affect the outcome of any division (see Table 1). Perhaps this did not matter all that much, because the Treaty of Rome stipulated that QMV would not be used until 1966; and even in 1966–72 it was only used on rare occasions. Still, it seems a bit of a blunder.

A less obvious but perhaps more serious blunder occurred in the third period of the EU (1981–85). Luxembourg was assigned weight 2, while Ireland and Denmark got 3 each (see Table 1). Evidently, the intention was to give Ireland and Denmark more voting power than Luxembourg. But a close examination of the 1981–85 weights and quota shows that if Luxembourg were to exchange weights with Ireland or Denmark, that would not affect the

¹² Equal a priori voting power is thus conceptually akin to equality before the law, equal rights, equal suffrage and equal opportunity. The intention in each case is not to produce equal achievements (actual equality) but an equal starting point (a priori equality).

outcome of any possible division of the CM. Therefore the 1981 QMV rule in fact gave Luxembourg exactly the same amount of influence as Ireland or Denmark.¹³

Moreover, a comparison of weights can at best give us an approximate idea about the members' *relative* voting powers; but it provides almost no information about the *absolute* level of these powers and the efficiency of the rule as a whole – on which the quota has a crucial and complex effect. An added complexity results from the combination of several quotas. The QMV specified in the Treaty of Nice is not a simple weighted decision rule but, in effect, a combination of three such rules: in addition to the 'traditional' weight quota there is a population quota as well as an ordinary numerical quota (a simple majority of the members). The effect of these additional quotas is extremely intricate and can only be sorted out by sophisticated analysis.¹⁴ Similarly, the double-majority clause proposed by the Convention can only be understood on the basis of detailed analysis.¹⁵

For these reasons, one must apply a scientific method to analysing QMV and in particular to quantifying the a priori voting power of any given member. This is done by computing the probability of specific hypothetical events in which that member is able to exercise power. The voting power ψ_a of member a is defined as the probability of occurrence of a division in which a would be able to reverse the outcome by reversing his or her vote (so that if a votes 'yes' the proposed act is adopted, and if a votes 'no' the act is blocked).¹⁶

¹³ See e.g. Brams (1985); Hosli (1993); Felsenthal and Machover (1997).

¹⁴ See Felsenthal and Machover (2001). Also see Hosli (2000).

¹⁵ See e.g. Felsenthal and Machover (2003a, b), Felderer et al (2003).

¹⁶ This definition is due to Penrose (1946, 1952). Banzhaf (1965) independently proposed a similar approach, and for this reason the Penrose measure of voting power is also known as the 'absolute Banzhaf index'. The *relative* (or *normalized*) Banzhaf index is obtained by dividing the Penrose power of each voter by the sum of the Penrose powers of all the voters. So the Banzhaf indices of all voters always add up to 1. As we shall see below, other aspects of voting power, such as the probability of

It is in this context that we posit the equi-probability postulate. This is not an assumption about how members of the CM *actually* behave. In reality, some divisions may indeed be more likely than others, due to the interplay of institutions, interests and direct interactions of the various members. But these real-life factors and strategic calculations are precisely what we must abstract from when dealing with a priori voting power, the power derived exclusively from the decision rule. It is extremely unlikely that Austria and Sweden currently have the same actual power in the CM, the same degree of influence over its actions (especially considering the range of issues the various formations of the CM deal with). But as the 1995 QMV gives both of them the same weight (4), it is absolutely certain that each of them derives exactly the same amount of voting power *from that rule*; in other words, they have exactly equal a priori voting power – as plainly intended by the practitioners who designed the 1995 QMV rule. If we wish to quantify this a priori voting power – that resource which is possessed in equal amounts by Austria and Sweden, or by Denmark and Ireland, or by Greece and Portugal – we *must ignore* the specific interests, preferences or strategic calculations of the member states.

This is what is meant by ‘going behind a veil of ignorance’: ignoring any information that may be relevant to actual voting power but not to its a priori component, because the calculations based on this model are intended to quantify only that component, derived exclusively from the decision rule.

Nevertheless, a priori voting power, which can be computed accurately, also constitutes a good *approximate estimate* of the long-term average of real voting power. This is because – even if we assume, with Moberg, that ‘states have a stable set of national interests, which in

being on the successful side in a division and the probability of being able to block an otherwise winning proposal, are closely connected with Penrose’s measure of voting power.

most cases are basically the same even after a change of government' (AM: 261)¹⁷ – the issues on which the CM will be called upon to decide are extremely varied and, in the long run, highly unpredictable. Different issues divide the members in different ways. To take a hypothetical case: the UK and Austria are perhaps quite likely to find themselves on the same side on the issue of olive-oil production, but on opposite sides when it comes to deep-sea fishing. In the short term we may have some knowledge of the issues that are likely to come up, and so have an idea as to which divisions of the CM are more likely than others. But in the longer term, as the time horizon recedes, we can no longer foretell what the issues will be and what combinations of members will form around them. Our knowledge fades into ignorance – this time genuine ignorance rather than self-imposed behind a metaphorical veil. This trend is reinforced by the considerable EU enlargement of May 2004. Short of divine prophecy, it is impossible to quantify long-term actual voting power with any accuracy; only approximate estimates are possible, and the equi-probability assumption provides the best, least biased, statistical estimate.

In social choice theory, the assumption that all coalitions among members are equally likely is termed 'Impartial Coalition Culture' (ICC). While this is not an exact solution to the problem, it may avoid many of the pitfalls of bias inherent in other assumptions¹⁸.

¹⁷ Moberg in fact seems to assume not only that national interests are *objectively* stable, but also that their *subjective interpretations* by different ruling parties remain unchanged. We will grant this very strong and somewhat questionable proposition for the sake of argument.

¹⁸ We reject the assumption made by some authors using spatial models of EU decision-making, for example, that the relevant policy scale on which decisions are made in the EU is simply a single 'pro-integration' versus 'anti-integration' dimension. For an analysis testifying to the fact that there is at least one more salient policy scale in EU politics – the traditional left-right policy dimension – e.g. see Hix (1999). On the dimensionality of the EU policy space, also see Mattila and Lane (2001), Hooghe, Marks and Wilson (2002), Gabel and Hix (2002), Pennings (2002) or Thomson et al. (2004).

Ironically, Moberg himself, while criticizing the ‘unrealistic’ assumptions of voting power analysis, does not superimpose patterns of ‘stable coalition formation’ onto his own analysis. His own computations of voting (or blocking) power amount to calculating the percentage of the weight of a given member state in the total voting weight (or in the weight of blocking minorities). This implicitly assumes that all EU states are willing and able to form coalitions with each other. Hence, while criticizing the assumption of ICC in voting power analysis, Moberg does no better in his paper, as he equally does not restrict the set of possible coalitions in the CM. Indeed, he has no other choice, because any other assumption could be shown to be biased.

To sum up: a priori calculations fulfil two functions: they are necessary for quantifying accurately the voting power derived exclusively from the decision rule; and they also provide us with the best approximate estimates of long-term actual voting powers.

Aspects of Power

Moberg has another argument against our approach. As mentioned above, voting power analysis generally assumes that the voting power of member *a* is equal to the probability¹⁹ ψ_a of occurrence of a division in which *a*’s vote is *critical* or *pivotal* in the sense that *a* would be able to reverse the outcome by reversing his or her vote. ‘However,’ Moberg objects, ‘it is very doubtful that this concept of power is relevant in EU politics.’ And he goes on:

‘There is hardly any indication that Member States were actually seeking power in that sense in IGC 2000. Instead they were trying to make sure that they could safeguard their essential national interests, together with other like-minded countries, whether they had a pivotal position or not. As will be seen, this was mainly a question of the ability of groups of like-minded states to block decisions.’ (AM: 261).

¹⁹ Here and in what follows, whenever we use the term ‘probability’ *simpliciter*, we mean a priori probability in the sense explained above.

Here there are two distinct claims, which can be spelt out as follows. First, that the voting power sought by a member state does not consist in the likelihood of its vote being critical (or pivotal), but in the likelihood of securing, together with other members, outcomes that safeguard its national interests. Second, that, from a politician's point of view, securing one's national interests consists mainly in being able to block decisions to which one objects, rather than being able to push through decisions that one favours. Let us consider these two claims in turn.

The first claim presumes an opposition between the likelihood of a member's vote being critical and the likelihood of that member being successful in securing desired outcomes. But as a matter of fact these two concepts of voting power, far from being opposed to each other, are virtually identical, and differ only in using a different scale of measurement.²⁰ Indeed, if we denote by r_a the probability of member a being successful – that is, of the CM passing a resolution that a supports or rejecting a resolution that a opposes – then the probability ψ_a of a 's vote being critical (which is the Penrose–Banzhaf measure of a 's voting power) is given by

$$\psi_a = 2r_a - 1,$$

an extremely simple linear relationship.²¹

As for the second claim, we must admit that it is valid. Politicians representing member states in EU decision-making bodies such as the CM do not prize the two kinds of 'success' (in the sense just defined) to the same extent. For a politician, failing to prevent a change in the status quo imposed by the votes of foreigners (representatives of other member states) involves extreme loss of face and is very damaging electorally – more damaging than being unable to

²⁰ This is analogous to the difference between measuring temperature on a Celsius or Fahrenheit scale.

²¹ For a proof see for example Felsenthal and Machover (1998: 45f). This simple relationship between ψ_a and r_a was noted by Penrose (1946) and has since then been re-discovered several times.

persuade foreigners to allow a desired change.²² This is why politicians understandably set higher store by negative power – the ability to block resolutions that they oppose – than by the positive ability to secure resolutions that they support.

In this respect Moberg's implied criticism of academic studies of voting power in the CM is well taken: on the whole, these studies have concentrated mainly on overall voting power, which runs together its negative and positive aspects; and have paid too little attention to blocking power in its own right.²³ We are grateful to Moberg and others – especially Galloway (2001) – for pointing out the special importance of blocking power in the context of the CM. This illustrates the value of conducting a dialogue between the practitioners and the academics engaged in studying voting power.

What we are advocating is a true dialogue, a two-way exchange of ideas.²⁴ We should point out that the theoretical apparatus used by us and other academics is perfectly capable of dealing with blocking power. The groundwork for this was laid down long ago by Coleman (1971),²⁵ and his ideas are currently being applied to the CM.²⁶ These studies confirm certain

²² For this reason, when it is clear that a resolution is going to pass in the CM, those members who are in fact opposed to it do not normally vote 'no' but prefer to abstain – which under QMV has the same substantive effect as a negative vote, but does not involve loss of face. Some may even vote 'yes' in order to avoid the negative publicity associated with voting 'no' or abstaining.

²³ For exceptions to this general trend, see Johnston (1995a) and Leech (2002c).

²⁴ A concept that was supposed to characterise the (novel) format of the 2002-2003 Convention on the Future of Europe, aspiring to develop an EU draft constitution on the basis of feedback from a vast range of societal actors.

²⁵ The blocking power – 'the power to prevent action' according to Coleman (1971) – of member a equals $\psi_a / 2A$, where A – 'the power of the collectivity to act' – is the probability of a resolution being adopted. Also, given that a is opposed to a proposed resolution, the probability that a will find enough like-minded members to get it blocked is $(\psi_a / 2) + 1 - A$. For proofs see Felsenthal and Machover (1998: 49, 62, 44).

older insights that, in our opinion, the practitioners would be ill-advised to ignore. While the (governmental) practitioners are right to put a higher premium on blocking power, they have carried this one-sided tendency too far in the negotiations on the Treaty of Nice, unaware or insouciant of the increasingly high cost.²⁷ We shall discuss this in Section II.

How should blocking power be measured?

As stated above, we accept Moberg's view that blocking power is politically the more important aspect of the real influence member states can exercise in the CM under QMV;²⁸ and he is right to point out that this was what government delegations cared most about in the Nice negotiations. But we must disagree with the way he measures this power. Even if the analysis is confined to one-sided *blocking* (rather than two-sided *voting*) power, a member's share in the blocking threshold, we argue, is not a good indicator of its relative leverage.

As a simple example, consider a weighted rule of the form [5; 4, 2, 1], i.e. three voters a , b and c , with weights 4, 2 and 1 respectively, and a decision threshold (quota) 5. Since the total weight is 7, the size of a blocking threshold is evidently 3. Hence a 's share in a blocking minority is 133.3 percent, b 's share 66.7 percent and c 's share 33.3 percent. Based on Moberg's analysis, one might think that c 's blocking (let alone voting) power is half that of b and one quarter that of a – which is clearly wrong: as can easily be verified, b and c have exactly the same blocking (and voting) power!²⁹ It should be noted that Coleman's measure of

²⁶ See Baldwin et. al (2000, 2001), König and Bräuninger (2002) and Leech (2002c). Earlier studies include König and Schulz (1997), Hosli (1998) and Hosli (2000).

²⁷ By comparison, decisive actors during the Convention, including the Presidency, may have been aware of this aspect.

²⁸ An issue that was taken up earlier in Johnston (1995a). Also see the debate Johnston (1995b) versus Garrett, McLean and Machover (1995).

²⁹ To see this, note that the outcome of any division will be unchanged if b and c exchange weights.

blocking power ('power to prevent action') in this situation assigns values 1, 1/3 and 1/3, respectively, to the three members. Is this not much more reasonable?

When it comes to comparing decision rules with different numbers of voters, Moberg's proposed measure does at least as badly. Consider two decision rules: \mathcal{D} and \mathcal{E} with 4 and 100 voters respectively. All voters have the same voting weight, 1. The blocking threshold is 2 in both rules (in other words, a resolution is blocked if at least two voters vote 'no'). According to Moberg's measure, the blocking power of each voter is the same under both rules, namely 1/2, because in both cases the weight of each voter is half of the blocking threshold. But this is plainly wrong. Under \mathcal{D} , if a voter is opposed to a proposed act, she must find at least one like-minded voter among the other three in order to block the act. Under \mathcal{E} , on the other hand, an opponent of a proposed act only needs to find one ally out of 99 – which is clearly considerably easier. (Coleman's measure of blocking power assigns the values 3/5 and 99/101 respectively to voters of \mathcal{D} and \mathcal{E} .)

Of course, these examples are rather extreme, chosen for the sake of clear illustration. But the phenomena underlying them are present (in less acute form) also in ordinary real-life situations. Computationally, analysts no longer have to shy away from making the required calculations, since, thanks to several experts, calculating both voting and blocking power have been made easy by the provision of computer programs, partially available on the internet³⁰.

II. Is the Danger of Inertia in Council Decision-Making Real?

Moberg's account of the bargaining dynamics at the EU Nice Summit meeting provides a good demonstration of how difficult it had become to reach agreement in an EU of 15 member states. The Convention on the Future of Europe illustrated this difficulty on the basis of even more members. Negotiations tend to be tedious, horse-trading and package deals are

³⁰ E.g. see the Indices of Power (IoP) program by Bräuninger and König; also see the programs by Dennis Leech and the recent program by Antti Pajala in the list of references.

inevitable. During the Nice negotiations, the perceived pressure that a deal needed to be struck on the EU's institutional setup in order to allow for enlargement – and consequent serious fears of postponed enlargement – induced governments to search for a deal, even if an inequitable, non-transparent and partially nonsensical one: a result of simple political pressures, bargaining power and ad hoc decision-making.

As a practitioner and veteran observer of EU negotiations, Moberg is well aware of the intricacies of arriving at unanimous agreement in the framework of intergovernmental negotiations. With regard to QMV, however, he claims that keeping the decision threshold at the same level (as percentage of total voting weights), or even moderately increasing it as agreed upon at Nice for an enlarged EU, is unlikely to have significant effects on the speed and ease of decision-making in practice. Concerning issues decided under QMV, he assures us:

‘There is hardly any risk of serious deadlock on these issues. It would be difficult to find such cases in the past.’ (AM: 277).

This optimistic invocation of past experience³¹ is ominously reminiscent of the response of the proverbial cameleer to warnings that he is overloading his camel with too much straw: ‘My camel is very strong; in the past he has been able to carry heavier and heavier loads of straw without too much difficulty. So, why not add a little more?...’

Most people understand that unanimity among 27 members is harder – in fact *very much* harder – to achieve than among 15: it is a matter of common sense. But mathematical analysis is needed to show something that is not obvious to common sense: as the number of members increases, the difficulty of reaching a positive decision under QMV also tends to increase,

³¹ Empirically, Moberg's claims about the past are corroborated, at least in part, by Golub (1999, 2002), who has analyzed the swiftness of decision making in the EU's past for the case of directives. However, for results that show increased inertia, based on an analysis on both regulations and directives, see Schulz and König (2000) and König and Bräuninger (2002).

ceteris paribus, if the quota is kept at a constant proportion (higher than 50%) of the total weight.

Moberg is certainly not alone in dismissing this mathematical fact. The idea that the decision quota under QMV does not really matter is a widespread misjudgement. To our knowledge, indeed, there are no preparatory papers deriving from governmental sources warning about the fact that QMV with a stable or even increased decision threshold, in addition to enlargement by several new members, could seriously increase the danger of deadlock in Council decision-making.³² According to Moberg, some governments were initially inclined to lower the decision quota for QMV rather than increase it,³³ but a more important consideration to many was to maintain and even increase their ability to block decisions – which obviously increases with an increase in the decision threshold but also increases (albeit less obviously) with an increase in the number of members, even if the threshold is not raised.

Table 2 shows the a priori probability A of a positive decision under QMV in past phases of the EU and under the Nice and Convention provisions; in each case we show also the corresponding betting odds against a resolution being passed.

[Table 2 about here]

Our table shows that the betting odds against a resolution being passed by the CM would increase from the present value of approximately 12 to 1 to an alarming level of approximately 48 to 1 or even 59 to 1 – depending on which of the two conflicting Nice Treaty QMV prescriptions for a 27-member CM you believe.³⁴ By comparison, the double-

³² This danger, of which the practioners seem unaware or prefer to ignore, has been emphasized by theoretical background work such as König and Schulz (1997), König and Bräuninger (1997a,b, 2002), Hosli (1998,1999,2001), Baldwin et al. (2000, 2001), Schulz and König (2000), Felsenthal and Machover (2000, 2001), and Hosli and van Deemen (2002).

³³ A feature indeed incorporated into the draft constitutional treaty with the double-majority clause.

³⁴ Moberg (AM: 275) tells us, amazingly, that ‘it was agreed’ to keep this contradiction between the two conflicting prescriptions for 27 members; ‘but the order of texts shows how they should be

majority clause suggested by the Convention, based on the current EU membership of 25 states, decreases the betting odds against passing to about 3.5 : 1.³⁵

The table also suggests why past experience with QMV is seemingly so reassuring. In the early periods of the EU, the QMV rule was rarely invoked, and most CM decisions were taken unanimously. The bulk of the experience with QMV dates from the post-1981 periods, during which the odds against a resolution being passed climbed from about 6 to 1 through about 9 to 1, to the current value of about 12 to 1. This is a relatively gentle rise compared to the quadrupling or quintupling of the odds that would result if the QMV rule for an enlarged 27-member CM prescribed in the Nice Treaty were to be implemented.

But Moberg dismisses this type of calculation as irrelevant.

‘The studies that express fears of reduced effectiveness are based on theories where countries either say ‘yes’ or ‘no’ to a proposal This is not a relevant question in EU politics. The procedure is initiated by a Commission proposal, which is discussed in one of the working groups of officials for months, and sometimes years, before they are brought to decisions in Coreper and finally ministerial level. Real negotiations take place at all these levels. Sometimes the discussion ends up with practically the original proposal. Sometimes it is changed beyond recognition.

‘There is a strong consensus culture in the EU, even in matters where the treaty stipulates qualified majority. ... Sooner or later after negotiations, consensus or at least a qualified majority will be found.’ (AM: 277f.)

interpreted’. This seems to suggest that the later version (\mathcal{N}'_{27}) is the binding one. However, Galloway (2001: 85) observes that while \mathcal{N}_{27} is included in the body of the treaty, \mathcal{N}'_{27} appears in a ‘declaration’ (annexed to the treaty) which is ‘a purely political rather than a legally binding statement.’

Note, by the way, that although the difference between the quotas of \mathcal{N}_{27} and \mathcal{N}'_{27} appears slight – 3 points out of 345 – the resulting difference in effectiveness is large.

³⁵ The Nice provisions, for an EU of 25 member states, would have implied betting odds against passing of about 27 : 1.

Moberg's authoritative description of the consensus-seeking decision-making process is undoubtedly correct, and corroborates similar observations by several academic experts.³⁶ Indeed, by the time a resolution is brought to the CM for a formal vote, its approval is usually just that: a pure formality. The proposed resolution is virtually certain to be adopted. Yet our table shows, for example, that at present the odds against a resolution being adopted are about 12 to 1. Does it therefore follow that – as Moberg claims – our figures are irrelevant?

Not in the least! As Moberg himself has just told us, the formal vote in the CM is preceded by a long process of discussion and bargaining, lasting 'months, and sometimes years'. This procedure amounts in effect to a series of unofficial divisions or straw polls. The Commission initially canvasses the member states regarding their position on its proposal. If it transpires that there is not enough support for it, the Commission will not table it as a formal resolution for the CM: that would be a waste of time and would cause loss of face. But in effect this is tantamount to an *unofficial* division of the CM, in which the Commission's original proposal was voted down. Next, the proposal is amended, and the new amended version is subjected to consultation between the Commission and the member states (and the EP under the co-decision procedure), and to bargaining among the member states. Finally, after several versions of the proposal have been discarded – which amounts to being voted down, albeit unofficially – there emerges a version that can win 'consensus or at least a qualified majority'. Only then is it brought before Coreper or the CM, where its formal approval is a foregone conclusion.

What all this means is that the figures in our Table 2 should not be read too literally, as referring to the probability of an act being approved by the CM in a formal official division. Rather, they provide an objective a priori estimate of the difficulty (and length) of the diplomatic process just described. They measure the gradient of the slope that the engine of diplomacy must climb in order to get an act approved by the CM.

³⁶ E.g., see Hayes-Renshaw and Wallace (1997), Hix 1999, Sharrington (2000), Hayes-Renshaw (2001) or Mattila and Lane (2001).

The (government) delegates and practitioners would be very ill-advised to dismiss this reading of our figures. The fact that so far the diplomatic engine has been able to cope with a priori odds of 12 to 1 provides no guarantee that in future it will be able to overcome odds that are four or five times longer. Rather, one must expect that a procedure that now requires ‘months, and sometimes years’, will stretch over years and sometimes decades. Alternatively, proposals would have to be greatly watered down in order to gain approval. The CM would be dangerously close to paralysis. Of course, even then formal voting in the CM will result in virtually automatic approval of the proposed acts – but only of those acts that manage to reach this stage.

This prospect can only be welcome to those who would like to see the effectiveness of the CM reduced, so that enlargement would result in dilution of the EU. Possibly inadvertently, the Convention provided a radical -- perhaps a little too radical -- remedy to this problem by suggesting the removal of the main component of the Nice rule (with its dangerously high quota) and reducing the population quota from 62 percent to 60 percent.

III. How Should Over- and Under-Representation be Measured?

The allocation of voting power in the CM is a fundamental issue affecting, among other factors, the democratic legitimacy of this body. The EU is supposed to be a union of people as well as a union of states. In its capacity as a union of people it must ideally give all EU citizens, irrespective of country, equal a priori influence over EU decision making, according to the principle: *one person – one vote* (OPOV).³⁷ How is this to be implemented in the CM under QMV? Moberg’s approach to this crucial and delicate issue is based on the following statement.

³⁷ Note that this is a *constitutional* principle, so it can only aim to equalize a priori influence rather than actual influence.

‘A simple measure of a country’s over- or under-representation is the ratio between its share of votes and its share of the population. If the ratio is over 1 the country is over-represented, and vice versa.’ (AM: 262)

No argument is offered for this dictum, which is asserted as though it is self-evident. It may indeed seem self-evident to most people, and it is very widely believed. But it is quite false all the same.

One way of seeing that Moberg’s dictum cannot be correct is to observe that it refers only to the distribution of number of votes, i.e. weights, rather than to voting power; and it fails to refer to the quota, as though it did not matter. But the quota surely does matter. Take an extreme case: suppose the quota was 100 percent of the total weight. In this case, QMV would be the same as the unanimity rule, in which Germany and Malta would clearly have exactly the same voting (and blocking) power, irrespective of the weights allocated to them: increase Germany’s weight as much as you like – it would still be under-represented. This is clear without any sophisticated mathematics. But mathematical analysis shows that a similar effect also operates – albeit in a less extreme form – for high quotas that fall short of 100 percent: the scientifically defined voting (and blocking) powers of the ‘heavier’ member states are proportionately smaller than their voting weights.³⁸

But in fact Moberg’s dictum is false in general, for any value of the quota. It is refuted in detail in Felsenthal and Machover (2000), where its seductiveness is also explained.³⁹ Let us summarize this explanation. The dictum seems reasonable because it is confused with the principle of proportional representation (PR), which advocates that the number of votes

³⁸ Leech and Machover (2003) show that for the weights specified in the Nice Treaty for a prospective 27-member CM, this effect becomes noticeable when the quota exceeds about 70 percent of the total weight.

³⁹ See, in particular, subsections 2.1.2, 2.2.3 and 2.2.4. On this issue, also see Felsenthal and Machover (2001: 450ff.).

(seats) allocated to political parties in a legislature should be proportional to the number of votes cast for them in a general election.

But in fact the two cases are very different. A party in a legislature represents voters who subscribe to its political manifesto, and thus hold similar views. This is particularly so in countries that implement PR, in which there tends to be a large variety of parties, so that voters can choose a party that closely reflects their views on most issues. The legislature then constitutes a faithful microcosm of the electorate at large.⁴⁰

But members of the CM are ministers, who represent not unanimous opinion blocs but countries, in each of which there are a variety of views. When ministers vote in the CM, we can at best assume that their votes accord with the *majority* views in their respective countries.⁴¹ Sometimes the margin of such a majority can be very slim; sometimes it is quite large. However, cases in which a minister's vote reflects the *unanimous* view of his or her compatriots can be virtually ruled out: even on matters that concern vital national interests, opinions within a country are always divided. A referendum or election in which all the voters vote in the same way is sure to be fake.

The scientifically correct way of implementing the OPOV principle in the CM under QMV, giving all citizens of the EU equal power (which they exercise indirectly, via their respective representatives) would be to make the *voting power* of each member state proportional to the *square root* of its population. This is based on the discoveries made many years ago by Lionel Penrose (1946, 1952), which were re-discovered several times since then.⁴² This

⁴⁰ For a general most helpful overview of the relationships between number of votes cast and number of seats in legislatures, see Taagepera and Shugart (1989).

⁴¹ Even this is perhaps somewhat optimistic; but this 'democratic idealization' is necessary for any scientific treatment of the problem at hand.

⁴² For an outline of a proof see Felsenthal and Machover (2000); for a detailed proof see Felsenthal and Machover (1998).

scientific fact may be of particular importance to relatively small EU states, such as Sweden, because the measure used by Moberg will tend to suggest, falsely, that small members are over-represented even when in fact they are not.

As it happens, provided the quota is not fixed at too high a level, the voting weights that would produce such an equitable distribution of voting powers are also very nearly proportional to population square roots.⁴³ Thus, an effective and equitable QMV rule for an enlarged CM would be very much like the rule proposed by Sweden in the pre-Nice negotiations, but with the a lower quota (say 66 percent of the total weight).

[Do we need to adapt this to the new situation based on 25 members?] It is true that at present the bigger and medium-sized EU members, from Germany to the Netherlands, are under-represented and the rest are over-represented; but not nearly to the extent as Moberg's measure of equitability would suggest!⁴⁴ In fact, under the most equitable distribution of voting power, giving equal (indirect) influence to all citizens of the EU, his measure will necessarily show, quite falsely, that the bigger members are 'under-represented' and the smaller ones 'over-represented'!⁴⁵ In other words, an *apparent* bias in favour of the smaller members – in terms of Moberg's measure – is necessary in order to implement the OPOV principle. This (apparent) bias is not, as Moberg suggests, purely a result of a compromise

⁴³ See Felsenthal and Machover (2001).

⁴⁴ Note that according to the scientific formula -- Penrose's Square Root Rule -- the Netherlands is one of the bigger members, which are currently under-represented. But according to the false proportionality principle advocated by Moberg, and believed by some practitioners, the Netherlands is one of the smaller members which are over-represented. Consequently, the reformed 15-member QMV rule prescribed by the Nice Treaty (\mathcal{N}_{15} of Table 2) would not have done the Netherlands injustice by reducing its power. In other respects \mathcal{N}_{15} would have been an improvement on the current rule, however.

⁴⁵ On finding equitable representation of citizens in the CM, see also Laruelle and Widgrén (1998).

between this principle and that of ‘one state – one vote’; the latter principle is simply embodied in the unanimity rule.

IV. Conclusions

We applaud Moberg’s frankness in presenting information on preferences, data and calculations that circulated among government delegations during the negotiations of the Nice 2000 EU Summit meeting. As far as we know, he is probably one of the most ‘mathematically inclined’ practitioners, and one can only wish other foreign ministries would make such efforts at analysing data with so much skill. Perhaps unintentionally, Moberg’s paper also testifies to how random were the deals struck at Nice: a new allocation of votes in the Council and seats in the European Parliament that is not based on careful long-term thinking, but appears to be simply a result of ad hoc political bargaining and package deals.

Moberg’s figures and calculations are a great improvement over absence of information on these issues. However, we argue in the present paper that the calculations he presents, while carefully thought out, are largely based on intuition and ‘common sense’ which are often misleading, and lack more thorough mathematical foundations. In our critique we mainly focus on three topics: the right approach to the measurement of blocking (and voting) power, the danger of inertia in a prospective enlarged CM, and the measurement of countries’ relative under- and over-representation in the CM. We show that in each of these domains more thorough analyses are needed. We argue in particular against Moberg’s optimistic view that the high quota (decision threshold) for QMV set by the Treaty of Nice would not lead to inertia of decision-making in a prospective enlarged CM. In addition, while agreeing with Moberg on the special political importance of blocking power for individual EU states under QMV, we show that this power needs to be measured appropriately. Finally, we criticize Moberg’s measures of the relative over- and under-representation of EU states in the Council, as they are likely to lead to distorted results.

Moberg's paper illustrates the need for the establishment of a thorough dialogue between academics and decision-makers to avoid other debacles such as the Nice Treaty provisions on voting rules in the CM (and seat allocations in the EP). It may still be possible to correct these provisions before it is too late.⁴⁶ Economic experts have been influential in providing advice and analysing effects of the EU's internal market program. Monetary experts, among them central bankers, have been crucial to the establishment of EMU. In comparison, there appears to be a glaring absence of academic advice to practitioners and EU institutions regarding the establishment of sensible, equitable and transparent voting rules for the EU's institutional setup. Moberg's analysis takes an important step in starting to bridge the gap between practitioners and academics, but we argue that much more – and much more thorough and regular – analyses and patterns of exchange are needed.

⁴⁶ At least regarding the issue of potential inertia in the CM, the suggestions contained in the draft EU Constitution are potentially laudable: the provision to move to a system in which decisions can be made on the basis of a simple majority of states equalling at least 60 percent of the EU population, could indeed, within the CM, considerably improve the betting odds against passing an act.

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Table 1: *The Distribution of Votes and the Decision Quota in the Council of Ministers*

Member States	1958-72	1973-80	1981-85	1986-94	Since 1995	Treaty of Nice (27 Member states)
Germany	4	10	10	10	10	29
United Kingdom	-	10	10	10	10	29
France	4	10	10	10	10	29
Italy	4	10	10	10	10	29
Spain	-	-	-	8	8	27
Poland	-	-	-	-	-	27
Romania	-	-	-	-	-	14
Netherlands	2	5	5	5	5	13
Greece	-	-	5	5	5	12
Czech Republic	-	-	-	-	-	12
Belgium	2	5	5	5	5	12
Hungary	-	-	-	-	-	12
Portugal	-	-	-	5	5	12
Sweden	-	-	-	-	4	10
Bulgaria	-	-	-	-	-	10
Austria	-	-	-	-	4	10
Slovakia	-	-	-	-	-	7
Denmark	-	3	3	3	3	7
Finland	-	-	-	-	3	7
Ireland	-	3	3	3	3	7
Lithuania	-	-	-	-	-	7
Latvia	-	-	-	-	-	4
Slovenia	-	-	-	-	-	4
Estonia	-	-	-	-	-	4
Cyprus	-	-	-	-	-	4
Luxembourg	1	2	2	2	2	4
Malta	-	-	-	-	-	3
Total	17	58	63	76	87	345
Quota (In percent of total number of votes)	12 (70.6%)	41 (70.7%)	45 (71.4%)	54 (71.1%)	62 (71.3%)	258*) (74.8%)

Source: adapted from Hosli (1993); Felsenthal and Machover (1998).

*) This quota corresponds to the rule defined on p. 164 of the Treaty of Nice (2001). According to another version of the rule given on page 167 of the treaty, however, the quota will be 255 votes, corresponding to 73.9 percent of the total weight. See footnote 24 in the present article on this issue. Adopting the notation used by Felsenthal and Machover (2001), we will label the first rule N 27 and the second one N' 27.

Table 2: Acceptance Probability under QMV

EU phase	Probability of a positive decision, A	Betting odds against passing
1958–72	0.21875	3.57 : 1
1973–80	0.14648	5.83 : 1
1981–85	0.13672	6.31 : 1
1986–94	0.09814	9.18 : 1
1995–	0.07779	11.86 : 1
N_{15}	0.08216	11.17 : 1
N_{27}	0.01659	59.27 : 1
N'_{27}	0.02026	48.36 : 1
Draft constitution (25 states)	0.22500	3.44 : 1

Here N_{15} is the QMV rule prescribed in the Treaty of Nice (2001: 97–98) for the present 15-member CM, which will take effect on 1 January 2005 if the EU will not have been enlarged by then. N_{27} is the QMV rule for an enlarged 27-member CM, prescribed on p. 164 of the treaty; and N'_{27} is the QMV rule for an enlarged 27-member CM, prescribed on p. 167 of the treaty.