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EU CONCILIATION COMMITTEE: COUNCIL 56 VERSUS PARLIAMENT 6

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ABSTRACT

EU Conciliation Committee: Council 56 versus Parliament 6

This Paper analyses bargaining between the European Parliament (EP) and the Council of Ministers (CM) in the Conciliation Committee with the aim of evaluating both institutions' power in the European Union's co-decision procedure. In contrast to other studies, which use power indices or simple spatial-voting models, both institutions are assumed to act strategically and differences in their internal decision mechanisms are taken into account. Although the CM and the EP have a seemingly symmetric position in the Conciliation Committee, the analysis highlights that the CM is strongly favoured in terms of its average influence on legislation. EU enlargement under the rules of the Treaty of Nice renders the EP almost irrelevant, while the constitutional proposal put forward by the European Convention can lead to a Pareto-improvement.

JEL Classification: C70, C78, D70 and D72
Keywords: bargaining, codecision procedure, European Union and spatial voting

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1 Introduction

Bargaining between European Parliament (EP) and Council of Ministers (CM) in the *Conciliation Committee* represents the final chance to implement a change to the status quo under the European Union's *codecision procedure*. The bargaining outcome that EP, CM, and also the European Commission (EC)[1] expect to result from invoking the Conciliation Committee plays a crucial role at earlier stages of the procedure. Using backward induction it can be concluded that it is indeed *the* determinant of any codecision agreement if EP, CM, and EC act strategically.

Analysis of the Conciliation Committee and the distribution of power in it is therefore precondition for analysis of the codecision procedure as such. Consequently, several authors have devoted their attention to the Conciliation Committee including Steunenberg and Dimitrova (1999), Crombez (1997, 2000), Tsebelis and Garrett (2000), and Steunenberg and Selck (2002). Their mostly qualitative assessments of who shapes the compromises reached by EP and CM – and hence the distribution of power between these two players – diverge.

Crombez regards EP as the agenda setter in the Conciliation Committee but concludes nevertheless that both EP and CM "genuinely codecide which policy to implement" (1997, p. 113). His analysis does not discriminate much between the Maastricht and Amsterdam versions of codecision,[2] which according to Steunenberg and Selck (2002), however, has no significant consequences. Tsebelis and Garrett (2000) focus on the Amsterdam version and argue that the EU has moved towards bicameralism. Inspired by formal bargaining models, they find no reason to suggest that either CM or EP is favored by the procedure, so that both can be expected to have the same influence.

In contrast, Steunenberg and Dimitrova (1999) observe an advantage to CM, in particular the member country holding its presidency, in a model that assumes the Council president to make a take-it-or-leave-it offer to EP. The latter assumption builds an *asymmetry* into the model – making greater power for CM a non-surprising consequence – which is controversial not only because of the commitment problems associated with such offers.

However, we find that Steunenberg and Dimitrova's conclusion of a significant advantage for CM remains valid also for *symmetric* bicameral bargaining, as assumed by Garrett and Tsebelis. Key to this conclusion is the assumption that the representatives of the two chambers have preferences defined by aggregating unidimensional single-peaked preferences of individual members of EP and CM using the institutions' respective voting rules. Intra-institutional majority rules are an important factor in inter-institutional bargaining, which the literature has largely neglected.

This paper assumes strategic players with spatial preferences characterized by individ-

[1] The Commission only acts as a facilitator in the Conciliation Committee but is an essential player in the preceding stages of the decision process – in particular, it initiates the codecision procedure.

[2] The original version of codecision, laid out in the Maastricht Treaty in 1992, was revised by the Treaty of Amsterdam in 1997 specifically to make the procedure more symmetric. See e. g. the comments by Tsebelis and Garrett (2000), Tsebelis and Money (1997), Crombez (2000), Crombez et al. (2000), and Garrett et al. (2001).

ual ideal points in a Euclidian policy space, and uses cooperative *Nash bargaining* and noncooperative *Rubinstein bargaining* theory to predict agreements in the EU's Conciliation Committee.[3]

A first important observation is that compromises reached by EP and CM will typically *not* be close to or even exactly in the middle of both decision bodies' ideal policy points. Instead, there is a very robust bias of the bargaining outcome in favor of the player with smaller distance between its ideal point and the status quo, i. e. an important *status quo bias*. For instance, if utility of EP's and CM's respective representatives decreases *linearly* in the distance between each player's uni-dimensional ideal point and status quo, the symmetric Nash bargaining solution predicts an agreement exactly on the ideal point of the player with smaller distance to status quo if there exists any mutually beneficial policy change at all.

Bargaining's status quo bias is compatible with symmetric power or average influence on the bargaining outcome *only if* EP and CM are equally likely to be the more enthusiastic one about changing the status quo. A priori, considering several plausible probability distributions of CM's and EP's preferences derived from assumptions about its individual members and the respective internal decision making rule, this is not the case: CM's qualified majority requirement makes the distribution of its collective ideal point – corresponding to the distribution of the ideal point of its pivotal member – pronouncedly skewed in contrast to an almost symmetric distribution implied by EP's simple majority rule. This means that CM is far more often the player closer to the status quo and, by bargaining's status quo bias, to define the compromise reached in the Conciliation Committee. Measuring a player's *power* as the sensitivity of the collective decision to its preferences (see Napel and Widgrén, 2002), CM's a priori power turns out to exceed that of EP by an order of magnitude for the decision quotas presently applied. The – in some cases Pareto-improving – effects of quota changes in CM, agreed on in the Treaty of Nice or recently proposed by the European Convention, and moreover the consequences of the European Union's impending enlargement for the inter-institutional distribution of power are investigated in detail.

The remainder of the paper is organized as follows: Section 2 discusses the representation of preferences of EP and CM members in a bargaining context. Assuming that spatial preferences with von Neumann-Morgenstern representations exist also for EP and CM in aggregate, Section 3 concerns the cooperative Nash bargaining solution. The key finding is pronounced bias towards the ideal point which is closer to the status quo. Section 4 analyzes noncooperative models of alternating offers bargaining. These models confirm earlier conclusions. Section 5 then deals with the implications of bargaining's status quo bias for inter-institutional power and average influence of EP and CM on European Union policies. Section 6 summarizes our conclusions and discusses possible extensions of the analysis.

[3]For a game-theoretic investigation of the codecision procedure as such see Napel and Widgrén (2003b).

2 Spatial Preferences

It is common in models of political decision-making to assume that the preferences of political actors are single-peaked and can be characterized by a *bliss point* or *ideal point* in a multi-dimensional space $X \subseteq \mathbb{R}^n$ together with a metric d on X such that the further an agent's ideal point λ is away from a policy $x \in X$, the less satisfied he or she is by x.[4] Such preferences can be represented by any *utility function* u which is decreasing in distance $d(\lambda, x)$ between λ and x, where d can be standard Euclidian distance or any other metric. Any utility function $\tilde{u}$ that results from a strictly increasing transformation of u represents the considered player's preferences just as well. In other words: standard spatial preferences are *ordinal* and nothing can be said either about how much a player i with ideal point λ_i suffers from policy x compared to a player j with ideal point λ_j nor, which is crucial in the context of bargaining, which probability of having ideal point λ_i implemented instead of some point y would make player i prefer this 'gamble' or lottery to the safe alternative x.

So, more information about preferences than in a simple median voting world is needed when political actors are considered to bargain. Bargaining agents face the risk of failing to reach an agreement if they do not give in to their opponent's most preferred alternative right away. Moreover, bargaining is usually conducted in a time and resource-consuming manner. Having policy x implemented today must therefore be compared, for example, with experiencing the status quo $q \in X$ for another bargaining period and then implementing policy y. Meaningful models of bargaining require a specification of either agents' *risk preference* or *time preference* or both.

Representing spatial preferences in an n-dimensional space by simple functional forms like

$$u(\lambda, x) = -\sum_{k=1}^{n} (\lambda_k - x_k)^2$$

or

$$\tilde{u}(\lambda, x) = -\sum_{k=1}^{n} |\lambda_k - x_k|$$

is possible also in the context of bargaining. However, above functions u and $\tilde{u}$ are no longer equivalent when interpreted as *cardinal* utility functions used to evaluate risky choices by taking expectations (*von Neumann-Morgenstern expected utility*) or to which a time discount factor $\delta \in (0, 1)$ can be applied, i. e. using $U(\lambda, x, t) = \delta^t \cdot u(\lambda, x)$ in order to compare possible agreements at different points in time. This has to be remembered when spatial preferences are used in a bargaining context.

[4]The assumption that smaller distance is always better is restrictive. It implies that utility must be symmetric in λ-x space, i. e. players have concentric indifference curves and do care about the distance between λ and x, but not about the latter's position.

3 Nash Bargaining with Spatial Preferences

A grossly simplifying assumption in the analysis of negotiations between European Parliament (EP) and the Council of Ministers (CM) is that – at least during their dealings in the Conciliation Committee – there are real or virtual representatives of both EP and CM who possess spatial preferences just like individual members of both institutions are assumed to do. The ideal points of these representatives, denoted by π for the Parliament and μ for Ministers in the following, are naturally given by the ideal points of the respective institution's *median* or *pivotal members* on a particular issue, i. e. for a *unidimensional* policy space $X \subseteq \mathbb{R}$. For higher dimensions, the assumption of a well-defined collective preference is – despite strong restrictions imposed on individual preferences – not innocuous at all. For the sake of simplicity, it will nevertheless be made.[5] Until Section 5, EP's and CM's ideal points π and μ are assumed to be exogenously given.

Rational players will seek to agree on some Pareto-efficient policy outcome $\hat{x} \in X$, corresponding to utility levels $(\hat{u}_\pi, \hat{u}_\mu)$ for EP and CM, respectively, none of which can be raised without lowering the other one. The subset of Pareto-efficient policies which are considered as least as good as the status quo by both players is the *contract curve*. For spatial preferences, the contract curve is the segment of the line connecting π and μ which lies within the intersection of the two balls (lines or discs for $n = 1, 2$) with centers π and μ and radii $d(\pi, q)$ and $d(\mu, q)$, respectively, where $q \in X$ refers to the status quo (see Fig. 1). *Bilateral* bargaining over multidimensional policy issues under complete information therefore amounts to unidimensional bargaining. The contract curve C is non-empty, i. e. there are 'gains from trade' between EP and CM, unless the line connecting π and μ passes through q, i. e. unless EP and CM have exactly opposite positions.

The Nash bargaining solution (Nash 1950, 1953) singles out a particular feasible agreement entirely by looking at players' von Neumann-Morgenstern utility levels, i. e. their (commonly known) subjective evaluations of the underlying bargaining situation. Any point x in policy space X can be mapped to the particular utility pair $(u_\pi(x), u_\mu(x))$ that reflects players' preferences for it. This defines the *bargaining set* U of all feasible utility combinations. Utility pair $u^q = (u^q_\pi, \bar{u}^q_\mu) \equiv (u_\pi(q), u_\mu(q))$ summarizes players' evaluation of the status quo situation and has an important effect on negotiations.

Given U and $u^q \in U$, and assuming two perfectly rational players that cannot fool or trick each other, the bargain u^* supposedly agreed on by the players is the (unique) solution to the maximization problem

$$\max_{u \in U, u \geqq u^q} (u_\pi - u^q_\pi) \cdot (u_\mu - u^q_\mu). \qquad (1)$$

Nash bargain u^* maximizes the product of both players' utility gains *relative to the status quo*.

[5] See Bade (2002) for an innovative analysis of multidimensional electoral competition. Under the assumption that two competing parties select their platform under uncertainty (rather than only risk) about voters' preferences, she proves existence of equilibrium for many multidimensional cases. Moreover, each party selects the respective median position *in each separate dimension* in equilibrium. This may explain the importance of single-issue decisions in practice and justify unidimensional modelling.

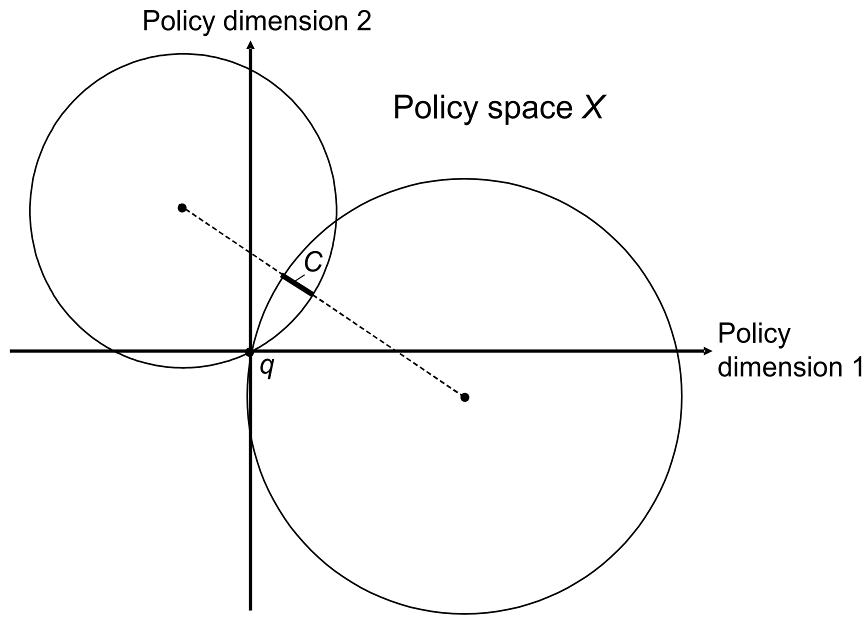

Figure 1: Contract curve C in case of a two-dimensional policy space

Nash's solution has been generalized by Kalai (1977) to reflect asymmetries between players that are not already covered by any asymmetry of U. The *asymmetric Nash bargain with bargaining powers* $\alpha \geq 0$ *and* $\beta = 1 - \alpha \geq 0$ for EP and CM, respectively, is the solution u^* to the maximization problem

$$\max_{u \in U, u \geqq u^q} (u_\pi - u_\pi^q)^\alpha \cdot (u_\mu - u_\mu^q)^\beta. \tag{2}$$

An asymmetry in bargaining powers can, for example, arise from differences in players' patience (see Section 4).

Consider the simple case of a unidimensional policy space $X = [0, 1]$ and the risk-neutral utility functions

$$u_\pi(x) \equiv u(\pi, x) = -|\pi - x| \tag{3}$$

and

$$u_\mu(x) \equiv u(\mu, x) = -|\mu - x| \tag{4}$$

for $\pi, \mu \in X$. Suppose without loss of generality that $\pi < \mu$ and take the status quo to be $q = 0$, i. e. let there be gains from trade. Then, $u^q = (-\pi, -\mu)$ is players' status quo utility. Agreement on $x = \pi$ results in the utility pair $(0, \pi - \mu)$, agreement on $x = \mu$ results in $(\pi - \mu, 0)$ (see Fig. 2). Mapping any possible agreement $x \in X$ to the corresponding utility levels for both players yields the set U depicted in Fig. 3. The Nash bargain u^* does, as indicated in Fig. 3, correspond to agreement on $x = \pi$, i. e. the ideal point of the player closer to the status quo, EP. Algebraically, restricting attention to Pareto-efficient agreements $x \in [\pi, \mu]$ judged better by both players than the status quo, one maximizes

$$N(u_\pi, u_\mu) = (u_\pi - (-\pi))(u_\mu - (-\mu)) \tag{5}$$

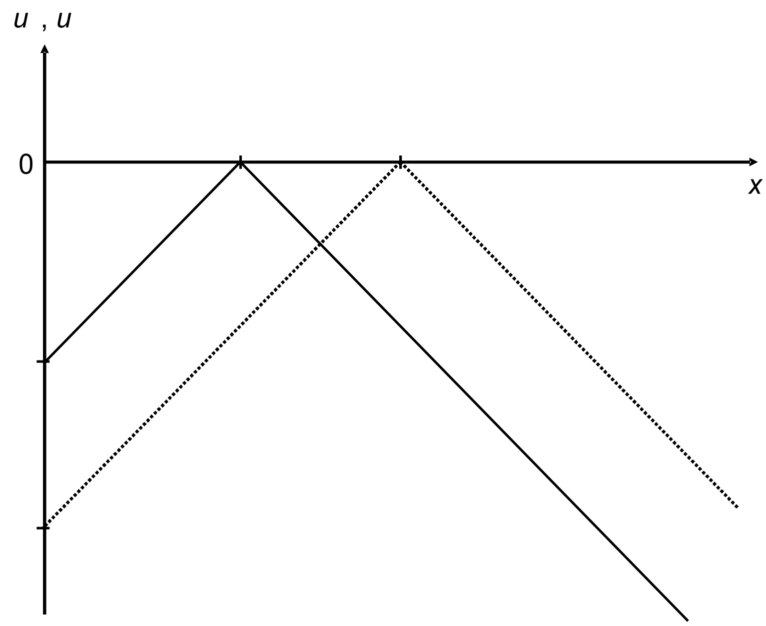

Figure 2: A unidimensional policy space and risk-neutrality

subject to $(u_\pi, u_\mu) \geqq u^q$ and $u_\pi + u_\mu = \pi - \mu$. Substituting the latter condition into (5), one obtains

$$\frac{dN}{du_\pi} = \frac{d\left[(u_\pi + \pi)(\pi - \mu - u_\pi + \mu)\right]}{du_\pi} = -2u_\pi,$$

i.e. the Nash product N increases for $u_\pi \leq 0$ and is maximal for $u_\pi = 0$. This implies $u^* = (0, \pi - \mu)$ and agreement on $x^* = \pi$. The party less eager to replace the status quo, in our example EP, gets exactly its ideal policy; the other one, here CM, has to be satisfied with at least some improvement of the situation.[6] Hence, intuitively appealing assertions of EP and CM 'meeting in the middle' between their ideal policies – based on a superficial symmetry between the two players – are too quick.

If EP's and CM's utility is *not* linear in distance to the respective ideal point but strictly concave (corresponding to risk aversion or decreasing marginal returns from moving closer to the considered player's ideal point, e.g. $\tilde{u}(\lambda, x) = -(\lambda - x)^2)$, then the Pareto frontier connecting the two extreme utility levels $\overline{u} \equiv (0, \tilde{u}(\mu, \pi))$ and $\underline{u} \equiv (\tilde{u}(\pi, \mu), 0)$ becomes strictly concave as well. Keeping the symmetry between EP and CM (they have the same utility function $\tilde{u}(\lambda_i, x)$, just different ideal points), this implies that the hyperbola corresponding to the highest attainable level of the product of both players' utility gains touches U's Pareto frontier $P(U)$ no longer at its right endpoint, $\overline{u}$, but somewhere between it and the middle of the curve.

Suppose that EP and CM try to reach an agreement in a more than unidimensional policy space, e.g. the 2-dimensional space shown in Fig. 1. If utility is linearly decreasing

[6]Both players enjoy equal net utility gains in this linear case. If utility is assumed to be interpersonally comparable, this means both benefit (relative to status quo) equally from the agreement.

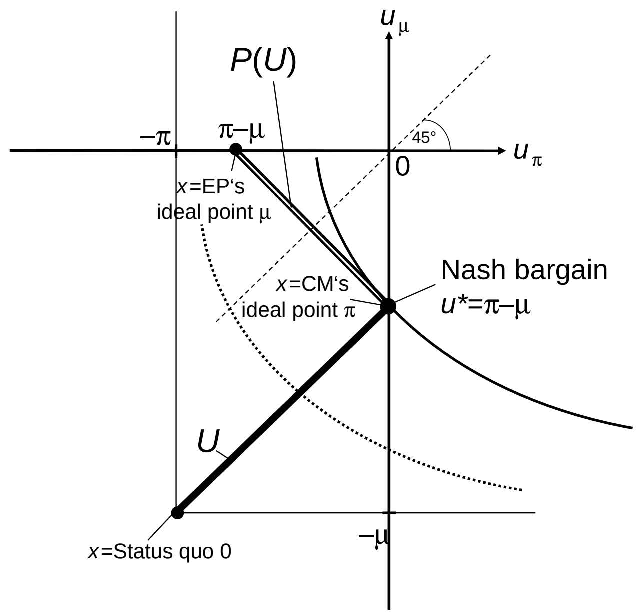

Figure 3: Bargaining set U and Nash bargain u^*

in distance, it will decrease (increase) linearly for EP (CM) as one moves from any point on the contract curve C to another one closer to μ. The opposite applies for a move towards π. Now, like in the unidimensional case, outcome x^* is the Pareto-efficient policy which is the most beneficial to EP among all policies that give CM at least as much utility as the status quo, i. e. satisfy individual rationality. For $d(\pi, 0) < d(\mu, 0)$, CM benefits only weakly from reaching an agreement – its greater dislike of the status quo deprives it from achieving a strict utility increase over the status quo.

The argument concerning the case of concave utility given for the unidimensional case applies also to higher dimensions: As players become (symmetrically) more risk averse, the agreement will slowly improve for the player with greater dislike of the status quo, but still remain biased to his counterpart's favor. Focussing on cases with differentiable Pareto frontier, this can be summarized as follows:

Proposition 1 *Assume that preferences of EP and CM are represented by utility functions $u_i(x) \equiv u(d(\lambda_i, x))$ which are strictly decreasing and weakly concave in $d(\lambda_i, x)$ and yield a Pareto frontier described by a function $\phi\colon u_\pi(x) \mapsto \max\{u_\mu(y) \colon y \in X \wedge u_\pi(y) = u_\pi(x)\}$ which is differentiable on the interior of the contract curve. Then the symmetric Nash bargain $x^*(\pi, \mu) \equiv x^*$ is closer to the ideal point which is closer to the status quo, i. e.*

$$d(\pi, 0) < d(\mu, 0) \Longleftrightarrow d(\pi, x^*) < d(\mu, x^*),$$

whenever there are gains from trade.

The proof is provided in the appendix. In case of convex utility, i. e. if players are risk-loving or experience increasing marginal utility the closer x gets to their ideal point, the Nash bargain in general is no longer well-defined. However, for the special case of spatial preferences considered in this paper, the individually rational and Pareto-efficient policy x^* most beneficial to the player with smallest status quo distance remains the unique prediction.[7]

Status quo bias is robust to the introduction of moderately asymmetric bargaining powers α and $\beta = 1 - \alpha$ in the Nash bargaining solution. For the one-dimensional linear case studied above, the asymmetric Nash solution is the maximizer of

$$N(u_\pi, u_\mu) = (u_\pi + \pi)^\alpha \cdot (u_\mu + \mu)^{1-\alpha}$$

constrained by $(u_\pi, u_\mu) \geqq u^q$ and $u_\pi + u_\mu = \pi - \mu$. One can equivalently calculate the maximizer of $\tilde{N}(u_\pi, u_\mu) = \ln N(u_\pi, u_\mu)$ which, after re-arranging, yields

$$\frac{d\tilde{N}}{du_\pi} = \frac{u_\pi - 2\alpha\pi + \pi}{u_\pi^2 - \pi^2} = 0$$

or

$$u_\pi = \pi(2\alpha - 1)$$

together with $(u_\pi, u_\mu) > u^q$ as necessary conditions for an interior solution. Assuming $\pi \leq \mu$, the critical level of EP's bargaining power α^c below which the asymmetric Nash bargain would actually turn out closer to CM's than to EP's ideal point, i. e. $x^* > (\pi+\mu)/2$, is

$$\alpha^c = \frac{3\pi - \mu}{4\pi}.$$

This is always smaller than 1/2 (considering the case of $\pi \leq \mu$) and may even be negative. Only a sufficiently pronounced asymmetry in bargaining powers can overcome status quo bias.

4 Alternating Offers Bargaining

The Nash solution identifies a particularly ‘reasonable’ binding agreement between two bargainers without specifying an actual process of negotiation. Non-cooperative models of bargaining, in contrast, study bargaining as a fully specified game.

Again, consider the unidimensional policy space $X = [0, 1]$, ideal points π and μ for EP and CM where without loss of generality $\pi \leq \mu$, and status quo $q = 0$ (see Fig. 2).[8] Then, the set of Pareto-optimal policies which satisfy individual rationality is $\tilde{X} = [\pi, \min\{\mu, 2\pi\}]$ because any $x > 2\pi$ would be worse to EP than the status quo while any $x < \pi$ or $x > \mu$

[7] See e. g. Osborne and Rubinstein (1990, pp. 16ff) or Harsanyi (1956) for justifications of the solution u^* to (1), which corresponds to x^*, as the expected bargaining result that do *not* rely on Nash's original axiomatic argument and do not assume convexity. They also clarify the role of players' risk attitude.

[8] $q \in (0, \pi)$ and $q \in (\mu, 1]$ would lead to qualitatively identical conclusions, where in the latter case CM is the player with smaller status quo distance. For $q \in (\pi, \mu)$ there is no mutually beneficial policy change and hence $x^* \equiv q$.

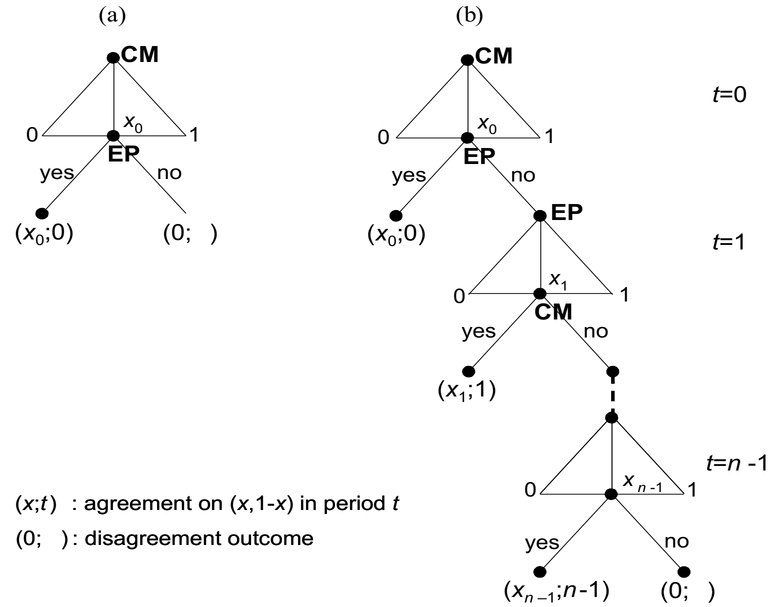

Figure 4: Ultimatum game form and n-stage alternating offers bargaining game form

could be improved upon to the benefit of *both* EP and CM. We will write $\mu' \equiv \min\{\mu, 2\pi\}$ in the following and restrict proposals to $\tilde{X}$.

One of the simplest non-cooperative models of bilateral bargaining is the *ultimatum game* illustrated in Fig. 4 (a). It supposes that CM moves first and makes a proposal $x_0 \in [\pi, \mu']$, and that EP can only respond to the proposal by either rejecting or accepting it. This corresponds to a *take-it-or-leave-it agenda setting game.* For simplicity, let both players' utility functions be linear as in (3) and (4). A very clear prediction is obtained for this simple bargaining protocol. Namely, in the unique subgame perfect equilibrium (SPE) CM proposes μ' and EP's strategy is to accept *any* offer $x_0 \in [\pi, \mu']$.

This SPE prediction reflects overwhelming bargaining power of CM as the proposer in the ultimatum game. Similarly, if EP were the proposer and CM the responder, $x^* = \pi$ would be the very asymmetric outcome. Ultimatum bargaining has been proposed as a model for decision-making in the Conciliation Committee by Steunenberg and Dimitrova (1999). They argue that, although officially the Committee is *co-chaired* by CM's presiding member and EP's Vice-President, the former exerts agenda setting power due to its more important role at the preparatory stage before the committee meets. Crombez (2000), in contrast, assumes that the EP takes the lead and makes a take-it-or-leave-it proposal to CM. No matter which of these assertions about who moves first is a better model of reality, ultimatum bargaining rests on more than agenda setting. The SPE prediction is driven by the first mover's opportunity to credibly make a take-it-or-leave-it offer or, equivalently, to irrevocably *commit* to its initial proposal. In our view, this is an unrealistic assumption for the Conciliation Committee. Hence, ultimatum bargaining should be regarded as, at best, a coarse first approximation.

SPE predictions change significantly if, more realistically, one considers the *alternating* *offers bargaining game with $n \geq 2$ stages* illustrated in figure 4 (b). Let players' preferences over outcomes (x, t), specifying the agreed policy and the time of agreement, be of the particularly simple type

$$\begin{aligned} U_\pi(x,t) = U(\pi,x,t) &= \delta_\pi^t \cdot u(\pi,x) \\ U_\mu(x,t) = U(\mu,x,t) &= \delta_\mu^t \cdot u(\mu,x) \end{aligned} \tag{6}$$

for discount factors $\delta_i \in (0, 1)$, which reflect players' patience, and function

$$u(\lambda_i, x) = \lambda_i - |\lambda_i - x|, \tag{7}$$

which represents players' spatial preferences in any fixed period t. Utility functions U_π and U_μ formalize indifference between an eventual failure of negotiations (no agreement reached in the final period and thus the status quo prevails) and any earlier confirmation of the status quo (agreement on status quo policy $q = 0$ in period $t < n - 1$) because $U(\lambda, 0, t) = 0$ for any $t = 0, \ldots, n - 1$. Using backward induction, one obtains

Proposition 2 *Given ideal points $\pi \leq \mu$ and the finite set of periods $T = \{0, \ldots, n-1\}$, $n \geq 1$, the unique SPE outcome of the alternating offers bargaining game with n stages and preferences described by (6) and (7) in which CM proposes first is the efficient outcome $(x^*(n, \delta_\mu, \delta_\pi); 0)$ with*

$$x^*(n,\delta_\mu,\delta_\pi) = \sum_{t=0}^{\lfloor\frac{n-1}{2}\rfloor} (\delta_\mu\delta_\pi)^t \cdot \mu' + \sum_{t=0}^{\lfloor\frac{n-2}{2}\rfloor} (\delta_\mu\delta_\pi)^t \cdot (2\pi - \delta_\pi\pi - \mu') - \delta_\pi \cdot \sum_{t=0}^{\lfloor\frac{n-3}{2}\rfloor} (\delta_\mu\delta_\pi)^t \cdot \pi \tag{8}$$

where $\lfloor y \rfloor$ denotes the biggest integer smaller than or equal to y.

A proof can be found in Napel and Widgrén (2003a). A player's opportunity to make the final take-it-or-leave-it offer in period $t = n - 1$ is a source of bargaining strength.[9] For small n this may over-compensate status quo bias: As seen above, if $n = 1$ and CM proposes, the SPE outcome is $x = \mu'$, i. e. either CM obtains its ideal point μ or $x = 2\pi$ which makes CM the only party to strictly benefit from a status quo change despite greater distance to it.[10]

EU deadlines for reaching a decision in the Conciliation Committee combined with the specific schedules of its members may define some *final* period in real negotiations.[11] Yet, it seems arbitrary to use any particular n in the model. A focal benchmark case

[9]Note that the agreement is influenced by the final period and who proposes in it, but is already reached in $t = 0$. This is a consequence of the assumed perfect rationality of EP and CM and the fact that preferences are considered to be common knowledge.

[10]If $\pi \ll \mu$, i. e if EP is rather satisfied with the status quo while CM is not, the SPE outcome μ' is still very close to EP's ideal point, π, and far from CM's, μ.

[11]The time for the Conciliation Committee is limited to eight weeks – two weeks devoted to preparation plus six weeks for bargaining. The total period can be extended up to three months. Note that the member state which is holding presidency can postpone the preparatory stage and hence conciliation.

is therefore bargaining *without* any fixed final round, as assumed by Rubinstein (1982). His main result – concerning much more general types of preferences than the linear case studied above – implies that

$$x^*(\delta_\mu, \delta_\pi) = \frac{2\pi(1-\delta_\pi)}{1-\delta_\pi\delta_\mu} \tag{9}$$

is the unique SPE policy outcome, which is proposed by CM and immediately accepted by EP. Non-trivially, it is indeed the limit of (8) as $n \to \infty$.

In case that EP is the first to propose, the SPE outcome is

$$x^*(\delta_\pi, \delta_\mu) = \delta_\mu \frac{2\pi(1-\delta_\pi)}{1-\delta_\pi\delta_\mu} \tag{10}$$

instead (still considering $\pi \leq \mu$ – for $\pi > \mu$ the roles of μ and π are to be switched).

Assuming identical patience $\delta_\mu = \delta_\pi = \delta \in (0,1)$ and considering the limit case of extreme patience, $\delta \to 1$, both (9) and (10) converge to $\lim_{\delta\to 1} x^*(\delta,\delta) = \pi$. So, *no matter whether CM or EP has the initiative in the Conciliation Committee*, the bargaining result amounts to implementation of the ideal point of the player with smaller distance to the status quo. We observe exactly the same pronounced *status quo bias* as in the linear utility version of Nash bargaining.

This is not surprising: As first pointed out by Binmore (1987), if the time that passes between each rejection and counter-offer becomes negligibly small, while the discount factors δ_μ and δ_π applied to payoffs delayed by a fixed time interval stay constant (so that players become almost indifferent to the *period* of agreement) the SPE payoffs to CM and EP approach the utility levels of the asymmetric Nash bargaining solution with bargaining powers

$$\beta = \frac{\ln \delta_2}{\ln \delta_1 + \ln \delta_2} \qquad \text{and} \qquad \alpha = 1 - \beta$$

for CM and EP of the bargaining problem defined by players' respective, possibly non-linear utility of policy x for all $x \in X = [0,1]$ and status quo $q = 0$ (cf. Section 3). Rubinstein's model of alternating offers bargaining thus provides a foundation of the asymmetry in (2) based on perfectly rational strategic interaction with asymmetric patience.

The close relation between the Nash solution and Rubinstein bargaining with discounting implies that the former's status quo bias established in Prop. 1 is thus also a feature of the latter, at least if EP and CM do neither discount future utility too much (so that $x^*(\delta_\mu, \delta_\pi)$ is close to its Nash solution limit) nor too asymmetrically (so that α is still above the critical level α^c identified in Sect. 3). This applies to fairly general stage-level utility functions $u(\lambda_i, x)$ and multidimensional policy spaces as long as one crucial aspect of the preferences defined by (7) is kept: For any policy x that improves upon the status quo from EP's and CM's perspective, both EP and CM prefer to agree on it rather sooner than later. Hence, if the stage utility function

$$u(\lambda, x) = -|\lambda - x|,$$

which was a straightforward choice in Sect. 3 and for the ultimatum game, were used in intertemporal utility functions (6) instead of $u(\lambda, x) = \lambda - |\lambda - x|$, one would obtain neither above SPE outcome $x^*(\delta_\mu, \delta_\pi)$ nor status quo bias. $U(\lambda, x, t) = \delta^t \cdot u(\lambda, x)$ in this case would specify indifference of both players concerning the time of an agreement on their respective ideal point ($U(\lambda, \lambda, t) = 0$ for any $t \geq 0$). And yet more oddly, an agreement on anything other than one's ideal point would be judged better by U, the more distant in time it is ($\delta^t u(\lambda, x) < 0$ increases in t for $x \neq \lambda$).[12] This stresses the point made in Sect. 2 concerning the importance of appropriately representing spatial preferences in a bargaining context.

Of course, stationary discounting is just one way to model EP's and CM's impatience in implementing a Pareto-improvement of the status quo.[13] An alternative choice is

$$\begin{aligned} U_\pi(x,t) = U(\pi, x, t) &= u(\pi, x) - t \cdot c_\pi \\ U_\mu(x,t) = U(\mu, x, t) &= u(\mu, x) - t \cdot c_\mu, \end{aligned} \tag{11}$$

which formalizes that EP and CM suffer a fixed utility cost of $c_\pi \geq 0$ and $c_\mu \geq 0$, respectively, for any period of unsuccessful bargaining and delay. Immediate agreement on some proposal $x_0 = x^*$ which gives the responding player at least as much utility as rejection and a counter-proposal x_1 which would in equilibrium be accepted by the original proposer (i. e. gives at least as much utility as rejection and a counter-proposal x_2 which would ..., etc.) is again an SPE outcome.[14] The precise agreement is given by

$$\begin{aligned} x_0^*(c_\mu, c_\pi) &= \mu' = 2\pi \\ x_1^*(c_\mu, c_\pi) &= \max\{\mu' - c_\mu, \pi\}. \end{aligned}$$

for the case of $c_\pi > c_\mu$. Policy $x_0^*(c_\mu, c_\pi)$ is the unique SPE outcome in case that CM proposes first, and $x_1^*(c_\mu, c_\pi)$ would be the unique SPE outcome of the same game if EP were to propose first. For $c_\pi < c_\mu$, the corresponding values are

$$\begin{aligned} \tilde{x}_0^*(c_\mu, c_\pi) &= \min\{\pi + c_\pi, \mu'\} \\ \tilde{x}_1^*(c_\mu, c_\pi) &= \pi. \end{aligned}$$

Hence the infinite horizon alternating offers bargaining game in which players experience a constant cost for any period of delay, rather than discount utility, predicts that the player with lower costs of delay gets exactly or approximately his ideal point if costs of delay are small. The intuition for this result is that both EP and CM correctly anticipate that the player with smaller cost would win any 'war of attrition' started by a refusal of the initial proposal.

Note that the strong bias of above SPE towards the player with smaller costs of delay does not require a big difference between c_μ and c_π, but holds for even the tiniest gap

[12] U captures the 'suffering' from a non-ideal policy and that a utility loss tomorrow is preferred to one today. The negative consequences of the status quo are not accounted for.

[13] Bargaining with non-stationary discounting is analysed by Rusinowska (2002).

[14] It is unique for $c_\pi \neq c_\mu$.

between them. Rubinstein bargaining with constant costs of delay is less commonly used in applications compared to the discounting version partly because of this rather extreme prediction and partly since it lacks a close relationship with other bargaining models such as the Nash solution. In addition, there is *no* unique SPE prediction for the focal case of both EP and CM having identical costs of delay.[15]

The basic Rubinstein alternating offers model lends itself to a great multitude of variations.[16] These e. g. account for different inside or outside options of the two players, can incorporate chance moves that may unexpectedly terminate uncompleted negotiations, or allow for the possibility that CM does not know EP's valuation of policies and vice versa. These models help to evaluate the strategic advantage or disadvantage caused by certain characteristics of players (e. g. status quo distance, time or risk preference) and the assumed bargaining procedure (e. g. a given time horizon, or sequence of offers). All are based on the central assumption that players are *perfectly rational.* It can be questioned – and numerous laboratory experiments on strategic interaction between individuals emphasize the relevance of this question – whether real human beings are actually capable of reasoning their way through the (potentially infinite) back and forth of offers and counter-offers which underlay above SPE analysis. Moreover, would they actually try to get the 'best deal' close to their ideal point or possibly just want to meet a certain aspiration level or agree on a 'fair deal'?

There is ample experimental evidence that individuals are not only, and in many cases not even primarily, interested in maximizing personal material gains. People satisfice, have an aversion to inequity, and reciprocate friendly or unfriendly behavior – even under conditions of anonymity and despite substantial temptations to free-ride or costs of punishing uncooperative behavior (see e. g. Roth, 1995, Fehr and Schmidt, 2001, and Fehr and Gächter, 2002). This suggests that simple Euclidean preferences are a much greater abstraction than it appears. However, there is at least some evidence (see e. g. Bornstein and Yaniv, 1998, and Kocher and Sutter, 2002) that other-regarding motives play a smaller role in strategic interaction between *groups* of agents, who like the members of CM and EP have to make intra-group decisions before they interact, than individuals.

Obvious bounds of human intelligence and rationality seem also less restrictive in our context. Professional decision-makers in CM and EP establish common positions and then seek mutually beneficial compromises in often lengthy discussions of every pro and con, aided by expert consultants. This is remote from a typical laboratory experiment in which subjects face a stylized bargaining problem to be solved in minutes or an hour, with monetary rewards in the order of 10–30 euro.[17] Moreover, the conventional rationality assumptions are *sufficient* for the conclusions reached above, but by no means *necessary.* Simple-minded economic or political agents, who, for example, are 'programmed' to a par-

[15] For $c_\pi = c_\mu$, there are *infinitely* many SPE.

[16] Many are collected in Muthoo (1999) and also Osborne and Rubinstein (1990).

[17] This does not question the robustness of puzzling experimental findings themselves, such as rejections of positive offers in ultimatum games. Many experiments yield surprisingly similar results when carried out in different cultures, with different time frames, different levels of abstraction, and material rewards ranging from nothing to more than a monthly income.

ticular strategy and replaced by others if they are too unsuccessful or who select strategies by imitating successful peers, can end up with highly rational outcomes. They are in fact likely to do so given enough time and a sufficiently stable environment (cf. results on evolutionary game theory and learning collected e. g. by Weibull, 1995, and Fudenberg and Levine, 1998). A number of bargaining models which suppose *boundedly rational agents* have been investigated (see Napel, 2002, for an overview). Many – though not all – confirm above predictions. For example, Young (1993) makes minimal assumptions on the players' information and rationality, and yet arrives at, roughly speaking, the same conclusions as Nash and Rubinstein.

5 Inter-institutional Power

One of the main reasons for caring about a reasonable model of decision-making in the Conciliation Committee are the strategic repercussions that even the mere possibility of invoking the Conciliation Committee has on the codecision procedure as a whole. Taking these into account should yield better predictions of policy outcomes.[18] Moreover, it allows for a more accurate a priori evaluation of whether EP and CM are truly symmetric co-decision-makers and of how successful different players, referring to concerned institutions as well as their individual members, will be on average given the decision procedure and compared e. g. to possible amendments.

Average success, assessed by making reality-informed or normatively motivated distributional assumptions about preferences and using above equilibrium predictions, is one useful indicator of potential biases in codecision. It does in general, considering more than two players, not reveal who is decisive or influential for realized policy outcomes, i. e. which players are how powerful in defining the results of EU codecision. This is because success can be due to the power to shape a collective decision according to one's individual preferences as well as the luck of finding oneself in agreement with a collective decision on which one had marginal or no influence. Disentangling both is a main purpose of the theory of power measurement.

A priori power in EU decision making has been analyzed by *power indices* defined on the domain of cooperative *simple games* in many studies (see e. g. Nurmi, 1998, ch. 7, or Holler and Owen, 2001, for overviews). Simple games condense decision making into a 0-1-framework, describing which coalitions can jointly produce a collective decision and which cannot; there is no distinction between different kinds of decisions. Simple games do not account for either preference-driven strategic interaction or any procedural details such as the distinction between a vote on a randomly drawn proposal (if such a thing exists), a vote on the proposal of a given agenda-setter, and the pursuit of a bilateral or multilateral agreement within a given bargaining protocol. Modelling bargaining in the Conciliation Committee in that framework and assuming, as above, that CM and EP act like unitary actors (whose respective yes-or-no decision is possibly determined in a different

[18] Predictions require knowledge about the preferences of the relevant players, of course. See Napel and Widgrén (2003b) for an analysis of the codecision procedure as a whole.

simple game reflecting the decision rule within CM and EP, respectively), one obtains a unanimity game in which both players have equal a priori power. This seems a reasonable assessment at first sight, corresponding to the qualitative conclusions of Crombez (2000) and Tsebelis and Garrett (2000). Quantitative power analysis based on the explicit game-theoretic models studied above can, however, lead to a very different assessment, which to us is more convincing.

5.1 Measurement of Strategic Power

To move from Nash or Rubinstein predictions to a quantitative evaluation of the distribution of a priori power in the Conciliation Committee, we apply the framework proposed for power analysis by Napel and Widgrén (2002). It defines a player's *a priori power* in a given decision procedure and for a given probabilistic distribution of all relevant players' preferences as the expected change to the equilibrium collective decision which would be brought about by a change in this player's preferences.[19] In a spatial voting context, this links power to the question: Which impact would a marginal or fixed-size shift of a given player's ideal policy point have on the collective decision? Note that a player can be powerful in defining the collective decision without being the one to benefit the most from it. This approach to power measurement via a *sensitivity analysis* of collective decisions generalizes the weighted counting of players' pivot positions which is the basis of conventional power indices.[20]

Assuming a unidimensional policy space $X = [0, 1]$ and linear spatial preferences, power analysis of the Conciliation Committee amounts to an investigation of the change in the equilibrium policy outcome effected by a shift of π or μ to the left or right. We consider the effect of *marginal* shifts of ideal points and hence look at the partial derivatives of the predicted outcome. The Nash bargaining solution yields

$$x^*(\pi, \mu, q) = \begin{cases} \pi & \text{if } q < \pi \leq \mu \text{ or } \mu < \pi < q, \\ \mu & \text{if } q < \mu < \pi \text{ or } \pi \leq \mu < q, \\ q & \text{otherwise.} \end{cases}$$

Hence the *a posteriori power* of EP for a *given* realization of status quo q and ideal points π and μ is

$$\frac{\partial x^*(\pi, \mu, q)}{\partial \pi} = \begin{cases} 1 & \text{if } q < \pi < \mu \text{ or } \mu < \pi < q, \\ 0 & \text{if } q < \mu < \pi,\ \pi < \mu < q,\ \pi < q < \mu, \text{ or } \mu < q < \pi \end{cases} \tag{12}$$

This formalizes that any (small) change of the player's ideal point with smaller status quo distance translates into a same-size shift of the agreed policy, provided there is agreement about changing the status quo at all.

[19] Alternatively and more directly one may make probabilistic assumptions about players' *actions*, rather than preferences which induce actions. This is also what traditional power indices do.

[20] All established indices for simple games, such as the Banzhaf index or the Shapley-Shubik index, can be obtained in this generalized framework by rather simple distribution assumptions and decision protocols. See Napel and Widgrén (2002) for details.

A priori, the expected impact that any marginal shift of EP's ideal policy π would have on the collective decision reached in the Conciliation Committee is therefore

$$\xi_\pi = \Pr(\tilde{q} < \tilde{\pi} < \tilde{\mu}) + \Pr(\tilde{\mu} < \tilde{\pi} < \tilde{q}),$$

where $\tilde{q}$, $\tilde{\pi}$, and $\tilde{\mu}$ denote the random variables corresponding to status quo and ideal points. Not surprisingly, a priori power crucially depends on the distributional assumptions one makes about EP's and CM's ideal points and the status quo. In the absence of any other information, it is at least reasonable to assume that the status quo is *uniformly* distributed on X, implying

$$\xi_\pi \;=\; \int_0^1 \Pr(q < \tilde{\pi} < \tilde{\mu})\, dq + \int_0^1 \Pr(\tilde{\mu} < \tilde{\pi} < q)\, dq$$

If $\tilde{\pi}$ and $\tilde{\lambda}$ are uniformly distributed, too, this evaluates to $\xi_\pi = 1/3$. This number can also be directly deduced from the fact that there are six equally likely orderings of the three random variables $\tilde{q}$, $\tilde{\pi}$, and $\tilde{\mu}$, and that in two of them EP has power 1. In expectation, a change of EP's position on a given policy issue by one marginal unit results in a shift of the collective decision by one third marginal unit. Analogously, one obtains $\xi_\mu = 1/3$. So for uniformly distributed ideal points of EP and CM, the equal-power indication based on a simple unanimity game model is confirmed. However, uniformity is no very convincing assumption at the level of EP and CM because it neglects the differences in the internal decision making of both institutions which are an important part of the codecision procedure and its final bargaining stage investigated here. They comprise very different numbers of members and apply different majority rules to reach a decision or find a common position.

To capture this, assume that individual members of EP and CM have random ideal points $\tilde{\pi}_1, \ldots, \tilde{\pi}_k$ and $\tilde{\mu}_1, \ldots, \tilde{\mu}_m$ drawn independently from institution-specific symmetric distributions F and G, respectively. For simplicity, we ignore that the members of CM have different voting weight, i. e. assume *simple voting* in both EP and CM.[21] Any change to the status quo then needs at least a simple majority in EP and $r = 11$ supporters in CM, where the latter number approximates the 71% threshold that exists for weighted voting in the real CM. For a policy $x > q$ to the right of the status quo, the 11-th ideal point counted from the right is the critical position in CM. If the corresponding player prefers x to q, so will all 10 members to his or her right and the proposal is passed. If that player prefers q, so will all 4 voters to his or her left and the proposal fails to get the required majority. Similarly, for a policy $x < q$ the 11-th ideal point counted from the left is crucial in CM. We therefore identify $\tilde{\mu}$ with the r-th smallest value of $\tilde{\mu}_1, \ldots, \tilde{\mu}_m$, also called *$r$-th order statistic* $\tilde{\mu}_{(r)}$, when evaluating policies $x < q$, and with the $(m - r + 1)$-th smallest value, i. e. order statistic $\tilde{\mu}_{(m-r+1)}$, when evaluating policies $x > q$. Similarly, EP's random

[21] This assumption has only small effect on *inter*-institutional power. Heterogenous weights make the distribution of the pivotal ideal point more similar to the distribution of (large) individual players' ideal points.

position $\tilde{\pi}$ is given by $\tilde{\pi}_{(p)}$ and $\tilde{\pi}_{(k-p+1)}$ for $x < q$ and $x > q$, respectively, considering k parliamentarians and a vote threshold of p that corresponds to simple majority.

Assuming that density functions $f_\cdot$ exist for all these order statistics and denoting cumulative distribution functions by $F_\cdot$, one obtains:

$$\begin{aligned}
\xi_\pi &= \int_0^1 \Pr(q < \tilde{\pi}_{(k-p+1)} < \tilde{\mu}_{(m-r+1)})\, dq + \int_0^1 \Pr(\tilde{\mu}_{(r)} < \tilde{\pi}_{(p)} < q)\, dq \\
&= \int_0^1 \int_q^1 \Pr(q < \tilde{\pi}_{(k-p+1)} < \mu)\, f_{\tilde{\mu}_{(m-r+1)}}(\mu)\, d\mu\, dq + \int_0^1 \int_0^q \Pr(\mu < \tilde{\pi}_{(p)} < q)\, f_{\tilde{\mu}_{(r)}}(\mu)\, d\mu\, dq \\
&= \int_0^1 \int_q^1 [F_{\tilde{\pi}_{(k-p+1)}}(\mu) - F_{\tilde{\pi}_{(k-p+1)}}(q)]\, f_{\tilde{\mu}_{(m-r+1)}}(\mu)\, d\mu\, dq \\
&\quad + \int_0^1 \int_0^q [F_{\tilde{\pi}_{(p)}}(q) - F_{\tilde{\pi}_{(p)}}(\mu)]\, f_{\tilde{\mu}_{(r)}}(\mu)\, d\mu\, dq.
\end{aligned}$$

One can exploit that for identical symmetric distributions of $\tilde{\pi}_1, \ldots, \tilde{\pi}_k$, the distributions of order statistics $\tilde{\pi}_{(p)}$ and $\tilde{\pi}_{(k-p+1)}$ satisfy the following symmetry condition (see e. g. Arnold et al., 1992, p. 26):

$$f_{\tilde{\pi}_{(p)}}(x) = f_{\tilde{\pi}_{(k-p+1)}}(1-x) \text{ and } F_{\tilde{\pi}_{(p)}}(x) = 1 - F_{\tilde{\pi}_{(k-p+1)}}(1-x). \tag{13}$$

The same applies to $\tilde{\mu}_{(r)}$ and $\tilde{\pi}_{(m-r+1)}$. With (13), one has

$$\begin{aligned}
& \int_0^1 \int_q^1 [F_{\tilde{\pi}_{(k-p+1)}}(\mu) - F_{\tilde{\pi}_{(k-p+1)}}(q)]\, f_{\tilde{\mu}_{(m-r+1)}}(\mu)\, d\mu\, dq \\
=& \int_0^1 \int_q^1 [F_{\tilde{\pi}_{(p)}}(1-q) - F_{\tilde{\pi}_{(p)}}(1-\mu)]\, f_{\tilde{\mu}_{(r)}}(1-\mu)\, d\mu\, dq \\
=& \int_1^0 \int_{\bar{q}}^0 [F_{\tilde{\pi}_{(p)}}(\bar{q}) - F_{\tilde{\pi}_{(p)}}(\bar{\mu})]\, f_{\tilde{\mu}_{(r)}}(\bar{\mu})\, d\bar{\mu}\, d\bar{q} \\
=& \int_0^1 \int_0^{\bar{q}} [F_{\tilde{\pi}_{(p)}}(\bar{q}) - F_{\tilde{\pi}_{(p)}}(\bar{\mu})]\, f_{\tilde{\mu}_{(r)}}(\bar{\mu})\, d\bar{\mu}\, d\bar{q}
\end{aligned}$$

where the second equality results from substitution $(\bar{\mu}, \bar{q}) \equiv (1-\mu, 1-q)$. Hence, given symmetric distributions of ideal points, situations in which both EP and CM want to change policy to the right or, respectively, the left of the status quo are symmetric, and thus

$$\xi_\pi = 2 \cdot \int_0^1 \int_q^1 [F_{\tilde{\pi}_{(k-p+1)}}(\mu) - F_{\tilde{\pi}_{(k-p+1)}}(q)]\, f_{\tilde{\mu}_{(m-r+1)}}(\mu)\, d\mu\, dq. \tag{14}$$

gives our *Strategic Measure of Power*[22] (SMP) for EP. The expression for CM is analogous.

[22]For a detailed derivation in the general case, see Napel and Widgrén (2002).

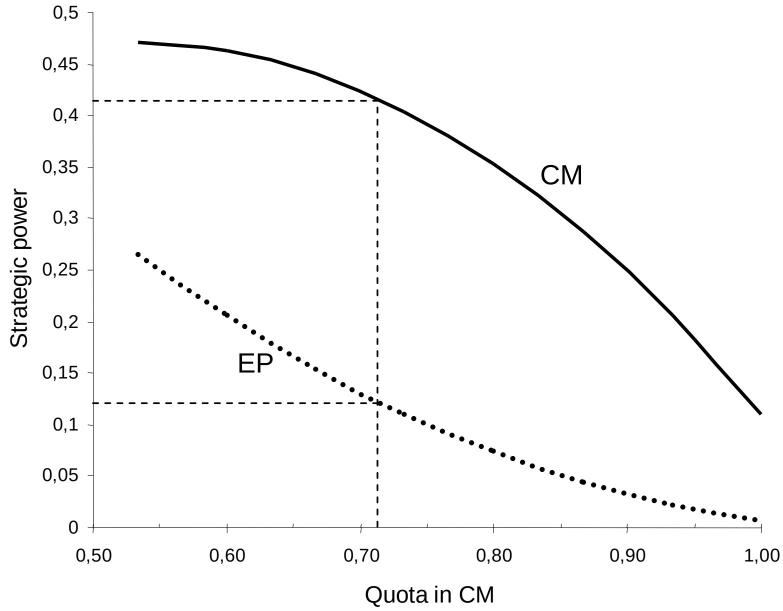

Figure 5: Distribution of power in EU15 for varying quota in CM and uniform $\tilde{\pi}$

5.2 Baseline Power Calculations

Nearly all existing studies on EU decision making that use spatial voting models assume that EP is a unitary actor that can be represented by one ideal policy position. A frequently found companion assumption is that EP's ideal point $\tilde{\pi}$ is *uniformly distributed* on the unit interval (see e. g. Steunenberg et al., 1999). This is equivalent to the case of just $k = 1$ parliamentarian with uniform ideal point (and quota $p = 1$). In contrast, $m = 15$ Council members are considered, each with an independently [0,1]-uniformly distributed ideal policy position. It follows that the ideal point of CM's pivot, $\tilde{\mu}$, is *beta distributed* with parameters $(r, m - r + 1)$.

Given these baseline assumptions, equation (14) can be written as

$$\xi_\pi = 2\int_0^1 \int_q^1 (\mu - q)\, m\binom{m-1}{m-r}\, \mu^{m-r}\,(1-\mu)^{r-1}\, d\mu\, dq, \tag{15}$$

and similarly the SMP for CM is

$$\begin{aligned}\xi_\mu = \;& 2\int_0^1 \int_q^1 \Bigg[\int_0^\pi m\binom{m-1}{m-r} x^{m-r}\,(1-x)^{r-1}\, dx \\ & - \int_0^q m\binom{m-1}{m-r} y^{m-r}\,(1-y)^{m-1}\, dy\Bigg]\, d\pi\, dq.\end{aligned} \tag{16}$$

We consider not only quota $r = 11$ which most closely resembles the real 71% quota, but all vote thresholds from 8 to 15 for comparison reasons. Numerical results are indicated in

Fig. 5.[23] For $r = 11$, one obtains

$$\begin{aligned} \xi_\pi &= 0.110 \\ \xi_\mu &= 0.404 \end{aligned} \tag{17}$$

as ex ante power values. This means that a shift of CM's position by one (infinitesimal) unit within the policy space, will cause the collective decision to shift in the same direction by 0.404 (infinitesimal) units in expectation. The same change to EP's position translates only into a move of 0.110 units on average. With probability $1 - 0.404 - 0.11 = 0.486$,[24] CM and EP lie on opposite sides of the status quo, which then prevails and neither player has ex post power in the sense of inducing a change of the agreed outcome by its strategic behaviour after a small exogenous preference change.

Figure 5 illustrates that under the assumption of a uniformly distributed ideal point $\tilde{\pi}$ of EP, *both* EP and CM lose ex ante power as the decision quota applied in CM increases from simple majority to unanimity. The status quo prevails more frequently. Hence, neither the unitary representative of EP nor CM's pivotal member – always the most reluctant or even opposed to change status quo in case of unanimity rule – has much influence in the sense of translating own preferences into corresponding policy outcomes. Note that the SMP is defined with the purpose to capture *creative power*. It could be adapted to deal with its more destructive cousin *blocking power*, which refers to the ability to prevent others from changing the status quo.[25]

5.3 Parliament Pivot vs. Council Pivot

A single EP representative with an ideal point varying uniformly on the policy space $X = [0, 1]$ is an extreme assumption. The alternative – to us more reasonable – extreme a priori assumption is that *individual* decision makers' ideal points in *both* EP and CM come from a uniform distribution on $[0, 1]$. This implies that EP is not modelled as a unitary actor but rather it is presented by the pivotal voter in EP for each preference configuration. In the current EP there are $k = 626$ MEPs implying that the ideal policy position of the pivot, $\tilde{\pi}$, is a (314,313)-beta-distributed random variable. Denoting by $p = 314$ the threshold in EP and using the same assumptions for CM as above, one obtains

[23] Numbers were calculated for quotas $d = \frac{8}{15}, \frac{9}{15}, \ldots, 1$ and then interpolated. An analogous statement applies to Figs. 6–8.

[24] This uses that ex post power is either 0 or 1 in this application.

[25] Presuming that negative externalities on European Union outsiders are small and that therefore countries have joined – and will be joining – mainly in order to influence future policies rather than cement an old status quo, creative power is of greater interest to us.

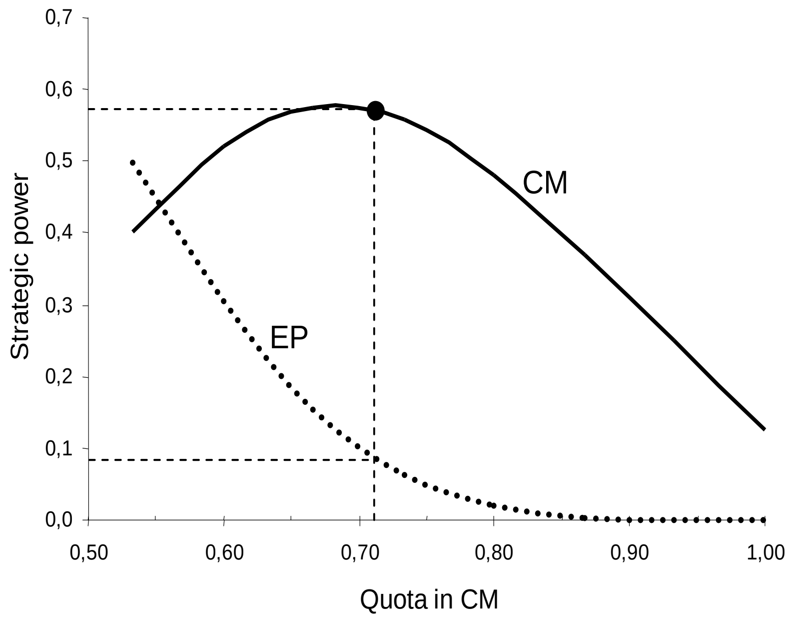

Figure 6: Distribution of power in EU15 considering the pivotal position, $\tilde{\pi}$, of 626 MEP

$$\xi_\pi = 2\int_0^1 \int_q^1 \left[\int_0^\mu k\binom{k-1}{k-p} x^{k-p}(1-x)^{p-1}\,dx - \int_0^q k\binom{k-1}{k-p} y^{k-p}(1-y)^{p-1}\,dy \right] m\binom{m-1}{m-r}\mu^{m-r}(1-\mu)^{r-1}\,d\mu dq \tag{18}$$

and

$$\xi_\mu = 2\int_0^1 \int_q^1 \left[\int_0^\pi m\binom{m-1}{m-r} x^{m-r}(1-x)^{r-1}\,dx - \int_0^q m\binom{m-1}{m-r} y^{m-r}(1-y)^{r-1}\,dy \right] k\binom{k-1}{k-p}\alpha^{k-p}(1-\alpha)^{p-1}\,d\pi dq. \tag{19}$$

Numerical results are shown in Fig. 6. For $r = 11$, one obtains

$$\begin{aligned} \xi_\pi &= 0.061 \\ \xi_\mu &= 0.557 \end{aligned} \tag{20}$$

as ex ante power values. While a small shift of CM's position is passed trough to the collective decision at a rate of approximately 56%, a small opinion change of EP has an almost negligible effect on policy – implying a move amounting to only about 6% the original shift of EP's position.

The disadvantage of the Parliament relative to the Council is more pronounced when – we think more realistically – it is modelled as a decision body compromising many heterogenous decision makers. Whether $k = 626$ is the best modelling choice is open to debate. Clearly, party membership (and discipline) in EP results in positive and perhaps even perfect correlation between many ideal points $\tilde{\pi}_1, \ldots, \tilde{\pi}_k$. In view of this, ξ_π and ξ_μ in (20) somewhat exaggerate the difference between EP's and CM's average influence in the Conciliation Committee. But note that given the rather high decision quota in CM, the numbers in (17) – based on EP's 'pivot position' varying uniformly over policy space X, altogether ignoring the centripetal effect of simple majority for $k \geq 3$ – are only moderately more consoling from EP's perspective.

The power difference between EP and CM seems real and highly relevant. The intuition behind it is as follows: First, EP's simple majority rule together with its great number of members implies that the random ideal point of its pivotal member, and hence by our assumption EP's ideal point $\tilde{\pi}$ in the Conciliation Committee, has a distribution (conditioned on the status quo) which is highly concentrated around the mid-point of policy space X (see Fig. 9 in Appendix 2).[26] Second, CM's qualified majority rule ensures that the distribution (conditioned on the status quo) of the ideal point of its pivotal member – the 11-th most enthusiastic or 5-th least enthusiastic about changing the status quo in the considered direction – is more spread out and, importantly, skewed with a peak rather close to the status quo.[27] In other words, qualified majority implies a rather conservative position of CM in the Conciliation Committee while EP is usually more progressive and centrally located. Status quo bias in bargaining, established in Sect. 3 and 4, translates this into an inter-institutional bargaining advantage for CM, which implies significantly greater average influence and power for CM in the Conciliation Committee. Unfortunately, all this is not identified by using traditional power indices that ignore strategic interaction.

Figure 6 illustrates that under the assumption of 626 independently uniformly distributed EP members, the power impact of a quota increase or decrease in CM is non-monotonic: CM's strategic power is maximal for a two-thirds qualified majority requirement ($r = 10$) – surprisingly close to the present 71% majority requirement in place. A quota increase raises the probability of the CM pivot being closer to status quo than the EP pivot *conditional* on existence of mutually beneficial policy changes. We will refer to this as the *relative vote threshold effect*. At the same time, higher CM quota also lowers the probability of CM pivot and EP pivot finding themselves on the same side of the status quo; if they do not, there is no mutually beneficial alternative to the latter and hence no influence for either institution. We refer to this as the *absolute vote threshold effect*. Strategic power is determined by the product of both. Up to $r = 10$, the (positive) relative effect of quota changes dominates. Above, the (negative) absolute effect begins to dominate: CM would lose power in absolute terms if it adopted a higher quota.[28]

In the Conciliation Committee, a high internal quota increases CM's chances to benefit

[26] Considering the case in which EP *and* CM prefer moving to the right of the status quo, $E(\tilde{\pi}_{(k-p+1)}) = 313/627$ with a standard deviation of less than 0.02.

[27] Similarly, $E(\tilde{\mu}_{(m-r+1)}) = 5/16$ with a standard deviation of more than 0.11.

[28] CM would improve its power in relative terms, though this seems small comfort.

from *bargaining's status quo bias*. But, as is well known, it also promotes *institutional status quo bias*: It gets more likely that respective EP and CM pivots prefer opposite changes to the status quo. Thus, fewer and fewer proposed policy changes get implemented, and players exercise less and less of the creative power captured by SMP.

5.4 Fixed Legislative Status Quo

In the above analysis, the reference point for an agreement in the Conciliation Committee, i. e. the legislative status quo q, was assumed to be random. This implies that there are not always gains from trade (or mutual agreement) as q may be located in between the crucial actors of EP and CM. This becomes more pronounced, the greater the decision quota in CM is: The sum of ξ_π and ξ_μ falls to less than 0.15, when unanimity rule is applied by CM – corresponding to affirmation of the status quo about 85% of the time in response to possibly only one member of CM that is on the opposite side of q than anybody else. In this section, we fix the reference point and normalize it to zero, which with our policy space implies that there always are gains from trade and that EP's and CM's SMP values must add to unity. This pair of assumptions can be justified by the fact that in the Conciliation Committee the actors know the legislative status quo. However, by fixing the status quo we take a step from pure ex ante analysis to interim analysis.

Suppose that CM with $m = 15$ members and EP with $k = 626$ members are represented by their respective pivot. Fixing the legislative status quo to zero yields the following SMPs

$$\int_0^1 \left[\int_0^\mu k \binom{k-1}{k-p} x^{k-p} (1-x)^{p-1} \, dx \right] m \binom{m-1}{m-r} \mu^{m-r} (1-\mu)^{r-1} \, d\mu \tag{21}$$

for EP and

$$\int_0^1 \left[\int_0^\pi m \binom{m-1}{m-r} x^{m-r} (1-x)^{r-1} \, dx \right] k \binom{k-1}{k-p} \alpha^{k-p} (1-\alpha)^{p-1} \, d\pi \tag{22}$$

for CM respectively.

Figure 7 illustrates strategic power for varying Council quota r. For simple majority in both EP and CM, the former actually is minimally more powerful: Its even number of members results in an asymmetric pivot distribution with slightly more mass to the left of 0.5, whereas CM's pivot in the simple majority case is symmetric. EP therefore is slightly more often the player closer to the fixed status quo 0. As the majority requirement in CM increases, the distribution of its pivotal member moves to the left – in the unanimity case even peaking at 0 (see Fig. 9 in the appendix). Already for $r = 13$, the probability that the CM pivot is to the left of EP's pivot is more than 0.99. In contrast to the case of random status quo, this does not affect the existence of mutually beneficial agreements, i. e. there is no negative absolute vote threshold effect.

For, $r = 11$, one obtains

$$\begin{aligned} \xi_\pi &= 0.062 \\ \xi_\mu &= 0.938. \end{aligned} \tag{23}$$

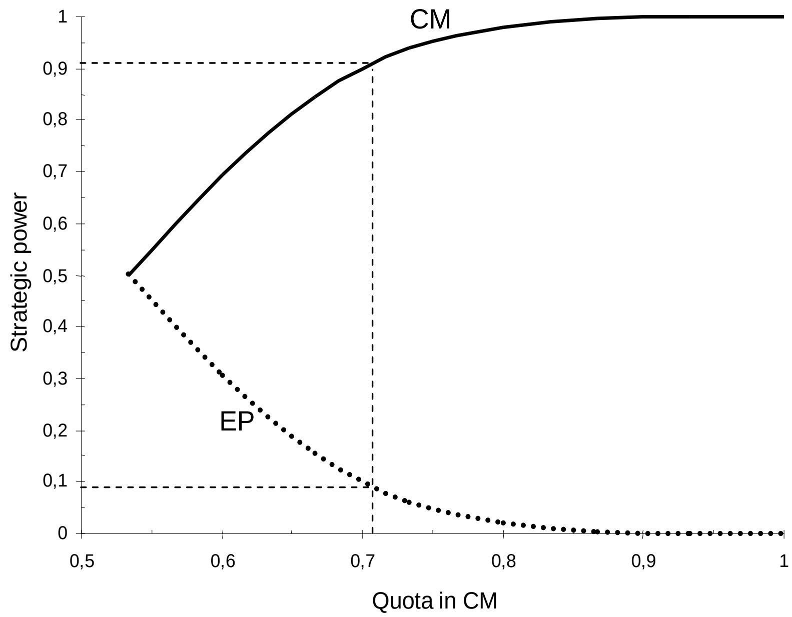

Figure 7: Distribution of power in EU15 with 626 MEP and fixed status quo $q = 0$

The difference between EP's and CM's SMP is much more pronounced than under the previous section's assumption of random status quo. It is almost only CM that benefits from there *always* being gains from trade – no matter whether the 8th, 11th, or 15th most reluctant (to a policy change in the direction supported by EP) CM member defines this institution's position. Given a status quo of 0, CM can enjoy the positive relative vote threshold effect without countervailing absolute effect.

5.5 Enlargement

Membership of the EU will expand on 1 May 2004 from the current 15 to 25 countries. This will also have implications on the inter-institutional balance of power. In CM the number of members will increase hand in hand with the expanding membership; in EP, incumbent countries give up part of their seats. After the enlargement the total number of MEPs will increase from the current 626 to 682.[29]

Figure (8) shows the impact of the enlargement on inter-institutional power in the Conciliation Committee, approximating decision making in the enlarged Council by non-weighted voting of 25 players. The figure demonstrates that EP loses regardless of the quota chosen in CM. The impact for CM is positive when the quota in CM is below three quarters and negative beyond that. Note that in the Treaty of Nice the quota in the Council was increased from 71% to 74%.[30] The old quota would leave CM better off than the new

[29] When Romania and Bulgaria join the EU supposedly in 2007, the total number of MEPs increases to 732, which is the upper limit as defined in the Treaty of Nice.

[30] In the Treaty there are, in fact, two different thresholds: 255 and 258 votes of the total number of votes 345. The former was defined using a 74% quota and the latter as the number of votes. 258 votes of

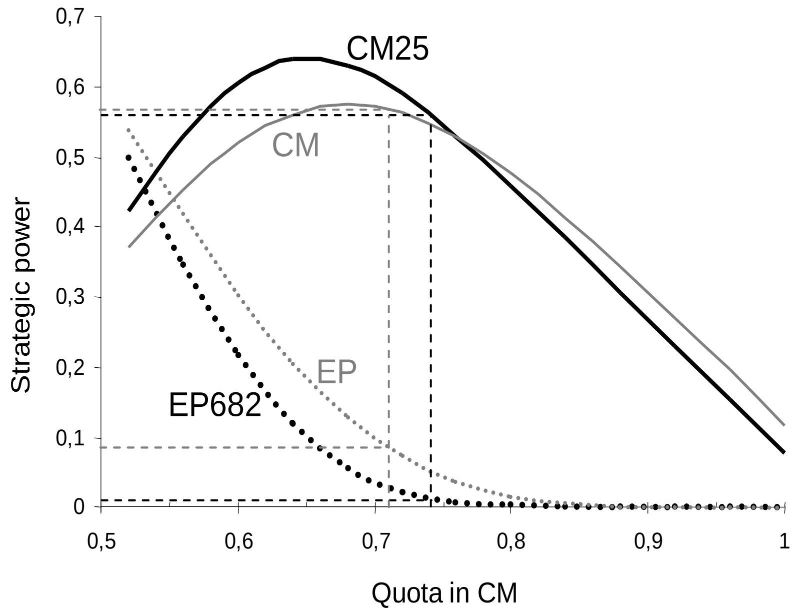

Figure 8: Distribution of power in EU25 with 682 MEP

one does. The combined effect of enlargement and quota increase is to keep strategic power of CM roughly constant. Striking is that the new quota also makes EP worse off than the old one would have made, pushing its power score practically to zero.

The intuition behind these findings is twofold. First, a higher quota in CM than in EP – by the relative vote threshold effect – favours CM but, second, the quota increase – by the absolute vote threshold effect – makes it more likely that the status quo prevails. The latter negatively affects both CM and EP. Expanding membership shifts the curves in Fig. 8. After the enlargement the relative vote threshold effect works stronger in favour of CM than in EU15 for low quotas. The turning point beyond which the absolute effect dominates is, however, reached at lower vote threshold level than in EU15. The dominance of the absolute effect decreases CM's power at faster pace in an enlarged EU than in EU15 implying that, at high quotas, CM would be better off before the enlargement.

6 Concluding Remarks

Most observers of European integration agree that EU decision making has developed in the direction of a balanced bicameral system. The set of policy areas to which the codecision procedure applies has been extended, making it the most important decision making procedure of the EU. The procedure itself has been made more symmetric. This paper has studied the final stage of codecision, the Conciliation Committee. It is the key forum in which European Parliament and Council of Ministers – aided by the presumably

345 total is 74.8%. Moreover, the quota is agreed only for EU27. Since Romania and Bulgaria will join only later, the vote threshold must be renegotiated before the actual enlargement in 2004.

neutral Commission – are seeking legislative agreement.

The mostly qualitative assessments of who shapes the compromises reached by EP and CM – and hence the distribution of power between these two players – by different authors diverge. Some scholars have argued that the European Parliament and the Council of Ministers act as equally influential co-legislators already, while others deduce asymmetry. The divergent assessments are mostly due to differences in modelling, in particular of agenda-setting. Steunenberg and Dimitrova (1999) and Crombez (2000) assume that one player acts as the agenda setter and thus supposedly has the capacity to irrevocably commit to a take-it-or-leave-it policy proposal. The latter presumption is very questionable. Also, there is no agreement between them whether EP or CM has the initiative. Fortunately, this does not matter much if EP and CM can engage in multiple rounds of bargaining and are not too impatient.

To us, the Amsterdam version of codecision gives neither EP nor CM a significant *direct* procedural advantage. In this respect we side with Tsebelis and Garrett's (2000) assessment. However, in this paper we have argued that the apparent symmetry between Parliament and Council as co-legislating institutions does *not* imply they are equal partners or equally powerful. This is a non-trivial consequence of the fact that these institutions use distinct internal decision mechanisms – in particular different majority thresholds – which provide an *indirect* procedural (dis-)advantage. Section 5 has discussed this issue in detail. Based on our earlier deduction of *status quo bias* in Conciliation Committee decisions from standard bargaining models, we investigated several plausible models of the respective institution's internal decision making. While both institutions are formally symmetric in the Conciliation Committee, different majority thresholds imply different (average) bargaining positions. This creates a significant asymmetry in the Conciliation Committee – with greater influence for the on average more conservative Council of Ministers ('conservative' referring to smaller interest in amending the status quo). The gradual shift towards bicameralism observed in the past is therefore incomplete even in those policy domains to which the codecision procedure applies if 'co-decisions' should eventually be equally sensitive to preferences of Parliament and Council.

The calculations carried out in this paper demonstrate that small changes in the Council vote threshold might have substantial effects on the distribution of power among EP and CM. The proposal made by the European Convention to decrease the CM quota to 60% would increase EP's power considerably, at the same time somewhat weakening CM. Even this quota would keep CM the much more powerful actor. In sum, equalization of quotas in EP and CM is a pre-condition to balanced bicameralism.

The increase in CM's quota that was decided as a part of the Treaty of Nice decreased EP's power and had a negative impact on CM's power, too. The latter is due to a more severe institutional status quo bias or absolute vote threshold effect. From EP's perspective the negative effect will be further magnified by the enlargement. Under the Nice rules EP will become practically powerless after the enlargement, since it will almost all the time be the pivotal Council member who defines the smallest common denominator of both institutions.

The balance of power is even more asymmetric when we assume that the legislative status quo is fixed and there are always gains from trade. This favours CM as it eliminates institutional status quo bias, which otherwise paralyses decision making for high CM vote thresholds. In the EU's most traditional policy domains, like trade or the single market, generic existence of a mutually beneficial agreement is likely to capture the decision making situations better than the assumption of random status quo that fits to the policy domains where the EU has been competent for a shorter time or has not had an important role.

Interestingly, the reform suggested by the European Convention is Pareto-improving if gains from trade do not always exist. Compared to the Nice rules the power of CM would remain roughly at the same level – even experiencing a slight increase – whereas the creative power of EP would increase substantially. In policy areas where gains from trade always exist, the Convention proposal would work in favour of EP while CM would lose some of its power.[31]

Our arguments are based on very standard spatial voting assumptions and bargaining theory. We made several simplifications that should be relaxed in future research. For example, we did not explicitly analyze the effect of weighted voting in the Council. Also, we considered one isolated instance of bargaining between players who suffered exactly the *same* disutility from distance to their respective ideal point. Thus, repeated-game effects (typically allowing for a great multiplicity of equilibrium outcomes) and log-rolling based on player-specific utility and / or different distance functions (weighting policy dimensions by subjective measures of salience), were not dealt with. These shortcomings should not be over-estimated, though: Log-rolling complicates the derivation of the contract curve considerably, but the essential bargaining problem of selecting among many Pareto-efficient alternatives (with different distributional consequences) remains the same. Also, regular national and European elections seem to limit the scope for sophisticated repeated-game strategies of EP and CM as such. More controversial is the hypothesis that Council and Parliament are represented essentially by their respective pivotal members in their negotiations – which is unfortunately a standard assumption. This restricts both institutions to exhibit a high level of collective rationality.

Appendix 1

Proposition 1 – Proof. Utility is the same concave strictly decreasing function of the distance to the respective status quo for both players. Hence it suffices to show $u_\pi^q > u_\mu^q \Longleftrightarrow u_\pi^* > u_\mu^*$. Moreover, the Pareto frontier must be symmetric, i. e. $\phi(\phi(u_\pi)) = \phi(u_\mu) = u_\pi$ which implies $\phi'(\phi(u_\pi)) \cdot \phi'(u_\pi) = 1$ and, in particular,

$$\phi'(\tilde{u}_\pi) = -1 \tag{24}$$

for fixed point $\tilde{u}_\pi = \phi(\tilde{u}_\pi)$ (using $\phi'(u_\pi) < 0$). Concavity of utility function $u(\cdot)$ translates into concavity of $\phi(\cdot)$, so (24) implies

$$\phi'(u_\pi) \begin{cases} \geq -1; & u_\pi < \tilde{u}_\pi, \\ \leq -1; & u_\pi > \tilde{u}_\pi. \end{cases} \tag{25}$$

[31] For a related analysis see Baldwin and Widgrén (2003).

W. l. o. g. let $u_i(\lambda_i) = 0$ and assume $u_\pi^q > u_\mu^q$.

First, consider the case that $u_\pi(\mu) < u_\pi^q$, i. e. CM's ideal point leaves EP worse off than the status quo. The end point of the contract curve preferred by CM then gives exactly utility $u_\pi = u_\pi^q$ to EP, implying that the Nash product $N(u_\pi, u_\mu) \equiv (u_\pi - u_\pi^q)(u_\mu - u_\mu^q)$ is zero. Since it is positive in the interior of the contract curve, this cannot be the Nash bargaining outcome.

Second, consider the case that $u_\pi(\mu) \geq u_\pi^q$, i. e. CM's ideal point leaves EP weakly better off than the status quo. CM's preferred end point of the contract curve in this case is μ and yields utility $\phi(\mu) < 0$ to EP and 0 to CM. We show that this is no solution either: The change in the Nash product $N(u_\pi, u_\mu)$ implied by moving slightly from μ towards π is captured by its directional derivative at $(\phi(0), 0)$ along the Pareto frontier, i. e. in direction of vector $a \equiv (1, \phi'(\phi(0)))$:

$$\begin{aligned} N_a'(\phi(0), 0) &= (0 - u_\mu^q, \phi(0) - u_\pi^q) \begin{pmatrix} 1 \\ \phi'(\phi(0)) \end{pmatrix} \\ &= -u_\mu^q + \phi(0)\phi'(\phi(0)) - u_\pi^q \phi'(\phi(0)) \\ &= -(u_\mu^q + u_\pi^q \phi'(\phi(0))) + \phi(0)\phi'(\phi(0)). \end{aligned}$$

From $\tilde{u}_\pi < 0$ follows $\tilde{u}_\pi > \phi(0)$, so (25) implies $0 \geq \phi'(\phi(0))) \geq -1$. Therefore, given $u_\mu^q < u_\pi^q < 0$, the first summand is strictly positive. Both $\phi(0)$ and $\phi'(\phi(0))$ are negative, so the second summand is positive, too. Therefore, $N_a'(\phi(0), 0) > 0$ and $(\phi(0), 0)$ cannot maximize $N(\cdot)$.

It follows that EP and CM must either agree on π, in which case $u_\pi^* > u_\mu^*$ is obvious, or on some point in the interior of the contract curve which is characterized by tangency of an iso-$N(\cdot)$ line and $\phi(\cdot)$ in (u_π^*, u_μ^*). For the latter case, note that the slope of iso-$N(\cdot)$ line

$$g(u_\pi) = \frac{k}{u_\pi - u_\pi^q} + u_\mu^q$$

with $k = (u_\pi^* - u_\pi^q) \cdot (u_\mu^* - u_\mu^q)$ is

$$g'(u_\pi^*) = -\frac{u_\mu^* - u_\mu^q}{u_\pi^* - u_\pi^q}$$

in (u_π^*, u_μ^*). Suppose $u_\pi^* \leq u_\mu^*$. Then $g'(u_\pi^*) < -1$ given $u_\pi^q > u_\mu^q$. However, $u_\pi^* \leq u_\mu^*$ means $u_\pi^* \leq \tilde{u}_\pi$, which implies $\phi'(u_\pi) \geq -1$ by (25). This is a contradiction, implying that indeed $u_\pi^* > u_\mu^*$.

Similarly, assuming $u_\pi^q \leq u_\mu^q$ and supposing $u_\pi^* > u_\mu^*$ a contradiction can be shown (for any interior solution $g'(u_\pi^*) > -1$, while (25) implies $\phi')u_\pi^*) \leq -1$). This establishes the proposition. ■

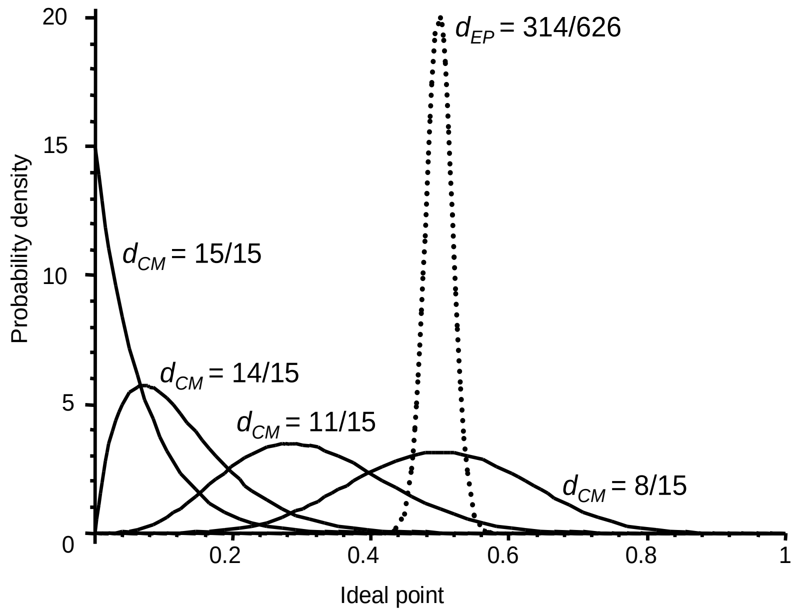

Figure 9: Distribution of the pivotal player's ideal point in EP and CM for different decision quotas

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