# MAJORITY DECISION IN COMPLEX ARBITRATION CASES: THE ROLE OF ISSUE-BY-ISSUE VOTING<sup>1</sup>

#### Manuel Conthe<sup>2</sup>

#### Abstract

A Tribunal or arbitration panel may occasionally be trapped by a decision paradox when taking a simple, dichotomous final decision (e.g. accept/reject; condemn/acquit...) on a complex case involving two or more independent issues: the way in which the voting is organized – i.e. either issue-by-issue or by final outcome- may change the collective decision. Furthermore, if a majority vote is taken on the final decision, it may be impossible to base the resulting ruling on a set of reasons supported by a majority of members; but if majority voting is applied on each independent issue, the final logical conclusion from these intermediate findings may be rejected by a majority of members.

Lewis Kornhauser originally discovered this so-called "doctrinal paradox" in the US Supreme Court, without realizing that it was already known to political scientists as the "Ostrogorski's paradox". The paradox may arise in arbitration panels, particularly in investment arbitration.

In non-arbitration contexts, issue-by-issue voting is frequently deemed preferable over conclusion-based or global judgements. Similarly, a case is made here to supplement the standard majority rule enshrined in Rules of Arbitration with an ancillary "issue-by-issue" voting rule, which might read as follows:

"When the decision on the award depends on the opinions held by arbitrators on two or more distinct issues, the president may split the deliberation into the relevant distinct propositions, take a vote on each one and base the award on the resulting outcomes".

The application of this democratic voting procedure may, paradoxically, occasionally require the final decision to be approved under the president's sole authority, as allowed, for instance, by article 25 of the ICC Rules of Arbitration and article 35.1 of Spain's Arbitration Law.

<sup>&</sup>lt;sup>1</sup> The author gratefully acknowledges the extremely helpful comments made on a preliminary draft by Juan Fernández-Armesto (*discussant*) and other participants in the seminar held in Madrid on March 10, 2010 by the "Fundación para la Investigación del Derecho de la Empresa" (FIDE). He is also thankful for the comments from other experienced arbitrators, including (in alphabetical order) [tbc ]Pablo Coderch, Bernardo Cremades, Marco De Benito, Ives Derains, Ignacio Díez-Picazo, Miguel Angel Fernández-Ballestero, Rafael García-Valdecasas, Clifford J. Hendel, Susanne Kratzsch, Fernando Mantilla, Alexis Mourre, Ramón Mullerat, Jan Paulson, José Pedro Pérez-Llorca, Gil-Carlos Rodríguez Iglesias, Eduardo Silva and Miguel Temboury.... All the mistakes remain the author's.

<sup>&</sup>lt;sup>2</sup> Of-Counsel in Bird & Bird (Spain) and Arbitrator. He is former Chairman of Spain's Securities and Exchange Commission (CNMV).

# Table of Contents

- 1. The doctrinal paradox or discursive dilemma
- 2. The Ostrogorski paradox
- 3. The Single-Subject Rule
- 4. Decision-making by Courts
- 5. Decision-making by arbitration panels
- 6. The case for issue-by-issue voting
- 7. Selected bibliography

#### 1. The doctrinal paradox or discursive dilemma

Let us start by imagining that a three-member arbitral tribunal has to decide on the arbitrability of a case in which the respondent has claimed a jurisdictional exception (e.g. *electa una via*, *res iudicata* or *lis pendens*). According to a well established doctrine, any of these exceptions shall only apply if the parties, the object and the cause of both the arbitration and jurisdictional cases are identical (Achtouk-Spivak, 2009). For the sake of simplicity, let us consider only the identity of the parties and the object of the case, and assume that individual arbitrators hold the following views:

Table 1

	1. Identity of parties?	2. Identity of object?	Admissible case?
Arbitrator A	Yes	No	Yes
Arbitrator B	No	Yes	Yes
Arbitrator C	Yes	Yes	No
Majority	Yes	Yes	?

A majority of members consider that the demand for arbitration should be admitted; but, paradoxically, a majority of them also consider that both the parties and the object of the jurisdictional and arbitration procedures are identical, so that the exception applies and the case should not be admitted to arbitration.

A similar paradox may arise in other cases where arbitrators need to address several distinct, separate issues. For instance, question 1 may concern the jurisdiction (or lack thereof) of the arbitration panel, whereas question 2 may relate to the merits of the claim. In investment arbitration, question 1 may regard whether the claimant's transaction can qualify as an "investment" or the claimant be considered a genuine "foreign" investor, while question 2 may relate to whether the host State gave the investor a fair and equitable treatment.

The possibility of such a paradox in the legal domain was originally identified by Lewis Kornhauser and Lawrence Sager (1986) when analysing US Supreme Court's decisions. They further explored it in 1993, naming it "doctrinal paradox". After further mathematical analysis by Kornhauser (1992a and b), the paradox reached a wider audience and drew the interest of political scientists and philosophers, most notably Philip Petit (2001).

Professor Petit relabelled the paradox as "discursive dilemma", since it is not tied to the acceptance of a common doctrine, but to the general process of arriving at a dichotomous collective judgement which depends on the views taken by members on two or more intermediate issues. He illustrates this point by studying the process by which a workers' cooperative decides on the merits of foregoing a pay rise in order to fund a series of workplace safety measures (e.g. equipment to minimize the risk of electrocution). The workers' sacrifice only makes sense under two conditions: the danger is serious and the measure effective. If views on these two aspects differ, the following dilemma may arise:

Table 2

	1. Serious danger?	2. Effective measure?	Pay-sacrifice?
Worker A	Yes	No	No
Worker B	No	Yes	No
Worker C	Yes	Yes	Yes
Majority	Yes	Yes	?

In this "discursive dilemma" aggregating individual conclusion-judgments (i.e. looking directly at the conclusion or "Pay-sacrifice?" column) leads to a result which differs from the one resulting from aggregating individual premise-judgements (i.e. responses in columns 1 and 2) and then drawing the logical inference from those intermediate premises. While a majority of workers consider that a serious danger exists and another majority deems the measure to be effective in forestalling this risk, there is no actual majority supporting the decision to buy the safety equipment.

The paradox may arise in many other social contexts, when

- There is a need for a collective dichotomous decision on a complex subject;
- Individual views differ on intermediate issues –leading to different "floating majorities" on each of them-; and
- A direct "conclusion-judgement" (i.e. "case-by-case" or "horizontal" adjudication) leads to a different result from "issue-by-issue" or "vertical" voting.

In the examples above a positive final decision (i.e. the identity tests being satisfied or workers being willing to trade pay for safety) required the conjunction of positive responses to intermediate issues. But we could well imagine cases in which the final conclusion depends on a disjunction. This was the case in the 1991 *Arizona vs. Fulminante* dispute described by Kornhauser and Sager (1993), where the US Supreme Court had to decide whether to grant a retrial in view of allegations that the prosecutor had relied on inadmissible evidence and a forced confession. If, for the sake of simplicity, we consider a three-judged tribunal –rather than the nine-strong US Supreme Court considered by Kornhauser and Sager-, the dilemma is shown in Table 3.

Table 3

	1. Inadmissible evidence?	2. Forced confession?	Retrial?
Judge A	Yes	No	Yes
Judge B	No	Yes	Yes
Judge C	No	No	No
Majority	No	No	?

In complex cases where individual views lead to a "doctrinal paradox", a court or arbitration panel will face a dilemma:

• If, in keeping with the tradition followed by most courts and arbitration panels, it adjudicates the case taking into account the members' views on the final verdict (i.e. conclusion-judgement or case-by-case voting), thereby looking for a decision which a majority considers fair, it will then be difficult to base the verdict on a common set of reasons accepted by a majority. Consequently, the resulting "plurality decision" will not

allow lower Courts and legal scholars to infer any *ratio decidendi* or legal doctrine to be considered a legal precedent. This will frustrate the role of courts -particularly Constitutional Courts- to interpret the laws and establish legal doctrine, a particularly worrying result in Common Law jurisdictions (*stare decisis*). Furthermore, plurality decisions can erode public confidence in Supreme Courts, as a result of their inability to render authoritative decisions (Cacace, 2007).

But, if for the sake of an orderly, reason-based deliberation, it adjudicates the case by
applying first the majority principle on individual issues (i.e. premise-judgement or issueby-issue voting) and drawing then the logical legal conclusion from those intermediate
premises, the final verdict will not be considered fair by a majority of members and will not
garner enough votes to be approved, except if one or more members support it over their
own personal convictions.

## 2. The Ostrogorski paradox

With the exception of Kornhauser<sup>3</sup>, legal scholars and philosophers have overlooked that their "doctrinal paradox" o "discursive dilemma" had already been discovered by political scientist Douglas W. Rae (1976).

Rae described the paradox as the "Ostrogorski paradox", after the Russian émigré who first discussed it in Paris in the early XXth century, in his scathing attack against political parties (Ostrogorski, 1902). Ostrogorski specifically advocated that political parties be replaced by single-issue organizations or "leagues":

"Party as a general contractor for the numerous and varied problems present and to come, awaiting solution, would give place to special organizations, limited to particular objects...Instead of giving a wholesale and anticipatory adhesion to a single organization and to the direction which will impart to all the political problems that may arise, the citizen will be enabled and obliged to make up his mind on each of the great questions that will divide public opinion...A free trader opposed to the unlimited coinage of silver will no longer be forced to join the protectionist party because the latter has thought fit to declare against free coinage. An adherent of local veto for the drink traffic will no longer find himself obliged to vote for Irish Home Rule, because the party which supports Home Rule has agreed to take up local veto as well".

To illustrate the potential paradox in which parties act as "general contractors" on several issues, let us assume a political election with three salient issues (e.g. economic policy, environmental issues and social issues) and two contending parties: Party Y (for "yes") - which responds affirmatively (Y) to every question- and Party N (for "no") -which responds negatively- (Sari, 2001). Let us further assume that there are 5 voters, who have the preferences expressed below, attach the same importance to all issues and vote for the party with which they concur on a majority of issues.

Table 4

	Issue 1	Issue 2	Issue 3	Party supported
Voter A	Y	Y	N	Y
Voter B	N	Y	Y	Y
Voter C	Y	N	Y	Y
Voters D	N	N	N	N

<sup>&</sup>lt;sup>3</sup> Kornhauser identified the similarity between the "doctrinal paradox" and the "Ostrogorski paradox", but argued –wrongly, in my view- that they are fundamentally different

5

Voter E	N	N	N	N
Majority	N	N	N	?

Paradoxically, Party Y will win the election, even if every plank of its political program is rejected by a majority of voters; unfortunately for Party N, the majorities rejecting each of Party Y's ideas are "floating" in nature and do not provide Party N with enough votes to carry the election. In our previous terminology, "conclusion judgement" (i.e. party voting) leads to a set of individual policies which are rejected by a majority of voters (i.e. issue-by-issue voting). Needless to say, Ostrogorski was ardently in favor of issue-by-issue voting.

Mathematicians and social choice experts have recently endorsed the essential similarity between the doctrinal paradox-discursive dilemma and the Ostrogorski paradox and have produced a vast and growing technical literature on "judgement aggregation" (see, particularly, Gabriella Pigozzi [2006] and List and Puppe (2007)].

#### 3. The Single-Subject Rule

The doctrinal paradox, discursive dilemma or Ostrogorski paradox is intimately linked to a specific legal rule known in the United States as the "single subject rule" (SSR) and enshrined in the Constitutions of a number of States. The SSR forbids substantially independent issues to be lumped together and put to a single vote. In terms of our previous discussion, the SSR is a procedural rule which requires "issue-by-issue voting" and forbids "conclusion-judgement" on complex issues, thereby preventing potential aggregation paradoxes.

Gilbert (2006) and Cooter and Gilbert (2006) discuss the historical origin of the SSR. It originated in ancient Rome, where crafty lawmakers learned to carry an unpopular provision by "harnessing it up with one more favored", which led in 98 B.C. to the prohibition of laws consisting of unrelated provisions. Similar misbehavior plagued colonial America, were diverse acts were "joined together under ye same title", making it impossible to vacate unpopular provisions without also invalidating favorable ones.

Over the years this led many states to adopt in their Constitutions a SSR, which typically enjoins that "no bill shall contain more than one subject, and the same shall be clearly expressed in the title". These constitutional provisions have been used as grounds for litigation: since it is not always clear when a law encompasses more than one subject, the SSR has often been used by disgruntled citizens to challenge in court laws they dislike.

The SSR is designed not only to improve political transparency, but also to prevent "vote trading" or "logrolling" (i.e. combining multiple proposals, some or all of which command only minority support, into an omnibus bill that will receive majority support) and eliminate "riders" (i.e. propositions which, by benefitting a narrow constituency, would be overwhelmingly rejected if voted separately, but are cannily attached to a popular proposal which commands overwhelming support).

Gilbert argues that creating "packages" of separate issues and putting them to a single vote is always harmful in the case of riders, but may be socially useful in the case of logrolls. One such beneficial logroll is illustrated in Table 5 (where numbers represent "utility" for each voter, and voters are expected to vote against those initiatives with negative utility for them): if each of the three initiatives were voted separately, all of them would be rejected; but a global package comprising the three of them will carry the day and achieve a +45 global utility gain. Consequently, Gilbert recommends that courts condone logrolling, but invalidate bills containing riders.

Table 5

	Initiative 1	Initiative 2	Initiative 3	No Initiatives	Package (1+2+3)
Voter A	+20	-2	-3	0	+15
Voter B	-3	+20	-2	0	+15
Voter C	-2	-3	+20	0	+15
Majority Vote	Rejected	Rejected	Rejected		Approved

The potential beneficial effect of logrolls is the reason why a number of international negotiations have traditionally been conducted under the principle of a "single undertaking", under which "nothing is agreed until everything is agreed" (a rule contained, for instance, in paragraph 46 of the 2002 Doha Ministerial Declaration by members of the World Trade Organization). This potential benefit of "horse trading" may also explain the frequent bargaining process that takes places in Tribunals and arbitration panels when deciding difficult cases, a process which, while occasionally protracted and difficult, is aimed at reaching a unanimous or majority-based global compromise.

But majority-approved packages may also be globally harmful<sup>4</sup> and this probably explains why the SSR can also be found in voting rules for collegial bodies. For instance, the Robert's Rules of Order state that

"When a motion relating to a certain subject contains several parts, each of which is capable of standing as a complete proposition if the others are removed, it can be divided into two or more propositions to be considered and voted on as distinct questions, by the assembly's adopting a motion to divide the question in a specified manner".

In the same spirit, Recommendation D.2.1 of the UK's Code of Corporate Governance (formerly known as the "Combined Code") states that

"At any general meeting, the company should propose a separate resolution on each substantially separate issue"

Similarly, Recommendation number 5 of Spain's Unified Code of Good Governance for Listed Companies recommends that

"Separate votes should be taken at the General' Shareholders' Meeting on materially separate items, so shareholders can express their preferences in each case. This rule shall apply in particular to:

- a) The appointment and ratification of directors, with separate voting of each candidate:
- b) Amendments to the bylaws, with votes taken on all the articles or groups of articles that are materially different"

7

<sup>&</sup>lt;sup>4</sup> Note that logrolls may also be socially harmful. For instance, if utilities for Voter C in our table were (-20, -20, +2) rather than (-2, -3, +20), the package would also be approved, but at a net social cost of -18: Voter C would in this case be exploited by Voters A and B.

### 4. Decision-making by Courts

In their analysis of the jurisprudence of the US Supreme Court, Kornhauser and Sager (1993) argue that "case-by-case voting historically has been the tacit –quite possibly unreflective-but encompassing norm of the Court".

But they discuss two rulings –*Pennsylvania v. Union Gas Co.* (1989) and *Arizona v. Fulminante* (1991) - in which some justices accepted the logic of issue-by-issue voting and reversed their final votes on the verdict, allowing it to obtain majority support. They did so because they considered themselves morally bound by the logical conclusion drawn from the majority-approved premises, even if they personally disagreed with such outcome.

Kornhauser and Sager recommend that tribunals decide in advance, in a so-called "meta-vote", which "voting protocol" will govern their decision making. They specifically recommend "issue-by-issue voting".

The growing literature on decision making by US Courts is hardly matched by similar empirical research on actual decision-making in European Courts, something regrettable since regulations occasionally address the topic. For instance, article 198.1 of Spain's Civil Procedure Law ("Ley de Enjuiciamiento Civil") contains this explicit reference to issue-by-issue voting:

"The President may decide that separate votes are taken on the various conclusions to be made - either on matters of fact or law-, or on parts of the final ruling"<sup>5</sup>.

By way of exception to this lack of empirical analysis, Spanish constitutionalist Carmen Ahumada (Ahumada Ruiz, 2000) has studied the decisions of Spain's Constitutional Court and found occasional plurality decisions, i.e. decisions supported by a majority of votes, but not underpinned by a common set of reasons accepted by a majority of magistrates. She describes the following notional case where the views of the 12 magistrates are split on whether the constitutional rights of a citizen have been respected:

Table 6

Number of magistrates	Breach of art. 24.2 (fair trial)?	Breach of art. 25.1 (presumed innocence)?	Constitutional relief ("amparo") to be granted?
(3)	No	No	No
(4)	Yes	No	Yes
(5)	No	Yes	Yes
Majority	No (8/4)	No (7/5)	Yes (9/3)?

Careful reading of her analysis suggests that this theoretical case actually reflects the STC 136/1999 decision quashing a criminal penalty imposed on Herri Batasuna -the terrorist-leaning

8

<sup>&</sup>lt;sup>5</sup> The original in Spanish reads: "El Presidente podrá acordar que la votación tenga lugar separadamente sobre los distintos pronunciamientos de hecho o de derecho que hayan de hacerse, o sobre parte de la decisión que haya de dictarse".

political organization-, in which there was no clear majority supporting the reasons purportedly underpinning the ruling.

Experienced judges argue that other European Courts (e.g. the EU Court of Justice, Spain's Supreme Court or Spain's Audiencia Nacional) regularly apply the two alternative approaches described above (i.e. conclusion-based judgement and issue-by-issue voting):

- In many cases —especially those in which a majority of judges have strong feelings on what a "fair" result should be-judges agree, on a preliminary basis, on the basic outline of their final decision, with the debate focusing on the legal arguments to underpin it.
- In other cases, though, the Court formally considers each individual issue separately, without any pre-conceived notion of what the final result of this logical journey might be. While in some Courts this is the exception, in others it seems to be the rule.

The president of the Court or the *rapporteur* will normally have a decisive influence on the selection of the approach to be followed, but a majority of judges may occasionally revolt and impose a deliberation mode. In some exceptional instances the Court may initially follow, by common agreement, a conclusion-based approach, but later change its stance—and even make a U-turn- after assessing in detail the individual issues and legal arguments which were expected to buttress its initial position.

#### 5. Decision-making by arbitration panels

While the doctrinal paradox and issue-by-issue voting seem extremely relevant in jurisdictional Courts, many experienced arbitrators consider that, especially in commercial arbitration, they are mostly an intellectual curiosity of limited practical relevance. They base this view on several arguments:

- When co-arbitrators are party-appointed, presidents, having been typically nominated by fellow co-arbitrators on the basis of their prestige, enjoy a natural leadership which allows them to exert a dominant influence on co-arbitrators and bring them over to support the award. This is even more so when presidents themselves are not strong believers in collegiality and expect co-arbitrators to rubber-stamp or, at most, marginally change the president's draft.
- Arbitrators have a natural tendency to take decisions by unanimity and have traditionally been more hostile than Anglosaxon judges to express dissenting or minority opinions, which are felt to weaken the authority of the award (Fouchard, Gaillard, Goldman, 1999 or, more recently, Rees and Rohn, 2009). This cultural inclination to unanimity, with a long tradition also in European courts –some of which still bar dissenting opinions, or at least exclude their publication-, is based on a sense of professional "solidarity" among arbitrators and is facilitated by the lack of publicity of awards.
- Arbitration awards not being public, the Common Law principle of *stare decisis* lacks relevance, so that potential plurality rulings are not particularly troubling.

A minority of arbitrators claim, however, that issue-by-issue voting is the ideal, particularly in complex cases. But even they recognize that:

- The definition of the issues at stake is not always clear-cut. In practice, a significant part of the deliberations of tribunals and arbitration panels ends up concentrating on this preliminary meta-task of defining the issues to be discussed.

- For all its logical merits, issue-by-issue voting may be difficult to swallow by arbitrators when it leads to final decisions that they regard as unfair. In fact, arbitration panels tend to operate in reverse and follow conclusion-based judgement: after reaching a preliminary agreement on the final outcome, the bulk of the discussion concentrates on picking out and drafting the arguments to underpin the ruling.

But the merits of issue-by-issue voting and the likelihood of doctrinal paradoxes seem higher in investment arbitration cases –like the ones carried out under the aegis of the International Center for the Settlement of Investment Disputes (ICSID)-. There seems to be several reasons:

- Final awards in investment arbitration cases are always of a dichotomous nature —i.e. either to accept or reject the claim that there was a breach of investors rights-, but require taking a stance on several typical independent issues (e.g. whether the claimant was a genuine "foreign investor", the transaction qualified as an "investment" and there was a genuine infringement by the host State of the claimant's rights).
- By tradition, panels and decisions are more collegial in nature than in commercial arbitration.
- The publicity of the award –which is the rule in ICSID-lends greater weight to the reasons buttressing the decision and makes dissenting opinions more frequent.

#### 6. The case for issue-by-issue voting

Some further research might indeed be warranted on the practical relevance of potential doctrinal paradoxes and issue-by-issue voting rules in investment arbitration and in the day-to-day experience of European Courts.

At this stage, however, a case can already be made in favor of refining and improving current Rules of Arbitration, with a view to making explicit explicitly the possibility of issue-by-issue voting. The case for issue-by-issue voting rests on several considerations:

- There is a growing international trend to require awards to state the reasons upon which they are based (unless the parties agree otherwise). Until now, however, the potential conflict between this rule and majority voting has gone unnoticed, without current Rules of Arbitration providing any guidance on how to deal with such conflicts.
- Issue-by-issue voting may expedite decisions and avoid the occasionally time-consuming efforts at bargaining on a global compromise.
- Issue-by-issue voting may, somewhat unexpectedly, explain the role and democratic spirit of the principle introduced in 1955 by the ICC Rules of Arbitration -and subsequently embraced by other Arbitral Courts- under which "where a majority cannot be obtained, the chairman of the tribunal can decide alone".

This rule has often been criticized- most recently by Antonio Hierro and Rafael Hinojosa (2009) when discussing article 35 of Spain's Arbitration Law -, mostly because it gives presidents excessive latitude in taking, all by themselves, the most substantive decision in the arbitration procedure. The rule is claimed to put to waste the great advantage of having a plurality of arbitrators deciding on a case. Supporters of the special prerogative of presidents counter that it is a rule hardly used and mostly meant as a deterrent weapon; if used sparingly, it may allow presidents to force co-arbitrators into a cooperative mode.

Whatever the merits of these traditional arguments, the president's special prerogative may have an unexpected rationale in issue-by-issue voting: the ability of the president to approve the award need not be construed as a "dictatorial" license to disregard the views of fellow co-arbitrators, but, on the contrary, as an exceptional tool to approve expeditiously an award reached after a deliberative, majority-based "issue-by-issue" decision process.

There is thus a case to refine existing Rules of Arbitration and include an explicit reference to an ancillary "issue-by-issue voting" rule or protocol, to be accepted ex ante by panel members or applied by presidents on an ad-hoc basis. By way of illustration, taking article 25 of the ICC Rules ("Making of the Award") as a reference, a pretty flexible version of the rule inspired in article 198.1 of Spain's Civil Procedure Law could be the following (changes in italics and bold):

- 1. When the Arbitral Tribunal is composed of more than one arbitrator, an Award is given by a majority decision. The Award shall state the reasons upon which it is based.
- 2. When the decision on the Award depends on the opinions held by arbitrators on two or more distinct issues, the president may split the deliberation into the relevant distinct propositions, take a vote on each one and base the award on the resulting outcomes.
- 3. If there be no majority *supporting the Award*, it shall be made by the president of the Arbitral Tribunal alone.

#### 7. Selected bibliography

Achtouk-Spivak, Laurie, L'Affaire Pantecniki ou la renaissance de la clause "electa una via" dans l'arbitrage d'investissment? Les Cahier de L'Arbitrage n° 2009/4, Gazette du Palais, December 2009.

Ahumada Ruiz, María Angeles, *La Regla de la Mayoría y la Formulación de Doctrina Constitucional. Rationes decidendi en la STC 136/1999*, Revista Española de Derecho Constitucional, Enero-Abril 2000.

Bonnefon, Jean-François, *How Do Individuals Solve the Doctrinal Paradox in Collective Decisions? An Empirical* Investigation, Psychological Sciences, 2007.

Cacace, Joseph M., *Plurality Decisions in the Supreme Court of the United States: A Reexamination of the Marks Doctrine After Rapanos v. United States*, Suffolk University Law Review, Volume XLI:1, 2007.

Cooter, Robert D. and Gilbert, Michael D., *Chaos, Direct Democracy and the Single Subject Rule*, University of California, Berkeley, Berkeley Program in Law & Economics, 2006, Working Paper number 183.

Fouchard, Gaillard and Goldman, *International Commercial Arbitration*, Kluwer Law International, 1999.

Gilbert, Michael D., Single Subject Rules and the Legislative Process, University of Pittsburg Law Review (2006, Vol.67).

Hierro, Antonio and Hinojosa, Rafael, "Arbitraje Comercial Internacional en España: Marco Legal y Jurisprudencial", in "El Arbitraje Comercial Internacional en Iberoamérica. Marco legal y jurisprudencial", La Ley, Wolters Kluwer, 2009.

Kornhauser, Lewis A., *Modelling Collegial Courts I: Path-Dependence*, 12 International Review of Law&Economics (1992 a).

Kornhauser, Lewis A., *Modelling Collegial Courts II: Legal Doctrine*, 441 International Review of Law&Economics (1992 b)

Kornahuser, Lewis A. and Sager, Lawrence G., *Unpacking the* Court, 96 Yale Law Review, 1986.

Kornahuser, Lewis A. and Sager, Lawrence G., *The One and the Many: Adjudication in Collegial Courts*, 81 California Law Review, January 1993.

List, Christian and Puppe, Clemens, Judgement aggregation: a survey, 2007.

List, Christian and Pettit, Philip, On the Many as One, Philosophy and Public Affairs, 2005.

Ostrogorski, M., *Democracy and the Organization of Political Parties*, The Macmillan Companya, New York, 1902.

Pettit, Philip, *Deliberative Democracry and the Discursive Dilemma*, Philosophical Issues, 2001, Vol.11.

Pigozzi, Gabriella, Two aggregation paradoxes in social decision making: the Ostrogorski paradox and the discursive dilemma, 2006.

Rees, Peter J. and Rohn, Patrick, *Dissenting Opinions: Can they Fulfil a Beneficial Role?*, Arbitration International, LCIA, Volumen 25, Number 3, 2009.

Sari, Donald, *Decisions and Elections. Explaining the Unexpected*, Cambridge University Press, 2001, Chapter 4.