Prepared for the Colloquium on Majorities, Collège de France, May 13-14 2009.

## NESTED MAJORITIES

by

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## I. Introduction

This is mainly an historical paper, which raises without some theoretical issues regarding two-step or three-step majority voting. I shall consider two sets of collective decisions, the first taken from America between 1774 and 1787 and the other from the history of the French EstatesGeneral.

The unit of voting can be an individual or a collective of some kind. When it is a collective, its members may be individuals or collectives. Whenever a collective casts a vote, there has to be a procedure that determines what the vote shall be. I shall assume that the procedure is some form of voting rather than, for instance, a lottery among the options or bargaining among the members. I shall, in other words, limit myself to nested voting procedures, at two or occasionally three levels. More specifically, I shall limit myself to the choice between nested majority voting and procedures that at some level involve non-majoritarian voting.

The outcome of two-level majority voting may differ from the outcome that would be observed if the individual members of the collectives
decided by one-level majority voting. Suppose, to take an example I shall return to later, that there are three groups with respectively 600, 300 and 300 members. With nested majority voting 302 members, 151 members of the second and 151 members of the third group, may adopt a proposal that goes against the preferences of 898 of the members. This outcome is obviously undesirable on normative grounds, unless there are special circumstances that justify the two-step procedure. I shall discuss later what these circumstances might be.

Nested voting may be internally coherent or not. It is coherent if the same procedure is used in both steps, otherwise it is not. Majority voting within and by groups is not uncommon. Unanimity voting within and by groups seems pointless. It implies that each member has a veto, which might be exercised more simply in a one-step decision. In theory, one might for any percentage $\mathrm{x}>50 \%$ require a supermajority of x for decisions at both levels. There may be some cases of that kind, but I have no come across any. I believe, therefore, that in practice coherent procedures always use majority voting. Among procedures that are not coherent in this sense, I believe all observed cases use majority voting at the first level. Some of these use supermajorities at the second level, others use unanimity.

I have tacitly assumed that two-step procedures are symmetrical, in the sense of Kenneth May (1952). One can also imagine asymmetrical the Council of the European Although such have not been used in the cases I shall consider, I shall mention some occasions on which they have been proposed.

A final introductory comment concerns the idea of majority voting in even-numbered groups. In large assemblies, this problem is usually solved by having the President or the most senior member breaking the tie. In small
committees, however, ties may arise too frequently for anyone to grant this power to a single member. One might have tie-breaking assigned by a lottery or by rotation, but to my knowledge this procedure has not been used. The problem is most acute in a two-member committee, which may not be able to cast a vote unless both members agree. I shall discuss a case like this shortly.

## II. The United States

Under the Articles of Confederation, adopted in 1781, votes in the Continental Congress were first taken my majority voting within each state delegation. Next, each state cast a vote, decisions being made by simple majority voting, qualified majority voting or unanimity depending on the importance of the proposals. Crucially, for a change in the Articles themselves unanimity was needed.

The first Continental Congress had met in 1774 . At that time, there was a serious discussion whether voting should be by voice, each delegate casting a vote; by unweighted colony voting, one colony one vote; or by weighted colony voting. Voting by voice was excluded because the convocation had not specified the number of delegates to be sent; also the larger states did not necessarily have the largest delegations. Weighted voting had some support, but failed for two reasons. First, the data were lacking and in the time of war there was no time to collect them. Second, there were too many possible weighting schemes. Should one take account of population only, or of wealth as well? Should Indian and slaves be included for purposes of calculating the population? Should only real property or trade as well be counted in the calculation of wealth? Given these irresolvable issues, unweighted voting was the obvious focal point.

Although the delegates agreed, that the decision should not set a precedent for the future, that is what it did - a precedent whose impact can be traced all the way down to the equal representation of the states in the 1787 constitution.

The one exception to the principle of voting by states in the Continental Congress arose in the election of members to the various ad-hoc committees that the Congress established from time to time, 3249 all together. In the large majority of these cases, members were chosen by secret ballot in which each delegate cast a vote, giving, large delegations a greater influence on the choice than small delegations. In elections to the Grand Committees that considered issues of major importance and in which each state had one delegate, the state delegation chose which delegate to send.

I want to mention one bizarre feature of the voting system of the Congress, which was an effect of tie votes within even-numbered state delegations. The paradox is clearly stated in a resolution adopted by the Congress on April 191 1784:

Resolved. That the legislatures of the several states be informed, that whilst they are respectively represented in Congress by two delegates only, such an unanimity for conducting the most important public concerns is necessary are can be rarely expected. That if [i] each of the thirteen states should be represented by two members, five out of twenty-six, being only a fifth of the whole may negative any measure requiring the voice of nine states: [ii] that of eleven states now on the floor of Congress, nine being represented by only two member from each, it is in the power of three out of twenty-five, making only oneeighth of the whole, to negative such a measure, notwithstanding that by the Articles of Confederation, [iii] the dissent of five out of thirteen, being more than one-third [of the number, is necessary for such a negative [...]' that therefore Congress conceive it to be indispensably necessary, and earnestly recommended, that each State,
at all times when Congress are sitting, be hereafter represented by three members at least; as the most injurious consequences may be expected from the want of such representations. (Journals, 26: 24546).

In case [i], for instance, the unintended supermajority would arise if each of five two-member delegations was divided on a proposal, in case [ii] if each of three was divided. In either case, the proportion of delegates needed to block a proposal was higher than the proportion of states needed to block it. As two was the minimal number of delegates a state could send, and as many states wanted to minimize the costs of sending a delegate, twomember delegates were frequent. Assuming now, in case [i], that each state sent three delegates, and that the third delegate was equally likely to vote for or against the proposal, there would usually only be three or four delegations voting against it, so that the threshold of nine would be reached. The same effect could be produced for decisions that only required simple majority.

For a different reason, the fact that it was up to each state how many delegates it sent was also important at the Federal Convention. At that meeting, voting followed the rules established by the Continental Congress: majority voting within delegations and unweighted voting by delegations. At the outset of the Convention, there was some discussion of the latter point. According to Madson’s notes,

Previous to the arrival of a majority of the States, the rule by which they ought to vote in the Convention had been made a subject of conversation among the members present. It was pressed by Governeur Morris and others from Pennsylvania, that the large States should unite in firmly refusing to the small states an equal vote, as unreasonable, and as enabling the small States
to negative every good system of Government, which must in the nature of things, be founded on a violation of that equality. The members from Virginia, conceiving that such an attempt might beget fatal altercations between the large \& small States, and that it would be easier to prevail on the latter, in the course of the deliberations, to give up their equality for the sake of an effective Government, than on taking the field of discussion to disarm themselves of the right \& thereby throw themselves on the mercy of the large States, discountenanced \& stifled the project. (Farrand I, p. 10.)

I take it that the large states feared that the small states would withdraw from the Convention if weighted voting were adopted from the outset. It was probably well understood that this system would not lead to an equal representation of the states in the Senate. On the first discussion of voting rules to be used in the new Congress, a delegate from Delaware stated that his delegation had been instructed to retire from the Convention if the constitution established any change in the rule of suffrage. Changing the rules of voting in the Convention itself would almost certainly have had the same effect.

With one exception, decisions at the Federal Convention were taken by majority vote within the state delegations and then by majority vote among the state delegations. There was no voting by supermajority or unanimity. Virtually without exception, constituent assemblies use simple majority voting, for the simple reason that there is no default option. It is like voting the annual budget: a decision has to be taken. Supermajorities and unanimity make sense only when the status quo is a viable option. At the Convention,
the Articles of Confederation never served as a default option. Although, formally, the Convention was called to "revise the federal system of government", leaving open the possibility of leaving some pieces of the old system in place, it was clear from the beginning that the framers intended to create a wholly new system. The idea of retaining this or that clause from the Articles as a default option if a supermajority or unanimity could not be reached was totally foreign to the delegates.

The exception referred to above arose in the election of delegates to Grand Committees at the Federal Convention. Whereas in the Continental Congress delegates of the states to these committees had been elected by the states of which they were delegates, the Convention elected the delegates by secret ballot in which all members voted to determine the delegates of each state ("cross-voting"). The size of the delegations was somewhat correlated to the population of the respective states. Thus the populous states of Virginia and Pennsylvania sent large delegations. On the other hand, Massachusetts sent as many delegates (five) as Delaware, although its population was ten times as large. Since Delaware, as noted, took a very intransigent stance on the divisive issue of the representation of the states in the Senate, its delegates may very well have voted for moderate delegates from the large states to the Grand Committee that discussed that issue. In other words, the usual two-tier system of voting was replaced by a one-tier system involving majority voting by all delegates. Although it was used only for procedural decisions and not for substantive ones, procedure sometimes preempts substance. When a recommendation from a Grand Committee came to the floor of the Convention, it had a momentum that made it difficult to overturn it.

The procedure of unweighted majority voting by the states shaped the outcome in two ways. On the one hand, it set a precedent. As Patterson from the small state of New Jersey said in a debate over the Senate, "If a proportional representation be right, why do we not vote so here?" On the other hand, equal voting rights enhanced the bargaining power of the small states. Since the small states were in a minority, this could not by itself ensure their victory. But the voting procedure at the convention increased their bargaining power for logrolling purposes. In addition, the exceptional majority voting by the Convention as a whole in choosing members of the Grand Committees may also have strengthened the small states, as I just argued.

The small states even managed to write their equal representation into stone, by Article V in the constitution: "No State, without its Consent, shall be deprived of its equal Suffrage in the Senate." In the context of the time: no twelve states could deprive the thirteenth of its two seats in the Senate. In France, as we shall see, there was parallel claim: "No two estates can bind the third". That dictum never achieved constitutional status, however.

## III. France

In France, the Estates-General were called at irregular intervals from 1355 to 1789. Their political role, although real, was limited. France never became a Ständestaat in the sense of some of the North European countries, although there were occasional attempts to force the King to share power with the three estates. Yet France remained a Ständesgessellschaft, in the
sense that social relations were dominated by considerations of rank and hierarchy. It does not seem unreasonable to think that France never became a Ständestaat precisely because it was a Ständesgesellschaft. In the sixteenth and seventeenth centuries, the arrogance with which the upper clergy and the nobility treated the third estate when the Estates met made prevented the formation of any common front against the King.

The elections to the Estates-General and their internal organization followed no set pattern. "The modes of convocation, election and holding of the Estates-General had never been clearly determined" (Marion 1923, p. 217). I shall discuss, first, the elections of deputies; second, the aggregation of deputies into larger units and the voting within these units; and third, the voting by the units. With regard to 1789 , the second and third issues are moot, in the sense that the Estates turned themselves into a National Assembly and voted by majority voting and by head. Yet I shall devote some space to the counterfactual question of how the assembly would have voted if this transformation had not occurred. It is unambiguously clear, I believe, that if the Estates of 1789 had voted by order, the internal voting of each order would have been by majority. The hard question is whether voting among the orders would have followed the same pattern.

Prior to 1789, the number of delegates each electoral district could send was, as in the two American cases, somewhat indeterminate. Although one might that this would preclude voting by head, we shall see that this procedure was nevertheless adopted in some cases. The elections were always made by selecting delegates for the three orders. On several occasions, the choice was made by cross-voting, so that within a given electoral district (balliage or sénéchaussée) members of all orders cast a vote on the choice of the deputies from each order. This was very frequently the
case in 1484, and occasionally in 1789. In 1614, the elections in Britanny of delegates to the Estates took the extreme form of having delegates by each order elected only by votes of members of the other two orders. In 1484 and in 1614, the intention behind cross-voting seems to have been to promote the spirit of the province at the expense of the spirit of the order. In 1789, at least in the Dauphiné, which is the best-known example, it was to promote the general interest at the expense of particular interests.

In 1355 the elected delegates seem to have deliberated jointly without subunit formation. In all later Estates there were subunits and sometimes, as we shall see, sub-sub-units. In 1484, the subunits were six provinces: Paris and Île de France, Burgundy, Normandy, Guyenne, Languedoc with the Dauphiné and Provence, and half a dozen regions in the center of France. For reasons that are deeply fascinating, but unrelated to the voting issues that concern me here, the Estates failed to affirm their autonomy and influence.

From 1560 onwards, the aggregate subunits were the three orders. They deliberated separately, and communicated through envoys. I shall first consider the question of voting within the subunits, specifically within the third estate, in the Estates of 1576 and 1614. For these Estates we possess two remarkable documents in the form of journals, by Jean Bodin for 1576 and by Florimond de Rapine for 1614. With regard to 1576, Bodin complained about the practice of voting by gouvernements (of which there now 12) within the third estate. In a crucial vote on whether the union of religion should be brought about "without war", Ile-de-France, Normandy, Champagne, Languedoc, Orléans, Picardy and Provence voted against that additional clause, with Burgundy, Brittany, Guyenne, the Lyonnais and the Dauphiné voting against. Bodin complained that "the government of Guyenne had 17 deputies, and that of Provence only 2" (Mayer, vol.13, p.
228). As noted, the number of deputies sent by each electoral district was somewhat arbitrary. In the third estate, "some bailliages sent two deputies, others six or eight" (Picot, vol. V, p. 262). It is not clear how Bodinthought the vote should have been taken, by head or by bailliages. What is certain is that he thought it arbitrary to assign equal voting rights to units of unequal size.

The same issue arose in the Estates of 1614, and effectively caused their collapse. From the beginning, there was considerable confusion within the third state as to whether votes should be taken by gouvernements or by bailliages. Early on, there was a procedural question whether the deputies should be called up according to the one or the other division. Finally, it was decided by "la pluralité des voix" (majority voting) to use the division by gouvernements (Mayer, vol.16, p.55). Although the decision did not concern the voting sub-units within the third estate, it shows that majority voting by head could be used even when the number of deputies sent from the various districts was somewhat arbitrary. Later (ibid. p. 59) it was decided by "la pluralité des voix" that "only in the election of a president and a secretary should one vote by bailliages and not by provinces, and that in all issues that might arise in the future one should vote by provinces and not by bailliages". In other words: a somewhat arbitrary majority of deputies decided that voting should be by majority of provinces, not of bailliages.

This was clearly a recipe for disaster. Towards the end of the Estates, the question arose whether to give unconditional support to the King against the pretentions of the pope. On December 15 1614, an Article to that effect was adopted by 10 out of 12 gouvernements. A month later, the question came up again. As it was probably clear that a majority of the gouvernements would vote against the article, some deputies asked for a vote by bailliages.
"It was nevertheless decided to vote by province" (Mayer, vol. 16/2, p. 197). He does not say how the decision was taken - by majority vote among the provinces (as had been decided earlier) or by majority voting among the deputies.

While the vote by provinces was being taken, one by one, a deputy for Picardy spoke before his turn to make a general claim:

As this matter is of extreme importance, and as what is at stake is the dignity of the kingdom and life of our kings, it is reasonable to vote by bailliages and not by provinces, because the latter are not equal in their number of deputies, and that if one voted by provinces those which have only three or four deputies would have as many votes as those which have thirty or forty bailliages; and at the beginning one had voted by bailliages; and even though it had since been decided to vote by provinces, that ought only to be understood to apply to ordinary matters; but as nothing had come up as important and serious as the matter they were discussing, he asked the assembly to decide to vote by bailliages. (Mayer vol. 16/2, p. 199)

How did he want the assembly to decide about how it should decide? He did not say. After the vote was taken by gouvernements, about 120 deputies, who complained that the decision had been made by the smallest number, obtained a compromise solution.

As is clear from this narrative, the internal rules of the orders were as ill-defined as the rules of the Estates themselves. Majority voting by had, by gouvernements and by bailliages were all used at some point. We may safely assume that many deputies preferred a given system because of the outcome it would produce and not because of its intrinsic fairness or appropriateness.

It seems clear, however, that the vote by gouvernements was the most artificial procecure. These were military and administrative units, with no claim on the loyalty of the citizens (Marion 1923, p. 000).

I now turn to voting by the orders within the Estates-General. Strictly speaking, no such voting ever took place. Before 1789, there was the rhetoric of voting and especially the fear of being outvoted, but no firm institutional practice. The Estates were strictly speaking advisors to the King, with no formal powers of their own. I shall turn to these earlier Estates in a moment, but first let me discuss the Estates of 1789, in which - counterfactually voting by order might have taken place.

In retrospect, it is hard to imagine that voting by order could ever have been implemented. The king's decision to give the third states twice as many deputies as each of the privileged orders made little sense unless the Estates voted by head. Moreover, the provincial assemblies in which this "doublement du tiers" had been adopted voted by head. Yet both contemporaries and later historians have entertained this hypothesis. Remarkably, there is no agreement concerning the procedure that would have been adopted. Would voting had been by majority among the three orders, or would their unanimous consent have been required? Broadly speaking, the contemporaries seem to have assumed unanimity while many historians write as if majority voting among the orders would have been the outcome.

Rather than summarizing the opinions (a task I reserve for a more fully fleshed-out version of this paper), I shall only cite a statement by Georges Lefebvre (1988, p. 59) concerning the attitudes of the nobility: "In their mind, the Estates-General ought to remain divided into three orders, each having one vote, so that the clergy and the nobility would have an assured majority. Some nobles, fearing a coalition of the clergy and the third estate
against the nobility, even pretended that each order had a veto". Unfortunately, Lefebvre does not give his sources for this statement. As his authority in these matters is second to none, we have to assume that he is right: most nobles wanted the orders to vote by majority, whereas a fraction desired a veto. Clearly, the matter was up for grabs.

Why would nobles fear an alliance of the clergy and the third estate against them? From the moment the Estates-General were called, it was probable that the election would give the parish priests a majority within the deputies of the clergy, which is indeed what happened. Prescient nobles might have feared an alliance between the clergy, controlled by the lower clergy, and the third estate. This alliance was indeed created, but not on the basis of voting by order. Rather, the defection of the lower clergy to the third estate caused the order system to collapse. Yet if the scenario feared by this fraction of the nobility, they could have invoked the age-old dictum, first stated in 1355 , to the effect that two estates cannot bind a third. I shall now try to delve more deeply into that question.

In 1355 the dictum was invoked by the third estate, which was not yet called by that term. Hence the phrase, "Two estates cannot bind a third" did not man "two estates cannot bind the third estate" in the later sense of "the third estate". Hence the dictum has a certain generality, and could be used to ban any kind of alliance of two orders against the third. My hunch or suspicion is that the generality of phrasing was purely opportunistic, and chosen for the purpose of providing an impartial guise for self-interest. Yet, once the principle had been stated in that form, other estates could appeal to it if they felt threatened. In 1576, both the clergy and the third estate invoked the dictum, In 1789, as we saw, some nobles may have thought about doing the same.

According to Picot, however, the 1355 dictum was not opportunistic. In a letter he wrote to Guizot and reproduced in the second edition of his treatise he reads the 1355 text as expressing a general principle of cooperation among the orders: "At first glance it seemed possible to suppose [as he had done in the first edition] that the deputies from the towns wanted to be protected from a joint action by the clergy and the nobility, but a closer reading of the texts made me reach a more solidly based opinion: it is certain that the three orders had reached an agreement to protect themselves mutually against an alliance of two against the third" (Picot vol. I, p. 397-8).

This claim suggests a game theoretic analysis. The three estates were engaged in iterated interactions. In any given period, there was a chance that two of them might gain at the expense of the third. If the losses could be expected to be crippling and the gains insignificant, they might all in the long run be better off by insisting on unanimity. Why would there be this asymmetry of losses and gains? Conjecturally, because the king could play the estates off against each other, making small concessions to changing majorities at the expense of a heavy loss for the estate that was currently in the minority. Over time, this would bring about their common ruin.

For what it is worth, I do not think this argument is very plausible. There was no solidarity, even based on group-interest, among the three orders. In fact, as many writers stress, there were no fixed rules of the game, only selfserving claims that this or that principle was a "fundamental law of the kingdom" (Marion 1923, p. 000). Moreover, the vast inferiority of power and status of the third estate would have made it very unlikely that one of the privileged estates could entertain the idea of being threatened by an alliance between the third estate and the other.

The idea of veto can also be stated as a requirement of unanimity. Whereas the veto was used as a defensive weapon against the other estates, unanimity could be used as an offensive weapon against the King. If the Estates had managed to establish the principle that the King had to comply with a unanimous decision by the three orders, as they often tried to do, France might have turned into a Ständestaat after all.

## IV. Conclusion

To conclude, I want to draw attention to two questions.
First, what can justify unweighted voting by simple majority among aggregate units of unequal size? The two cases that may illuminate this question are voting at the Federal Convention and voting within the third estate in the Estates-General. One reason why the Federal Convention did not break up on the issue of "one state, one vote" was that the states were real entities, with a genuine claim on the affection of the respective populations. Delegates from the large states knew that when delegates from the small states invoked states' rights to argue for equal representation in the Senate, they were not just being hypocritical and self-serving (although they were that too). By contrast, the gouvernements had no claims on people's affection. They were artificial entities, which were invoked for purely opportunistic reasons.

Second, what can justify simple majority voting among delegates not chosen on a representative basis? In the same two cases, majority vote was taken among all members of the higher-level group - the Convention as a whole or the Third Estate as a whole. In modern democracies, this procedure is perfectly normal, since the number of deputies sent by the electoral districts reflects more or less closely the size of the underlying electorates.

When, however, the number of delegates sent by each electoral district is optional or arbitrary, it is bizarre to adopt simple individual-level majority voting for decisions of any importance. If adopted as a regular practice, it might have encouraged the election of large delegations. It does not seem that anyone thought along these lines, however, In both France and the United States, a tendency towards such strategic behavior would in any case have been kept in check by the fact that the constituencies bore the cost of sending delegates.

