

POLITICAL EQUALITY

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## POLITICAL EQUALITY

THOMAS CHRISTIANO

## INTRODUCTION

Philosophical thinking about democracy has not come very far in spelling out the standards that legitimate democratic institutions should meet. Political philosophers and theorists have not got beyond general justifications of democracy and some vague outlines of what the ideal they use in justifying democracy might entail when it comes to defining standards for institutions.<sup>1</sup> Elsewhere I have worked out a justification of political equality in terms of a conception of egalitarian justice that requires equality in the distribution of resources. I have shown how that notion of equality ought to apply in circumstances of conflict over certain goods. Those goods are what I call collective properties of society, which are defined as properties that affect all or most people in some way, good or bad. I have argued that these goods ought to be chosen by means of collective decision-making procedures and that the resources for determining the outcome of these procedures ought to be distributed equally.<sup>2</sup> Here I elaborate on what the idea of political equality involves.

The question is, what is a coherent and plausible conception of political equality that will fit within the constraints imposed by the argument for political equality? In particular, what are the relations between procedural and political equality? My main

conclusion is that procedural equality has a far less significant role to play in an egalitarian theory of democracy than is usually thought.

This is so even when we try to insulate the political process from disparities of wealth in society. It is necessary to have a collective decision-making procedure that is insulated from the distribution of economic resources since open exchanges between the economic and the political realms would likely lead to neglect of collective interests.

The first difficulty in constructing a notion of procedural equality is that those criteria associated with it allow for indeterminacies in outcome. In order to get determinate outcomes, we will either have to violate one of the conditions of procedural equality or we shall have to expand the concept of political equality to include resources that are not procedural. A second difficulty arises when we consider that to be fully egalitarian a procedure must be global in the sense that it settles all relevant issues as a package. This is because an egalitarian theory requires comparisons between complete life prospects. Since this procedure cannot work in our world and furthermore, since the outcomes of partial procedures, when added up, are not the same as the outcome of a global procedure, we have another serious difficulty for procedural equality.

Social-choice theorists have analysed the properties of procedures and it is from them that we can learn the most. Two points stand out: we have philosophized relatively little about the implications of social-choice theory for political philosophy. There has been some argument about the defensibility of Arrow's axioms, and many attempts to relax the axioms to avoid the impossibility result. More importantly, however, philosophical discussion has concentrated almost exclusively on the idea that the purpose of democratic procedures is to reveal the popular or general will.<sup>3</sup> In social-choice theory, this is called the collective or social preference. Explanations of this concept have not evolved much since Rousseau's writings. If this is what social-choice theorists have in mind in their mathematical analysis of procedures, then we can say that their work has been unhelpful at best. The very idea that the notion of a common will can be defined in terms of a function operating on an unlimited

domain of individual preferences is without merit. And yet such a function is ostensibly what social-choice theorists and political philosophers who have concerned themselves with social-choice theory have been trying to define.

Though this standard view of the normative implications of social-choice theory does not get us very far, we ought to use the insights of social-choice theory supplemented by game theory into the structure and operation of voting procedures in order to analyze the problems in the idea of procedural equality.

#### POLITICAL EQUALITY AND MAJORITY RULE

The basic principle of political equality is that in collective decision making designed for the purpose of deciding upon collective properties of society, all the relevant means to securing desired ends ought to be distributed equally. Voting power is the first important candidate for inclusion among these means, so I start with an analysis of procedural equality in voting.

Procedural equality gives each participant one vote per issue and the decision is made by determining which alternative wins a majority of votes cast. At least this would be the method for the simplest procedures and decision problems, namely, two alternatives that the group must decide between, and one need only vote for one's first preference. An example of this kind of procedure is provided by Brian Barry.<sup>4</sup> Imagine five individuals in a train compartment, some of whom smoke and some of whom do not. Some of them prefer that no one smoke while others are willing to permit it. The decision to be made is framed as a decision between allowing anyone or no one to smoke. Each person gets one vote. If at least three vote in favor of smoking then the decision is to permit smoking and if at least three vote against then the decision is to prohibit it.

What is it about this procedure that makes it egalitarian? In a clear sense it is not egalitarian: some people end up getting what they want and the others do not. That is, the outcome can be described as inegalitarian. But this outcome does not show us the nature of the procedure because it is compatible with egalitarian outcomes if everyone is in agreement. Nevertheless,

the procedure can produce inegalitarian outcomes. Hence, we cannot look at outcomes alone to determine whether the procedure is egalitarian.

*Anonymity and Neutrality*

In social choice theory, in the functional relation between preferences of voters and outcomes of the procedure, majority rule can be shown to be egalitarian. Majority rule has three properties that qualify it as an egalitarian procedure. It is a one person-one vote system and it is anonymous and neutral. To say that majority rule is anonymous means that the decisions that the method produces will not change as long as the number of votes for and against remains the same. It does not matter who has voted for or who against. This requirement would be violated by a plural voting system. If *A*'s vote were counted twice and the votes of *B*, *C*, *D*, and *E* were each counted once, then it would make a difference who voted for what since the votes of *A* and *B* would produce a tie whereas those of *B* and *C* would not. (This property of anonymity is also called symmetry or undifferentiatedness by some.)

Neutrality is a property of voting procedures that are not biased in favor of any of the alternatives. An alternative is more favored if it takes less votes to get it passed than the others. Hence, most kinds of unanimity rule are non-neutral since they favor the status quo. Only one vote for the status quo is necessary to assure its victory over competing alternatives, while every vote for some alternative to the status quo is necessary to get that alternative.

A simple majority procedure decides between only two alternatives when the outcome is victory for either one or a tie. It is easily shown that simple majority decision satisfies the two egalitarian conditions as well as two other conditions, positive responsiveness and decisiveness. Positive responsiveness assures that a vote for an alternative that is already tied with or defeating its opponent secures victory for that alternative. Decisiveness implies that the procedure will always produce an outcome. Indeed, Kenneth May has shown that simple majority decision is the only decision procedure that has these properties.<sup>5</sup>

It is clear why anonymity is egalitarian. It simply specifies that

the decision procedure itself does not give any more weight to one person's vote than to anyone else's. As far as the procedure is concerned, each vote has an equal effect on the outcome. Neutrality is also egalitarian.<sup>6</sup> It does not mean that all individuals are treated equally rather than all alternatives are so treated. But this condition is tied to individuals insofar as they introduce the alternatives for consideration. The neutral decision procedure does not give any better chances of one measure passing than any other and therefore, indirectly, it does not give any person an advantage in getting a measure he prefers passed. Non-neutral procedures favor some outcomes over others. For example, special majority rules (e.g. those requiring two thirds of voters or all voters to vote in favor) will favor the decision that retains what is already in place over the alternative that challenges it. This is because a non-neutral procedure requires a way of determining which alternative is to be tested by the special majority and which alternative will be the default choice. Without a default rule, the special majority procedure will not select an outcome every time. For example, if a procedure requires that an alternative get two thirds of the vote in order to win, there may be many cases in which a majority of less than two thirds will vote for one alternative and more than one third will vote for the other. In these cases, the procedure will not select an outcome. It is not decisive. Whatever default rule we choose will put one of the alternatives at a disadvantage and therefore put one or some of the participants at a disadvantage in selecting an outcome. Therefore, non-neutral procedures violate the principle of procedural equality.

An objection can be raised to this reasoning. One could argue that no particular or nameable individual is disadvantaged by this feature of a voting procedure. All individuals are faced with the difficulty of displacing the status quo (or whatever the default choice is) in the case of special majority procedures. Some simply happen to prefer the status quo, but this has nothing to do with the nature of the procedure. The procedure is compatible with everyone preferring the status quo and with no one preferring it as well as with only some preferring it. Those who prefer the status quo are advantaged by that but they are no more in an advantaged position than those who prefer a posi-

tion that the majority happens to prefer in a majoritarian procedure. This objection states, in effect, that if a condition is not the same as anonymity, then it is not an egalitarian condition. And since neutrality is independent of anonymity,<sup>7</sup> it is not an egalitarian condition.

Perhaps this objection could be raised against some proponents of neutrality. The problem with neutrality is as follows. Neutrality seems to be an important condition, because it makes a great difference to the outcomes of a procedure whether it is neutral or not. Special majority rules make it more difficult to pass certain measures than others, while ordinary majority procedures gives the measures equal opportunities to pass. The objection is, however, that inequality in opportunities among measures to be passed is not in itself a cause for concern. Who cares about equality among the measures themselves? Reason does not require equal treatment of measures. Hence, it seems that if neutrality (or non-neutrality) is intrinsically valuable (like anonymity) as a condition of equality it must be valuable in a way that is understandable in terms of the equal treatment of individuals. Neutrality may be instrumentally valuable if one wants to increase the rate of change in legislation. Non-neutral procedures such as special majority rules where the default choice is the status quo are usually selected to slow the process of change. Hence, neutrality and non-neutrality are important properties of decision-making procedures because of their potential effects on the group using the procedure. Is it also a necessary condition for egalitarian procedures?

The claim that neutrality has intrinsic value from an egalitarian standpoint has two possible interpretations. It may be an equality condition for individuals qua voters. That is, non-neutrality might somehow give some voters an advantage over others.<sup>8</sup> But this condition would not be distinct from anonymity. Or it might be that neutrality would be a condition of equality for individuals qua initiators of legislation. This interpretation is the more plausible for neutrality. This accounts for the fact that neutrality is an egalitarian condition since individuals participate in a decision procedure in two different ways: as voters and as initiators. Insofar as a procedure is biased in favor of a particular piece of legislation at a particular point in time, it is

biased in favor of that person who favors it and against those who would offer alternatives.

Whether anonymity and neutrality are sufficient to make a decision procedure egalitarian is still a question. First, I would like to consider two difficulties with these conditions: indeterminacy and composition.

#### *Indeterminacy*

One trouble with majority rule is that it does not easily move from handling decision problems with only two alternatives to problems with three or more. Majority rule satisfies two important egalitarian conditions on voting procedures. It does this while also being decisive and positively responsive to individual preferences. But these conditions all hold for majority rule only in cases of dichotomous choice. In the face of more than two choices, majority rule can fail to be decisive.

Consider the following case. Suppose we have three alternatives,  $x$ ,  $y$ , and  $z$ , as well as five ( $n = 5$ ) voters  $A$ ,  $B$ ,  $C$ ,  $D$ , and  $E$ . And further suppose that  $A$  and  $B$  support  $x$  while  $C$  supports  $y$  and  $D$  and  $E$  vote for  $z$ . The rule that the alternative that gathers  $n/2 + k$  votes wins will not tell us who the winner is. It is not decisive for issues that have more than two alternatives. To stick with majority rule, we could try to alleviate this problem by devising a voting method that pairs each of the alternatives against each other and determines which one can defeat all the others in pairwise voting. At each stage of the voting only two alternatives will be pitted against each other and so we will be able to use simple majority decision at each point. In our example we should expand our knowledge of each person's preferences to see how they rank all the alternatives. Suppose that  $A$  and  $B$  agree to the ordering  $xyz$  (where  $xyz$  means  $x$  is preferred to  $y$  and  $y$  is preferred to  $z$ ), while  $C$  orders the alternatives  $yzx$ , and  $D$  and  $E$  agree on  $zyx$ . If we see how each alternative fares against each other we will find that  $y$  defeats  $x$  with the votes of  $C$ ,  $D$ , and  $E$  and  $y$  beats  $z$  with the votes of  $A$ ,  $B$ , and  $C$ , while  $z$  defeats  $x$  with the votes of  $C$ ,  $D$ , and  $E$ . Hence pairwise voting between all the alternatives makes  $y$  the winner because it can defeat both of its rivals. In this case,  $y$  is called the Condorcet winner. We shall have to think about the significance of a Con-

dorcet winner but now I would like to inquire further into some of the properties of majoritarian decision rules.

Since  $y$  can beat each of its rivals in pairwise majority voting, any procedure that consists of pairwise voting either in sequence or simultaneously will produce  $y$  as the outcome. These are called binary procedures. They fail, however, in the presence of so-called cyclic preferences. Suppose  $A$  and  $B$  agree on the order  $xyz$ ,  $C$ 's preference is  $yzx$ , and  $D$  and  $E$  each have the ranking  $zxy$ . Here, not only is there no majority winner when all the alternatives are voted on together, but no alternative can defeat each of its alternatives in pairwise voting either.  $X$  defeats  $y$  with the votes of  $A$ ,  $B$ ,  $D$ , and  $E$ ;  $y$  defeats  $z$  because of the votes of  $A$ ,  $B$ , and  $C$ ; and  $z$  defeats  $x$  thanks to  $C$ ,  $D$ , and  $E$ . Each alternative is defeated by some other alternative in the pairwise voting. Figure 6.1 illustrates these preference orders. Majority rule, even in its extended form, is indeterminate in this case.

We can get a determinate outcome in pairwise voting over any number of alternatives by means of the amendment procedure. This is characterized by first pitting two alternatives against each other and then pitting the winner of that contest against the third alternative. Here the determinate outcome is the alternative that remains after all others have been sequentially eliminated. The trouble is that the outcome could depend on the order in which the alternatives were pitted against each other. In fact, someone who could determine the order would do best, if the preferences were of a cyclical sort, always to bring his favored alternative in last. The alternative of the three cyclic preferences that is pitted against the victor of the first contest will always win.<sup>9</sup> It is easy to see how this is true. If we assume that the participants have the preferences described above, if we want  $x$  to win then all we have to do is have  $x$  compete against

FIGURE 6.1. *Cyclical preferences.*

	A	B	C	D	E
1	x	x	y	z	z
2	y	y	z	x	x
3	z	z	x	y	y

the winner of the contest between  $y$  and  $z$ . And this can be done for all three alternatives.

The difficulty with the amendment procedure is that it violates our egalitarian condition of neutrality since it makes the outcome depend on the order in which the alternatives are presented. The procedure is biased in favor of the alternative that is introduced last. It buys decisiveness at the price of equality. Again, this may not always be a defect; the amendment procedure is frequently used in legislative committees because of its non-neutral character. They use the amendment procedure and always introduce the status quo alternative last. In the absence of an alternative that can beat all others in pairwise voting, the status quo will usually win.<sup>10</sup> Nevertheless, we lack a complete specification of the notion of equality in decision-making procedures.<sup>11</sup> We lack a notion of procedural equality that is able to give us a solution to the problem of equal division in certain circumstances.<sup>12</sup>

#### *Composition*

Another difficulty with procedural equality is the problem of composition. If we think that a procedure is egalitarian and we apply that procedure to two separate issues we may get a result that is quite different from using the same procedure to decide on the two issues in combination. Consider the following array of preferences for the issues  $w$  against  $x$  and  $y$  against  $z$  for our five voters  $A, B, C, D, E$ . Let  $w$  and  $x$  stand for the no smoking-smoking issue and  $y$  and  $z$  may stand for no radio playing-radio playing.  $A, B, D$ , and  $E$  prefer  $w$  to  $x$  while  $C$  ranks  $x$  over  $w$ .  $C, D$ , and  $E$  prefer  $y$  to  $z$  while  $A$  and  $B$  want  $z$ . If we were to treat these preferences in separate procedures,  $w$  would defeat  $x$  and  $y$  would beat  $z$ . Our egalitarian procedure would produce  $w$  and  $y$ . Now consider how the orderings look when the preferences over the two issues are combined (fig. 6.2). Here the voting procedure that combines the two issues into one with four alternatives,  $wz, xz, wy$ , and  $xy$ , produces cycles that include all four alternatives.<sup>13</sup> Here,  $wz$  is preferred by a majority to  $xz$ , which is preferred to  $wy$ , which in turn is preferred to  $wz$ . There is another as well:  $xy$  is preferred to  $xz$ , which is also preferred to  $wy$ , which in turn defeats  $xy$ . In any event no alternative defeats all

FIGURE 6.2. *Voting with complementary preferences.*

	A	B	C	D	E
1	wz	wz	xy	wy	wy
2	xz	xz	xz	wz	xy
3	wy	wy	wy	xy	wz
4	xy	xy	wz	xz	xz

the others, hence we have the same situation as the problem described in the previous section. But it is interesting that *wy*, which would have been the choice had the issues been decided separately, now loses to *xz*. Not only is the outcome of this procedure indeterminate, it also defeats the separately chosen outcomes.

Obviously, this is because new information is being allowed to determine the outcome. This can be shown by the fact that none of the voters' second and third rankings could have been predicted on the basis of the results of the earlier procedures. We have no reason, on the basis of the earlier separate decisions alone, to believe that *A*, *B*, and *C* would have ranked *xz* over *wy*. Nor do we have any reason to believe that *D* and *E* would split on the ranking of *wz* and *xy*. Furthermore, had either one of *A*, *B*, or *C* preferred *wy* over *xz*, *wy* would have been the winner on our extended majority rule. Or even if just two of them had been indifferent between *wy* and *xz*, *wy* would have been the winner. In order to explain the peculiar result above, either *A* or *B* think that the issue of radio playing is more important to them (they would rather hear the radio play even if it means putting up with smoking than not hear the radio and not allow smoking), or there is some kind of complementarity between the issues (smoking and radio playing combined just are better than no smoking and no radio playing).

The problem of combining and separating issues becomes even more serious when the preferences over the alternatives are non-separable.<sup>14</sup> Nonseparable preferences are preferences over alternatives such that if one of the preferences is not satisfied then the other preference ordering will change. To take

another example from Barry's paper, we would not want to vote for buying some piece of land unless there is going to be money to build something on the land. Similarly, certain preferences may depend on other preferences not being fulfilled, as with the case where I may want to have pollution control or the construction of a public monument but not both, because together they would be too expensive.<sup>15</sup> Obviously, most of politics is concerned with nonseparable preferences and so those problems concerning procedures with nonseparable preferences are serious for a theory of political equality. Figure 6.3 is a variation on our previous example. If the issues  $w-x$ , and  $y-z$  are decided in combination, then the result will be a victory for  $wy$  since  $wy$  is the Condorcet winner. Now suppose that the issues are decided separately. Suppose that at one time  $t$ , the issue  $w-x$  is decided and only later at  $t'$  is  $y-z$  decided. The majority winners of the separate procedures would be  $x$  and  $z$ . If, on the other hand, at  $t$  the voters had voted on  $y-z$  and at  $t'$  they had voted on  $w-x$ , then the outcome would have been the same as in the combined procedure.<sup>16</sup> Furthermore, if the issues are voted on simultaneously with no vote trading, the outcome will be  $x$  and  $y$ .

The difference appears to be that the voters are able to take more information into account when they vote in the combined than in the separate procedures. Their votes can express a more subtle appreciation of the alternatives available.

Why are these results disturbing for someone who wishes to defend egalitarian procedures? The reason is that an egalitarian wants to defend the combined over the separate procedures. The reason for thinking that the combined is superior to the

FIGURE 6.3. *Voting with nonseparable preferences.*

	A	B	C	D	E
1	wy	wy	xy	xz	xz
2	xz	xz	wy	wy	wy
3	xy	xy	xz	wz	wz
4	wz	wz	wz	xy	xy

separate procedures is because it gets closer to the realization of the idea that equality is to be among persons and hence that an egalitarian regime requires equality of persons in terms of their total life prospects. Insofar as the combined procedure takes more issues into account, it is closer to taking whole lives into account. But this reasoning leads us to require that an egalitarian procedure take all issues into account in a single shot. It requires that an egalitarian procedure not only combine different issues, but that it must be a global procedure and combine all issues that will come up in the lives of the participants. The argument can be stated as follows: political equality is a kind of equal control over whole life prospects (concerning collective properties of the society); political equality is to be interpreted in terms of procedural equality; therefore procedural equality must be a kind of equal control over whole life prospects. Partial procedures, that is procedures that are concerned with marginal changes in the collective properties of society, do not guarantee individually equal control over whole life prospects, that much is obvious. The question is whether partial procedures will, when taken collectively, constitute equal control over whole life prospects. Now it appears from the examples that a collection of partial procedures will not always produce the same results as a global procedure would were it to be applied to all the issues, even when the global procedure gives a Condorcet winner. This difference in result in itself gives us reason to believe that the collection of partial procedures is not sufficient for political equality. Insofar as the global procedure has a Condorcet winner that is the majority winner of an egalitarian procedure on a global level, those procedures that defeat the Condorcet winner on the same issues must be inequalitarian. It is the explanation for the difference that shows further that the collection of partial procedures does not amount to equality of control over whole life prospects. The explanation above is that the collection of partial procedures neglects certain important elements of whole life prospects—the way issues are inseparably connected in individuals' preference orderings. It neglects the importance of the complementarity of preferences. Insofar as that complementarity is an important element of the total life prospects of an individual the collection of partial procedures

must neglect an important element of the total life prospects of an individual in a way that a global procedure does not.

The global procedure, however, is unworkable even approximately in political life. We cannot know what issues are going to come up and what a person will prefer in various circumstances. And our examples show that the results of a global procedure can differ significantly from the combined results of the marginal procedures since they take more into account. If a global procedure is unworkable and the more partial do not give the same results as a global procedure, then we appear to have a serious gap in our conception of procedural equality because a truly egalitarian procedure is impossible and its outcomes cannot be assured by the less egalitarian procedures.

#### *Agendas*

Situations like the preceding, in which the outcome turns on how the issues are presented, suggest that political equality cannot be adequately characterized in terms of the voting procedure itself. There may still be a way the proceduralist might save the notion of procedural equality. We have a procedural mechanism at our disposal: a procedure for determining agendas. One might argue that political equality must include some egalitarian procedure for deciding how the issues are to be combined and ordered as well as which issues are to be up for a vote. This would determine how issues were to be combined into larger issues. It would also determine how alternatives were to be ordered in a voting procedure like the one I described above as the amendment procedure. There the order is a crucial determinant of what the outcome is going to be in many circumstances. If one selects one order and there is no Condorcet winner, then the last alternative may often be the winner, again assuming that voters vote sincerely. Finally, the issues that come up will obviously have an impact on what the collective decision procedure selects. Some individuals or groups might end up having little or no impact on collective decision making insofar as they are rarely or never able to place issues or alternatives on the agenda.

Hence, we might devise an egalitarian procedure for determining agendas since the agenda and its formation are so signif-

icant for determining the outcome of collective decision making. Though the outcomes of the agenda setting procedure would be inegalitarian the procedure itself would be egalitarian. Here we run into a serious objection to this resolution of the indeterminacy problem. Once we require a procedure to decide on the way another procedure is to operate, we appear to face a problem of infinite regress. That is, it is hard to see how we are going to come up with a procedure that satisfies the very constraints that we have outlined for the lower order procedures, and that does not have the very same difficulties those lower order procedures have. In order to solve those problems, we would have to have recourse to an even higher order procedure and so on. This is especially so since the set of alternatives does not diminish in size as we move to higher order procedures. For example, if we wish to determine the order in which the three alternatives in an issue are to appear in the amendment procedure, we will have three possible alternatives in the higher order procedure. This will make the problems in the higher order procedure as intractable as in the lower. If we could solve the problem for the higher order procedure, then we would not need to have recourse to it since the very same solution would apply to the lower. When the problem is one of ordering alternatives and voters are aware that certain specific orders may mean victory or defeat for their preferred alternative, choosing over orders is tantamount to choosing over alternatives.<sup>17</sup>

Two objections arise to the idea that agenda formation procedures can solve the problems of composition. First, a problem similar to the one above exists for determining the combination or separation of issues on an agenda. As was noted above, a procedure will give different outcomes depending on whether the issues are combined or separated. This follows because various complementarities might exist between the preferences for the alternatives. Some issues are of greater importance than others to the voters and some combinations of alternatives are preferred to combinations of others. In addition, the preferences of voters may be nonseparable. The determination of the agenda in these cases is an important part of the determination of the outcome. But here too we will have a problem with an indeterminacy, since some agendas are associated with a victory

for some alternatives while others are conducive to victory for others.

The second objection is that the problem of global versus partial procedures is not resolvable by means of an egalitarian mechanism for setting agendas. The problem is due to the necessary limitations on those who must determine the agenda. Only persons with perfect information concerning the future and alternative futures could adequately determine what an agenda for a global procedure would be. Otherwise the procedure must be a partial one and hence, will be geared to the wrong level of comparisons, that is of marginal changes, and not whole lives. But to suppose even the possibility of perfect information about alternatives among participants would be to enter into a fantasyland. Thus the agenda procedure is not going to get us beyond the problem of composition that we analyzed in the last section.

This problem of agendas suggests that there cannot be such a complete concept of procedural equality. The possibility cannot be ruled out that in some circumstances, given the problems of indeterminacy and composition, that a procedure will give greater opportunity to some voters to determine the outcome. And also, given the fact that procedures are of necessity geared towards marginal changes whereas our conception of equality requires a more global equality, procedural equality is incapable of giving us an appropriate interpretation of political equality. It seems, therefore, that we have reached an impasse. Perhaps we ought to look at some extraprocedural features of voting processes.<sup>18</sup>

#### EQUALITY WITHOUT VOTING ON THE BASIS OF PREFERENCES

The foregoing proceeded on the assumption that the purpose of voting is to express preferences. That is, individuals vote in a way that is in accordance with their preferences regardless of the outcome of the vote. If they were asked to vote once on one issue, we assumed that they would vote for the alternative that is highest on their preference schedule. And for every vote they cast, they would always vote for the alternative they prefer. Indeed, this constraint on voting has great normative significance in social-choice theory. Most social-choice theorists have

seen it as one of their main goals production of a voting mechanism that would get individuals to vote in accordance with their preferences over the alternatives. Their view is that votes expressing the sincere preferences have some fundamental importance.

On the other hand, most voting procedures encourage strategic manipulation under certain circumstances.<sup>19</sup> That is, if one votes in a way that does not put one's first preference among alternatives first, second preference second and so on, one can achieve an outcome that is better than if one votes in a way that does. For example, a plurality voting rule where each person casts a vote for a single alternative among three will encourage one to vote for one's second preference if one's first preference does not have many supporters. If one's first preference is not likely to win and one's last choice will win if one does not vote for one's second choice, then one will have an incentive to vote for one's second choice. Here, voters are voting only indirectly according to their preferences. Their first preference is not revealed by their vote. The vote is being cast in order to determine the outcome and in order to do that one must assess the alternatives in accordance with one's preferences and must determine how others are voting. This is called strategic voting. In many cases of voting one will vote for one's first preference, because that will be the best way of making it the outcome of the procedure. But if one is voting strategically, it is the outcome of the procedure that one is concerned with foremost and not whether one's vote is for one's first preference. When one votes for one's first preference over outcomes, this is usually called "sincere" voting. I shall call it "straightforward" voting so as to avoid the suggestion of insincerity in the notion of strategic voting.<sup>20</sup>

These kinds of manipulations will occur in cases of indeterminacy (for individual strategic voting) and complementarity or varying importance of issues (for vote trading). These are the circumstances under which majoritarian procedures are subject to strategic manipulation. If we know that one of the alternatives in a single procedure is a Condorcet winner, there is no reason for us to engage in strategic voting unless we can pro-

duce a cycle by allowing our vote for that winner to understate our preference. Furthermore when there is no complementarity of preferences among issues there is no incentive to trade votes. Let us look at each kind of manipulation respectively.

Suppose that *C* in the combined voting procedure (fig. 6.3) was aware that the distribution of the preferences would lead to an indeterminate outcome with *wz* and *wy* as the main contenders (since they each defeat two of the three alternatives while *xy* and *xz* will both probably lose since they each defeat only one alternative). *C* might choose to switch votes for one in which *wy* is placed ahead of *xz*. In this way, *C* could assure that *wy* would win and since *C* prefers *wy* to *wz*, it might well be reasonable for *C* to vote for *wy* over *xz* rather than risk a victory for *wz*, which is last on *C*'s preference ordering.

Another example of manipulation of a special kind of majoritarian scheme can be seen with the amendment procedure when there are three voters *A*, *B*, and *C*, and three alternatives *x*, *y* and *z*, where *A* prefers *x* to *y* and *y* to *z*, *B* prefers *y* to *x* and *x* to *z* and *C* prefers *z* to *x* and *x* to *y*. Then *x* is the Condorcet winner (fig. 6.4). Let us suppose that the order of voting is *x* against *z* and then the winner against *y*. One would think that the outcome would be *x*, because *x* is a Condorcet winner. The situation is such, however, that *B* has available a strategy that can produce his preferred outcome *y*. *B* could vote for *z*, his least preferred alternative, in the first vote and this would make *z* the winner on the first round. Then when *y* comes up against *z*, *y* will win.<sup>21</sup>

It should be clear that *C* and *B* would not have got what they wanted had the other voters been aware of (1) the other's pref-

FIGURE 6.4. Manipulation of majority rule.

	Voter's Preferences		
	A	B	C
1	x	y	z
2	y	x	x
3	z	z	y

erences, (2) other voters' attempts to manipulate the outcome, (3) the fact that *C* and *B* were the only manipulators, and (4) the absence of possibilities for coalitions to develop.

If for example, in our first case (fig. 6.3), *A* and *B* had been aware of *C*'s strategy they might have joined in a coalition to defeat *wy* by both placing *xy* in front of *wy*, thus producing another cycle. In our second case (fig. 6.4), *C*, whose second choice, *x*, stands to lose if *z* does defeat *x* and whose first choice *z* will lose either way, will have an incentive to vote against *z* (first preference) in favor of *x* (second preference) if she knows that *B* is planning to vote for *z* and *A* will vote straightforwardly.

The crucial elements that are affecting the outcomes here are information and the ability to manipulate individually as well as collectively. The amount of information required for our participants in our simple example includes information on everyone's preference orderings, on who is willing to vote strategically, and on what competence they have at this, as well as on what coalitions are likely to form. Furthermore, each person must be able to manipulate and form coalitions. Virtually any contested alternative can be defeated, depending on the level and distribution of this information and these abilities.

That the nature of the voting procedure may not matter as much as other considerations as long as certain constraints are imposed becomes more evident when we consider the fact that voting procedures are not used just once. Generally I have been discussing voting procedures as if they were used to decide all relevant conflicts in one single event. But, as noted in the section on the problem of composition, this way of thinking of voting procedures is extremely unrealistic. The information required of participants to determine what issues would be relevant over a long period of time as well as what their views on these issues will be is far greater than any person could acquire. In general, procedures are used to make piecemeal decisions about marginal aspects of social life. The decisions can also be revised over time given new information. And even the collection of such partial procedures may not produce the same outcome as a procedure that decided all the relevant issues at once.

But this feature of the use of procedures introduces another kind of manipulation that I described before as vote trading.

Insofar as voting procedures are concerned with piecemeal changes in the society and those piecemeal changes are, most of the time, complementary in value for individuals, or at least some issues that individuals find important are more important than other issues, individuals will attempt to trade votes on issues for other individuals' votes on other issues. Hence, an individual's vote on an issue will not be independent of their preferences over other alternatives when the procedures are concerned with piecemeal changes. This is not true for the global procedure I discussed earlier. Such a procedure would not give any incentive to individuals to compromise and make trades because all issues would be combined into the one global procedure. With partial procedures we get vote trading and with global procedures no vote trading. Of course there can still be strategic manipulation in a global procedure both of an individual and a collective kind.

The extent to which people can successfully trade votes so as to get outcomes that they desire also depends on their ability to form coalitions as well as on their information about others' preferences and voting strategies. People with more information will be in a better position to get the outcomes they want. This is illustrated in figure 6.5. These are the preference schedules over the combination of issues  $w-x$  and  $y-z$ . As we can see, if the issues were to be decided separately and everyone voted according to their preferences,  $C$ ,  $D$ , and  $E$  would ensure the victory of  $x$  and  $A$ ,  $B$ , and  $E$  would make up a majority for  $z$ . If there were a combined procedure,  $xz$  would also be the Condorcet winner. To return to the separate procedures, let us suppose that  $A$  and  $C$  were aware of the preference orders of the others and knew that they would vote straightforwardly.  $A$  and  $C$  would

FIGURE 6.5. *Vote trading.*

	A	B	C	D	E
1	wz	wz	xy	xy	xz
2	wy	xz	wy	xz	wz
3	xz	wy	xz	wy	xy
4	xy	xy	wz	wz	wy

then have an incentive to trade votes on the issue. Since  $w-x$  is a more significant issue for  $A$  and  $y-z$  is more important to  $C$ ,  $A$  could give up voting for  $z$  and vote for  $y$  in return for  $C$ 's vote for  $w$  over  $x$ . They together would then be able to get the outcomes  $w$  and  $y$ .<sup>22</sup>

Obviously, these outcomes also could be upset. If  $B$  and  $D$  were aware of everyone's preference orderings and of the manipulations of  $A$  and  $C$  and were also aware of the passivity of  $E$ , they might also agree to trade votes.  $B$  would be willing to sacrifice  $w$  for the sake of getting  $z$  with the help of  $D$ , who votes for  $z$  if  $B$  would vote for  $x$ . Thus, the outcomes of the trading would be that  $x$  would win and  $z$  would win. Other manipulations are possible in these circumstances.  $E$  could attempt to stop  $A$  from trading with  $C$  by offering to vote for  $w$  in return for  $A$  not trading. This would at least secure the outcome  $z$  for  $E$  and that is the most important alternative on her preference orderings.

The situation here is already very complex and it is hard to say what outcome would actually be brought about. This would become even more complicated once we introduce more issues to be decided separately. The point here is the same as for manipulation in individual procedures. The importance of information and coalition building abilities is highlighted, and outcomes will depend heavily on their distribution.

#### FROM PROCEDURAL TO POLITICAL EQUALITY

Where has this argument taken us? I started by looking for a conception of political equality by attempting to define a procedure that treated everyone equally. Two criteria for procedural equality were proposed and argued for, but two serious difficulties were encountered. First, our criteria did not sufficiently determine the outcomes of collective decision making. Many outcomes might be produced by a procedure that satisfied these criteria, but to produce a single outcome some other procedural restrictions are necessary. Insofar as these further restrictions on the procedures are either illegitimate or have the effect of undermining equality, they proved not to be acceptable. We also considered supplementing decision-making procedures with

agenda-setting procedures and found that this would not help us since the same problems arise for the latter. For these reasons, I conclude that procedural equality cannot give us a complete conception of equality in the determination of the outcomes of collective decision making. Either we must give up on a comprehensive ideal of political equality or we must look beyond purely procedural criteria for equality.

Furthermore, it is procedures that are majoritarian and deal with more than two alternatives that are capable of being indeterminate when voters choose strictly according to their preferences. It is these situations in which procedures are also subject to manipulation. Hence, the outcomes may not be determined in a completely egalitarian way since the outcomes will not be determined exclusively by the preferences and the egalitarian procedure. This is because the outcome, in cases that would be indeterminate with straightforward voting, would be determined in part by manipulations of the voters.

Let us turn our attention to the very idea of a procedure as a method by means of which outcomes are derived from preferences. This is a common way of thinking about democratic procedure.<sup>23</sup> At this point we need to reconsider this approach. First, it is impossible to have a method that can derive decisions directly from the unadulterated preferences of the participants. Second, it is not at all clear why it should be desirable. The first claim is demonstrated by the virtually universal manipulability of voting procedures. But even if one could develop "incentive compatible" methods of voting that had the effect of tricking individuals into revealing their preferences this would not be much to look forward to.

The usual reason for developing incentive compatible procedures is belief in an aggregative conception of procedures. This conception states that the purpose of a collective decision procedure is to take a set of individual preferences and transform them into a social preference. The use of the procedure must guarantee that we have an outcome of a certain sort. This is because the aim of the procedure will be to produce an outcome that reflects either the common will of the individual participants or a maximum of welfare for those individuals. This is the justification on such an account of using such a procedure.

But one necessary condition for a procedure to produce such outcomes is that it be incentive compatible. That is, only if the procedure aggregates over the true preferences of individuals can the procedure guarantee that the outcome reflects the common will or a utilitarian solution. If individuals misrepresent their preferences by voting strategically, the outcome will not be an aggregation from their preferences and, social-choice theorists argue, the outcome will have no meaning and will be simply arbitrary.<sup>24</sup> That is, the results will not necessarily be the common will or greatest good. Much of social-choice theory seems to be concerned with finding a social welfare function that will always produce one of these. I shall only briefly argue that social welfare functions would not be well suited to produce either kind of outcome even if it were possible to develop incentive compatible procedures. This undermines the point of seeking incentive compatible methods and suggests that we ought to develop another conception of collective decision procedures where these may not be necessary.

That the social preference should reflect in some way the common will seems misconceived from the start. The basis for the idea that collective decisions should be made on the consensus of common will is that everyone should benefit from the decision or the decision should in some way proceed from or at least be in accord with the will of each and every person. In order to do this one must find out the common will of all the individuals.<sup>25</sup> Needless to say, this expresses the ideal that social life should be based in some way on a principle of unanimity. It is not, however, a procedural principle; it is the idea that there are areas of common agreement among the individuals in the society if there is to be any society at all. The question for those who adopt such a principle will always be, What is the best method for discovering this area of agreement?<sup>26</sup> Clearly, this approach is inimical to that of the social-choice theorists since the latter are concerned with defining a function that satisfies certain properties, among which is that the function can operate on a relatively large if not unlimited domain of preferences. Social-choice theory starts from the assumption of a high degree of disagreement among participants. The assumption behind the idea of a common will is quite different. It is simply that in

a society the preferences of individuals bear a certain relation of similarity to each other and that the point of a procedure is to discover this area of similarity. The idea behind social-choice theory is that it should be possible to construct a notion of social preference no matter how much difference there is.

A utilitarian approach to social preference wherein the social preference is a kind of maximum of welfare is equally misguided. This is because the domain of preferences over which the collective decision function is defined does not and cannot distinguish between self-regarding and other-regarding preferences, which distinction is crucial for any utilitarian notion of maximum welfare. It is not to my benefit to have my desire satisfied that another be treated fairly, certainly not in the way that it is to my benefit that my desire for ice cream be fulfilled. Satisfying the former preference will not in itself contribute to my welfare. The social choice procedures do not take into account intensity of preference, at least in particular procedures. It is only when procedures are manipulated and individuals vote strategically and trade votes that intensity of preference can be expressed. No conception of social preference that ignores these two points can guarantee or define utilitarian outcomes. Both the common will and the utilitarian approaches are instrumentalist with regard to procedures. They evaluate procedures in terms of whether they produce the right outcome that is specified independent of the procedure. Hence, the idea that there is some normative significance to the social preference should be rejected. This is independent of the Arrow Impossibility results.

But if no special significance attaches to the idea of a social preference then there is no reason to get people to vote straightforwardly in a system of voting. Furthermore the whole idea of defining a procedure as a "mapping from the preference orderings of the collective to the outcome"<sup>27</sup> seems to be pointless since we cannot have such an object and there is no reason to desire it. Finally, this definition would not be true of incentive compatible procedures. Collective decision procedures do not take us from the preferences of the collective to outcomes. One has to participate in a collective decision procedure to have any influence on the outcome. The fact that not everyone partici-

pates does not imply that there was no procedure. Further, even with an incentive compatible procedure, it is possible for someone to make a mistake when he votes. The procedure will still produce an outcome even if the vote did not express the person's preference.

What, then, is a collective-decision procedure? It is a set of rules that operates (like a function) on a domain of actions (usually called "voting for  $x$ ") to produce a decision that is binding on the collectivity.<sup>28</sup> The purpose of the procedure is to permit various members of the group to play a part in determining what decisions are to be made regarding some issue.

I call this the distributive conception of procedures. What the procedure does is assign the participants resources for determining the outcome. The general name for these resources is "voting power." Each individual may use the voting power they are assigned by the procedure to try to affect the outcome. These uses of voting power are what the procedure operates on to produce the outcomes. The distribution of voting power is defined by the particular properties of the procedure. This is what makes voting power a procedural resource; it is a resource the distribution of which is defined by the properties of the procedure.

I define egalitarian-decision procedure as a procedure wherein the distribution of procedural resources is equal. Majority rule is an egalitarian procedure because the distribution of voting power is determined by the principles of one person-one vote, anonymity, and neutrality. These properties of majority rule ensure an equal distribution of voting power. Inegalitarian methods of decision making such as monarchy and oligarchy can be described as methods that do not satisfy the anonymity property. If the king votes for  $x$ , then  $x$  is chosen regardless of what anyone else wants. Or if a majority of oligarchs votes for  $x$  then that is the choice. All the resources for decision making are given to one or a few.

Once majority rule is understood as a procedure in which resources for determining the collectively binding decision are equally distributed we can see why it might be thought desirable. Insofar as we subscribe to a principle of equality of resources and we recognize that such a principle of distribution

should be applied to the properties of society that must be chosen by means of a collective-decision procedure, we should assign individuals equal resources to determine what those properties are to be. Majority rule is an egalitarian procedure for collective decision. It satisfies the basic principle of justice that we started with.

But what is missing in majority rule? Even when we have distributed the procedural resources equally, as in a majority rule procedure, we will frequently get indeterminate outcomes if we simply assume that individuals vote straightforwardly. There are two choices for resolving this issue. Either we relax the egalitarian features of the procedure, as with the amendment procedure, or we think of individuals as voting strategically. Let us suppose that we wish to preserve political equality. From the previous section we can see that knowing the situation they are in, individuals will vote strategically to produce an outcome more to their liking. They will do this on the basis of information, which is a crucial resource for individuals in determining outcomes. Information can be distributed in certain ways and the outcome may well depend on how it is distributed. Finally, information is not a procedural resource. Its distribution is not defined by the properties of any procedure. Indeed, this resource can be distributed unequally at the same time that procedural resources are equally distributed.

When a person votes he is participating in a collective decision-making procedure. This action takes place in a larger context. People are trying to discover information about alternatives, others' preferences, and strategies as well as building coalitions to trade votes. All of these activities and the procedure make up the collective decision making *process*. Furthermore, a collective decision-making process is egalitarian when all the resources relevant to determining the outcome are equally distributed. The process must be egalitarian, not merely the collective decision-making procedure that is a part of it.

Why is this so? First of all, collective decisions that are brought about as a result of a procedurally equal but inegalitarian process are no more nor less subject to criticisms from an egalitarian standpoint than a procedurally unequal method of making decisions. They simply involve different resources. Why should

an inequality in the distribution of the nonprocedural resources be any less arbitrary for an egalitarian process than an inequality in procedural resources?

Would individuals complain if we were, on a systematic basis, to allot less votes to one person or group of persons than others but give them much more information and means for building coalitions than the others so that they were effectively able to secure the outcomes they desired? It should certainly be possible to compensate a person with nonprocedural resources if he or she lacked procedural resources.

The implications of the distributive conception of procedures on the issue of problems of composition are clear. Consider the following argument of Allen Buchanan's: "Vote bargaining undermines the ideal of equal control that animates the insistence on democratic control over allocation and distribution, because it is equivalent to giving some individuals more votes than others on a given issue by giving them fewer votes on other issues."<sup>29</sup> Buchanan assumes here what ought not to be assumed, that is, that equality of control over a decision-making process entails equality of control over each and every decision. This is a simple mistake. It is of the same order as a view of economic equality that would require that for individuals to be economically equal overall, they must have the same quantity of resources as everyone else for each possible object of consumption. That is, if objects of economic value such as money, land, and capital had to be distributed equally overall it would be a mistake to think that each item had to be distributed equally, that is, that everyone got equal quantities of all the items. This distribution may be compatible with overall equality but it is not required by it. All that is required is that each person's total bundle be equal, which equality may be defined as an envy free distribution of resources. Hence it is no violation of the principle of political equality that individuals have more power regarding some decisions and others have more power regarding other decisions as long as these differences are compatible with an overall equality. From this it should be clear that vote bargaining is quite consistent with political equality.<sup>30</sup>

But political equality is not only consistent with vote bargaining, it requires it. As I have shown in the section on composi-

tion, if procedures are to be insulated from each other in the way Buchanan proposes, the collection of partial procedures will not adequately implement equality over complete life prospects. We come much closer to an egalitarian conception of the collective decision process if we permit individuals to trade on the resources they have between procedures. This is because vote trading makes it possible for them to use their procedural resources in ways that reflect the complementarity of their preferences and the varying importance that different issues have for them. And any egalitarian scheme that neglects the complementarity of preferences and differences of intensity, especially to the point that it will defeat Condorcet choices, is unable to give individuals equality over essential elements of total life prospects. Hence, insofar as a society must use partial procedures for collective decision making, it must also allow vote trading to take place.<sup>31</sup>

This endorsement of vote trading introduces another difficulty with the purely procedural approach to political equality. For as I show in the section on manipulation, one's success or failure at vote trading in achieving the ends one wants to achieve will depend greatly on the distribution of nonprocedural resources such as information and resources for building coalitions. The examples I considered illustrate that a maldistribution of these resources could enable some to achieve their ends at the expense of others just as much as a maldistribution of procedural resources might help those who have the procedural resources to achieve their ends at the expense of others. This is not a result of the indeterminacy of egalitarian procedures but the result of political equality being a relation between individuals who are using many procedures. Again, our notion of a collective decision process will come in handy. It can be used to describe the use of procedural and nonprocedural resources on one issue; it also differs from a collective decision procedure in that a process will encompass the application of procedures to many issues.

A collective decision process will be inegalitarian if the procedures that are used are egalitarian when the resources that are used for vote bargaining are unequally distributed. Now it is amply clear that equality of resources in the collective decision-

making process is what the ideal of political equality amounts to rather than a mere equality in procedural resources.

Hence, our conception of political equality is not procedural. That is, political equality cannot be defined as a method or set of rules for deciding on outcomes on the basis of choices over these outcomes. Nonprocedural resources are an important part of the process and in an egalitarian conception must be part of the bundle of resources that are equally distributed. On the other hand, this conception of political equality is not outcome oriented. It does not require equal satisfaction of desires for individuals either with respect to collective properties or with respect to states of the society as a whole. Such a demand would conflict with the arguments for resourcism and against equality of welfare that I have presented elsewhere.<sup>32</sup> Nor does it impose any particular standard on the outcomes of democratic decision making.

This conception of political equality departs from most other normative conceptions in that it involves a conception of the political process as a competitive process in which individuals compete to procure the outcomes of collective decision making they prefer. It is quite distinct from the other usual conceptions of political equality, such as the demand that each person's interests are equally weighted in the process of decision making or the conception that regards political equality as part of an adequate notion of social preference. Insofar as the preferences of individuals conflict, the resources for procuring their ends ought to be divided equally so that each has equal opportunity either to get what they want or to strike a compromise with others.

## NOTES

1. An exception to this is the considerable attention paid to the idea of collective preference or general will by social choice theorists and some philosophers. Most of this work has been negative. See William Riker, *Liberalism Versus Populism: A Confrontation Between the Theory of Democracy and the Theory of Social Choice* (San Francisco: W. H. Freeman

and Company, 1982) for a good discussion of this kind of issue. See Jules Coleman and John Ferejohn, "Democracy and Social Choice," *Ethics*, 97 (1986): 6–25; and Joshua Cohen, "An Epistemic Conception of Democracy," *Ethics*, 97 (1986): 26–38 for more philosophically sophisticated discussions of Riker's arguments. For other good sources of philosophical discussion of social choice, see Brian Barry and Russell Hardin, eds., *Rational Man and Irrational Society?* (Beverly Hills: Sage, 1982) and Jon Elster, ed., *Foundations of Social Choice Theory* (Cambridge: Cambridge University Press, 1986).

2. See Thomas Christiano, *Democracy and Equality*, Ph.D. Dissertation, University of Illinois, Chicago, 1988, Chs. 2 and 3.

3. See note 1 for some of the recent literature.

4. Brian Barry, "Is Democracy Special?," in *Philosophy, Politics and Society*, 5th series, eds. Peter Laslett and James Fishkin (New Haven: Yale University Press, 1979), 155–96.

5. Kenneth O. May, "A Set of Independent, Necessary, and Sufficient Conditions for Simple Majority Decision," In *Rational Man and Irrational Society?*, ed. Brian Barry and Russell Hardin (Beverly Hills: Sage, 1982), 297–304.

6. This idea is suggested by William Nelson, *On Justifying Democracy* (Boston: Routledge & Kegan Paul, 1980), 25.

7. See May, "A Set of Conditions," 302.

8. Neal Reimer, "The Case for Bare Majority Rule," *Ethics* 62 (1951): 16–32 states that special majority rules give greater weight to the voters of the minority and thereby violate equality.

9. See Robin Farquharson, *The Theory of Voting* (New Haven: Yale University Press, 1969) 62. For more generalized advice on how to win with the amendment procedure when there is no Condorcet winner see Bo Bjurulf and Richard Niemi "Order-of-Voting Effects," in *Power, Voting, and Voting Power*, ed. Manfred J. Holler (Wurzburg: Physica-Verlag, 1982) 153–77.

10. William Riker, *Liberalism versus Populism*, 69–70. Of course this assumes that everyone is voting sincerely. If everyone is voting just so as to get the best outcome and they know how everyone else is voting, the last alternative introduced will not win. See Farquharson, *The Theory of Voting*, and Bjurulf and Niemi, "Order-of-Voting Effects."

11. In the case described previously, we were unable to suggest how the notion of equality was to apply given the set of preferences. It might be objected that we need not devise a notion of procedural equality that is able successfully to handle any conceivable set of preferences. The example I have adduced, it might be argued, requires a relatively unusual set of preferences and that a theory of politics in

general and political equality in particular does not have to handle any kind of situation. I do not think that the objection to unlimited domain when trying to come up with the social preference will apply in this context. The former objection is conceptual, whereas the objection in this context is not. That is, it does seem odd to think that one could have a notion of social preference that would be able to tell us the social preference of a group of people who could not agree on anything. On the other hand it is quite reasonable to try to develop a notion of political equality that could handle disagreements like this since they certainly occur. These kinds of disagreements are at the basis of the cyclic preferences that we have been discussing. See note 19 for some discussions of domain restrictions.

12. It might be claimed here that there are methods that satisfy the neutrality and anonymity requirements but do not produce the indeterminacy problem. Two methods are the Borda method, and the modified Borda. These proceed on the basis of information about the relative positions in the preference scales of the participants as well as pairwise comparisons in order to produce outcomes. Thus, in figure 6.1, each alternative would win a number of points depending on its position in the orderings of the individuals. If we assign three points to first place, two to second place, and one to third,  $x$  would have  $(3 + 3 + 1 + 2 + 2 =)$  11 points,  $y$  would have 9 points, and  $z$  would get 10 points. The winner would be  $x$ , the alternative with the most points.

There are reasons for not using the Borda method as a method of voting. It seems to rely on some illicit assumptions about the comparisons between rankings of alternatives. The fact that the method gives three votes to one's first choice out of three and two to one's second choice and only one to one's last choice suggests that the differences in valuation between one's first and second choice and one's second and third choices are the same. Indeed, the Borda count requires that one make an assumption about the relative differences between one's preferences in order to produce a determinate result. Consider this array of preferences in figure 6.6. Here, if we assign three points to the first

FIGURE 6.6. *Point voting.*

	A	B	C	D	E
1	x	x	x	z	z
2	z	z	z	y	y
3	y	y	y	x	x

place choice, two to the second, and one to the third, then  $z$  will win with twelve points while  $x$  will have eleven points and  $y$  seven. If we assign five points to the first place choice and two points to the second place choice and one to the last choice, then  $x$  will win with seventeen and  $z$  will end up with sixteen. Hence, the determination of the outcome must depend on the relative assignment of points. The Borda count cannot be neutral with respect to the differences in intensities.

It is hard to see the justification for making such intrapersonal comparisons. Suppose, for example, that  $A$  and  $B$  were almost indifferent between  $x$  and the other alternatives while  $D$  and  $E$  ranked  $z$  far above the other alternatives. If one were to take intrapersonal and interpersonal comparisons seriously,  $z$  should be the winner and the Borda method would give us the wrong outcome. Though there should be a way in which individuals can express varying intensities of interest in different alternatives, this rigid and externally imposed way is inappropriate. Any procedure that determines independently of the voter what the possible comparisons between the alternatives are in such a crude way is unacceptable.

13. See Nicholas R. Miller, "Logrolling, Vote Trading, and the Paradox of Voting: A Game Theoretical Overview," *Public Choice* 30 (1977): 51–75. See also Barry, "Is Democracy Special?," 163–64 for a discussion of this example.

14. See E. M. Uslander, "Manipulation of the Agenda by Strategic Voting: Separable and Nonseparable Preferences," in *Power, Voting, and Voting Power*, ed. Manfred J. Holler (Wurzberg: Physica-Verlag, 1982), 135–52, for some startling results of separating and combining issues in the same procedure.

15. Barry, "Is Democracy Special?," 164.

16. This example is adapted from Miller, "Logrolling," 70.

17. This is not exclusively a difficulty for egalitarian theories. For a version of this problem in relation to notions of efficiency, see Russell Hardin, "Rational Choice Theories," in *Idioms of Inquiry*, ed. Terence Ball (Albany: State University of New York Press, 1987), 67–91.

18. The indeterminacy problem in political equality seems to arise from the possibility of certain kinds of preference orderings. That is, procedures that satisfy anonymity and neutrality are not decisive in certain circumstances because the preferences of the voters take the procedure into a cycle. Those procedures that are determinate and produce outcomes do not, on the other hand, fully satisfy neutrality. If the domain of preferences could be restricted in some way, then there would be a way to characterize certain procedures as fully egalitarian. For two different ways of restricting the domain of preferences, see

Duncan Black, *The Theory of Committees and Elections*, 2d ed. (Cambridge: Cambridge University Press, 1963), 19; and Amartya Sen, *Collective Choice and Social Welfare* (San Francisco: Holden Day, 1970), 168. I think that restrictions on the domain of preferences may be reasonable when one is elaborating a principle of collective preference, because the idea of a collective preference becomes senseless if there is no agreement at all among participants. When the subject is political equality, however, there need be no restriction on the kinds of conflicts between preferences that are resolvable by a politically egalitarian procedure, hence, there can be no justification for restricting the domain of preferences.

19. Allan Gibbard, "Manipulation of Voting Schemes: A General Result," *Rational Man and Irrational Society?*, 355–66. Gibbard's result is that all non-chance, non-dictatorial voting schemes that apply to more than two alternatives and do not admit of ties are manipulable.

20. See Farquharson, *The Theory of Voting*, and Gibbard, "Manipulation of Voting Schemes." In most discussions, the words "strategic" and "sincere" do not refer at all to attitudes but only to actions. One may determine how one ought to vote by seeing how others are voting and vote straightforwardly because this is the best way of ensuring the best outcome.

21. See Michael Dummett and Robin Farquharson, "Stability in Voting," *Econometrica* (1961) 29, 1: 33–43.

22. This example is adapted from Riker, *Liberalism versus Populism*, 159.

23. For this kind of definition of democratic procedures see Barry "Is Democracy Special?," 156, as well as Robert Dahl, "Procedural Democracy," in *Philosophy, Politics and Society*, ed. Peter Laslett and James Fishkin, 5th series (New Haven: Yale University Press, 1979), 97–133. This sort of conception of democratic procedures is standard among those social choice theorists who think that social choice theory is directly applicable to democracy; see Riker, *Liberalism versus Populism*, 22, as well as critics of his, Jules Coleman and John Ferejohn, "Democracy and Social Choice," 7. See also Robert Dahl, *A Preface to Democratic Theory* (Chicago: University of Chicago Press, 1956), chap. 3; Jane Mansbridge, *Beyond Adversary Democracy* (Chicago: University of Chicago Press, 1983); Peter Jones, "Political Equality and Majority Rule," in *The Nature of Political Theory*, ed. David Miller and Larry Siedentop (Oxford: Oxford University Press, 1983), 155–82; and also Peter Singer, *Democracy and Disobedience* (Oxford: Oxford University Press, 1973).

24. This is the conclusion of William Riker in *Liberalism Versus Populism*.

25. See Jean-Jacques Rousseau, *The Social Contract and Discourses*, trans. G. D. H. Cole (London: J. M. Dent and Sons, 1973), 200; and Brian Barry, "The Public Interest," *Proceedings of the Aristotelian Society* 38 (1964): 9–14.

26. See Rousseau, *The Social Contract*, 276–79; and Cohen, "Epistemic Conception," 34.

27. Coleman and Ferejohn, "Democracy and Social Choice," 7.

28. This is more in accord with the game theoretic account of procedures; see Gibbard, "Manipulation of Voting Schemes."

29. Allen Buchanan, *Ethics, Efficiency and the Market* (Totowa, New Jersey: Rowman & Allanheld, 1985), 31.

30. Of course it may be necessary to restrict trades in some ways so as to preserve equality from the cumulative effects of many persons acting in an uncoordinated way. For an egalitarian justification of these restrictions in the economic sphere see G. A. Cohen, "Robert Nozick and Wilt Chamberlain: How Patterns Preserve Liberty," *Erkenntnis* 11 (1979): 5–23.

31. Unfortunately, even these tentative solutions cannot give us a complete answer to the problem of global versus marginal political equality. This is because the information requirements that exist for adequately making decisions that take whole lives into consideration are too great for any person to meet. But from the point of view of equality, it is clearly an improvement to extend equality past the restrictions imposed by a decision-making procedure that insulates every decision from every other.

32. See Thomas Christiano, *Democracy and Equality*, chap. 2.