

to tie together several of the loose ends that seem to have been left dangling in much of the discussion of this subject. The classical examples of external economies and diseconomies constitute only a small set of activities, and no one has discussed carefully the criteria for determining when an externality resulting from private behavior becomes sufficiently important to warrant a shift to the public sector. Few scholars in the field have called attention to the fact that much voluntary behavior is aimed specifically at removing external effects, notably the whole economic organization of activities in business enterprises. The limits to voluntary organization, and thus the pure *laissez-faire* model of social organization, are defined not by the range of significant externalities, but instead by the *relative costs of voluntary and collective decision-making*. If decision-making costs, as we have defined them, are absent, the pure *laissez-faire* model will be rationally chosen for all activities. All externalities, negative and positive, will be eliminated as a result of purely voluntary arrangements that will be readily negotiated among private people. Almost by definition, the presence of an externality suggests that "mutual gains from trade" can be secured from internalization, provided only that the decision-making costs do not arise to interfere with the reaching of voluntary agreements.

Although it has surely been widely recognized, to our knowledge no scholar has called specific attention to the simple and obvious fact that collective organization of activities in which decisions are made through less-than-unanimity voting rules must also involve external costs for the individual.

These conclusions, which will be more firmly grounded in the analysis of the following chapters, point toward a return to an older and more traditional justification of the role of the State. Instead of advancing the discussion, the modern emphasis on externalities has, perhaps, confused the issue. The collectivization of an activity will be supported by the utility-maximizing individual when he expects the interdependence costs of this collectively organized activity (interdependence benefits), as he perceives them, to lie below (to lie above) those involved in the private voluntary organization of the activity. Collective organization may, in certain cases, lower expected costs because it removes externalities; in other cases, collective organization may introduce externalities. The costs of interdependence include both external costs and decision-making costs, and it is the sum of these two elements that is decisive in the individual constitutional calculus.

6. A Generalized Economic Theory of Constitutions

... government is not something which just happens. It has to be "laid on" by somebody.

—T. D. Weldon, *States and Morals*

In Chapter 5 we have examined the calculus of the individual in determining the activities that shall be organized privately and collectively. As there suggested, the individual must consider the possible collectivization of all activities for which the private organization is expected to impose some interdependence costs on him. His final decision must rest on a comparison of these costs with those expected to be imposed on him as a result of collective organization itself. The costs that a collectively organized activity will impose on the individual depend, however, on the way in which collective decisions are to be made. Hence, as suggested earlier, the choice among the several possible decision-making rules is not independent of the choice as to the method of organization. In this chapter we propose to analyze in some detail the problem of individual choice among collective decision-making rules. For purposes of analytical simplicity we may initially assume that the organizational decision between collectivization and noncollectivization has been exogenously determined. We shall also assume that the specific institutional structure through which collective action is to be carried out is exogenously fixed.¹

1. This particular assumption is required to avoid ambiguities that might arise concerning the possible "pricing" of collective services. As we shall discuss later, such institutional devices may, in some cases, serve as analogues to more inclusive decision rules.

The External-Costs Function

Our method will be that of utilizing the two elements of interdependence costs introduced earlier. The possible benefits from collective action may be measured or quantified in terms of reductions in the costs that the private behavior of other individuals is expected to impose on the individual decision-maker. However, collective action, if undertaken, will also require that the individual spend some time and effort in making decisions for the group, in reaching agreement with his fellows. More importantly, under certain decision-making rules, choices contrary to the individual's own interest may be made for the group. In any case, participation in collective activity is costly to the individual, and the rational man will take this fact into account at the stage of constitutional choice.

Employing the two elements of interdependence costs, we may develop two cost functions or relationships that will prove helpful. In the first, which we shall call the *external-costs function*, we may relate, for the single individual with respect to a single activity, the costs that he expects to endure as a result of the actions of others to the number of individuals who are required to agree before a final political decision is taken for the group. We write this function as:

$$C_i = f(N_a), i = 1, 2, \dots, N \quad (1)$$

$$N_a \leq N$$

where C_i is defined as the present value of the expected costs imposed on the i th individual by the actions of individuals other than himself, and where N_a is defined as the number of individuals, out of the total group N , who are required to agree before final collective action is taken. Note that all of the costs represented by C_i are external costs, even though we are now discussing collective action exclusively. It is clear that, over the range of decision-making rules, this will normally be a decreasing function: that is to say, as the number of individuals required to agree increases, the expected costs will decrease. When unanimous agreement is dictated by the decision-making rule, the expected costs on the individual must be zero since he will not willingly allow others to impose external costs on him when he can effectively prevent this from happening.

This function is represented geometrically in Figure 1. On the ordinate we

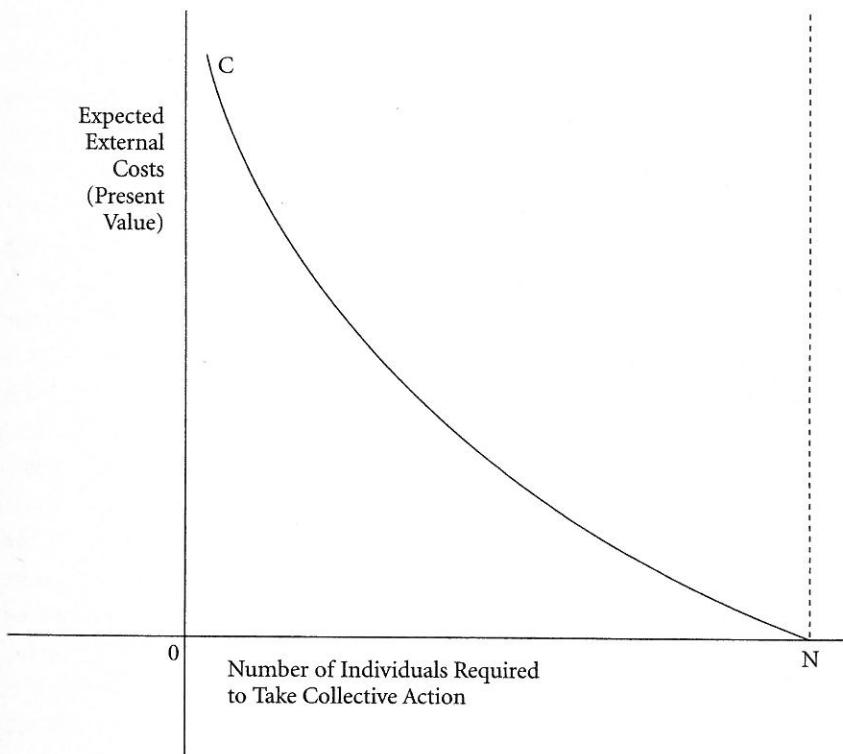


Figure 1

measure the present value of the expected external costs; on the abscissa we measure the number of individuals required to agree for collective decision. This curve will slope downward throughout most of its range, reaching zero at a point representing the consent of all members of the group.

Note precisely what the various points on this curve represent. Point C represents the external costs that the individual expects will be imposed on him if *any* single individual in the group is authorized to undertake action *for the collectivity*. Suppose that the decision-making rule is such that collective action can be taken at any time that any one member of the group dictates it. The single individual can then authorize action for the State, or in the name of the State, which adversely affects others in the group. It seems evident that under such a rule the individual must anticipate that many actions taken by others which are unfavorable to him will take place, and the

costs of these actions will be *external costs* in the same sense that the costs expected from private activity might be external. The fact that collective action, under most decision-making rules, involves external costs of this nature has not been adequately recognized. The private operation of the neighborhood plant with the smoking chimney may impose external costs on the individual by soiling his laundry, but this cost is no more external to the individual's own private calculus than the tax cost imposed on him unwillingly in order to finance the provision of public services to his fellow citizen in another area. Under the extreme decision-making rule which allows any individual in the whole group to order collective action, the expected external costs will be much greater than under any private organization of activity. This is because the initial definition of property rights places some effective limits on the external effects that private people may impose on each other. By contrast, the individual rights to property against damaging State or collective action are not nearly so sharply defined in existing legal systems. The external costs that may be imposed on the individual through the collective-choice process may be much larger than those which could ever be expected to result from purely private behavior within any accepted legal framework.

Yet why must the *net* external costs expected from the various decision-making rules be positive? One of the major tasks of Part III of this book will be to demonstrate that these external costs are, in fact, positive, but a preliminary example may be quite helpful at this stage. Let us confine our discussion to the extreme decision-making rule where any individual in the group can, when he desires, order collective action. It is perhaps intuitively clear that such a rule would not be desired by the average individual, but we need to find a more rigorous proof for this intuitive observation. We shall employ a simple illustration. Assume that all local public services are financed from property-tax revenues and that the tax rate is automatically adjusted so as to cover all public expenditures. Now assume further that any individual in the municipal group under consideration may secure road or street repairs or improvements when he requests it from the city authorities. It is evident that the individual, when he makes a decision, will not take the full marginal costs of the action into account. He will make his decision on the basis of a comparison of his individual marginal costs, a part of total marginal costs only, with individual marginal benefits, which may be equal to total marginal benefits. The individual in this example will be able to secure external benefits by

ordering his own street repaired or improved. Since each individual will be led to do this, and since individual benefits will exceed individual costs over a wide extension of the activity, there will surely be an overinvestment in streets and roads, relative to other public and private investments of resources. The rational individual will expect that the general operation of such a decision-making rule will result in positive external costs being imposed on him.

The decision-making rule in which *any* single individual may order collective action is useful as an extreme case in our analysis, but the model is not without some practical relevance for the real world. Specifically, such a rule is rarely encountered; but when legislative bodies, whatever the rules, respond to popular demands for public services on the basis solely of "needs" criteria, the results may approximate those which would be attained under the extreme rule discussed here. The institutional equivalent of this rule is also present in those instances where governments provide divisible or "private" goods and services to individuals without the use of pricing devices.

Before leaving the discussion of this *any person* rule, it is necessary to emphasize that it must be carefully distinguished from a rule which would identify a *unique individual* and then delegate exclusive decision-making power to him.² This dictatorship or monarchy model is wholly different from that under consideration here. Requiring the identification of specific individuals within the group, the dictatorship model becomes much less general than that which we use. One or two points, however, may be noted briefly in passing. To the individual who might reasonably expect to be dictator, no external costs would be anticipated. To the individual who expects, on the other hand, to be among the governed, the external costs expected will be lower than those under the extreme *any person* rule that we have been discussing. The delegation of exclusive road-repairing decisions to a single commissioner will clearly be less costly to the average taxpayer in the community than a rule which would allow anyone in the group to order road repairs when he chooses.

As we move to the right from point C in Figure 1, the net external costs

2. This distinction is often overlooked. See, for example, W. Starosolskyj, "Das Majoritätsprinzip," contained in *Wiener Staatswissenschaftliche Studien*, Dreizehnter Band (Wien: Franz Denticke, 1916), pp. 26-30.

expected by the individual will tend to fall. If two persons in the group, *any* two, are required to reach agreement before collective action is authorized, there will be fewer decisions that the individual expects to run contrary to his own desires. In a similar fashion, we may proceed over the more and more inclusive decision-making rules. If the agreement of three persons is required, the individual will expect lower external costs than under the two-person rule, etc. In all cases the function refers to the expected external costs from the operation of rules in which the ultimate members of the decisive groups are not specifically identifiable. So long as there remains any possibility that the individual will be affected adversely by a collective decision, expected net external costs will be positive. These costs vanish only with the rule of unanimity. This point will be discussed in greater detail in Chapter 7. Note, however, that by saying that expected external costs are positive, we are not saying that collective action is inefficient or undesirable. The existence of positive external costs implies only that there must exist some interdependence costs from the operation of the activity considered. These costs may be minimized by collective action, but the minimum value of interdependence need not be, indeed it will seldom be, zero.

The Decision-Making-Costs Function

If collective action is to be taken, someone must participate in the decision-making. Recognizing this, we may derive, in very general terms, a second cost relationship or function. Any single person must undergo some costs in reaching a decision, public or private. As previously noted, however, we shall ignore these costs of reaching individual decisions, that is, the costs of the subjective effort of the individual in making up his mind. If two or more persons are required to agree on a *single* decision, time and effort of another sort is introduced—that which is required to secure agreement. Moreover, these costs will increase as the size of the group required to agree increases. As a collective decision-making rule is changed to include a larger and larger proportion of the total group, these costs may increase at an increasing rate.³ As

3. Note that this cost function which ranges over rules that require an increasing *share or fraction* of a total fixed-sized group to agree will be different from that function which ranges over groups of different size, each of which operates under the rule of unanimity,

unanimity is approached, dramatic increases in expected decision-making costs may be predicted. In fact, when unanimity is approached, the situation becomes radically different from that existing through the range of less inclusive rules. At the lower levels there is apt to be little real bargaining. If one member of a potential agreement asks for exorbitant terms, the other members will simply turn to someone else. As unanimity is approached, however, this expedient becomes more and more difficult. Individual investment in strategic bargaining becomes highly rational, and the costs imposed by such bargaining are likely to be high.

With the most inclusive decision rule, unanimity, each voter is a necessary party to any agreement. Since each voter, then, has a monopoly of an essential resource (that is, his consent), each person can aim at obtaining the entire benefit of agreement for himself. Bargaining, in the sense of attempts to maneuver people into accepting lower returns, is the only recourse under these circumstances, and it seems highly likely that agreement would normally be almost impossible. Certainly, the rewards received by voters in any such agreement would be directly proportionate to their stubbornness and apparent unreasonableness during the bargaining stage. If we include (as we should) the opportunity costs of bargains that are never made, it seems likely that the bargaining costs might approach infinity in groups of substantial size. This, of course, is the extreme case, but somewhat similar conditions would begin to develop as the number of parties required to approve a given project approached the full membership of the group. Thus our bargaining-cost function operates in two ranges: in the lower reaches it represents mainly the problems of making up an agreed bargain among a group of people, any one of whom can readily be replaced. Here, as a consequence, there is little incentive to invest resources in strategic bargaining. Near unanimity, investments in strategic bargaining are apt to be great, and the expected costs very high.

We may write the decision-making-costs function as:

$$D_i = f(N_a), i = 1, 2, \dots, N \quad (2)$$

$$N_a \leq N$$

or indeed of any fixed decision rule. This distinction will be discussed in some detail in Chapter 8.

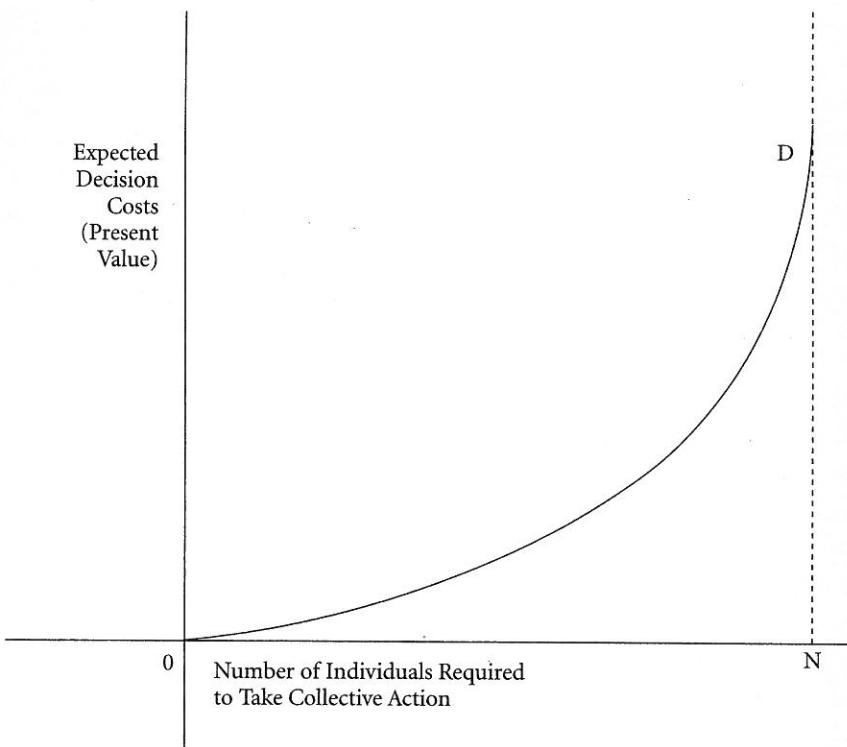


Figure 2

where D_i represents the present value of those costs that the i th individual is expected to incur while participating in the whole set of collective decisions defined by a single “activity.” Figure 2 illustrates the relationship geometrically.

The Choice of Optimal Rules

By employing these two functions, each of which relates expected individual costs to the number of persons in a group required to agree before a decision is made for the group, we are able to discuss the individual's choice of rules. These may best be defined in terms of the proportion of the total group that is to be required to carry a decision. For a given activity the fully rational individual, at the time of constitutional choice, will try to choose that decision-

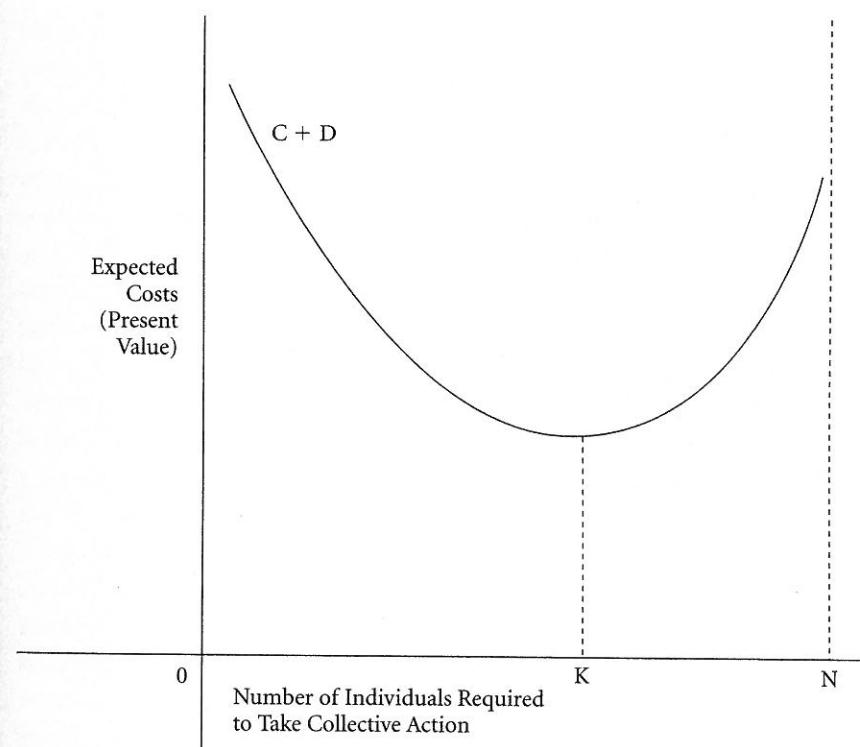


Figure 3

making rule which will *minimize* the present value of the expected costs that he must suffer. He will do so by minimizing the *sum* of the expected external costs and expected decision-making costs, as we have defined these separate components. Geometrically, we add the two costs functions vertically. The “optimal” or most “efficient” decision-making rule, *for the individual whose expectations are depicted and for the activity or set of activities that he is considering*, will be that shown by the lowest point on the resulting curve. Figure 3 is illustrative: the individual will choose the rule which requires that K/N of the group agree when collective decisions are made.⁴

4. The same results could, of course, be derived through the use of marginal costs rather than total-costs functions. The individual should choose that decision-making rule indicated by equality between the first derivatives of the two total functions, disregarding the signs.

A somewhat more general discussion of the manner in which the individual might reach a decision concerning the choice of a collective decision-making rule may be helpful. An external cost may be said to be imposed on an individual when his net worth is reduced by the behavior of another individual or group and when this reduction in net worth is not specifically recognized by the existing legal structure to be an expropriation of a defensible human or property right. The damaged individual has no recourse; he can neither prevent the action from occurring nor can he claim compensation after it has occurred. As we have suggested in the preceding chapter, it is the existence of such external costs that rationally explains the origin of either voluntarily organized, co-operative, contractual rearrangements or collective (governmental) activity. The individual who seeks to maximize his own utility may find it advantageous either to enter into voluntary contracts aimed at eliminating externality or to support constitutional provisions that allow private decisions to be replaced by collective decisions.

The individual will, of course, recognize that any restriction on his private freedom of action will, in certain cases, impose costs on him. Each individual will in the course of time, if allowed unrestricted freedom within the limits of the legal structure, impose certain costs on other parties; and, insofar as his own position taken alone is concerned, he will prefer to remain perfectly free to impose costs on others when he desires. On the other hand, he will recognize also that he will, on many occasions, be affected negatively by the actions of others over whom he can exert no direct control and from whom he cannot legitimately demand compensation. Knowing that he will more often be in the second situation than in the first, the fully rational individual will explore the possibility of contractual arrangements designed to protect him from external cost along with constitutional processes and provisions that may remove actions from the realm of private decision and place them within the realm of public choice.

The only means whereby the individual can insure that the actions of others will never impose costs on him is through the strict application of the rule of unanimity for all decisions, public and private. If the individual knows that he must approve *any* action before it is carried out, he will be able to remove all fear of expected external cost or damage. However, as we have already suggested, he must also consider the costs that he can expect to incur through the operation of such a rule. In small groups the attainment of general con-

sensus or unanimity on issues thrown into the realm of collective choice may not involve overly large resource costs, but in groups of any substantial size the costs of haggling and bargaining over the terms of trade that may be required to attain agreement often will amount to more than the individual is willing to pay. The rational individual, at the stage of constitutional choice, confronts a calculus not unlike that which he must face in making his everyday economic choices. By agreeing to more inclusive rules, he is accepting the additional burden of decision-making in exchange for additional protection against adverse decisions. In moving in the opposing direction toward a less inclusive decision-making rule, the individual is trading some of his protection against external costs for a lowered cost of decision-making.

Categories of Collective Activity

All potential governmental or collective activity should not be organized through the operation of the same decision-making rule; this seems an obvious point which follows directly from the general analysis of the individual calculus. Even at this conceptual stage we may isolate two separate fields of potential governmental activity and discuss the decision-making rules that are applicable to each.

In the first category we may place those possible collective or public decisions which modify or restrict the structure of individual human or property rights after these have once been defined and generally accepted by the community. Property rights especially can never be defined once and for all, and there will always exist an area of quasi property rights subject to change by the action of the collective unit. The relevant point is that the individual will foresee that collective action in this area may possibly impose very severe costs on him. In such cases he will tend to place a high value on the attainment of his consent, and he may be quite willing to undergo substantial decision-making costs in order to insure that he will, in fact, be reasonably protected against confiscation. In terms of our now familiar diagrams, Figure 4 illustrates this range of possible collective activities. The upper curve, that of external costs, remains relatively high throughout its range over the various decision-making rules until it bends sharply toward the abscissa when near-unanimity becomes the rule. The lower curve, that of decision-making costs, may not, in such circumstances, be a factor at all. The continuation of

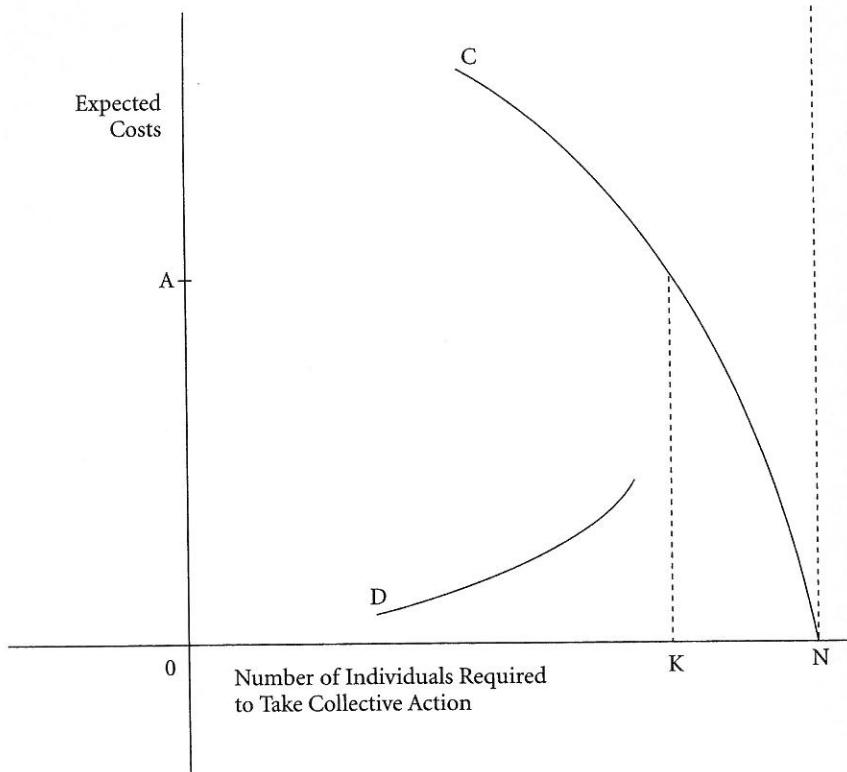


Figure 4

private action, within the restriction of property ownership as defined, may impose certain expected spillover costs, and the individual may stand to gain something by collective action. However, unless the protection of something approaching the unanimity rule is granted him, he may rationally choose to bear the continued costs of private decision-making. He may fear that collective action, taken contrary to his interest, will be more harmful than the costs imposed on him by private organization of the activity. Suppose that, for the individual whose expectations are depicted by Figure 4, the expected costs from private organization of the activity are represented by 0A. The expected external costs of collective action, independent of decision-making costs, exceed expected costs of private organization for all rules less inclusive than that shown by K/N.

The most familiar practical example of such activities is the variance provision to be found in many municipal-zoning ordinances. Property rights are defined in terms of certain specific allowable uses of land units in the zoning ordinance. If, due to the desires of a particular owner or prospective owner, the zoning board wants to change the designated usage of a piece of property, attainment of near-consensus of all the owners of nearby property may be required.⁵ The primary point to be illustrated is that, when significant damage may be imposed on the individual, he will not find it advantageous to agree to any decision-making rule other than one which will approach the results of the unanimity rule in its actual operation.

The second category of potential collective activities may be defined broadly to include all of those most characteristically undertaken by governments. For most of these activities the individual will recognize that private organization will impose some interdependence costs on him, perhaps in significant amount, and he will, by hypothesis, have supported a shift of such activities to the collective sector. Many familiar examples may be introduced. The fact that individuals, if left full freedom of private choice, may not educate their own children sufficiently, may not keep their residences free of fire hazards, may not free their premises of mosquito-breeding places, may not combine in sufficiently large units to purchase police protection most efficiently, etc.: all of these suggest that such activities may rationally be thrown into the public sector. In many such cases there is a relatively sharp distinction between the expected costs from purely private organization and the expected costs from collective action, quite independently of the decision-making rule that is to be chosen.

The rational individual will also recognize that time and effort will be required on his part to participate in all such decisions and that these costs will mount as the share of the group required for decisive action is increased. Therefore, insofar as he is able to foresee the impact of such decisions, he will try to choose a decision-making rule that will minimize the total expected costs that he must incur, both the costs imposed on him by the collective decisions taken adversely to his own interests and those which he will incur as a decision-maker. This second category is the one which the initial conceptual model analyzes well, with the appropriate rule being shown by R/N

5. Reference here is to the so-called "20 per cent protest rule."

in Figure 5. Note that the set of collective activities to be operated in accordance with the R/N decision-making rule will impose some positive costs on the individual (shown by RR' in Figure 5), but failure to restrict private activity may also be quite costly. Suppose that unrestricted private organization is expected to generate costs of 0A for the individual. The individual expects, in effect, to be able to reduce total interdependence costs from 0A to RR' by shifting the set of decisions depicted here from private to public choice. In one sense, AB represents the "gains from trade" that the individual expects to result from his entering into a "political exchange" with his fellows for this category of decisions. Note also that gains from trade will be present from collective organization for any decision-making rule more inclusive than that shown by Q/N and less inclusive than that shown by Q'/N. However, gains are maximized only with the R/N rule.

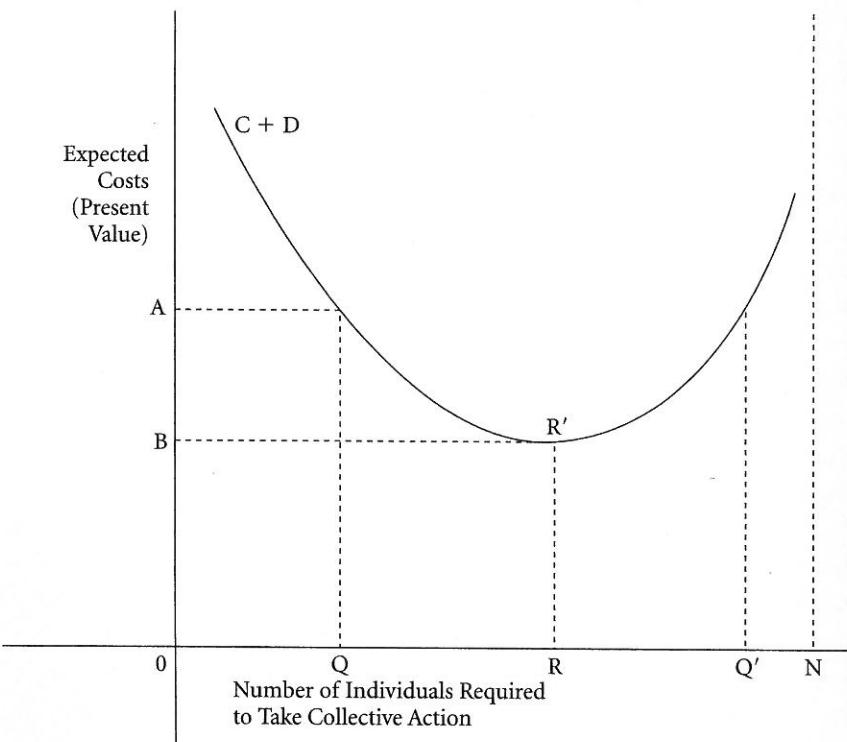


Figure 5

This broad twofold classification does not, of course, suggest that all collective action should rationally be placed under one of two decision-making rules. The number of categories, and the number of decision-making rules chosen, will depend on the situation which the individual expects to prevail and the "returns to scale" expected to result from using the same rule over many activities.

Institutional Variables and Decision Rules

At the beginning of this chapter we assumed not only that the decision concerning voluntary or collective organization had been made, but also that the institutional structure within which the collectively organized activity is to be performed had also been determined. It is clear that only under these restricted assumptions can the problem of deciding on the most efficient decision-making rule be discussed in isolation. Insofar as the institutional structure may be varied, it will be possible to affect the expected costs of collective organization of an activity. As the analysis of later chapters will indicate, in the extreme case it becomes possible to conceive of institutional conditions that will, in effect, largely eliminate the importance of the decision-making rule in the individual constitutional calculus. Specifically, any shift in the institutional structure of collective action toward the ideal model of "general" legislation and away from that of "differential" or "discriminatory" legislation will have the effect of reducing the extent of external costs that the individual might expect from any particular decision-making rule. Hence, other things being equal, he will tend to support less inclusive rules for decision-making as collective institutions are varied in this direction. The institutional devices that come to mind most immediately are those of user prices and benefit taxes. In effect, these devices become substitutes for more inclusive rules. Rather than introduce these specifically at this point, however, we have chosen to keep the analysis as general as possible.

Some Qualifications

Before we discuss some of the implications of this generalized analysis of the constitution-making process, it will be useful to emphasize some of the qualifications that must be kept in mind. First of all, the analysis describes in very

general terms the calculus of the *single individual* as he confronts the question of the appropriate decision-making rules for group choices. The question as to how these constitutional choices of rational individuals might be combined has not been considered, for here we confront the infinite regression on which we have already commented. For individual decisions on constitutional questions to be combined, some rules must be laid down; but, if so, who chooses these rules? And so on. We prefer to put this issue aside and to assume, without elaboration, that at this ultimate stage, which we shall call the constitutional, the rule of unanimity holds.

This leads directly into the second qualification. Agreement seems more likely on general rules for collective choice than on the later choices to be made *within* the confines of certain agreed-on rules. Recall that we try only to analyze the calculus of the utility-maximizing individual who is confronted with the constitutional problem. Essential to the analysis is the presumption that the individual is *uncertain* as to what his own precise role will be in any one of the whole chain of later collective choices that will actually have to be made. For this reason he is considered not to have a particular and distinguishable interest separate and apart from his fellows. This is not to suggest that he will act contrary to his own interest; but the individual will not find it advantageous to vote for rules that may promote sectional, class, or group interests because, by presupposition, he is unable to predict the role that he will be playing in the actual collective decision-making process at any particular time in the future. He cannot predict with any degree of certainty whether he is more likely to be in a winning or a losing coalition on any specific issue. Therefore, he will assume that occasionally he will be in one group and occasionally in the other. His own self-interest will lead him to choose rules that will maximize the utility of an individual in a series of collective decisions with his own preferences on the separate issues being more or less randomly distributed.⁶

The uncertainty that is required in order for the individual to be led by his own interest to support constitutional provisions that are generally advan-

6. As Hayek suggests, the consideration of *general* rules cannot be undertaken with *particular* cases in mind. Cf. F. A. Hayek, *The Constitution of Liberty* (Chicago: University of Chicago Press, 1960), p. 210.

tageous to all individuals and to all groups seems likely to be present at any constitutional stage of discussion. This may be demonstrated by specifying those conditions which would be necessary in the contrary case, that is, in the case where the rational utility-maximizing individual will support the adoption of rules designed specifically to further partisan interests. In order for an individual to support such rules, the following conditions must *all* hold true.

1. The individual is able to predict the form of the issues that will come up for decision under whatever rule is adopted.
2. For one or more of the issues that will arise (let us call the whole set K), the outcome under the "most efficient" general rule discussed above (which we will call Rule A) is predictable.
3. For one or more of the issues in K (subset L) the predicted outcome under Rule A is expected to be less desirable to the individual than under some other decision-making rule.
4. There must exist another rule (say Rule B) under which the predicted outcome for subset of issues L is more desirable than under Rule A.
5. The advantage which the individual expects to gain from the introduction of Rule B for the issues in L exceeds the disadvantages expected to result from the possible changes in the results of the K-L subset of issues and from the use of a possibly "less efficient" rule for decisions falling outside K.
6. General agreement may be reached on the adoption of the alternative Rule B.

Of these conditions the first four may frequently be satisfied. If any single individual were allowed to be the "constitutional dictator," he might be able to adopt rules for collective decision-making that would more fully satisfy his own interest. (Obviously, in the extreme case he could adopt the rule that only he is to make decisions.) Even here, however, he would need to be almost omniscient concerning the whole set of issues that might arise under any predefined rules. Failing such omniscience (Condition 5), even the constitutional dictator may choose rules that are generally "efficient" for all groups. Moreover, Condition 6 rules out the possibility of constitutional dictatorship. The requirement that, at the ultimate constitutional stage, general agreement among all individuals must be attained precludes the adoption of

special constitutional provisions or rules designed to benefit identifiable individuals or small groups as these rules operate over a time sequence of collective decisions.

This analysis does not suggest, of course, that all individuals will agree on the choice of rules before discussion. Quite clearly, individual assessments of expected costs will differ substantially. However, these differences represent conflicts of opinion about the operation or the working of rules for decision, and these differences should be amenable to reasonable analysis and discussion. This discussion should not be unlike that of the possible participants in a game when they discuss the appropriate rules under which the game shall be played. Since no player can anticipate which specific rules might benefit him during a particular play of the game, he can, along with all the other players, attempt to devise a set of rules that will constitute the most interesting game for the average or representative player. It is to the self-interest of each player to do this. Hence, the discussion can proceed without the intense conflicts of interest that are expected to arise in the later playing of the game itself.⁷

A third, and most important, qualification of our analysis is related to the second. The evolution of democratic constitutions from the discussion of rational individuals can take place only under certain relatively narrowly defined conditions. The individual participants must approach the constitution-making process as "equals" in a special sense of this term. The requisite "equality" can be insured only if the existing differences in external characteristics among individuals are accepted without rancor and if there are no clearly predictable bases among these differences for the formation of permanent coalitions. On the basis of purely economic motivation, individual members of a dominant and superior group (who considered themselves to be such and who were in the possession of power) would never rationally choose to adopt constitutional rules giving less fortunately situated individuals a position of equal participation in governmental processes. On noneconomic grounds the dominant classes might choose to do this, but, as expe-

7. We are indebted to Professor Rutledge Vining for this analogy with the formation of the rules of a game, and for his emphasis on the essential differences between the discussion of such rules and the discussion of the appropriate individual strategies in the playing of a defined game.

rience has so often demonstrated in recent years, the less fortunately situated classes will rarely interpret such action as being advanced in their favor. Therefore, our analysis of the constitution-making process has little relevance for a society that is characterized by a sharp cleavage of the population into distinguishable social classes or separate racial, religious, or ethnic groupings sufficient to encourage the formation of predictable political coalitions and in which one of these coalitions has a clearly advantageous position at the constitutional stage.

This qualification should not be overemphasized, however. The requisite equality mentioned above can be secured in social groupings containing widely diverse groups and classes. So long as some mobility among groups is guaranteed, coalitions will tend to be impermanent. The individual calculus of constitutional choice presented here breaks down fully only in those groups where no real constitution is possible under democratic forms, that is to say, only for those groups which do not effectively form a "society."

Implications

What are some of the implications of the analysis of individual choice of constitutional rules that has been developed? First of all, the analysis suggests that it is rational to *have a constitution*. By this is meant that it will be rational for the individual to choose more than one decision-making rule for collective choice-making under normal circumstances. If a single rule is to be chosen for all collective decisions, no constitution in the normal sense will exist.

The second, and most significant, implication of our analysis is that at no point in the discussion has it seemed useful or appropriate to introduce the *one* particular decision-making rule that has traditionally been very closely associated with theories of democracy. We have not found occasion to refer specifically to the rule of majority decision, or, in more definite terms, to the rule described by $(N/2 + 1)/N$. The analysis has shown that the rule of unanimity does possess certain special attributes, since it is only through the adoption of this rule that the individual can insure himself against the external damage that may be caused by the actions of other individuals, privately or collectively. However, in our preliminary analysis, once the rule of unanimity is departed from, there seems to be nothing to distinguish sharply any one rule from any other. The rational choice will depend, in every case, on

the individual's own assessment of the expected costs. Moreover, on a priori grounds there is nothing in the analysis that points to any uniqueness in the rule that requires a simple majority to be decisive. The $(N/2 + 1)$ point seems, a priori, to represent nothing more than one among the many possible rules, and it would seem very improbable that this rule should be "ideally" chosen for more than a very limited set of collective activities. On balance, 51 per cent of the voting population would not seem to be much preferable to 49 per cent.

To argue that simple majority rule is somehow unique, we should be required to demonstrate that one of the two costs functions developed is sharply kinked at the mid-point. Since both of the functions represent expected values, it is, of course, possible that individual utility functions embody some such kinks. Intuition suggests, however, that the burden of proof should rest with those who argue for the presence of such kinks. An alternative, and much more plausible, explanation for the predominant role that majority rule has achieved in modern democratic theorizing may be found when we consider that most of this theory has been developed in non-economic, nonindividualistic, nonpositivistic terms. We shall explore some of these relevant points later in the book.

A third important implication of the analysis is the clearly indicated relationship between the proportion of the group required to reach agreement and the estimated economic importance of collective action. The individual will anticipate greater possible damage from collective action the more closely this action amounts to the creation and confiscation of human and property rights. He will, therefore, tend to choose somewhat more restrictive rules for social choice-making in such areas of potential political activity. This implication is not without relevance to an interpretation of the economic and social history of many Western countries. Constitutional prohibitions against many forms of collective intervention in the market economy have been abolished within the last three decades. As a result, legislative action may now produce severe capital losses or lucrative capital gains to separate individuals and groups. For the rational individual, unable to predict his future position, the imposition of some additional and renewed restraints on the exercise of such legislative power may be desirable.

Yet another implication of this general analysis is closely related to that discussed above, although it is not directly relevant to the choice of the in-

dividual for decision-making rules. Whether or not the individual will or will not support a shift of an activity from the public to the private sector or vice versa (the question already discussed in Chapter 5) will depend, as we have repeatedly stated, on the decision-making rule that is to prevail in collective choice-making. When we discussed this problem earlier, we passed over this particular aspect by postulating that the minimum-cost rule was adopted in all cases. However, in many circumstances the individual will be confronted with the choice as to the location of activity, with the rules for collective choice having been pre-established or set independently. Our analysis clearly suggests that the individual will choose to shift *more* activities to the public sector the more inclusive is the decision-making rule over some initial range of decision-making rules. In other words, there should be some direct relationship between the number of possible activities that are shifted to the public sector and the size of the group required to reach agreement for the whole decreasing side of the expected-costs function. This point was clearly recognized by Knut Wicksell when he suggested that many proposed public expenditure programs which could not secure even majority support if financed by standard methods might, under the rule of relative unanimity, be quickly approved by the legislative assembly.⁸ By and large, scholars have assumed, without being conscious of it, that all State action takes place as if there were unanimous consent. What they have failed to recognize is that much State action, which could be rationally supported under *some* decision-making rules, cannot be rationally supported under *all* decision-making rules. Some of these points may be clarified by reference to yet another diagram, Figure 6. Note that the individual will support the collectivization of this activity only if the decision-making rule falls somewhere between Q/N and Q'/N . For any collective-choice rule requiring the assent of less than Q members of the group, the expected external costs of adverse collective decisions loom large enough to make the external costs of private action, shown by $0A$, bearable. On the other hand, if some rule more inclusive than Q'/N is accepted, the decision-making costs, the costs of haggling and bargaining over the terms of political exchange, become so large as to make the whole collec-

8. Knut Wicksell, "A New Principle of Just Taxation," in *Classics in the Theory of Public Finance*, ed. R. A. Musgrave and A. T. Peacock (London: Macmillan, 1958), pp. 90-92.

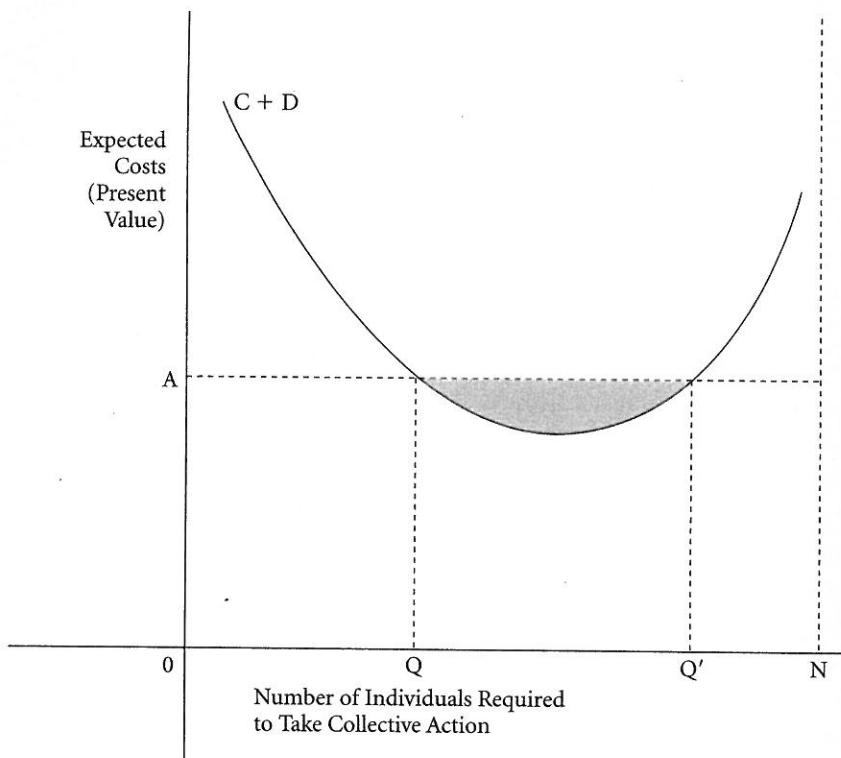


Figure 6

tivization not worth the effort. Figure 6 is helpful in demonstrating clearly the essential interdependence between the choice of rules and the choice as to the location of activity in the public or the private sector.

One final point should be made before leaving this generalized theory of the constitutional-choice process. As we have emphasized, our approach has been that of analyzing the *individual's* choice among the various possible decision-making rules. It has not been necessary at any stage of the analysis to raise the problem as to the correspondence between the operation of this or that rule and the furtherance of any postulated social goal such as "social welfare" or the "common good."

7. The Rule of Unanimity

We have discussed, in very general terms, the calculus of the single individual in choosing what activities are to be placed in the public sector and in choosing among the various collective decision-making rules. His final decisions have been shown to depend on some evaluation of expected relative costs from the different available alternatives. In this chapter we shall discuss certain aspects of this calculus in more detail. Before doing so, however, we shall introduce a brief methodological digression in order to attempt to justify again our "costs" approach to the constitutional-choice problem, an approach that may seem tedious in certain applications. Following this digression, we shall examine in detail the individual's estimation of the relative costs of organizational alternatives. Here it will be helpful to assume that decision-making costs are absent and to explore the unique qualities possessed by the unanimity rule, especially when compensation payments are made possible. It will also be useful to place our analysis alongside that of the modern welfare economist. Finally, we shall demonstrate that the introduction of decision-making costs is required before any departure from the adherence to the unanimity rule can be rationally supported.

The "Gains" Approach

In our discussion of the net-costs model in Chapter 5, we stated that an alternative "net gains" model could yield similar results. We may start from a zero point where no collective action is undertaken and construct a "gains" or "benefits" function. This function is illustrated by the G curve in Figure 7. This G function would attain its maximum at point M, located on a per-