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Volume Title: Public Finances: Needs, Sources, and Utilization

Volume Author/Editor: Universities-National Bureau

Volume Publisher: NBER

Volume ISBN: 0-87014-303-4

Volume URL: <http://www.nber.org/books/univ61-1>

Publication Date: 1961

Chapter Title: Decision-Making in Taxation and Expenditures

Chapter Author: Charles E. Lindblom

Chapter URL: <http://www.nber.org/chapters/c2277>

Chapter pages in book: (p. 295 - 336)

Decision-Making in Taxation and Expenditures

CHARLES E. LINDBLOM
YALE UNIVERSITY

Introduction

THE planners of this conference believed that it might be possible eventually to formulate more workable standards for government tax and expenditure decisions by interweaving a search for clarification of actual decision processes with a search for workable norms. In undertaking such a project as they proposed, I am accordingly pursuing a refinement of normative economics in a roundabout way. Most of what I have to say will be positive, not normative and, for that matter, will be more derived from political science than from traditional economics. The facts to be alluded to are on the whole familiar. The norms sought are of two kinds: for taxers and spenders and for designers of decision-making machinery. Given the purposes of such Universities-National Bureau conferences as this one, I take it that in the interpretation of facts, hypotheses will often be welcome. If at critical points in the argument I fall back on the plea for additional research, I assume I am within my scholarly rights.

1. Contemporary Practices and Norms

Beginning then with facts, let us take note of some characteristics of government expenditure and taxation decisions in the United States, especially in the federal government, that are significant to economists.¹

1. Legislative decisions that authorize expenditures are typically made without benefit of any formal machinery that brings budgetary considerations to bear on them. The authorization committees of the Congress on one hand, and the appropriations committees, on the other, are relatively independent of each other and not locked in close cooperation.

2. The costs and benefits of authorized programs are not typically

¹ Most of the characteristics of decision making to be listed are familiar. All can be documented in Arthur Smithies, *The Budgetary Process in the United States*, McGraw-Hill, 1955.

weighted against each other, systematically and explicitly, when legislative decisions are made.

3. Policy-making is not systematically and explicitly viewed as a problem in the choice among alternative means for the achievement of desired ends. Even in decisions in which the necessity of allocating scarce funds might appear to make the means-ends problem especially acute, decision-making is not typically marked by explicit comparison and deliberate choice among means. The military's penchant for the "best" of everything—the best planes, the best mess kits, the best gloves—is coming to be the classic example of reluctance to evaluate means in the light of ends. Points 2 and 3 are, of course, merely two aspects of the common failure of government decision-makers to employ an adequate concept of cost.

4. Some major expenditure or taxation policies are set or altered as an accident or by-product of other decisions. That is to say, a policy is not always a decision; it is often simply upon us without deliberate and explicit choice. A "decision" to run a surplus or deficit is, for example, often not a decision at all but simply an outcome.

5. More generally, many of the financial and other implications of a decision are ignored when a decision is made. The decision-maker, whether administrator or legislator, permits pressure of work and limits on his own concerns to confine his attention to less than all of the important relevant variables.

In the budgetary process, most of us see a partly realized, partly potential, technique for making expenditure and taxation decisions more rational. This brief list of characteristics of financial decisions can be extended to note certain aspects of budgeting.

6. Many major explicitly financial decisions are outside the budgetary process. Tax decisions are, of course, wholly outside; so also deficiency appropriations. And in wartime, as might be expected, appropriations to the military are so generous that availability of physical supplies, not budgetary considerations, set expenditure rates.

7. As many economists have noted, there is in the federal budgetary machinery no explicit provision for coordinating revenues and expenditures.

8. Formal congressional review of the budget is concentrated in appropriations subcommittees whose interests are focused on segments of the budget considered largely in isolation from other segments.

9. Neither the appropriations committee as a whole nor the Congress as a whole gives extended formal consideration to the budget as a whole, nor does the appropriations committee as a whole play a strong coordinating role for the subcommittees.

10. Moreover, even in considering segments of the budget, the subcommittee members are repeatedly drawn into scrutiny of details rather than of the major expenditure alternatives, although this phenomenon varies from one subcommittee to another.

11. Being torn between two possibilities—using budgetary scrutiny for detailed administrative control or using it for planning broad public policy—legislators are drawn toward the first to a degree that reduces significantly their explicit attention to the latter.

12. Congress does not enact the budget as a whole at the termination of budget review but instead enacts a series of appropriations bills.

13. Budgeting is marked by conflict between President and Congress, between the two houses of Congress, and among subcommittees.

Familiar as these provisions are, they are essential to what follows.

The accepted contemporary norms for the budgetary process reflect widespread dissatisfaction with the characteristics of the budgetary process just summarized. I would expect widespread agreement on such a list of norms as the following, taken from Smithies (page references are to Smithies) though altered somewhat in emphasis and presentation. Some are norms for taxers and spenders; some are norms for designers of decision-making machinery. Some are general norms, and some are norms pertaining to coordination, which is a special aspect of decision making.

1. Governmental objectives should be as clearly and explicitly defined as possible (25ff.).

2. Alternative policies should be explicitly regarded as alternative means toward the achievement of objectives (28).

3. Specifically, expenditure decisions should be made explicitly and deliberately in the light of all of the objectives they are intended to achieve (16).

4. In the interests of a rational comparison of alternatives, final expenditures decisions should not be made until all claims on the budget can be considered (16).

5. Revenue and expenditure decisions should be deliberately coordinated (192).

6. For each expenditure, some systematic and deliberate appraisal of benefits and costs should be made (12ff.).

7. Policy-making, including budgetary policy making, should achieve a unified policy (23).

8. A comprehensive overview of policy-making on expenditures and revenues should be attempted (16, 25).

9. All taxation and expenditure decisions should be somehow embraced in the budgetary process (175ff.).

10. Specifically, the legislature should undertake a comprehensive, unified, rather than segmented, review of the budget (164, 169, 193).

11. Decisions should be made on the basis of a cooperative division of function between the legislature and the executive (45).

For present purposes, it does not matter that some of these norms overlap others and that some are more specific statements of others. It is important, however, to observe that a few central principles run through this and similar lists to be found elsewhere in the literature. In such lists economists reveal themselves as esteeming, not surprisingly, such conventional principles as:

1. A comprehensive overview of factors relevant to a decision

2. Clarity of definition of social objectives

3. A means-end approach to policy

4. Deliberate and explicit choice among policies

5. A calculation and minimization of cost

6. Reason and cooperation rather than arbitrariness, coercion and conflict

7. A unified decision-making process for decisions that are highly interdependent.

Most, perhaps all, of the listed norms are applications in varying degrees of specificity of these more fundamental principles.

2. *Discrepancy Between Practices and Norms*

For all the immediate appeal of both norms and underlying principles, an objection to them is that they do not emerge from a skeptical analysis of the actual decision-making process, good and bad, in government but appear instead to be derived from a paradigm of a rational decision process. They stem from criticisms of government decision-making that take the form of observations that the process is not what one would suppose a rational process to be.

Reconsider now in this light the characterizations of decision-making with which this paper opened. They are invariably read as

shortcomings of decision-making, although I did not present them as such. They are thought to be shortcomings, I suggest, not on a demonstration of their effects but by implicit or explicit appeal to obvious standards of rationality. Or look again in this light at the seven underlying principles on which the norms rest. Why are they as persuasive as they are? Because, again, they represent almost universally accepted ideas on how to be rational in any kind of problem-solving.

It is possible that we are all betrayed by these obvious standards for rational problem-solving. Perhaps they are more limited in their applicability than we have thought. Although one's ideas of what is rational suffice to predict that using a milk bottle to drive spikes into 4×4 's will ordinarily be inferior to using a hammer, one cannot be confident for such a complex process as governmental decision-making that such principles of rationality as comprehensiveness of overview, explicitness of choice, means-ends calculations, and clarity of definition of objectives are appropriate. These are standards drawn largely from our own intimate experiences with small scale, relatively more simple, problem-solving.

That conventional norms do indeed follow paradigms of rational processes rather than reflect independent diagnosis of decision-making and that they may lead us astray can be illustrated. It is a commonplace norm that revenue and expenditure decisions should be coordinated through some formal congressional machinery now lacking. Why? Because fiscal policy is a powerful device for economic stabilization, from which it seems "logically" to follow that Congress should have formal machinery for taking account of the fiscal consequences of a prospective surplus or deficit. But is it in fact true that Congress is without methods for coordinating revenue and expenditure decisions? No, it is only without *formally prescribed* procedures, and we should know by now that informal operating procedures are often superior to formal. And is Congress typically unaware of a deficit when it occurs? No, except to the degree that fact-collecting cannot keep up to date in any organization. Do such deficits and surpluses as do occur (other than those justified by stability considerations) appear at random? No, they are probably the result of a combination of congressional attitudes toward fiscal policy and pressures upon Congress. Do then "economically unwise" surpluses and deficits demonstrate a need for formal coordination? No, not unless formal coordination can be shown to be an

intermediate step to the achievement of changed congressional attitudes and to the restructuring of pressures on congressmen.

What is it about government decision-making that might make "obvious" principles of rational choice inappropriate? A first answer is that complex decision-making is molded by limitations on human problem-solving capacities not taken account of in the conventional picture of rational choice.

Consider man's limited capacity to undertake usefully a comprehensive overview of the variables relevant to a complex decision. If sufficiently ambitious, all attempts at a comprehensive overview run into two major limits: first, man's limited intellectual ability, that is, his limited ability to grasp, calculate, and remember; and, second, limited information. Some problems lie so far beyond these two limits that it would be irrational for man to attempt an informed and reasoned solution to them; better he flip a coin, adopt a rule of thumb, or decide by any of several "arbitrary" means.

Commonplace though not trivial decisions as to whether to marry, what occupation to choose, or how many children to produce are not so much comprehensively calculated as resolved through a limited evaluation; or they are drifted into, unthinkingly decided, taken as by-products of other decisions, or settled by rule of thumb. While the role of what might be called "reason" in such decisions might well be increased for some people in some circumstances, I see no evidence that these decisions would always be more rational (unless "rational" is defined as "reasoned") if approached through an inevitably only partly successful comprehensive overview of the relevant variables. I would not be so foolish as to make the attempt myself and did in fact satisfy myself with a very limited view of the variables.

If these relatively simple personal decisions call for intellectual capacities and knowledge beyond our reach, all the more so do complex governmental decisions. The federal budget document runs to 2,000 pages, and prints of committee hearings on it cover many thousands more. It is not at all obvious, and indeed doubtful, that any man or committee can achieve a sufficiently intimate understanding of the budget as to make the thousands of comparisons and evaluations required in a genuinely comprehensive overview, even if these printed materials were all one were required to master. In fact, of course, one cannot understand the variables relevant to budgetary decisions without knowing, grasping, remembering,

and relating to the decisions a prodigious amount of information about government, the economy, and the wishes of the citizenry.

These difficulties do not mean that men think and express conspicuously irrational thoughts when faced with the budget, or that they flee in panic, or that the budgetary process comes to a grinding stop. They do mean, however, that most budgetary decisions are in fact made in ways economists are accustomed to call arbitrary, that thousands of important comparisons are never in fact made, that many major issues never come to the attention of decision-makers, and that such agreement as various decision-makers reach is less owed to the exhaustiveness of their scrutiny of the budget than to common ideology, prejudice, or even common ignorance when they all miss the same relevant issues that might have divided them.

If this is true, as can easily be documented and as I should like to see documented by research, then it does not at all follow that even more ambitious attempts at comprehensiveness of overview, as is conventionally recommended, will increase the elements of rationality in government taxation and expenditure decisions. It is quite possible that overtaxing man's limited capacities still further will make the situation worse.

An objection to this line of argument springs to mind. It is that limits of man's capacities have been pushed back by dividing up the decision-making process, that is, by factoring out subdivisions of the decision tasks. It is true, everyone agrees, that limits on man's problem-solving capacity can indeed be pushed back by factoring out parts of problems and enlisting the cooperation of a number of individuals or groups, each of whom attacks its own assigned part of the problem. If it were not for this possibility, even the small federal budgets of earlier decades would have been beyond our grasp. But pushing back the limits is not the same as eliminating them. Hence, even with subdivision of the decision-process in the administration and in Congress, a \$70 billion budget presents a staggering decision-making problem. Is it not obvious that, even with subdivision, thousands of important comparisons are not made and many major issues are not brought to the attention of decision-makers?

We can see why subdivision only pushes back but does not remove limits by looking at subdivided decision-making processes. Observers report such familiar difficulties as the following:² (1) coordination

² See for example, Ely Devons, *Planning in Practice*, Cambridge University Press, 1950.

of subdivisions is a continuing task of top decision makers; (2) substantial interdependent elements that cannot be factored out remain the responsibility of top decision-makers; (3) appropriate lines of division are unstable, as changing conditions create new patterns of interdependency; (4) difficulties of communication, many of which are intended by subordinates, misrepresent to top decision-makers the facts required for their decisions; (5) motivational difficulties, illustrated by divergence between organizational goals as seen by top decision-makers and as seen by subdivisions, inevitably distort decisions. If this last point is not clear, it predicts, for example, that appropriations subcommittees take a segmental view of the budget not only because they lack a strong central coordinating committee, but also in large part because a subdivision or subcommittee inevitably takes on goals and attitudes of its own.

Now, again, these difficulties in subdividing the task of comprehensive overview do not mean that decision making becomes chaotic when subdivided. They simply represent specifications of *limits* on man's capacities to carry off successfully a comprehensive overview of a complex problem. And to return to our main point, they buttress the allegation that government decision-making is molded by limits on man's capacities that are not taken account of in contemporary conventional norms and principles.

Another illustration of the failure of conventional norms and principles to take sufficient account of the facts is that government officials often cannot cast a policy problem into a means-ends framework, as the norms require.

An immediate and obvious difficulty on this score is that decision-makers, to say nothing of the electorate, do not in fact wholly agree on objectives or values.³ To be sure, on many they agree roughly; but the scope of government decision-making is not limited to their areas of agreement. Nor do men generally aspire to universal agreement on objectives of social policy, prizing instead diversity and change. Still, it may be questioned, do we not agree that governments shall take as their working objectives those preferred by the majority? Do we not consequently enjoy a working agreement on objectives of governmental policy?

This is a question of fact, and for several reasons the answer is no. In the first place, it has been shown that majority rule is a process

³ For present purposes, I shall use interchangeably such terms as "values," "objectives" (including "constraints"), "goals," and "ends."

through which it is not usually possible for citizens to indicate preferences on specific policies.⁴ If a winning candidate differed from his defeated opponent on, say, an issue in foreign policy (among other issues that divided them), it does not follow that those who voted for him favored his stand on the foreign policy issue. Hence, neither the winning candidate nor anyone else can say what policy objective is to be taken, by majority rule, as the government's objective.

Second, most policy choices open to government, including almost all budgetary choices, are never even raised during election campaigns as campaign issues. Again, therefore, a public official is without a clearly defined governmental objective. Third, even in abstract principle we do not in fact agree on majority rule as a basis of working agreement. For in a large number of decision-making situations, citizens differ as to how far the equality principle implicit in majority rule ought to be compromised to take account of differences in intensity of preference among citizens and differences in their circumstances. We have even gone so far in the United States as to subject some policy decisions to a vote in which only farmers in particular categories participate. And, of course, the United States Constitution makes numerous systematic provisions for inequality, as in its basis for representation of senators and the bicameral legislature. On all these counts, it is clear that government decision-makers are often without clear instructions from the electorate on policy objectives.

At one extreme, the impossibility of a means-end approach to policy is clear when one decision-maker's mean is another's end. To one decision-maker or citizen, for example, tax reduction comes to play such a role in his thinking that we can only call it an end or objective for him. To another, tax reduction is considered simply as one of several means to an objective like full employment. A government such as ours survives because it takes advantage of agreement among two such individuals where it finds it; to require them to agree with each other on which is end and which is means and then ask for their agreement on both ends and means is not only to pose insuperable problems of calculation to them but also to endanger political stability. The political scientists tell us democracies cannot be fussy about the terms on which their citizens reach agreement.

⁴ R. A. Dahl, *A Preface to Democratic Theory*, University of Chicago Press, 1956, pp. 124 ff.

I should like these specific failures of the conventional principles to take account of the character of government decision-making to be taken as illustrative of two more general failures that will become clearer as we move through succeeding stages of the analysis. The failure to account for man's limited capacities and for the frequent impossibility of casting a problem into a means-end framework is sufficient to reveal the possibility that conventional norms and principles have not taken sufficient account of either (1) the sheer complexity of government decision-making or of (2) the special problems of handling values or objectives. Almost any other specific aspect of decision-making we might have looked into will reveal the same two underlying problems: complexity and special difficulties in evaluation.

It was suggested above that our ideas of what is rational in problem-solving are derived in large part from introspective observation of our own problem-solving processes from which many of the complexities of collectivities, including certain value problems, are absent. In addition, recent new insights into decision-making carry a powerful bias. With few exceptions, the formal theory of decision-making has not faced up to the possibility that complexity can outstrip limited intellectual capacity.⁵ And the success of conventional principles in such sophisticated application as operations research have perhaps tempted us to forget the limited competence of these applications and the possibility that extremely complex rational decisions have to be approached quite differently. Aware of this, Charles Hitch writes:

"I would make the empirical generalization from my experience at RAND and elsewhere that operations research is the art of suboptimizing, i.e., of solving some lower-level problems, and that difficulties increase and our special competence diminishes by an order of magnitude with every level of decision-making we attempt to ascend. The sort of simple explicit model which operations researchers are so proficient in using can certainly reflect most of the significant factors influencing traffic control on the George Washington Bridge, but the proportion of relevant reality which we

⁵ See the survey: Ward Edwards, "The Theory of Decision-Making," *Psychological Bulletin*, July 1954, pp. 380-417. The older theory has, of course, been extended, through statistical and mathematical theory, to deal more adequately with limitations on information.

can represent by any such model or models in studying, say, a major foreign-policy decision, appears to be almost trivial."⁶

3. *Incremental Decision-Making*

We need now to pause to make clear and rather exact the significance of the fact that conventional principles do not face up to either the complexity of decision-making or its special value problems. A common but too quickly despairing inference is that we have no alternative but to press on as far as possible toward comprehensive overviews of our collective problems, toward clarification of objectives, toward structuring each decision as a means-end problem, toward deliberateness and explicitness of choice, and the like. Those who make this inference will grant that man's capacity to employ these methods successfully is indeed limited, that government expenditure and taxation policies, therefore, will at best be none too good; but they may somewhat paradoxically take heart from the discrepancy between practice and norm by believing that the only continuously serviceable norms are those impossible to reach.

But *if* for rational decision-making there is any alternative to comprehensiveness, the means-end approach, deliberateness and explicitness, and the like, the more sensible inference would be to employ these methods only when their limits permit and to employ an alternative when available. A big "if," it will be replied. Let us see. A fundamental characteristic of the literature on expenditure and taxation decisions is that it has not explored the possibility of alternatives, as I now propose to do.

There are a number of ways in which a decision-maker, within government or out, can approach a rational decision that departs considerably from the practice of the conventional principles outlined above.⁷ Herbert Simon, for example, has constructed a model of "satisficing" rather than maximizing. It takes account of limits on man's cognitive capacities, by simplifying both the welfare or pay-off function and the process of search for a satisfactory solution.⁸ Its implications for government decision-making procedures remain to be explored but are not, I should think, trivial.

⁶ Charles Hitch, "Operations Research and National Planning—A Dissent," *Operations Research*, October 1957, p. 718.

⁷ It is apparent by now that I am not going to define rationality. The reader is invited to supply his own definition, for I think what I have to say about rationality is as true for one concept of it as for another among the common definitions.

⁸ Herbert Simon, "A Behavioral Model of Rational Choice," *Quarterly Journal of Economics*, February 1955, pp. 99-118.

Problems of resource allocation in wartime led E. A. G. Robinson to the hypothesis: "The golden rule of all planning is that it must be done in terms of the scarcest of the resources."⁹ This, the "bottleneck principle," is hardly more than a hint at still another model of rational decision-making; but it may be the germ of a principle for drastically simplifying a complex problem so that it can be as rationally decided, for all the makeshift appearance of the decision, as through an inevitably futile attempt to comprehend all the complexities of the problem.

Still other ways of simplifying decision-making tasks to avoid irrationalities might be mentioned. Among them is one I have elsewhere described in some detail under the label of the incremental method.¹⁰ I suggest that it is actually the most common method through which public policy decisions, including decisions on taxes and expenditures, are approached. That it is a method commonly practiced has led us to take it for granted rather than formalize it in terms like those that formalize incremental consumer choice, to which it is obviously related.

The incremental method is characterized by its practitioner's preoccupation with: (1) only that limited set of policy alternatives that are politically relevant, these typically being policies only incrementally different from existing policies; (2) analysis of only those aspects of policies with respect to which the alternatives differ; (3) a view of the policy choice as one in a succession of choices; (4) the *marginal* values of various social objectives and constraints; (5) an intermixture of evaluation and empirical analysis rather than an empirical analysis of the consequences of policies for objectives independently determined; and (6) only a small number out of all the important relevant values.

Of these six characteristics, the first three are recognizable characteristics of political decision-making, as practiced by both officials and most policy-minded academic analysts. I shall not linger over them except to point out that anyone whose approach meets the first three conditions has enormously simplified his policy problems compared to what they would be if he literally and strictly followed the conventional prescription to attempt a comprehensive overview. The fourth and fifth strike at the value problem in

⁹ D. N. Chester, ed., *Lessons of the British War Economy*, Cambridge University Press, 1951, p. 57.

¹⁰ Lindblom, "Policy Analysis," *American Economic Review*, June 1958, pp. 298-312.

policy-making; and the sixth strikes at the general complexity of policy analysis, although in what appears to be a shocking way.

Let us first consider problems of handling values. In the incremental method, political decision-makers handle values through marginal comparisons in the same way that consumers do. Although economists describe rational consumer behavior by reference to utility surfaces, indifference curves, demand schedules, and the like, a rational consumer need know nothing about them. He need not first determine his indifference curve for oranges and apples and subsequently decide his purchase policies accordingly. Nor need he first try to comprehend all possible product mixes (or even a few alternative product mixes), then decide which one he prefers, and only then make those purchases necessary to attain the preferred mix. The rational consumer proceeds directly to marginal comparison of alternative specific purchases. The way in which we economists can, for our own professional purposes, conceptualize consumer choice obscures the great difference between what the consumer can be conceived of as having done but does not actually do—ascertain a function, then choose so as to maximize it—and what he actually does—simply compare policies at the margin and choose directly the preferred policy.

Like the consumer, the incremental decision-maker in governmental affairs does not make use of a utility function, in his case a social welfare function. He does not think in terms of “all the variables that might be considered as affecting welfare: the amounts of each and every kind of good consumed by and service performed by each and every household, the amount of each and every kind of capital investment undertaken, and so on.”¹¹ He can hardly be said to know even a point or two on such a function because he does not think in terms of alternative social states; and, if he can be said to value one social state higher than another, this fact is more to be inferred from his choices than said to control them. He makes specific choices, as does the consumer, at the margin.

Similarly, incremental decision-makers closely intermix empirical and value elements in choice as do consumers. We may describe a consumer who buys a car as having decided upon such a purchase policy in order to attain such objectives or values as speed of movement, ready accessibility of transportation, improved status, and

¹¹ Abram Bergson, “Socialist Economics,” in H. S. Ellis, ed., *A Survey of Contemporary Economics*, Blakiston, 1947, p. 417.

conformity, as well as the pleasures of novelty, display, color and form, and acquisition itself. To decide whether to buy a car and, if so, which car, requires then that he both choose among combinations of such values as these and empirically investigate the consequences of alternative purchase policies for the attainment of each of these values. Thus he must make two kinds of choices: (1) the preferred value-mix and (2) the purchase best suited to the attainment of the preferred value-mix. In actual fact, however, he makes these two choices simultaneously when he decides upon his purchase; he does not in one choice determine the preferred value-mix and then make his purchase in its light.

Moreover, he would find it difficult to describe, even to himself, his preferences among the objectives except by pointing to the purchase made and those rejected. Furthermore, he would confess that many of the objectives or values served by his purchase appeared to him as relevant only after alternative purchase policies began to compete in his mind. He did not, for example, first consider buying a car in order to satisfy his esthetic senses, but esthetic values quickly became relevant once he contemplated buying a car.

Although it is customary to analyze values as a first step in policy making, it is a characteristic of the incremental method that such an analysis is cursory, short-lived, and only a prefatory clarification of a few of the many goal-values that will be affected by policies to be considered. Sometimes such an analysis is omitted entirely. Either at once or very quickly in incremental decision-making, the analysis turns directly to alternative policies. *Predicting* consequences of alternative policies and *evaluating* the consequences then become intertwined to the degree that, as in consumer choice, only in the final choice among policies is the final choice among objectives or values itself made.

For example, many policy analysts find it extremely difficult to decide how much inflation they are willing to tolerate in order to achieve some specified reduction in unemployment except in contemplation of some particular set of policy alternatives offering marginally different prospective amounts of inflation and unemployment. Or, again, none of us do very well in describing to others—or even to ourselves—the relative value of economic security and rapid economic growth. But we make the choice when confronted with alternative policies offering different increments of the two values. Again, we do not determine our welfare function, then choose,

but instead choose directly and, in so doing, simultaneously both indirectly define a part of a welfare function and maximize it.

It is also a characteristic of the incremental method that the decision-maker is much more tentative about his objectives or values than he is considered to be in conventional models. He counts on policy choices to lead him to fresh perceptions about values, he expects to learn about his values from his experiences with pursuing and enjoying them, and he is inclined to think that in the long run policy choices have as great an influence on objectives as objectives have on policy choices.¹²

If incrementalism is a method through which a single decision-maker can rationally evaluate alternative policies, it also offers a solution to the problem of disagreement among decision-makers on values. Incrementalism sidesteps problems posed by disagreement on values because decision-makers deal directly with policies, as has just been explained; no virtue attaches, as it does in the conventional method, to prior discussion of and agreement on objectives or values.

This characteristic of incrementalism makes agreement possible in at least three distinguishable ways. First, ideological and other differences in values that loom large when considered abstractly do not necessarily stand in the way of agreed marginal values. Second, the practice of evaluating only in actual choice situations often leads decision-makers to reconsider values in the light of practical constraints, and reconsideration often moves them toward agreement. Third—and much more important—individuals can often agree on policies even if they hold conflicting values. A group of decision-makers can agree, for example, on the desirability of a sales tax without agreeing on objectives; they may have quite different values and reasons in mind. It will be shown in a later section that incrementalism makes still another attack on the problem of disagreement: sometimes incremental policy-makers are coordinated by methods that do not require them to agree with one another on either values or policies.

¹² How then distinguish, it might be asked, a rational and irrational decision? The conventional model defines a rationally chosen policy by its relation to a set of objectives. A rational policy, for example, is one that attains its objectives, or maximizes the probability of doing so, or is, by warranted beliefs, best suited to attainment of its objectives. But since for complex public policy decisions, the decision-makers' objectives are defined by the policy choice he makes, the principal characteristic of the rational decision—perhaps the defining characteristic—turns on the accuracy of the decision-maker's predictions about the outcome of his policies. We shall, however, say more about this below.

As for the general problem of complexity in policy-making, the most drastic simplification of complex problems achieved in incremental decision-making is, as already indicated, through outright neglect of important consequences of policies. Neglect of important variables is so widely preached against that it may be worthwhile to make the point that all policy analysts practice such neglect and intend to go on doing so. In academic policy analysis, we economists routinely leave a mound of unfinished business for the political scientist, sociologist, or psychologist to attend to; and we only sometimes remember to qualify our results accordingly. We leave to the psychologist, for example, the appraisal of malingering when we analyze the desirability of liberalizing benefits under unemployment compensation. Less obvious but no less common is every policy analyst's neglect of imponderables, even when they are considered to be important. Beyond these omissions are many others, some of which appear at least superficially to be arbitrary or random, others of which are traceable to our ignorance. Examples are extremely long-run consequences for family solidarity of increasing urbanization achieved as a result of agricultural expenditures (or restrictions of expenditures) that induce farmers to leave the land; short-term consequences for corporate concentration of military procurement decisions; and consequences for the development of socialized medicine of liberal expenditures on veterans' medical care.

If important consequences are neglected, can the method still be described as one suitable for rational decision-making? Or is omission of important consequences a proof of irrationality? Whatever one's concept of rationality, I suggest that the answer in principle is clear. If the consequences are not neglected in the processes by which policies are determined, then that they are neglected by any given decision-maker is not evidence of irrationality in decision-making. Less cryptically, if values neglected by some decision-makers are the concern of other decision-makers, public policies taken together can be rational. We often permit the fallacy of composition to obscure this insight. Or, to put it another way, we often miss this point because we have applied to politics a confusion of partial and general equilibrium analysis.

Consider a hypothetical example. The President and some of his advisers agree on a greatly expanded program of highway expenditures. Their objectives are national defense, reduction of highway

congestion for civilians, and economic development. Consequences of the program for the parity of the 50 states as recipients of federal funds are ignored, as are possible consequences for auto fatalities, design of automobiles, profits of existing toll roads, destruction of homes and recreational areas, sales of automobiles, sales of home furnishings, character of home life, participation in organized religion, and so on.

When the program is presented to Congress, if not before, some of the neglected values will be spoken for by, say, representatives of the states or of toll-road authorities. These interests may come to terms immediately with the original proponents of the program, not necessarily by each representative's taking into account each other's values but by agreement directly on modifications of the program. Other interests will wait until congressional consideration of the program is underway, and still other interests will be brought to bear on the administrative officials eventually responsible for implementing the program. And years later, when it becomes apparent to churchmen that too many people are out driving on Sunday rather than attending religious services, they will stir themselves to find ways of combating the tendency. When they do so, they will not necessarily associate the tendency with the earlier highway program, and it is not at all necessary that they do so in order to deal with their problem.

I intend the example to do no more than show the possibility that decisions can be rational even if each decision-maker ignores important values, if only the values neglected at one point are attended to at another. It is not necessary to show that all values are given equal consideration; they are not in the conventional method. Nor is it necessary to show that their inequalities are systematic or are understandable in terms of some formula; they are not in the conventional method. Nor is it necessary to show that all important values are brought somehow to bear on each decision, even if not on each decision-maker. For sometimes a neglected value will move no one to action until a decade later when it becomes clear that it is being endangered.

The example I chose was not after all very hypothetical; the processes illustrated are familiar. Let us, therefore, explore further the possibility that interconnections among decision-makers in actual fact accomplish rational decision-making despite the apparent irrationalities of each decision taken by itself. We turn thus to an

aspect of decision-making that can be posed explicitly as the problem of coordination.

4. *Coordination Through Partisan Mutual Adjustment*

Coordination is worth exploring for several reasons. First, we have been lead into it by an exploration of ways in which decision-makers simplify their problems and hence achieve a rationality that would be denied them if they tried to comprehend their problems fully. The possibilities that decision-makers are achieving some notable degree of rationality through the practice of what we have called the incremental method depend in large part on how the decisions are related to each other. Second, quite aside from incrementalism, coordination is an aspect of decision-making with its own special difficulties usually not sufficiently distinguished from decision-making in general. Third, in the study of expenditure decisions, budgeting usually emerges as the dominant coordinating process, and we shall want later to reconsider budgeting in the light of alternative coordinating mechanisms actually in use or potentially useful.

One group of possible coordinating devices includes, of course, the very same procedures that have already been described for decision-making generally: the conventional method with its attempt at comprehensiveness of overview; and the alternative methods for simplifying decision-making, i.e., bottleneck planning, satisficing, and incrementalism. These are all similar in that, if they are used for coordinating decisions, the principal coordinating mechanism is a centrally located mind or centrally located, closely cooperating group of minds. Consideration of their prospects for achieving rational coordinating decisions raises the same questions as we have already raised about them, and I shall consequently pass them by with only two comments.

With respect to the conventional method, because limitations on rationality are posed both by value conflicts and by the complexity of problems, these limitations would appear to be even more serious in the case of coordinating decisions than for decisions generally. With respect to the incremental approach to decisions, it is indeed a possible coordinating method; but, because one of our claims for it is that individual decision-making irrationalities are compensated for by characteristics of a coordinating mechanism appropriate to it (and yet to be explored), to defend incrementalism itself as

an approach to coordinating decisions is, though not impossible, difficult.

To what extent the coordination of, say, total federal revenues and expenditures—they are coordinated, even if not ideally—is accomplished through this first group of coordinating methods is not clear. As we have seen, the absence of formal machinery for a centrally comprehended coordinating decision does not prove the absence of central coordination. Assuming some degree of central coordination, achieved perhaps through informal consultation, we do not know what mixture of such approaches as the conventional and the incremental is employed. In any case, inspection of such a problem in coordination as this one would quickly lead us to believe that a second type of coordination, not marked by central comprehension, is also exploited.

The second type, so far as I know, has been best elaborated, though with some troublesome ambiguities in presentation, by Michael Polanyi in a little known essay in which he attempts to generalize from market coordination processes.¹³ This is a method in which each of a number of decision-making centers desiring a solution to a commonly recognized problem that cannot be centrally solved independently makes an adjustment to the positions taken at each other decision-making center. A long succession of such independent adjustments eventually achieves a solution to the problem when no center needs make a further adjustment. Polanyi draws an explicit analogy with certain forms of mathematic problem-solving.

His assumption, on which he perhaps wavers, that participants in such a process recognize a common problem and deliberately cooperate is an assumption explicitly to be denied in describing still a third kind of coordination: the mutual adjustment of partisan decision-makers. In this kind of coordination, adjustments to each other are made by decision-makers who do not share common criteria, differ in the values they think important, do not necessarily cooperate with each other or recognize any common problem. It is an especially significant kind of coordination for incremental decision-makers because, to the extent that they simplify their problems by concentrating on some values to the exclusion of others, they become the very kind of partisan we have just described. It is in this third kind of coordination that we shall find the mechanisms

¹³ Michael Polanyi, "Manageability of Social Tasks," *The Logic of Liberty*, University of Chicago Press, 1951.

through which incremental decisions are often made parts of a larger rational policy-making process.

Partisan mutual adjustment is commonplace for coordination of any two or more of such individuals and groups as the President, Director of the Budget Bureau, individual legislators, congressional committees and subcommittees, administrators at various levels, and countless private groups. At least three major types of partisan mutual adjustment can be distinguished although any one individual or group is often simultaneously engaged in all three.¹⁴

A. ATOMISTIC. This first type is suggested by atomistic mutual adjustment in the hypothetical purely competitive market. Each decision-making group simply ignores the repercussions of its decisions on other groups in deciding upon its own policies. The decision-maker may or may not know that his decisions have repercussions for other groups; in either case he ignores them. It follows that he does not attempt to manipulate other groups. In the example above, protagonists of a highway program can simply ignore the consequences of their policies for church groups, for taxpayer associations, or for wildlife conservationists. Typically, a group acts atomistically with respect to some but not all other groups. The atomistic method is, I think, the equivalent of Polanyi's method except for what I believe to be his assumptions of a common recognition of a problem and of deliberate cooperation.

In the atomistic method, each partisan group will find itself constantly adjusting its policies as it finds that other groups have created the need for an alteration in its course of action. A continuing process of mutual adjustment could conceivably work through successive approximations to an equilibrium in which no further moves are necessary; but, equilibrium tendencies or not, it interlocks the various groups whose policies are consequential for each other.

B. DEFERENTIAL. In this adjustment process, each decision-maker avoids any policy that would constrain or adversely affect another group. In our own private affairs, each of us is accustomed to leaving unchallenged to each of our associates certain areas of personal choice. Similarly, there develops in the political arena a set of mutual

¹⁴ It will be apparent to many that in exploring these processes I am following the tradition of the pluralists in political theory. But my professional interests in the application of the results of these inquiries to problems of collective expenditure and other economic decisions turns my interest toward the calculation aspects of these processes rather than the control aspects. More concretely, where a political scientist asks whether these processes safeguard us against an overconcentration of power, I ask whether they can aid us in rational choice.

concessions of jurisdiction or authority among decision-makers, individual or group. In addition, private citizen and public policy-maker alike defer in order to avoid adverse counter moves. In such a process as this, decision-makers seek a way to attain their objectives in the areas of free movement left open by the activities of other decision-makers. Some congressmen will not pursue their policy objectives if they turn out to challenge the President's program; and similarly in some areas of choice formally open to the President, he will defer, say, to a congressional coalition. Again, decisions are closely interlocked by this process of mutual adjustment.

C. STRATEGIC. In this method, decision-makers manipulate each other in a variety of ways. They may do so by partisan discussion, in which they try to win other decision-makers over to their preferred decisions by whatever purely verbal appeals they think might be effective. This kind of discussion differs from discussion that proceeds in the light of agreed objectives or end values, and its possibilities for achieving coordination throw, I suggest, a new light on the loose but stimulating older concept of democracy as government by discussion. It is the kind of discussion in which an advocate of tax reduction in the Senate might appeal to his high-expenditure colleague not through values shared but by calling the colleague's attention to facts favorable to tax reduction or by reference to his colleague's values or objectives.

Second, decision-makers may manipulate each other by the exchange of effective threats and promises. The Pick-Sloan plan for the Missouri River is an example of the product of an exchange of promises, in this case between the Army Engineers and the Reclamation Bureau. An exchange of threats and promises is a common outgrowth of partisan discussion, but I mean to define partisan discussion to exclude it, so that it can be seen as distinct. Such an exchange I shall refer to as bargaining, following, in so doing, one common usage. Partisan discussion and bargaining, as I have defined the latter, are typically intermixed.

Third, they may manipulate each other by a variety of pressures on each other beyond partisan discussion and bargaining, that is, by injuring, forestalling, or crippling each other directly. For this no intercommunication is required, as in partisan discussion and bargaining; and the frustrated group or decision-maker may not even know the source of the frustration. Here, as also in bargaining, one of the principal strategies is to form an alliance or coalition.

Among several advantages gained through alliance, one is that, where one group is without a direct method of influence on a third, it may use a second as an instrument, as when the President is induced by one group to dismiss the head of an agency that stands in the way of the first group. The National Wildlife Association and the American Forestry Association are examples of a pair of conflicting decision-making groups both powerless to make legislation and administrative decisions alone, hence both engaged in building alliances with legislators, other interest groups, and individual voters.

How often these methods for partisan mutual adjustment achieve a rational coordination of decisions is not realized. That they interlock decisions made at various points in the body politic is clear enough; that they are methods for interlocking a multiplicity of incrementally approached decisions is also clear. In addition, whatever its defects, partisan mutual adjustment achieves whatever coordination it does achieve without making coordination a staggering intellectual task. To the extent achieved, coordination is a by-product of decision-making, as in market processes. Nor does coordination, so achieved, make staggering demands for information, because the facts needed to achieve an intellectual coordination are required by no one. Finally, coordination so achieved does not depend upon agreed objectives or values. In short, partisan mutual adjustment strikes at both the complexity problem and the values problem.

But what if the interlocking of decisions is without any perceivable desirable pattern? It has to be shown that coordination so achieved is rational in some sense going beyond what we have already said. I suggest the following hypotheses:

1. *Partisan mutual adjustment is a process through which any value held to be important by any group of people can be made influential on policy-making.* The common objection that not all important interests are participant in each decision is, for reasons discussed above, not valid; it is sufficient for the truth of this hypothesis that each interest be somewhere influential.

2. *It often achieves a satisfactory weighting of conflicting values or interests in policy-making.* Because, as argued above, there is no agreed formula for weighting of conflicting values in our society, any one of a large range of possible systems of weights is no less satisfactory by any agreed standard than another. And since any system of weight used in conventional methods of coordination is

to a degree arbitrary, it need only be shown that the system of weights used in mutual adjustment is sometimes better.

While accidents of strategic position and other factors will produce a wide variety of weight from one policy area to another, a supporting hypothesis is that policy will respond relatively more to widely shared and/or intensely held values than to less widely shared and/or less intensely held values and that, consequently, values will in effect often be weighted in a satisfactory way. This supporting hypothesis is all the more probable because of the practice of groups to form alliances around common or adjacent interests. It does not imply that all individuals express their values and the intensity of their values by the degree to which they participate in the mutual adjustment of groups in the political arena. On the contrary, a satisfactory system of weights could evolve from the mutual adjustment of groups representing a small minority of citizens if the distribution of values and intensities among the participating minority corresponded roughly to its distribution in a larger population consisting of citizens not indifferent to policies even if not participating. Again, the system of weights does not have to meet any very restrictive conditions in order for it to be satisfactory in the light of alternative methods of coordination.

3. *In particular, the weighting of interests in mutual adjustment meets the requirements of consent.* Put down roughly, for brevity's sake, the hypothesis takes account of the alleged precondition of democratic government: that citizens must agree on certain fundamental values and procedures, despite their disagreements on others. Societies can be thought of as purchasing this agreement, or consent to continuation of democratic government, by conceding to each interest group whatever it requires as a price for its consent. (If too many groups demand too high a price, their demands cannot be met, and democratic government is impossible.) Mutual adjustment is a process in which, when the intensity of frustration of group interests threatens democratic consent, the fact is plain; and the option is open to other groups to pay the necessary price. This is an aspect of mutual adjustment much to be prized, I suggest, even if it is sometimes converted into blackmail, as perhaps it has been in the fight against desegregation.

These three hypotheses deal directly with the suspicion almost all of us entertain that mutual adjustment is an arbitrary coordinating mechanism. I suggest that they are sufficient both to call into question

the widespread view that central coordination is generally superior and to argue the desirability of comparative study of the two methods, with the hope of discovering just when the one is superior to the other.

Three additional hypotheses throw further, though indirect, light on the value of mutual adjustment as a coordinating process.

4. *Partisan mutual adjustment clarifies citizens' perception of their own preferences and leadership's knowledge of citizens' preferences.* I can only allude briefly to competition among potential group leaders for followers as having the effect of stimulating each leader to outdo his rivals in articulating for the group its preferences and its best avenues toward their gratification.

5. *It also often dissipates conflict stemming from narrow or hastily considered views of group interests by group members.* The search for allies in multilateral bargaining, for example, puts enormous pressure on group leaders to find a way of defining a group's interest so that it can be harmonized with the interests of potential allies. Mutual adjustment will often achieve not merely a compromise of interests but what Mary Parker Follett has called an integration of interests.¹⁵

6. *Whether mutual adjustment is or is not more coercive than centrally achieved coordination depends upon the rules of the game by which the mutually adjusting groups play.* In view of some tendencies to stress the coercive aspects of mutual adjustment, it is relevant to emphasize its contribution to winning consent, to point up the inevitability of coercion in central coordination, and finally to point out that, while mutual adjustment could and does under some rules lead to violence, as between nations, in other circumstances it can be and is played by rules that respect traditional constraints on the use of coercion.

5. *Implications for Norms and Principles*

We now turn to the implications of all the foregoing for norms and principles for decision-makers and designers of decision-making machinery in the field of taxation and expenditure decisions. To the extent that incrementalism together with partisan mutual adjustment is a set of processes for rational decision-making, its first implications for norms and principles in decision-making are already

¹⁵ H. C. Metcalf and L. Urwick, eds., *Dynamic Administration: The Collected Papers of Mary Parker Follett*, Harper, 1942, pp. 31 ff.

obvious from the foregoing discussion. Although these first implications are destructive more than constructive, to go very far beyond them requires research and reflection that has hardly yet been attempted and which has in fact been inhibited by the common preoccupation with conventionally conceived decision-making.

The first and obvious implication is that, to the extent that incrementalism and mutual adjustment are defensible, every single one of the conventional norms explicitly listed in the early pages of this paper is invalidated. Some of them are reduced to norms appropriate to particular circumstances in which central comprehension is possible; others are entirely inappropriate.

It would be tedious to discuss each in turn; inspection of them in the light of the foregoing argument should be sufficient. But it may be helpful to recapitulate some principal points of the foregoing argument as explicit comment on each of the seven listed principles on which the more numerous prescriptions rest. Each of the seven is in some substantial way invalidated.

A. COMPREHENSIVE OVERVIEW. It follows from all the foregoing that deliberate omission of important relevant values from the analysis of a decision is desirable for sufficiently complex decisions, or for decisions in which decision-makers cannot agree on values; and the circumstances in which each omission is satisfactory increase with the adequacy of partisan mutual adjustment for the coordination of the decisions so made.

B. DEFINED SOCIAL OBJECTIVES. For collective decisions, they cannot be defined if they cannot be agreed upon, as is typically the case for large-scale social choice. Often social objectives can be defined only through actual marginal policy choices by individuals or by groups within which values are agreed upon. It is then sufficient that such individuals and groups agree on policy, even if they do not agree on objectives; and atomistic and deferential mutual adjustment achieve policy-making even without agreement on policy. Hence the principle is often inappropriate in that it defines a quite unnecessary requirement for rational collective choice.

C. MEANS-END APPROACH. Where values cannot be agreed upon, it is not desirable that participant decision-makers look upon their problem as a collective means-end problem; it is sufficient that they simply find a basis for agreement without regard to which variables are means and which are ends. Or it is sufficient in some types of mutual adjustment, such as atomistic and deferential, that they see

the policy problem only as a problem of adaptation of means to their own private partisan ends. Moreover, since ends and means are simultaneously finally chosen in incremental policy-making, it is not desirable that policies be chosen as means to previously clarified ends. Finally, it is desirable that ends be considered as quite tentative and that they be reformulated with each policy choice in such close interconnection that it can be said that ends follow choice of means as much as means follow choice of ends.

D. DELIBERATE AND EXPLICIT CHOICE. It is desirable that some policies be set as a by-product of partisan mutual adjustment rather than deliberately and explicitly. Just as we do not have in a price system a deliberate and explicit choice among resource allocations but permit allocation to be determined as a by-product of a multiplicity of market decisions, so policy on, say, income distribution in the United States may be an example of a policy best achieved as a by-product of more particular decisions on factors affecting income distribution. Or, for another example, it may be desirable to let the aggregate size of the military budget emerge as a by-product of decisions on specific expenditure programs and not raise the aggregate as an explicit problem at any time. On values and objectives, it follows from comments on the means-end approach that values or objectives should quite commonly not be made the object of explicit and deliberate choice but should be chosen implicitly at the margin through an actual policy choice and should not be articulated as an unnecessary obstruction to agreement on policy.

E. UNIFIED DECISION PROCESS. This normative principle, specifying the general appropriateness of hierarchical forms of organization to knit decision-makers together, simply leaves no room for coordination through partisan mutual adjustment.

F. REASON AND COOPERATION. The whole point of the argument of this paper might be reduced to the proposition that reason runs out, cannot bear the burdens imposed on it, therefore has to be employed in the light of its limitations. A general prescription to employ reason in decision-making, however persuasive, is less wise than a prescription to use reason in establishing such decision-making machinery as reduces the demands made on reason and achieves a coordination of only partly reasoned decisions through processes of adjustment other than those that go on in the human mind.

Because partisanship is an asset (because it simplifies), conflict becomes not a problem but a method of coordination. Conflict is as

useful, therefore, as cooperation. Conflict between the President and Congress, for example, or between two administrative agencies is, within limits still to be explored, to be prized as an essential element in partisan mutual adjustment.

G. CALCULATION AND MINIMIZATION OF COST. This principle requires more extended comment than given to the others, although the principal grounds for qualifying the principle are inferrable from the above comments on the means-end approach.

Let us take the example of expenditures for inspection of income tax returns, an allegedly clear case in which a larger expenditure than at present would easily recoup its costs in increased tax receipts. Assume that those making the decision are divided among those who want the increased receipts and are willing to expand the necessary funds to accomplish their objective, those who welcome an opportunity to weaken income taxation, and those who, while favorably disposed to income taxation, are not happy about the extent to which its enforcement requires detailed investigation of personal affairs by revenue officials. Each can calculate costs as he sees them, both monetary and intangible. Typically, at some stage a policy will in fact emerge; but, given the assumption that their values differ, they will not have aggregated their values into a pay-off or welfare function (assuming, of course, they do not have an overriding agreed value in the form of such a function). Hence the policy finally arrived at by agreement or by other mutual adjustment is just that—a policy, not their response to an agreed compromise or aggregation of their conflicting values.

Given this solution to their problem, it cannot be asked and answered whether the costs of achieving a social objective were minimized or not, except by the arbitrary injection of the personal values of the observer who asks the question. In this case, a prescription that costs be calculated and minimized could be appropriate only for the partisan problem-solving of the participant decision-makers, which is not the way in which such a prescription is ordinarily intended. As a prescription intended for some collectivity like the House of Representatives, it is not operational, for the House as a whole cannot agree on what is value received and what is cost.

To go further, it would not even always be desirable, even if possible, for the House to agree on an aggregating rule for conflicting values so that, in the light of such an aggregation, choices could be made that did maximize values received or minimize costs. For

presumably such a rule would itself be a product of partisan mutual adjustment. To minimize costs under such circumstances would therefore be simply to make policies consistent with prior partisan adjustment of conflicting values. It is not at all clear that this is to be preferred to the direct partisan mutual adjustment of policy conflicts without prior resolution of value differences. The arbitrary element is only more apparent in the one method than in the other.

The same line of argument holds for choice among expenditures on, say, heavy bombers, medium bombers, and missiles of various kinds. It is easy to advocate the policy of providing the biggest bang for a buck; but, in the absence of agreement among bargainers for various branches of the military or among congressmen on just what weapon has the biggest bang, the prescription reduces to the advice to the partisan interests to minimize costs or maximize objectives as they narrowly see them, or else the prescription is again nonoperational.

One appropriate alternative prescription in cases such as these is that expenditures should be undertaken that participant decision-makers can voluntarily agree on, assuming only that each participant has, in his own limited view, acted economically. Another appropriate prescription is simply that each decision-maker act economically and that their independently decided courses of action be coordinated (policy achieved as a by-product) through atomistic, deferential, or some type of strategic adjustment not even requiring their agreement, assuming only that the process of adjustment meets certain conditions.

Still further, let us assume no disagreement whatever on values but a problem so complex as to go beyond the successful comprehension of any individual or committee. Under these circumstances, breaking the problem down into its aspects and throwing decisions into the hands of partisan groups linked through mutual adjustment may still be desirable. If so, the appropriate prescription is, again, not that costs be calculated but that the policy be that on which the participants can agree or be that policy achieved as a by-product of mutual adjustment without agreement. Here the impossibility of achieving a value aggregation in the light of which costs can be minimized stems not from conflict but from complexity.

I want now to depart from summary comment on the listed conventional principles to identify several further illustrative implications of the foregoing argument for norms for expenditures and

tax decisions. One of these is interwoven with the last principle discussed. We have just said that under certain assumptions policy-makers should take their own voluntary agreement as a criterion for policy. No doubt this will strike many as curious advice for policy-making, since one might think that a norm ought to be useful in distinguishing between agreement on foolish policy and agreement on wise. The norm of agreement is not, however, so inadequate as it might seem because it specifies voluntary agreement as sufficient only when each partisan has in his own limited view calculated his costs.

Similarly when we said that in some cases a sufficient condition of a "good" policy is that it be arrived at through partisan mutual adjustment, this was saved from being a foolish prescription because we also required that the adjustment processes themselves meet certain conditions. For lack of research, we cannot now say when the adjustment processes are and are not satisfactory, but the distinction is valid, just as is the distinction between workable and unworkable competition or competition and monopoly despite our inability to define and agree on what kinds of real world market structures are workably competitive.

The important point in both prescriptions is that in many circumstances we need no test of a correct or wise policy other than that it has been achieved through one set of processes rather than another. To pursue the market analogy further, in many circumstances we need no test of the superiority of one pattern of resource allocation to another other than that one pattern is achieved through one set of practices rather than another, the one set being characterized by open opportunities for comparison, substitution, and choice, and the other by restrictions. If we can clarify different structures or circumstances in which mutual adjustment proceeds badly or well, we should be able to define rational expenditure and tax policy in many cases without regard to outcome.

In any case, it is not a reasonable objection to mutual adjustment that I cannot show directly that its outcomes are superior to other outcomes. As with the most social processes, we argue the superiority of the outcome from the process, not of the process from the outcome. The constancy of the economist's objection to this conclusion when applied to governmental rather than market decisions simply often reflects the fact that, while some economists are not disturbed that consumer preferences lead to allocation policies other

than best respond to their own personal tastes, when political preferences lead to government policies not consistent with his informed and considered preferences, they are tempted to attribute irrationality to government. When my professional colleagues and I complain that research and education are starved for public funds, we have by no means necessarily seen in this fact evidence of irrationality; it may be evidence only of the discrepancy between our and others' tastes.

A further implication is that consistency in government decisions is not an appropriate norm. As has been explained, atomistic mutual adjustment and some forms of strategic adjustment take place through conflicts among programs of government agencies. Inconsistency in government programs is thus inevitable and part of the mechanism of partisan mutual adjustment. A quite different reason for inconsistency is that there is no set of "social" preferences about which the question can be asked: Is their ordering transitive? (If A is preferred to B and B to C, is A then preferred to C?) Still further, if we look at observable policies as evidence of an ordering of preferences, we must not forget that incrementally approached policies proceed through a continuing succession of adjustments to ever-changing ends as policies and objectives interact. Hence we should not even wish to find in the record of actual policy choices an evidence of transitively ordered preferences.

The next implication suggests a revision of traditional notions of the appropriate organizational structure for government decision-making. It is commonly assumed that factoring out or subdividing decision-making problems is best achieved when interdependent problems and decisions are grouped together in the same subdivision and when, correspondingly, problems and decisions of low or simple interdependency are separated into different subdivisions. It follows, however, from what was said about mutual adjustment that problems or decisions with a high degree of interdependency should sometimes be assigned to separate subdivisions so that their interdependencies can be taken account of not by internal coordination within any one agency but through partisan mutual adjustment among the agencies.

Another implication is that gross disparities in group influence on decisions, disparities going beyond what by any ordinary estimate would be called a defensible weighting of conflicting interests, are not to be dismissed as evidence of irrationality if they turn out to be

simply the evidence of the price that some groups pay to others as a condition of the latter's consent to playing the rules of the game of constitutional democracy. We may regret the price paid; but we would do well to be clear on just what aspect of the decision-making process we are complaining about. Our norms should not simply proscribe these disparities.

Let us now look at some of these implications taken together in application first to the allocation in the large of federal expenditures and then to the budgetary process. Consider such a choice as that between social welfare and defense expenditures. How to choose?

We must first distinguish sharply, as conventional approaches to this problem do not, between the problem of the individual decision-maker and the problem of coordinating individual decisions, which may or may not be a decision-making problem itself. It follows from all the foregoing that, for the individual decision-maker, whether Director of the Bureau of the Budget, the President, a cabinet member, or congressman, it is a possibility much to be considered that he cannot make a reasoned decision between defense and welfare when they are both aggregated. It is true he can think he is thinking; but whether there is anything for the mind to seize upon when faced with a choice of some marginal increase in the defense budget as against a 10 per cent increase in welfare expenditures is problematical. Faced with aggregates which it must compare and among which it must choose, it is possible that the mind does not so much calculate as default—in some quite capricious or arbitrary way turning up a choice, or leaving the mouth or the hand to make its own decision. And if the mind tries to break the aggregates down and calculate the value of their components, it seems clear that it cannot encompass and interrelate more than a fraction of components at the level of specificity to which it must descend.

Conceding a considerable looseness in my description of mental processes, I nevertheless want to make the point that to sit in a chair and try to think about defense and welfare is not to guarantee that the mind will do anything with the problem that could properly be described as systematic calculations. It is quite likely that more rational decisions can be reached by an individual who tries to compare some fairly specific, concrete—and newly proposed—military expenditure with some similarly specified innovation in welfare expenditure, making his choice on specifics and letting the

aggregates be determined almost wholly as a by-product or residual decision.

Gross determinations of military or welfare expenditures the decision-maker can make, I believe, by calculating in aggregates. But gross determinations are not the repeated business of government decision-makers; each year presents them instead with choices among relatively small variations.

There are, however, so many small choices to be made that the legislature cannot possibly attend to them. As a result the making of expenditure policy has to pass in large part to civilian and military administrators, who can attend to the specific kind of comparisons in which the mind can successfully engage. But these administrators can at best make rational comparisons of specifics within their own agency's field, not between them. Hence, without substantial administrative reform, it would appear that a congressman would do well to become a specialist in interdepartmental and interagency program comparisons. Since even this assignment is too large, ideally a congressman ought to ask each major subdivision of government to identify a small variety of marginal expenditure programs, permitting the congressman then to approach expenditure allocations as a specialist in marginal comparisons among the lowest valued increments to programs of various major subdivisions.

Although I have not qualified this prescription adequately, it serves to emphasize the probable desirability of specific rather than aggregate marginal comparisons in Congress and of a highly selective policy with respect to the specific comparisons to be made. Some of Congress' much deplored refusal to deal with the larger issues in expenditure policy and its preoccupation with haphazardly selected detail is, I think, a laudable even if fumbling attempt to proceed by such a prescription.

As for the coordination of decisions reached by individual administrators, politicians, and others, it is only necessary to state again that debate on the objectives of the military and the objectives of welfare programs will ordinarily accomplish relatively little. Similarly, debate on policy alternatives conceived of in large aggregates of expenditures will help relatively little. If agreement can be reached through debate on specific comparisons and marginal choices, agreement is sufficient, assuming that the individual comparisons of specific alternatives have been well done. Agreement failing, all we should ask is that the processes through which mutual

adjustment will produce policy as a by-product meet certain conditions yet to be defined by research.

What then is the appropriate role of the budgetary process in expenditure and tax decisions? I think the answer requires an investigation of the budgetary process from a point of view that has not been taken by previous writers. The literature on the budget, I think it fair to say, has not given extended consideration to the implications of incrementalism and partisan mutual adjustment; were it to give such extended consideration, many firmly held beliefs would turn out to be either erroneous or undemonstrated. My view of the conventional norms for the budgetary process is, therefore, that of an agnostic, except for my explicit rejection of certain budgetary norms listed in the first pages of this paper.

To indicate what might follow from verification of the hypothesis that incrementalism and mutual adjustment are major avenues to rational decision-making, let me speculate as follows, limiting, however, my examination of the budget process to its expenditure programming functions.

It appears possible that the formulation of a comprehensive federal budget as a strong recommendation to Congress for its expenditure decisions should be abolished. As a proposal for expenditure programs, the budget document is not very helpful to the kind of rational decision-making we have been describing; and, as a recommendation from the President and Budget Bureau that the expenditures-mix for the coming year should be as presented rather than slightly different, it is not very convincing. The circumstances of its formulation do not generate much confidence in it as an incremental program proposal, even if its formulation in some ways is well suited in congressional eyes to congressional control over the administrative branch.

In any case, a formal, comprehensive congressional overview of the budget should not be attempted, for it would only drive congressmen into the kind of abstract comparison of aggregates that we have argued is less satisfactory than highly selective comparison of specific programs. I might even suggest that the submission of the budget to Congress as a program for appropriations is made more defensible the less Congress is induced by its presentation to attempt to comprehend it in the large.

A comprehensive budget is best used, it may follow, as a background document to which any decision-maker can refer for reference

and such guidance as he can take from it, playing a role in decision-making much like the role, as I understand it, of the Indian Five-Year Plan. A frequently revised budget, embodying both a report on prospective expenditures already authorized and recommendations of the Budget Bureau and President for programs not yet authorized might well always be available to but never thrust upon Congress.

Accordingly, congressional appropriations practices would be altered to permit Congress to make many successive appropriations for relatively limited numbers of functions or agencies, without a concentration of budgetary decisions at any one time of the year and, it might be hoped, to provide for automatic renewal of a very large number of expenditures so as to permit Congress to revise its programs in these fields only when it wished.

One of the standard complaints about present practice is the separation in time and attention between the authorizing legislation and the appropriations legislation. A major barrier to bringing the two together may be the conventional insistence on the inclusion of all appropriations decisions in the budgetary process. The effect of my proposals is to get appropriations out of the present budgetary process so that in a feasible way appropriations can be linked very tightly to basic legislation.

For income and employment stabilization, the aggregate of expenditures and revenues must, of course, be systematically adjusted. But there are many ways in which the need for adjustment comes to the attention of congressmen and many ways in which they can meet the need for systematic adjustment. Above I have expressed skepticism on the need for new formal machinery, for it appears that this is a kind of coordination best handled, in view of conflicting values, through mutual adjustment. If, however, formal machinery is needed, the budgetary machinery is excessively complex for the purpose.

Granted that this line of prescription for the budgetary process flies in the face of a sustained movement toward increasing dependence on the budget as a major coordinating instrument, no one has yet made a convincing case that the budgetary process is today an effective and rational coordinator; it has largely been assumed to be so. It is quite possible that the present line of budgetary reform, which goes back at least as far as the Taft administration, was suited to the much smaller government programs of earlier years.

But when the Department of Defense alone uses roughly a tenth of the national product, when it spends more than the national product of some nations, when it purchases forty times as many products as marketed by Sears Roebuck,¹⁶ it is no longer safe to assume that the budgetary problem is still basically the same old problem.

Without raising any questions about budgeting within agencies, I suggest in short that comprehensive budgeting for the American government may be a prerevolutionary method of programing the expenditures of a government that has indeed gone through a revolution in its size, complexity, and involvement with citizens' values.

COMMENTS

ABRAM BERGSON, Harvard University

In his very interesting and provocative paper, Professor Lindblom analyzes governmental decision-making within a democratic framework. He also explores implications regarding budgetary policies and practice. I shall focus my remarks on the more general topic.

Professor Lindblom's main theme, as I understand it, concerns the nature of rational government decision-making. Economists tend to misunderstand this. Whereas they assume that certain "conventional principles" are generally applicable, in fact rationality very often calls for the employment of an alternative and analytically distinct approach, the "incremental method." The presuppositions of economists regarding government rationality, I am sure, are sometimes open to question, but I must confess some doubts as to the fruitfulness of Professor Lindblom's attempt to distinguish on this basis between "conventional principles" and the "incremental method."

As seen by Professor Lindblom, economists misconceive rationality in various ways. Among these, not the least is in the view taken of the alternatives open and, in association with this, the degree of delineation of values that is entailed. According to "conventional principles," the government official ordinarily must choose between a wide range of alternative social states. Accordingly, one ideally

¹⁶ From calculations made in the Procurement Task Force of the Second Hoover Commission, summarized in a letter of March 17, 1959, from Jay Westcott to C.E.L.

takes as a point of departure, a "social welfare function" defining the values to be attached these alternatives. As seen by Lindblom, the choice in fact is very often quite restricted by political considerations. Not only is the set of alternatives limited but also, typically, these differ from each other only in rather marginal ways. It follows that rational action calls for the valuation of only these limited aspects. This, I believe, is a cardinal feature of the "incremental method."

In elaborating the presuppositions of economists, Professor Lindblom takes as a point of departure Professor Smithies' study of the budgetary process, but on a theoretical plane he evidently refers throughout to the conception found in welfare economics. I think we must concede that this discipline is, from a political standpoint, notably abstract. Among other things, the variety of social states considered is generally not restricted to those that might be politically relevant. Moreover, Professor Lindblom might, with no less justice, have added that the analysis is not especially easy to apply where political constraints are introduced. The principles to be observed in selecting the "second best" are not necessarily the same and indeed may often be rather different from those applying where the concern is with the "first best."

But granting all this, I wonder if Professor Lindblom has sufficiently considered what is involved even in the appraisal of limited alternatives to which he refers. After all, even the most restricted actions of government are apt to have pervasive effects. Without some fairly extensive commitments regarding the shape of the "social welfare function," it is open to question whether one would be able even to begin to appraise the alternatives rationally. Moreover, the commitment ordinarily will be hardly any less restrictive than that usually made in welfare economics.

More specifically, a principal effect of government action ordinarily is in respect to the volume of goods and services produced and marketed privately. How is one to value the diverse goods and services affected? At their market prices? If not, how otherwise? If different households are affected differently, how is this aspect viewed? The import of the questions is evident. Even to begin to think systematically about such alternatives one cannot very well dispense with the principle of "consumers' sovereignty" or some variant thereof. Moreover, if one adds to this some general standpoint on income distribution one has already gone as far as the

welfare economist ordinarily does in defining on a theoretical plane the "social welfare function."

I have been referring to the question of the alternatives open and the degree of delineation of values. Logically, prior to the latter aspect is the question of the general nature of the valuation process itself. As seen by Professor Lindblom, there may be dubious pre-conceptions here also. Among other things, reference is made ordinarily to a value scale that is both explicit and relatively static. These notions, too, have become embodied in "conventional principles." In fact, however, the situation may often be quite different. "In the incremental method, political decision-makers handle values through marginal comparisons in the same way that consumers do." If the official "can be said to value one social state higher than another, this fact is more to be inferred from his choices than to control them We do not determine our welfare function, then choose, but instead choose directly and, in so doing, simultaneously both indirectly define a part of the welfare function and maximize it." Moreover, the "decision-maker is much more tentative about his objectives or values than he is considered to be in conventional models. He counts on policy to lead him to fresh perceptions about values."

It is true that the presuppositions of welfare economics as to the nature of rational decision-making may often be overly formal and correspondingly too restrictive. On the other hand, one might easily err also in stressing unduly the aspects Professor Lindblom describes. No doubt both the consumer and the public official may often behave rationally without consciously applying any previously determined value scale, but at least for the official the choices, as we have seen, are highly complex. Without reference to some guiding principles, it is permissible to doubt that any high degree of rationality could be achieved. This still is not to say the official must carry in his mind some textbook "social welfare function." No doubt the principles applied might often be of a more commonsense sort. Most importantly, the official might as a matter of course take the money values of marketable goods sacrificed or added as measures of social costs and returns. On the other hand, even such an approach necessarily is treacherous. What, for example, if the prices at which goods and services are valued are generated in a ration system rather than through an open market? One might easily go astray at this point. Tentativeness might also be carried

too far. Presumably, however novel they may be, choice situations always are in some degree repetitive. Indeed, one wonders whether the question of whether the individual is rational can fruitfully be discussed in any other context. At the same time, so far as there are repetitive elements, are we not compelled to suppose some limitations, given rationality, on the variability of values?

Professor Lindblom properly assumes that in welfare economics rational decision-making is ordinarily seen as proceeding within a "means-end framework." Although he is not entirely explicit, one gathers that this is not necessarily so in the case of the "incremental method." The view that must be taken here of this aspect I believe is already sufficiently evident and needs no further elaboration.

Professor Lindblom is certainly right in contending that disagreement on values poses a difficulty for rational governmental decision-making of a sort that welfare economists usually envisage. He feels, however, that the difficulty consists in the fact that "government decision-makers are often without clearly defined policy objectives." I wonder whether it might not be somewhat more accurate to say rather that in implementing his own values the official is subject to complex political constraints posed by other people's. In any case, it is not easy to see how the difficulty is disposed of, as is contended, by use of the "incremental method." As Professor Lindblom is aware, disagreements persist even within the politically relevant range. As he contends, individuals can often agree on policies when they disagree on principles, but as I have explained, a fairly extensive commitment to principles hardly can be avoided. Possibly he is, nevertheless, right in assuming as he apparently does that economics textbooks stress insufficiently the implicit and tentative nature of valuations. Possibly, too, as he seems to assume also, this has tended to exacerbate disagreements among decision-makers, but I believe this is a problem that is more properly considered under the sociology of politics than in an inquiry into the conditions for rational decision-making.

Professor Lindblom feels that as envisaged by the incremental decision-maker, the problem of governmental decision-making is much simplified in comparison with the usual conception. This arises partly from the concentration on a limited range of alternatives that are relevant. I believe it also arises partly from the different conception of the valuation process. I have also said all that I

have to say on these two aspects. On the other hand, the simplification seemingly also is achieved because of the conscious decision to focus on only "a small number out of all of the important relevant values." This feature has not been commented on previously, and I think I should at least record briefly some mixed feelings on this score. Professor Lindblom's main concern at this point, I believe, is simply to underline the familiar fact that consequences neglected by one decision-maker may be considered by another. Hence the whole decision-making process may be rational even though individual decisions are not. I agree that in a fully realistic formulation of rationality one must consider the costs of acquiring and utilizing information on alternatives. One wonders, however, whether the official who neglects important aspects on the ground that they would be properly weighed in the decision-making process as a whole might not often be disappointed.

At the outset of his essay, Professor Lindblom informs us that "most of what I have to say will be positive not normative." In my opinion, the analysis of rationality on the part of public officials is apt to be more fruitful in a normative than in a positive context, but I do not undertake to consider here the question that is posed as to the extent to which government decision-making in practice can be understood as rational. On the other hand, in commenting so far I have sought to do so without violating Professor Lindblom's declared aim. It may be in order at this point, therefore, to consider to what extent one's view of the problem he discusses might be affected if one adopts a normative rather than positive standpoint. A review from this standpoint is the more in order since the "conventional principles" he describes were elaborated primarily in a normative rather than positive context. Moreover, despite his initial declaration of purpose, Professor Lindblom himself is clearly much concerned with normative aspects.

Taking a normative standpoint, then, what is to be said of the usual presuppositions regarding the nature of rational decision-making and of the "incremental method" as an alternative? I believe essentially all that has been said already still applies. On the other hand, given a normative standpoint, the concern on a theoretical plane presumably is to formulate general precepts that might guide public officials. For this purpose, it seems all the more difficult to see the merit in the avoidance of prior and explicit commitment to values which Professor Lindblom stresses. In ways

that cannot be explored here I believe the problem posed by disagreements in values is also somewhat altered when the analysis proceeds in a normative context.

GERHARD COLM, National Planning Association

Lindblom has made a very significant contribution to a realistic analysis of the decision-making process in public policy determination. I would like to comment on one aspect of his "Coordination Through Partisan Mutual Adjustment." I would be concerned if the various means of coordination were to be understood as (1) *exhaustive* and (2) *normative*. Perhaps he did not mean it that way. However, it appears to me that a very important aspect has been left out of his discussion. What I am concerned with is the concept which may be called the general interest or the general welfare to use terms of the "conventional norm." I suggest that this concept has and should still have a crucial place in the analysis of the decision-making process of public policy.

I emphasize the role of the general interest also because it has no adequate place in the theoretical framework suggested by Musgrave and Tiebout. The welfare approach looks at the benefit derived from public services as in principle analogous to the benefits derived from private goods. In this respect the welfare economists and the partisan strategists are similar. Only Lindblom does not refer exclusively to the welfare of individuals but also to individuals as members of a partisan group.

It can of course always be said that the interest of the individual or the interest of a partisan group includes the satisfaction they expect to derive from seeing the general interest pursued by policies of the government. This argument of the old hedonists is of course not logically wrong but it omits the distinctions which are essential if a theory of public finance is designed to analyze the peculiarities and interactions of the public and the private sectors of the economy.

Also the spillover effect in its geographic or interpersonal meaning cannot substitute for the concept of the general interest without again stretching the meaning of that term. I wonder particularly how the individuals of generations still unborn can express their preferences with respect to programs which will have a spillover effect on them.

It is useful to distinguish between the market process and the budget process. In the first, individuals or corporations pursue their

self-interest within certain limits and the general interest presumably is taken care of as a result of the interplay of all the individuals and corporations pursuing their self-interest. It is a basic problem of the theory of public finance to explain why under certain conditions and with respect to certain activities this coordination through the market does not work or does not reach the desired results. This, then, forms the basis for a rationale of government action.

I do not deny, of course, that the individual voter or the partisan group are pursuing their self-interest also in their political activities. With respect to some government activities (for instance, building a sewer in a certain street) the individual interest is decisive and arguments that this activity is in the general interest would not be of major importance. In some cases it may be possible that, as Lindblom suggests, one partisan group may appeal to the partisan interest of another group in order to form an alliance. For other government activities, particularly those at the national level, but also many of those at the state and local level, the "strategic coordination" requires that those in favor of government action argue for the proposed measure in terms of the general interest. In a pluralistic society this might often be the only way to find support of individuals and groups which have different or indifferent personal interests with regard to a specific issue. Important as particular interests are in the determination of public policies, they do not provide a workable criterion for the appraisal of many programs. For purposes of policy appraisals the general interest must be translated into tangible national objectives, such as economic growth, national security, stability, resource development, opportunities, and so on.

If I buy a refrigerator, I do not argue with the dealer that lowering his price or giving me a better quality product not only serves me better, but also is in the interest of economic growth, economic stability, national defense, or other objectives which may reflect my concept of the general interest. On the other hand, if I am in favor of an increase in defense expenditures it would not be very effective if I argued that I am for this increase in expenditures because it adds to my business (if I happen to be in the defense business); or because I happen to live in an exposed part of the country; nor would it be very effective if I argue for a reduction in the top-bracket rate of the income tax only with the reason that I happen to be in that bracket and prefer to pay less taxes. Thereby I hardly would find the support of the people in the lower brackets without whose consent

such tax reform could not be adopted. In the market mechanism, everyone pursues his self-interest and the general interest is taken care of as a result of these interactions. In contrast, the process of democratic policy determination also requires that the individual or the partisan group reconcile in their own thinking their particular interests with the general interest.

Some people will be inclined to dismiss such reconciliation as mere ideological "rationalization." I think it is one of the tasks of a science of public finance to either "debunk" or to confirm the claims made by advocates of various government measures.

I do not underestimate the difficulties involved in the concept of the general interest or the general welfare. Every individual's and every partisan group's concept of the general interest is influenced by their position in society and their special interests among other factors. What is adjusted in the process of "partisan coordination" is to a large extent not merely differences in various personal wants but differences in the concepts of the general interest or, we may also say, differences in the image of good government.

The economist analyzing various policy proposals in terms of the general interest will have to recognize not only the common ground but also the differences in the hierarchy of values reflected in different articulations of the general interest. The fact that a concept poses difficulties which result from the pluralistic character of our society is no reason for dropping such a concept, as long as it is essential. You would not leave the role of Hamlet out of a performance of *Hamlet* because there are several competing interpretations of his character.

In the theoretical discussion, reference was made to the "rational" decision based on self-interest and the emotional and ideological motivations which appear to spoil this neat process of decision-making. (Or rather: a neat but purely formal expression of decision-making.) If I vote for an issue of a school bond but have no children in school and no direct interest in schools, this theory will make me appear as irrational. I wonder whether it is really true that a person who votes in line with his concept of the general interest to the best of his lights, is really as "queer" as this theoretical approach makes him out to be. Or might it be that this theoretical approach is too narrow for grasping all aspects of decision-making in government policy and for serving as a general theoretical frame of reference for a theory of public finance? I am inclined to think that the latter is the case.