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4.

Individual Rationality In Social Choice

Individual And Collective Rationality

A useful theory of human action, be it positive or normative in content and purpose, must postulate some rationality on the part of decision-making units. Choices must not only be directed toward the achievement of some objective or goal; the decision-making units must also be able to take such action as will assure the attainment of the goal. Immediately upon the introduction of the word “rationality,” we encounter questions of definition and meaning. We shall try to clarify some of these below, but the first practical step is to specify precisely the decision-making unit to which the behavioral characteristic, rationality, is to apply. When we speak of private action, no difficulty is presented at this stage. The decision-making unit is the individual, who both makes the choices and constitutes the entity for whom the choices are made. A problem arises, however, when we consider collective action. Are we to consider the collectivity as the decision-making unit, and therefore, are we to scale or order collective choices against some postulated social goal or set of goals? Or, by contrast, are we to consider the individual participant in collective choice as the only real decision-maker and, as a result, discuss rational behavior only in terms of the individual’s own goal achievement? It is evident from what has been said before that we shall adopt the second of these approaches. The prevalence of the first approach in much of modern literature suggests, nevertheless, that a brief comparison of these two conceptions of rationality may be helpful.

Except for the acceptance of some organic conception of the social group and its activity, it is difficult to understand why group decisions should be directed toward the achievement of any specific end or goal. Under the individualistic postulates, group decisions represent outcomes of certain agreed-upon rules for choice after the separate individual choices are fed into the process. There seems to be no reason why we should expect these final outcomes to exhibit any sense of order which might, under certain definitions of rationality, be said to reflect rational social action.⁴⁴ Nor is there reason to suggest that rationality, even if it could be achieved through appropriate modification of the rules, would be “desirable.” Rational social action, in this sense, would seem to be neither a positive prediction of the results that might emerge from group activity nor a normative criterion against which decision-making rules may be “socially” ordered.

A somewhat different conception of social rationality may be introduced which appears to avoid some of these difficulties. The social scientist may explicitly postulate certain goals for the group, either upon the basis of his own value judgments or upon some more objective attempt at determining commonly shared goals for all members of the group. He may then define *rational* collective action as that which is consistent with the achievement of these goals.⁴⁵ Conceptually, it is possible to

discuss collective decision-making institutions in this way; and the approach may prove of some value if the goals postulated do, in fact, represent those shared widely throughout the group, and if there is also some commonly shared or accepted means of reconciling conflicts in the attainment of the different goals or ends for the group. Note that this approach starts from the presumption that the goals of collective action are commonly shared. There is little room for the recognition that different individuals and groups seek different things through the political process. The approach offers little guidance toward an analysis of political action when significant individual and group differences are incorporated in the model.

In this book we shall not discuss social rationality or rational social action as such. We start from the presumption that only the individual chooses, and that rational behavior, if introduced at all, can only be discussed meaningfully in terms of individual action. This, in itself, does not get us very far, and it will be necessary to define carefully what we shall mean by rational individual behavior.

Individual Rationality In Market Choice

It will be helpful to review the parallel treatment of individual rationality that is incorporated in orthodox economic theory. The economist has not gone very far when he says that the representative consumer maximizes utility. Individual utility functions differ, and the economist is unable to “read” these functions from some position of omniscience. To judge whether or not individual behavior is “rational” or “irrational,” the economist must try first of all to place some general minimal restrictions on the shapes of utility functions. If he is successful in this effort, he may then test the implications of his hypotheses against observed behavior.

Specifically, the modern economist assumes as working hypotheses that the average individual is able to rank or to order all alternative combinations of goods and services that may be placed before him and that this ranking is transitive.⁴⁶ Behavior of the individual is said to be “rational” when the individual chooses “more” rather than “less” and when he is consistent in his choices. When faced with a choice between two bundles, one of which includes more of one good and less of another than the bundle with which it is compared, the hypothesis of diminishing marginal substitutability or diminishing relative marginal utility is introduced. Observed market behavior of individuals does not refute these hypotheses; consumers will choose bundles containing more of everything, other things remaining the same; choices are not obviously inconsistent with each other; and consumers are observed to spend their incomes on a wide range of goods and services. With these working hypotheses about the shapes of individual utility functions, which are not refuted by testing, the economist is able to develop further propositions of relevance. In this way, the first law of demand and all of its implications are derived.

Individual Rationality And Collective Choice

As suggested at an earlier point, all collective action may be converted to an economic dimension for the purposes of our model. Once this step is taken, we may extend the underlying economic conception of individual rationality to collective as

well as to market choices. Specifically, this involves the working hypotheses that the choosing individual can rank the alternatives of collective as well as of market choice and that this ranking will be transitive. In other words, the individual is assumed to be able to choose from among the alternative results of collective action that which stands highest in the rank order dictated by his own utility function. This may be put in somewhat more general and familiar terms if we say that the individual is assumed to be able to rank the various bundles of public or collective “goods” in the same way that he ranks private goods. Moreover, when broadly considered, all proposals for collective action may be converted into conceptually quantifiable dimensions in terms of the value and the cost of the “public goods” expected to result. We may also extend the idea of diminishing marginal rates of substitution to the collective-choice sector. This hypothesis suggests that there is a diminishing marginal rate of substitution between public and private goods, on the one hand, and among the separate “public goods” on the other.

Again it is necessary to distinguish the two separate interpretations of the “economic” approach. Individual behavior can be discussed in economic dimensions, and the processes through which differences in individual utility functions become reconciled may be predicted, without any assumptions being made concerning the externally observable results of such behavior. However, if more “positive” results are to be predicted, some specific meaning to terms such as “more collective activity” must be introduced, a meaning which will allow alternative possible results to be compared quantitatively.

The economist does, normally, attribute precise meaning to the terms “more” and “less.” Moreover, if a similar model of rational behavior is extended to the collective-choice process, we are able to derive propositions about individual behavior that are parallel to those contained in economic theory. If the hypotheses are valid, the representative individual should, when confronted with relevant alternatives, choose more “public goods” when the “price” of these is lowered, other relevant things remaining the same. In more familiar terms, this states that on the average the individual will vote for “more” collective activity when the taxes he must pay are reduced, other things being equal. On the contrary, if the tax rate is increased, the individual will, if allowed to choose, select a lower level of collective activity. In a parallel way, income-demand propositions can be derived. If the income of the individual goes up and his tax bill does not, he will tend to choose to have more “public goods.”

Simple propositions such as these, which will be intuitively acceptable to most economists, can be quite helpful in suggesting the full implications of the behavioral assumptions concerning individual participation in social-choice processes. However, such propositions may be extremely misleading if they are generalized too quickly and applied to the collectivity as a unit rather than to the individuals. To make such an extension or generalization without having first confronted the issue of crossing the “bridge” between individual and group choice seems likely to lead, and has led, to serious errors. Two points must be made. First, “public goods” can only be defined in terms of individual evaluations. If an individual is observed to vote in favor of a public outlay for municipal policemen, it follows that (assuming normal behavior) he

would vote in favor of the municipality hiring more policemen were the wage rate for policemen to be reduced. On the other hand, another individual may not consider additional policemen necessary. The second and closely related point is that group decisions are the results of individual decisions when the latter are combined through a specific rule of decision-making. To say (as is quite commonly said by scholars of public finance) that a greater amount of collective activity will be demanded as national income expands represents the most familiar extension of this “first law of demand for public goods.” In fact, if *all* individuals in the social group should happen to be in full individual equilibrium regarding amounts of public and private goods, then an increase in over-all income would suggest that individuals, acting rationally, would choose more collective as well as more private goods provided only that both sets belong to the “superior” good category. The decision-making rules under which collective choices are organized, however, will rarely operate in such a way that all members of the group will attain a position of freely chosen equilibrium. In this case, little can be said about the implications of the individual rationality assumptions and the derived propositions for collective decisions. Before anything of this nature can be discussed properly, the decision rules must be thoroughly analyzed.

The price-demand and the income-demand propositions, which are derivative from the individual-rationality hypotheses directly, apply only to the behavior of the individual. Therefore, they cannot be tested directly by the *collective* decisions which are made as a result of certain decision-making rules. This is in contrast to the situation in the market where the first law of demand and the behavioral assumptions on which it rests can be tested, within reasonable limits, against observed results. This is because of the fact that, in the market, individual choice makes up a necessary part of group choice. Individual decisions cannot be made that are explicitly contrary to decisions reflected in the movement of market variables. The “first law of demand for public goods” and similar propositions cannot be directly tested by observation of the actions of the collective unit because such results would reflect individual choices only as these are embodied in the decision-making rules. Results of collective action do not directly indicate anything about the behavior of any particular individual or even about the behavior of the average or representative individual. Therefore, we do not possess at this preliminary stage of our analysis the same degree of support for our behavioral assumptions regarding individual action in collective choice that the economist possesses. In the later development of some of our models, we hope to suggest certain implications which, when checked against real-world observations, will not be refuted, thereby providing confirmation for our original assumptions.

Limitations On Individual Rationality

Rational action requires the acceptance of some end and also the ability to choose the alternatives which will lead toward goal achievement. The consequences of individual choice must be known under conditions of perfect certainty for the individual to approach fully rational behavior. In analyzing market choices, in which there normally is a one-to-one correspondence between individual action and the results of that action, the certainty assumption is one that may be accepted as being useful without doing violence to the inherent structure of the theoretical model. This remains

true despite the recognition that market choices are made in the face of uncertainties of various kinds.

In analyzing the behavior of the individual in the political process, there is an important element of uncertainty present that cannot be left out of account. No longer is there the one-to-one correspondence between individual choice and final action. In the case of any specific decision-making rule for the group, the individual participant has no way of knowing the final outcome, the social choice, at the time he makes his own contribution to this outcome. This particular element of uncertainty in political choice seems initially to restrict or limit quite sharply the usefulness of any theoretical model that is based on the assumption of rational individual behavior. It is difficult even to define rational individual behavior under uncertainty, although much recent effort has been devoted to this problem. Furthermore, even if an acceptable definition of rational choice under uncertainty could be made, the extension of the behavioral hypotheses to participation in group choice would make even conceptual testing almost impossible.

If our task were solely that of analyzing the results of individual behavior in isolated and unique collective choices, this uncertainty factor would loom as a severe limitation against any theory of collective choice. However, this limitation is reduced in significance to some extent when it is recognized that collective choice is a continuous process, with each unique decision representing only one link in a long-time chain of social action. Reflection on this fact, which is one of the most important bases of the analysis of this book, suggests that the uncertainty facing the individual participant in political decisions may have been substantially overestimated in the traditional concentration on unique events.

When uncertainty exists due to the impossibility of reciprocal-behavior prediction among individuals, it may be reduced only by agreement among these individuals. When the interests of the individuals are mutually conflicting, agreement can be attained only through some form of exchange or trade. Moreover, if side payments are not introduced, trade is impossible within the limits of the single decision-making act. However, if the vote of the individual in a single act of collective choice is recognized as being subject to exchange for the votes of other individuals in later choices, agreement becomes possible and, insofar as such agreement takes place, uncertainty is eliminated. So long as the decision-making rules do not dictate the expediency of such exchange among *all* participants in the group, this fundamental sort of uncertainty must, of course, remain. Nevertheless, the usefulness of rational-behavior models in analyzing political choice is limited to a somewhat lesser extent than might otherwise seem to be the case.⁴⁷

A second and important reason why individuals may be expected to be somewhat less rational in collective than in private choices lies in the difference in the degree of responsibility for final decisions. The responsibility for any given private decision rests squarely on the chooser. The benefits and the costs are tangible, and the individual tends to consider more carefully the alternatives before him. In collective choice, by contrast, there can never be so precise a relationship between individual action and result, even if the result is correctly predicted. The chooser-voter will, of

course, recognize the existence of both the benefit and the cost side of any proposed public action, but neither his own share in the benefits nor his own share in the costs can be so readily estimated as in the comparable market choices. Uncertainty elements of this sort must enter due to the necessary ignorance of the individual who participates in group choice. In addition to the uncertainty factor, which can be readily understood to limit the range of rational calculus, the single individual loses the sense of decision-making responsibility that is inherent in private choice. Secure in the knowledge that, regardless of his own action, social or collective decisions affecting him will be made, the individual is offered a greater opportunity either to abstain altogether from making a positive choice or to choose without having considered the alternatives carefully. In a real sense, private action forces the individual to exercise his freedom by making choices compulsory. These choices will not be made for him. The consumer who refrains from entering the market place will starve unless he hires a professional shopper. Moreover, once having been forced to make choices, he is likely to be somewhat more rational in evaluating the alternatives before him.

For these reasons, and for certain others that may become apparent as the analysis is developed, we should not expect models based on the assumption of rational individual behavior to yield as fruitful a result when applied to collective-choice processes as similar models have done when applied to market or economic choices. However, this comparatively weaker expectation provides no reason at all for refraining from the development of such models. As we have already suggested, all logical models are limited in their ability to assist in explaining behavior.