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『合理的選択・集合的決定・社会的厚生』

Kotaro Suzumura, *Rational Choice, Collective Decisions, and Social Welfare*, Cambidge : Cambridge U. P., x+278 pp.

The recent theory of social choice has evolved mostly around two central problems. First, there is the classic aggregation problem of Arrow: given a society of individuals and a set of alternatives, what should be the method for arriving at social decisions on the basis of the individuals' preferences? Secondly, we have the line of investigation initiated by Gibbard and Satterthwaite and subsequently pursued by a large number of writers: the basic problem here is that of devising a game form under which the pursuit of self interest by rational individuals will always lead to equilibria (in some plausible sense) where the outcomes are optimal in terms of some given ethically acceptable group decision procedure. Suzumura's book adresses itself to the first of these problems. Thus the focus is on aggregation of individual preferences so as to arrive at ethically acceptable social decisions rather than on the enforcement or implementation of these decisions through some game form.

Suzumura starts with a discussion of the general theory of choice and preferences. The results here are clearly important for the theory of social choice but their significance extends beyond the theory of social choice to the theory of 'revealed preference' and choice in general. Suzumura's Chapter 2 provides a very systematic and convenient discussion of many results in this area already familiar in the literature (thanks to the earlier works of several writers including Suzumura himself), and extends these results in many ways. Chapter 3 is devoted to Arrow-type impossibility results. An important section here presents the well known Blair-Bordes-Kelly-Suzumura impossibility theorems

without collective rationality. A basic point which Suzumura makes here is that the Arrow-type impossibility theorems can be derived from restrictions on the base relations (together with the other usual properties) without imposing collective rationality on the social choice function. While this i sformally true when dictatorship (resp. oligarchy) is defined in a binary fashion it seems to ignore an important intuitive aspect. The fact is that if the social choice function is always rationalizable in terms of a binary weak preference relation, then given dictatorship (resp. oligarchy) over two-element sets, one can immediately establish dictatorship (resp. oligarchy) over bigger sets (when dicta-torship or oligarchy over bigger sets in defined in an obvious fashion). However, this is not possible when we have restrictions on the base relations alone and no collective rationality. Thus in an intuitively important sense, the dicta-torship or oligarchy that one gets in the pres-ence of collective rationality would seem to be of a much stronger variety. The discussion of impossibility theorems in Chapter 3 is followed by an examination, in the next chapter, of the simple majority rule, various results showing the impossibility of 'extending' the simple majority rule while satisfying certain desirable criteria, and the transitive closure of the simple majority rule.

While the chapters I have mentioned above contain many important insights and results, the last three chapters (Chapters 5, 6 and 7) are perhaps the most intersting. They deal respectively with the notion of fairness as no envy in the context of social choice theory, the principles of impartiality and justice, and liberalism and rights. Each one of these chap-ters is rich in original ideas and yields a large number of results which are interesting intui-tively as well as formally. It is difficult to comment on all of them in the short span of this review. Therefore I shall be rather selective and focus on Suzumura's analysis of liberalism and rights in some detail.

Suzumura's analysis of liberalism and rights naturally centres around the seminal contribu-tion of Sen on the impossibility of Paretian liberalism and its further development by Gibbard in the framework of decomposable rights system. Suzumura discusses two schemes for resolving the liberal paradox of Sen. To quote Suzumura, "The first scheme is based on

the intuitive concept of a liberal individual who agrees that some parts of his preferences should not count" (p. 237), and under the second scheme it is "shown that if the rights-exercising is restricted by impartial justice considerations, the libertarian claims thus constrained turn out to be compatible with the Pareto principle" (p. 237). For the discussion of these two schemes it may be helpful to note the follow-ing proposition which can be easily proved:

Proposition: Let X be the set of social alter-natives; let $c^1, \cdots, c^m, c^{m+1}$ be $m+1$ unspecified criteria for socially ranking the alternatives in X; and let $k \in \{1, \cdots, m\}$. Suppose for every profile s of individual orderings over X we have binary relations $Q_{s1}, \cdots\cdots, Q_{sm}, Q_{sm+1}$ such that

(1) for all $t \in \{1, \cdots, m\}$, Q_{st} is asymmetric and acyclic;

(2) Q_{sm+1} is an ordering;

and (3) for all $t \in \{1, \cdots, m\} - \{k\}$ and for all $x, y \in X$, $xQ_{st}y \rightarrow xP(Q_{sm+1})y$, where $P(Q_{sm+1})$ is the asymmetric factor of Q_{sm+1}.

Then for every profile s of individual orderings one can specify a reflexive, connected and acyclic social weak preference relation R^s such that

(4) for all $x, y \in X$, $xP(Q_{sm+1})y \rightarrow xP(R^s)y$ (by (3) above this implies $xQ_{st}y \rightarrow xP(R^s)y$ for all $x, y \in X$ and all $t \in \{1, \cdots, m\} - \{k\}$);

and (5) for all $x, y \in X$, $(xQ_{sk}y$ and $\sim yP(Q_{sm+1})x)$ $\rightarrow xP(R^s)y$.

This rather straightforward result seems to constitute the basis of Suzumura's Theorems 7.3 and 7.8 (for simplicity, I have stated the proposition in the relational framework; it can be easily translated into choice-functional terms used by Suzumura). To derive from the above proposition, Suzumura's Theorem 7.3 (which seeks to resolve the liberal paradox by postu-lating the existence of a liberal individual), let $m=2$; for all $x, y \in X$, let $xQ_{s1}y$ iff $\{x, y\}$ is within the scope of some individual's rights and that individual strictly prefers x to y; let $k=2$ and Q_{s2} be the relation of being better than, in terms of the Pareto criterion; and finally, let Q_{s3} be the ordering which the liberal individual wants to be counted on his behalf. To derive Theorem 7.8 one adopts a similar interpretation except that Q_{s3} is now to be interpreted as the justice-ordering of some individual, and k is assumed to be 1.

Consider Theorem 7.8 first and note that it is not necessary to postulate n justice-orderings for the n individuals and to constrain the right of each individual by each one of these justice orderings. It is enough if there exists some individual whose justice-ordering constrains the rights of all individuals. Similarly, it is clear that the ordering constraining the rights need not be a justice-ordering at all; it can be an ordering based on any ethical values so long as it satisfies the Pareto principle. This brings us to the third point. While Suzumura attributes the orderings constraining rights to principles of justice, not much discussion is given to explicate the intuitive content of these orderings. In the absence of such intuitive discussion, it is not clear whether there exist plausible principles of equity or justice which are consistent with the Pareto criterion, which yield complete orderings, and which we would be willing to use as a constraint on the exercise of rights of the type that Sen was concerned about in his example of the lewd and the prude, or Gibbard was concerned about in his example of the marriage problem. Such doubts persist in the context of these specific rights involving privacy even when in general one may be prepared to accept I. Berlin's argument (quoted by Suzumura) that individual freedom has to be weighed against the claims of equity and justice.

Now let us consider the other approach of Suzumura (resulting in his Theorem 7.3) which seeks to solve the liberal paradox by postulating the existence of a liberal individual. First, note that it is *not* being claimed that there exists an individual j whose 'ordinary preferences' (or 'subjective preferences' to use Harsanyi's terminology) are consistent with every individual i's strict preference over the pairs of alternatives coming within the scope of the rights of that individual i. What Suzumura postulates is this: there exists an individual h such that even when h's ordinary preferences do not necessarily conform to every individual's strict preferences over the pairs of alternatives over which that individual has rights, h, guided by his liberal values, would like to be counted on his behalf, not his ordinary preferences, but a preference relation R_h^o which not only respects all the rights but in addition satisfies transitivity (as well as reflexivity and connectedness) by inverting, where necessary, his ordinary preferences over certain pairs of alternatives which do not involve any one's rights. It is obvious that if in addition to respecting the rights of others in accordance with his liberal values, h also wanted to accept ethically the Pareto principle as applied to ordinary preferences, then he could not possibly have a transitive (or even acyclic) R_h^o always, and we would be back to Sen's paradox of the impossibility of a Paretian liberal. Therefore an important question here would seem to be why such an individual should reject as a value judgment, the Pareto criterion with respect to ordinary preferences, and be willing to invert his ordinary preferences over some pairs of alternatives which do not directly involve any one's rights. Furthermore, even if such individuals inverted their ordinary preferences over certain pairs of alternatives not involving rights, it is not clear why, at the stage of social decision making, this, by itself, would constitute an adequate justification for applying the Pareto criterion on the basis of such modified preferences rather than on the basis of the ordinary preferences. It would have been interesting to have Suzumura's detailed views about this.

In this review I have concentrated on Suzumura's chapter on liberalism and rights. Important as this chapter is, it constitutes only one of Suzumura's many thought-provoking contributions in this book. As I have mentioned earlier, there is a wealth of interesting ideas in all the chapters and Suzumura has made important contributions to virtually all the major topics he has taken up in this book. With a large number of propositions formally proved, this may not be an easy book to read, but it is a book which every one interested in the formal and philosophical problems in the theory of collective choice, will find extremely rewarding reading.　　　〔**Prasanta K. Pattanaik**〕