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DEMOCRACY AND JUSTICE: A REVIEW OF GERRY MACKIE'S DEMOCRACY DEFENDED¹

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Abstract

Mackie's volume is a path-breaking, thorough, and innovative overview of the subject of social choice and its implications for understanding democracy. It is made up of various lines of analysis including historical interpretation, a review of massive numbers of statistical studies and a careful analysis of numerous aspects of the logical proof of Kenneth Arrow's Impossibility Theorem. It will be 'must reading' for all who wish to understand democracy given the work in the social choice field over the last 50 years. On the other hand, it has its shortcomings. By focusing on a particular school of attackers of democracy (led by William Riker), the book becomes less balanced and less useful than it might be. Most unfortunately, Mackie does not take the plunge to see what positive elements flow from such related fields as theories of justice. Finally, by avoiding these other fields, the centrality of politics in the pursuit of justice is one of the implications of the analysis that is missed.

1/ Without my having worked on these problems with Norman Frohlich this essay would have been impossible. Finally, the institutional support from the University of Maryland, and the financial backing of the Social Sciences and Humanities Research Council of Canada, were very helpful.

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Democracy and Justice

A review of Gerry Mackie (2003). Democracy Defended. Cambridge University Press: Cambridge, England. 483pp.

By Joe Oppenheimer

Advocates for social justice press governments for social policies for the poor, for the extension of human rights to those less capable of equal representation, as well as for amelioration of market failures and other economic injustices. Interestingly, we are almost always supporters of democratic governance. How surprised, for example, we were when Shadia Drury,¹ in her keynote address at our society's latest annual meeting, asserted that she was an 'anti-democrat.' Our support of democracy could come from indoctrination, or from reason. But a famous finding regarding the limitation of democracy has tended to serve as a block to the immediate *reasoned* support of democracy. The work of Kenneth Arrow (1972 Nobel Laureate in Economics) has put a barrier between democracy and any easy assumption of responsiveness of its output to the needs of its citizens. This finding is usually called Arrow's Impossibility Theorem, after its discoverer. It has led to an enormous body of scholarship referred to as the "social choice" literature. One branch of analysis stemming from this finding has been written by William Riker (1982) and some of his students, and other like minded scholars. These politically conservative scholars have despaired that democracy has no sensible means for aggregating voters' judgements or choices into sensible outcomes. They argue there can be no 'sense of the legislature,' no 'group rationale behind group choice.' I believe most of the scholars who have adopted this interpretation have been political scientists. Economists have been more sanguine.

Although there are plenty of scholars who have looked at Arrow's arguments and come to other more moderate, more pro-democracy, conclusions (c.f. Mueller, 1996, p. 169-170), Mackie's volume is a uniquely frontal and blistering attack on the over-reach of a number of the social choice scholars' pessimistic interpretations of the Impossibility Theorem. He especially singles out Riker for his lack of reasoned conclusions concerning the possibility of responsive democratic government. We social justice theorists are, of course, consumers of democracy. Our theories, if they are to be realized in public policy, depend upon a relatively optimistic relationship between the needs of the populace and the outcomes of democratic politics. So we are all rooting for one side in the debate: the same side as Mackie. If the debate were not central to the understanding of the expectations we can have of a democracy, we could perhaps ignore it. In this essay, I shall begin with a short explication of the problem that Arrow addresses and then turn to the more general Arrow Impossibility Theorem. I will try to illuminate some of the issues with special concern for our field, and introduce the reader to the arguments on both sides of the debate. My sympathies, it must be said at the outset, are clearly in Mackie's corner.

Cycles

Marie-Jean-Antoine-Nicolas de Caritat, also called The Marquis de Condorcet (1743-1794), was a great champion of democracy, the enlightenment, humanism, social justice, women's rights, and was

1/ Professor Drury holds the Canada Research Chair in Social Justice at the University of Regina. She gave a keynote address at the Social Justice Research Bi-Annual Meetings in Regina, Canada June 30 to July 3, 2004. Of course, her comments were nuanced, and hedged by the arguments she developed. But her statement, which was quite direct and sudden, electrified the audience of social justice researchers.

one of the most analytic of the classic democratic theorists. When the French Revolution turned murderous, to protect his family, Condorcet went underground as a fugitive and was picked up by authorities on a tip by someone who recognized him at a bar where he had gone to beg for food. He died almost immediately thereafter in prison. In 1785 he published his Essai sur l'application de l'analyse à la probabilité des décisions rendues à la pluralité des voix (Essay on the Application of Analysis to the Probability of Majority Decisions), a work that is most notable for a theorem we refer to today as the 'Condorcet Jury Theorem.' It shows that under reasonable conditions, if collective decisions are to be used 'to discover' the truth, or the right policy, democratic processes such as majority rule can lead to choices with a higher probability of accuracy than can other processes. But he also noticed a darker side to democracy: the possibility of cyclic majorities, known to us as 'Condorcet Voting Cycles.' When collective decision making is to reach a proper aggregation of the preferences of the voters, then a cycle can be a problem.

Such cycles are easy to illustrate: Consider majority rule. In Table 1, I have illustrated a case where the majority choice cycles: *a* beats *b* (because group X and Z prefer *a*) 5 to 2; *b* beats *c* (unanimously), 7 to 0; *c* beats *d* (because X and Y prefer *c*), 5 to 2; and *d* beats *a*, 4 to 3 (because group Y and Z prefer *c*). Such a cycle can occur when there is sufficient diversity of preferences among the voters. When there is a cycle it becomes difficult to justify the choice of the group, as the

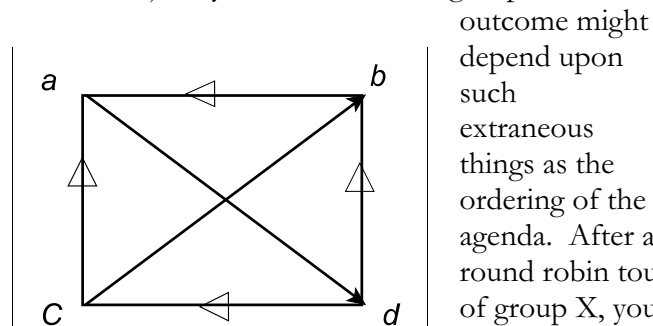


Figure 1: Cycles implicit in Table 1, where $A \succ B$ means 'A beats B.'

Table 1: Condorcet Voting Cycles			
Group/ Rank	X	Y	Z
size	3	2	2
1	<i>a</i>	<i>b</i>	<i>d</i>
2	<i>b</i>	<i>c</i>	<i>a</i>
3	<i>c</i>	<i>d</i>	<i>b</i>
4	<i>d</i>	<i>a</i>	<i>c</i>
outcomes	<i>a</i> beats <i>b</i> beats <i>c</i> beats <i>d</i> beats <i>a</i>		

outcome might depend upon such extraneous things as the ordering of the agenda. After all, imagine an elimination procedure such as in a round robin tournament. Then if you wanted *a* as do members of group X, you would want *b* and *c* to be considered first. Then *b* would eliminate *c* and *d*, and *d* is the only alternative that could beat *a*.

Indeed, when cycles exist it has been conjectured that it become all too easy to manipulate the agendas and procedures, so that the outcome has no normative meaning. Figure 1 displays the 3 cycles of outcomes (*dca*, *dbad*, *dcba*) that are associated with the preferences displayed in Table 1.

Arrow's Impossibility Theorem

As a young research assistant at Rand, Kenneth Arrow was given a problem - how to analyze the strategic placement of US submarines given the interests of the Soviet Union. His response, that the

'interests of the Soviet Union' was not easily identifiable, morphed into the famous theorem.² It stemmed from the simple observation that any notion of collective or national 'interests' or group welfare requires some sort of solution to the aggregation problem. One might try to define such collective interest in terms of an aggregation of preferences or welfare. But the problem, he argued, was often the same in either case. Economics, having gone beyond the simple arguments of classical utilitarianism, no longer thought "summing the utilities (or happiness, or welfare)" of the individuals in a group made sense. One couldn't directly compare the welfare of one person to that of another. Of course, such a blanket prohibition against the comparison of the 'utility' states of different individuals goes against a great deal of 'justice' theory, where some sort of comparison is assumed.³ But it must be noted that the formal mechanisms of democracy, such as voting rules, often don't allow for any 'interpersonal comparisons' either. Arrow then went on to show that *no* institutional rule for aggregating preferences (or non comparable welfares) that conformed to a few desirable characteristics could avoid cycles.

The Desirable Characteristics

Of course, the crux of the question is: "What is the decision rule doing, and what are these desirable characteristics that constrain the rule?" First, it is suggested that the rule ought to select the best outcome for the group. This means, for example, that it must pick an outcome that is 'Pareto optimal'.⁴ But best has some comparative qualities implicit in itself. For Arrow, best was meant in the sense that the procedure or rule had to 'rank' all the outcomes and choose the top ranked. It was to do that by comparing each of the alternatives (pairwise) to one another, and in order to have a ranking, there could be no cycles. That is: second, the rule was to generate 'an ordering'⁵ of the alternatives.

Arrow went on: third, the rule ought to be able to lead to a sensible outcome, generating an ordering regardless of the combinations of preferences that individuals held (referred to as *universal domain*). Fourth, no *one* person could determine all the outcomes (there could be no *dictator*). And finally, and most controversially, the outcome of a choice between any pair of outcomes (say *a* and *b*) had to depend *only* on the preferences between *a* and *b*. Putting this last desired characteristic

2/ There are any number of texts that summarize and discuss the Arrow problem (as presented in Arrow, 1963). At the top of the heap are Sen (1970, 1999a, 1999b and 2002).

3/ Consider Rawls' (1971) theory, for example. He clearly assumes that we can identify the 'worst off' individuals in the society. Of course, such an assumption of *ordinal* comparability doesn't permit us to aggregate the welfares of the individuals algebraically, as by a sum.

4/ Pareto optimality is a condition of an outcome that can be interpreted in two ways. Most simply, one cannot get unanimous support to move *from* a Pareto optimal outcome, because someone would be against it. In other words, to improve the situation for some, others would have to be hurt. On the other hand, if one is not in a situation that is Pareto optimal (referred to as a *suboptimal* outcome), it is possible to get unanimous support to change the situation because *everyone* could be made better off. In Table 1, for example, one of the outcomes is Pareto suboptimal: *c*, the outcome which all the groups of voters find less good than *b*.

5/ An ordering can be illustrated by some properties, such as height. Measuring height leads us to say that one item is at least as tall as another. We can then 'order' them by height, unambiguously. Ties would lead to similar placement in the order.

differently, the choice must be independent of all things other than the preferences held by the individuals. (This is referred to as *independence of irrelevant alternatives*).

In summary, the minimal conditions that the decision rule ought to deliver are:

1. Pareto optimal results;
2. An ordering of the alternatives (no cycles);
3. That it be capable of reaching a decision for all patterns of preference (universal domain);
4. That it reflect the preferences of more than one individual (no dictatorship); and
5. That it lead to a social ranking between any alternatives (e.g. *a* and *b*) that only depend upon the individual rankings of those alternatives.

One can demonstrate the tension in these properties directly: Take the example used in Table 1. As shown in Figure 1, there are 3 cycles: all go through *d*, the suboptimal outcome. Since for Arrow cycles are not to occur (they violate condition 2), it would follow that since *a* beats *b* beats *d*, *a* must beat *d*. But this flies in the face of the requirement that the outcome of the ranking of *a* and *d* must be only determined by the preferences regarding *a* and *d*. So there is tension between conditions 2 and 5. Of course, the intransitivities could be avoided, and all would be well with the other properties (except non-dictatorship, condition 4), if a single individual were dictator, say a member of group X. Then, since the individual has preferences that ordered all the possible alternatives, the preferences would translate into a sensible group ordering.

Spatial Voting:

Mackie's review concerns two aspects of democratic competition: the first is called spatial modeling, and the second focuses on the details of a group's decision rules.

Consider spatial modeling. Although it had roots elsewhere (Hotelling, 1929; Smithies, 1941), spatial modeling involves a way of restricting preferences so as to limit the possibility of voting cycles. As such, spatial modeling gets around the cyclic problem by violating condition 3, confining the set of available preferences conjectured to be held by the citizens, and noticing the performance of the voting rule when it does *not* have to work with *all possible* sets of preferences. Rather, the models assume that the citizens, or members of the legislature, share a point of view; they see things similarly and that, in essence, restricts their preferences.

For example, in a two party political world, as roughly exists in the U.S., perhaps individuals 'locate themselves' on a line defined by the far right of the Republican party and the far left of the Democratic Party. Each voter would then judge candidates and policies by 'how close' these were to their own ideal point on that 'line.' The greater the distance, the less desirable. One can show that this traditional, one - dimensional '*spatial*' voting model means that there is a simple way to predict the outcome of the conjectured voting behavior by 'rational voters.'⁶

The major assumption which generates the analysis is that each voter has an ideal point "along a line" such that the further the collective choice is from the voter's ideal point, the worse off the

6/ Good introductory descriptions of these models can be had in Lalman, Oppenheimer and Swistak (1993), Mueller (1989) and Enelow and Hinich (1984). The major elements of the theory were worked out by Black (1958).

voter is. The major result of the analysis is that the position that will win under most implementations of majority rule is that of the voter who is in the *median* position in the set of voters. That is because no majority could form which could *guarantee* all its members outcomes better than that of the ideal point of the median voter. Of course, this model is based upon a conjecture, that voters are positioned on such a line, and that conjecture might not hold.⁷

How well does such a system perform? Can we ‘characterize’ the predicted outcome in a satisfactory way? Here the geometry is helpful. Note that the result is not in some ‘outlying’ segment of the line, but rather where the people have their ideal points. Thus, in some very rough sense, the system at least hits the target: it delivers a Pareto optimal result. It also delivers the outcome not at the edge of the distribution, but at the median location: a central location. Of course, this is not the same as conforming with some other desirable characteristic - such as minimizing the average distance from the outcome (that would require placement at the mean of the ideal points); nevertheless, by choosing a median outcome, it does move in the direction of moderation. And the result is Paretian, and it doesn’t cycle. All nice properties. And there are no dictators.

Models of problems in real democracies, of course, often cannot be restricted to ‘single dimensions’ where each voter has an ideal preference point along a line and preferences from which satisfaction falls off as the distances from the ideal increase. We have many options to describe what happens when we depart from the simple model above. Easiest in exposition, probably, is the expansion of the model to two dimensions. Institutions must still aggregate the decisions of many voters across many issues.

To help in the analysis, consider Figure 2. There we show the decision problem facing 3 individuals (with homes at A, B, and C). They are to decide by majority rule where to put commonly held fire fighting equipment on a prairie. We might consider an outcome in the middle of the triangle (say at Y) as a useful benchmark: a good compromise. As before, assume that each wishes the equipment to be as close as possible to their own house. That would mean that each individual would prefer (and vote for) points closer to their corner of the triangle than Y.

The analysis follows directly from the observation that, closer to their home means each individual would prefer (and presumably vote against Y for) any point inside that circle which is centered at their own house, and which has Y as a point on its edge (these circles are shown with the dotted lines). What can we predict to

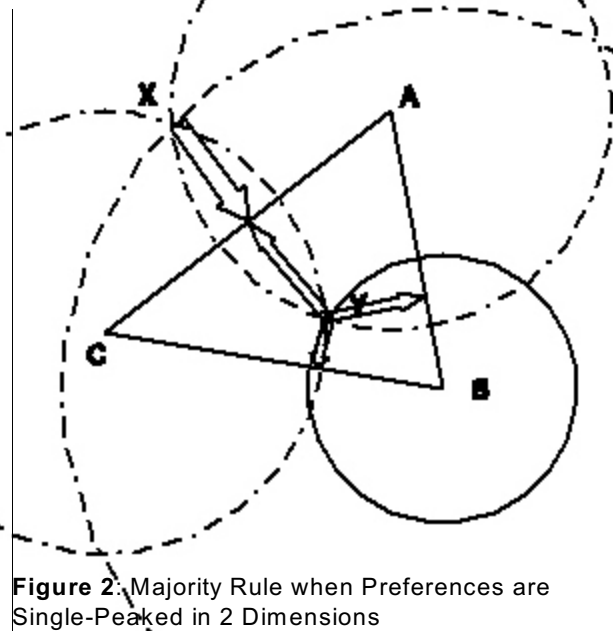


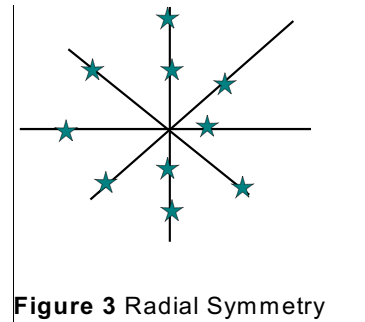
Figure 2: Majority Rule when Preferences are Single-Peaked in 2 Dimensions

7/ Many variations are possible. Specifically, for example, the analysis can be done even if the preferences fall off on a non symmetric basis to the left and right.

be the outcome of a simple majority rule decision? We can see in Figure 2 that there are 3 “lenses” (made from where the circles intersect) which stretch from Y to a point outside of each of the 3 sides of the triangle (X is an example of such a point). Take, as an example, a point inside the lens XY. Both A and C would vote for such an alternative in the lens as it would be closer to both of their houses. In other words, movement from Y to a point into any one of those lenses permits a *majority* (two) of the voters to be better off. Thus, Y is not a stable outcome. For at Y any of three 2-person coalitions can form to improve the position of their coalition members. And an analysis shows that there is NO point that can’t be improved upon for a majority. Indeed, majorities can even swing the choice outside the triangle!⁸

Note that we can analyze this using our previously discussed notion of optimality. Examination of the problem will lead you to see that if we begin outside the triangle we can find points which all can agree to as an improvement. Thus, from X, A and C would prefer movement inside the lens going from X back toward Y, and B would also.⁹ Once in, or on, the triangle, no further movement improves all three individuals. So the triangle is the Pareto set, and the set of points outside are suboptimal.

We might ask what pattern of preferences generates cycles. Here, unfortunately, the answer is easier if we ask what doesn’t generate cycles. In multi-dimensional space, the notion is that only if the ideal points of the voters are radially symmetrically scattered around a point will it be the case that there is no cycle. Think of spokes. For every ideal point on one spoke, there must be an offsetting ideal point on the spoke that goes off the hub opposite to the original spoke. An example would be as in the diagram in Figure 3.



Similar discouragement is found if we seek stability of majoritarian decisions on such questions as redistributive policies. The problem has often been illustrated, but at the risk of redundancy, consider the inherent instability of any majoritarian outcome in a simple, 3 person, divide the dollar game when preferences are strictly a function of one’s own payoffs.¹⁰

8/ Recall any point in the lens will beat the mid point Y. And the lens has a portion outside the triangle.

9/ The solid arc going through X is B’s indifference curve, and B would prefer to be inside that arc.

10/ The theoretical problem is actually broader than this as there is no core in any ‘essential,’ zero sum game. Zero sum implies that there is no sharing of values: one person’s gain is another’s loss. An essential game is one in which it pays to form coalitions. These two properties imply cyclic outcomes with any purely redistributive political issue. Majority rule is just an illustrative case for any political decision structure being employed. See Luce and Raiffa, (1957) Chapter 8.

From Table 2 it is clear that any of the options can be defeated. This is apparent by considering how any one member of a winning coalition can be bribed by the loser into a new coalition, and how this process can become cyclic. For example, imagine the status quo, or current proposal, is egalitarian: each of the three individuals receiving $1/3$. Then a majority can be put together to defeat the egalitarian status quo as is illustrated by the 1st and 2nd lines of the table. There, two participants, i & j , come together to redistribute to

themselves the $1/3$ that was going to participant k so that they each share half of the dollar. That redistribution could itself be defeated by another division as illustrated by line three. Finally, that distribution could be defeated by the original egalitarian one. Since the support for any distributive proposal is strictly a function of the individual's payoff (very similar to self-interest as an assumption), there is no stability. Similarly, any outcome that involved vote trading, is inherently unstable (can be shown to be involved in cycles).

Mackie's Contribution

Now we can wonder about the importance of the findings of Arrow. One very influential political scientist, William Riker (1982), believed that the findings were central to our understanding of democracy. Specifically, he felt that any expectation that democracy would deliver the 'will of the people' is inconsistent with the theorem. He noted that since political institutions deliver choices, it is difficult to document cycles. But Riker went to great length to reinterpret the historical record of major well documented moments in American history to show that they reflected 'cyclic preferences' on the part of the actors. These cases included: 1) The Powell Amendment to a US school construction bill of 1956; 2) the Depew Amendment in the fight to gain direct election of US Senators; 3) the Wilmot Proviso to prohibit slavery in lands conquered from Mexico; 4) the election of Abraham Lincoln; and quite a few other, lesser cases. Riker used these illustrations to reach the more general conclusion that the outcomes of democratic decision processes reflected little more than the manipulations of agenda setters. Mackie takes apart each of the historical interpretations of Riker, showing that each one is fallacious. About one half of the book is made up of Mackie's reanalyses of these historical cases.

But in this book Mackie does much more than perform historically interesting reinterpretations. He reviews, summarizes, and reports a great breadth of studies relating to the performance of democratic institutions. And as the realization of social justice work relies heavily on the potentialities of the performance of the political institutions that aggregate democratically, it is this aspect of the book that is most compelling for justice theorists.

The Good News

Table 2: An Illustrative Majoritarian Divide the Dollar Situation			
Payoffs to participant			This proposal beats the preceding via the coalition:
i	j	k	
$1/3$	$1/3$	$1/3$	(none preceding)
$1/2$	$1/2$	0	i & j
0	0.7	0.3	j & k
$1/3$	$1/3$	$1/3$	i & k

With such a strong theoretical argument regarding the ubiquity of cycles, it might seem surprising that Mackie is able to come to the defense of a more positive reading of democracy. His deft defense is in three parts. First, he does this by reviewing the many studies of voting in democratic legislatures and elections that explored the number of dimensions that are needed to explain the votes. Apparently only one dimension is required for the overwhelming proportion of cases. This means that in elections and legislative votes, there is coherence in democratic choice. Manipulation, though it may exist, doesn't really change the outcomes much except when it is associated with vote trading. Hence the single exception to the general lack of cycles seems to be the implicit cycles that lie behind vote trading.

Further, Mackie points out that there are good reasons to scrap one of Arrow's required normative conditions: number 5, or *independence of irrelevant alternatives*. With this out of the way, Mackie is able to suggest voting rules that allow one to cut through the Gordian knot posed by the theorem so that our common-sense understanding of democracy is preserved. An example might be worth while. Again, take the cycles described in Table 1. Arrow would require that the group choice would be decided upon via a series of pair wise choices in the form of 'a tournament.' Instead of insisting upon 'pair wise' comparisons, Mackie points out that we can use any of a number of other voting methods, such as a 'Borda count.' A Borda count scores the ballots of each voter by the rank the voter gives each alternative and then adds up the score. So with 4 alternatives, a first place gets 3 points, a second place gets 2 points, and a third place gets 1 point. (The points, it ought to be noted, are the sum of the alternatives that the alternative beats for that voter). In Table 3, I report the scores of each of the alternatives, showing that a Borda count doesn't lead to any inconsistency.

But a bit of analysis shows that Borda counts violate *independence of irrelevant alternatives*, or condition 5. That is clear since the choice, say, between *a* and *b* doesn't only depend upon the pair-wise ranking of those two alternatives, but rather upon the ranking of other outcomes relative to *a* and *b*. Mackie's discussion of all this is crystal clear, even if a bit belabored. Mackie considers a number of other alternatives and shows their relative strengths and weaknesses.

Self-Interest: For many, the theory of social justice begins with a reigning in of the impetus for self-interest of the individual. Interestingly, a number of the examples of cases of voting cycles are related to cases of extreme self-interest coming into play. Take the examples given in Figure 2, and also in Table 2. In the drawing I depicted a case of coalition formation to gain advantage in the placement of equipment. Voters were presumed to have no preference for a fair outcome, but rather were concerned only about the closeness of the equipment to their own homes. In the Table, we similarly examined self-interested behavior: in this case, for the division of a dollar.

Table 3: Borda Counts from Table 1			
Group/ Rank	X	Y	Z
size	3	2	2
1	$a - 3$	$b - 3$	$d - 3$
2	$b - 2$	$c - 2$	$a - 2$
3	$c - 1$	$d - 1$	$b - 1$
4	d	a	c
Scores a	9	0	4
b	6	6	2
c	3	4	0
d	0	2	6
Outcomes, total scores	a = 13, b = 14 , c = 7, d = 8: b is the winner.		

Each of us, as behavioral scientists, and justice theorists, have concerned ourselves with the conditions that generate less self-interested behavior: moral framing, concern for others and the like. Mackie's examination of this question focuses on two contexts: the context of voting in elections, and the context of deliberative democracy.

Reviewing numerous studies regarding how individuals are motivated to express themselves while voting in elections, Mackie notes that in larger elections, each individual voter is not very efficacious: the single vote is unlikely to make a difference in the outcome. This being the case, it is perhaps not surprising that voters use the opportunity to vote, not to protect their own interests, but rather to express their moral positions and vote for what is perceived as good for the country; as he puts it (p. 108-9):

Americans vote for incumbent candidates when the economy is good, and for opposition candidates when the economy is bad. Most work had been done on an aggregate basis, and thus it was wrongly concluded that citizens vote their pocketbooks: I vote against the incumbent when I'm not doing well. Alternatively, citizens could be sociotropically motivated: I vote against the incumbent when the country is not doing well.

The studies support the latter hypothesis. And on p. 111:

Since voting takes effort, no instrumentally rational person would bother, and according to rational choice theory almost no one would vote, which we shall term the paradox of participation. Goodin and Roberts (1975) may have been the first to point out that this unleashes the ethical voter.

This means that the voters are expressing what they think *ought* to be done for the good of the group, and not what would explicitly serve each voter's self-interest. When systems, politicians, and contexts encourage self-interested voting we get more of it. But even in such cases, the studies indicate relatively less self-interest being expressed than one might expect (p. 106):

The correlation between self-interest (personal financial situation) and voting in US presidential elections is usually 0.08 but after four years of self-interest rhetoric in President Reagan's first term of office, and his call to "Ask yourself, are you better off today than you were four years ago?", the correlation jumped to 0.36.

And in smaller voting contexts (take the examples discussed above associated with Figure 2, and Table 2) purely self-interested behavior doesn't seem likely.¹¹ Here Mackie gives other reasons.

Deliberative Democracy: Mackie notes that in democracy, voting doesn't occur in a vacuum. Rather, and especially in smaller, non-election voting situations, voting is accompanied by participation in discussion. Such deliberation is certainly as much a part of our notion of democracy as is voting. He then goes on to discuss the relationship between the formation of preferences and discussion. This complex relationship is not included in the logical structure of voting as discussed above, or considered by Kenneth Arrow in his formal work. But the relationship between discourse and preferences changes the mix of preferences that are held in a group. Discussion leads them to converge and indeed, leads them to collapse to points on a single dimension - a useful property indeed (p. 391):

There is empirical evidence for the proposition that deliberation can add to stability. Let's call a collection of individuals' preference orders that are unrelated to one another, ... *unstructured* preferences. Call another collection where there is more resemblance among preference orders more *structured*. The more closely a collection of individual's preference orders approximate a collection of

11/ But here, I am not considering the smaller contexts of professional politicians, such as in legislatures.

single-peaked preference orders, the more likely is it that the paradoxes and instabilities of social choice would be avoided. McLean, List, Fishkin and Luskin (2000, ...) show that deliberation can add structure to unstructured preference orders ...

But discussion does more than this: it tends to change the points of view of the participants so as to orient them toward understanding each other's concerns, and hence to focus on possible compromises, fair points, and so on. Note such a change in framing and the points of view adopted would alter our predictions in the examples discussed above associated with Figure 2, and Table 2. In both of them, the fair points (a central location, an equal division) would take on greater weight, greater prominence and be more likely to be adopted.

Vote Trading. One of the more innovative suggestions that Mackie makes is to point out that vote trading can either be welfare enhancing, or welfare decreasing for the group. Behind this simple point is a rebellion against the strict non-comparability of welfare position taken by so many of the professionals¹² in the social choice field. Agreeing with those that advocate at least rough aggregative comparisons lets one notice that some of the vote trades will enhance welfare, and ought to be positively encouraged. But it is noteworthy that the progress to be made here by vote trading, as in so many other areas of social analysis and social justice, are dependent upon the same concerns:

1. A reigning in of self-interest;
2. The ability to reframe the issues, to adopt a moral point of view rather than a purely selfish one;
3. An acknowledgment that we must be able to compare the welfare of individuals - even if we avert our eyes from the simplest solutions such as 'summing the utilities' (as were advocated by the early utilitarians).

This said, we must note that much of vote trading occurs in legislatures and hence is in response to lobbying and political pressures. Thus there is no reason to assume the act of voting in these cases will mirror the same 'sociotropic' pattern as voting in general elections. And if self-interest lies behind the vote trading, then all the problems of non-Paretian outcomes in cycles can be expected to occur. Hence, for example, cities such as San Francisco, Chicago, and New York can get together with some farmers to get a majority of votes for urban and agricultural projects paid for by every voter even when they are not beneficiaries of any such projects - making for a redistributive politics, much as shown in Table 2 (see Mueller, 1996, Chapters 1 and 2, for a good discussion of such vote trading). In such cases, Mackie would be unable to dismiss the problems so easily, and yet he does not really consider the importance of vote trades as problems of democracy. Mueller (1996) discusses a number of constitutional options to limit the problems that are generated by the vote trading, and a more balanced analysis would have to take these issues more seriously.

Some Problems

If I was truly impressed by the sweep, thoughtfulness, and power of many of the arguments in the volume, I also was surprised by the sloppy and misleading statements that Mackie quotes from

12/ Sen, 2002, is one of the few dissenters. But he is not alone. Arrow, himself, has embraced theories of justice that include minimal comparisons including ordinalist welfare claims that allow one to say John is better off than Mary. Indeed, he shows that coherent social choice can be made with assumptions and rules such as those of Rawls' 2nd principle of justice (1971) - that one ought to maximize the welfare of the worst off (Arrow, 1977).

Arrow's own writings. Mackie uses them to advantage to point his argument more carefully at the weak points in the generalized sweeping empirical claims drawn by pessimists from the Arrow theorem. But by having found these sloppy thoughts of the Nobelist, the reader could easily be misled in at least three unfortunate ways.

First, a reader who doesn't know Arrow's works well might see Arrow as being in bed with Riker as a stern critic of democracy. This would be completely wrong. Arrow is a passionate democratic socialist who has championed social justice his whole life. Indeed, the two leading social choice theorists, Sen and Arrow, are both at great distance from the positions of William Riker. Arrow doesn't dispute the importance and potential of democracy. What he does lead us to is the great intellectual problem of how to understand social welfare, and how to tie it evaluatively to political and social processes that aggregate individual decisions into social outcomes. Only by understanding these processes can we design institutions that assure better outcomes.

Second, Mackie makes it quite clear that the problems Arrow found were just as applicable to non political processes, such as those associated with markets. But here too, he is not quite as pioneering as might be believed. Arrow never focused on voting in his analysis. Indeed, he was clear that the problems were general to all social aggregation processes. On the other hand, Mackie does Arrow, and all of us, a service by including some examples of market processes and situations that lead to the existence of choice cycles (p. 435).

Third, Mackie never seems to notice that he doesn't really challenge, nor properly discuss, one of the major thrusts of the Arrow theorem. Arrow, recall, objected to the identification of a national preference structure (or national interest) to solve the submarine placement problem. The major thrust of Arrow's analysis was to call into question *any* interpretation of social welfare as an aggregate that went beyond Pareto optimal without utilizing some notions of interpersonal comparability. Perhaps such a discussion would have diverted Mackie from his own path. But more than fifty years of scholarship after the theorem leaves this question unanswered, and the structure of a collective conception of welfare is the holy grail of numerous social justice theorists. It is time for us to consider the problem of comparability more richly.

Revisiting Democracy and The Possibility of Social Justice

How we come to evaluate the relationship between social justice and social choice is still unclear. Clearly, the processes of politics can be improved upon: democracies are improvements over dictatorships. Their related liberties insure that some groups can organize to have their collective desires met; and the freedoms of the press and the vote prevent the worst calamities from passing without political remedy (see, for example, Sen's work on famines and their relationship to autocratic governments: Sen, 1981, 1999b). Similarly, we have enough knowledge to be able to assess considerable dimensions of social welfare: longevity, median standards of living, malnutrition, hyper tension, murder, poverty, imprisonment rates, and so on. Few are unable to make generalized comparisons given such statistics. Rather, the judgements are necessarily nuanced: trade offs are at times called for between values, and a unified conception of social justice that is independent of such trade offs seems to be a chimera unable to be realized. If this is the key assumption behind the original theorem, then it is also the key to developing a serious understanding of justice. If we don't understand how we as humans compare our welfare to that of others, we will have difficulty developing a psychologically compelling theory of justice.

This being the case, it is perhaps an interesting corollary of this book that the achievement of social justice will be dependent upon the design features of political institutions. After all, if deliberation and discussion alter the points of view by changing the framing individuals have of the importance of their self-interest vis a vis the welfare of others, and if such discussion and debate leads to a coalescing of options and preferences, then procedures for discussion are important. If Borda, and other rules, can help solve cycles, the voting rules are important. And if vote trading is a problem, then rules of germaneness, etc. can be helpful. We can expect that such institutional details will determine, to a great degree, the realization of different mixes of social welfare. It is interesting that the most abstract theories of mathematical decision making point in the same direction as the comparative structural - cultural studies performed by social scientists in all of our disciplines.

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