

Democracy and Other Goods*

by

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References

1. The Democratic Process

In his masterly affirmation of the democratic ideal, Dahl (1989) observes that "effective participation by citizens" and "voting equality among citizens" have often been taken to be the two features that embody the idea of democratic process. But he argues that any association which governs itself by them alone should be regarded as conforming to the ideal in a narrow sense only (pp. 108-11). Dahl then shows that there is a third requirement - "enlightened understanding" - which, when added to the two, defines a full procedural democracy with respect to its agenda and in relation to its demos (people). And he writes (pp. 111-2):

"... democracy has usually been conceived as a system in which the rule by the people makes it more likely that the people will get what it wants, or what it believes is best, than alternative systems like guardianship in which an elite determines what is best. But to know what it wants, or what is best, the people must be enlightened, at least to some degree... (Thus) each citizen ought to have adequate and equal opportunities for discovering and validating ... the choice on the matter to be decided that would best serve the citizen's interests."

Dahl then shows that even this isn't enough. He adds a fourth requirement (pp. 112-4), that citizens must have the exclusive opportunity to decide how matters are to be placed on the agenda of those matters that are to be decided by means of the democratic process. Moreover, final control of the agenda by citizens, Dahl argues, presupposes that citizens are qualified to decide (i) which matters do or do not require binding decisions; (ii) of those that do, which matters they are qualified to decide for themselves as a collective; and (iii) the terms on which they delegate authority.

Taken together, the four criteria define representative democracy, with clearly established limits on the agenda over which collective decisions are to be made. This means that the possible centrality in the political lexicon of individual rights (such as non-interference by others on matters in the private domain) is consonant with the democratic ideal.

Dahl then proves that even this would not suffice. He adds a fifth requirement, concerning inclusion (pp. 119-31), that "the demos must include all adult members of the association except transients and persons proved to be mentally defective". And he concludes that, if democracy is the ideal, the five criteria, taken together, are the standard by which political processes ought to be judged.

In this paper we will take it that the five requirements of an ideal democratic process are uncontroversial. Our aim is to build on these ideas by presenting several findings that have emerged,

since Dahl's book was published, on both the theory and practice of democracy. We present them here in the belief that they add to our understanding of the strengths and limitations of the democratic ideal.

Section 2 will be concerned with decision rules for translating individual values (or preferences) into collective choice. We will call them "voting rules". Dahl's five requirements do not specify the voting rule that best reflects the democratic ideal. We should not expect it to be otherwise, for Arrow's classic formulation of the idea of democratic voting rules showed how wide a range such rules could in principle encompass (Arrow, 1951). Dahl suggests, however, that the rule that has historically been regarded as appropriate to the democratic process is the majority rule; and he observes (Dahl, 1989: 135):

"... virtually everyone assumes that democracy requires majority rule in the weak sense that support by a majority ought to be necessary to passing a law. But ordinarily supporters of majority rule mean it in a much stronger sense. In this stronger sense, majority rule means that majority support ought to be not only necessary but also sufficient for enacting laws." (Emphasis in the original.)

But as Dahl himself notes, even the term "majority" rule is not unambiguous: it refers to a family of voting rules, for example, that the alternative to be chosen is the one that wins over all others by a simple majority, or that if an alternative is to win outright, it should not be beaten by any other by more than one-third of the number of voters (hence the term, 2/3-majority rule), and so on. Dahl (1989, especially Ch. 10) marshalls a powerful case for majority rules in general, but gives particular attention to the simple majority rule. He recognizes that all such rules are subject to potential deficiencies, for example, that cycles exist in which no majority preference can be established. But, then, all democratic decisions rules that satisfy the conditions enunciated in Arrow's famous Impossibility Theorem (Arrow, 1951) suffer from such problems. Bergson (1976) observed that representative democracy as, say, reflected in "democratic-one-man-rule", can violate one of Arrow's conditions (the "independence of irrelevant alternatives"). But Bergson also noted that this does not make representative democracy immune to Arrow's problem.

Among democratic voting rules, the simple majority rule (we will call this the majority rule) has a particularly strong intuitive appeal. May (1952) offered an axiomatic account of where that appeal lies. In Section 2 we present a new defense of majority rule, one which complements May's finding. We show that, among all voting rules satisfying a set of intuitively appealing conditions that have been much studied in the literature, majority rule is immune to cycles (i.e. the rule is transitive) on the largest domain of configurations of individual preferences, and is the unique such rule. To put it briefly,

majority rule is robust.

Section 2 identifies the attraction of majority rule as an expression of the democratic decision-making process. In the remainder of the paper we explore a number of instrumental virtues of democracy. In Section 3 we develop the third of Dahl's five criteria, namely "enlightened understanding", quoted above. We argue that limited knowledge and asymmetric information among members of a demos do not merely call out for the creation of opportunities among people to acquire more information, they also provide an instrumental justification for democracy. It has been said that democracy is the worst system of government, except for the other systems of government. Incomplete and asymmetric information among members of a demos provide an explanation for why the epithet is true. We argue this by appealing to recent findings on the management of local common-property resources among rural communities in poor countries. These empirical findings reveal, in particular, the instrumental value of local participatory democracy. Related to this, political scientists have drawn attention to the positive influence civic engagement can have on government performance in democratic societies (Putnam, 1993; Cohen and Rogers, 1995). Their argument is that government accountability requires collective action. But collective action requires coordination; more fundamentally, it requires that people trust one another to coordinate. Civic engagement creates trust by reducing the uncertainties each party harbours about others' predilections and dispositions. Contrariwise, an absence of such engagement makes trust that much harder to build. In an interesting, suggestive paper, Seabright (1997) has provided both analytical and empirical support for this reasoning by showing that trust can indeed be "habit forming".

In Section 4 we focus on representative democracy and the concomitant idea of political competition. As Shapiro and Hacker-Cordon (1998) note, the idea of political competition was central to Schumpeter's reformulation of the concept of democracy (Schumpeter, 1942). The thought is that political democracy and civil liberties together are a means by which government can be made accountable. But the view is often questioned for poor countries, for it is not uncommon to hear the suggestion that citizens of poor countries cannot afford such luxuries as civil and political rights, that they are inimical to economic development. A natural question to then ask is if there is in fact a conflict in poor countries between economic development and political and civil liberties. In Section 5 we look at some evidence and arrive at a tentative, and what we think is an encouraging, finding on this.

Democracy is all things to all people. As Shapiro and Hacker-Cordon (1998) also observe, if

democrats expect much of democracy, democracy all too often disappoints. The recent empirical findings we report in this paper suggest that, happily, democracy is more consonant with other social goods than critics of democracy are inclined to believe.

2. The Reach of the Majority Rule

The rules that transform individual values into collective choice differ widely across countries. In his classic work, Arrow (1951) offered a particular axiomatization of democratic rules and showed that they cannot always be "coherent"; that is, no voting rule satisfying a particular set of democratic criteria is transitive if the domain of individual values (or preferences) is unrestricted.¹ This means that, unless restrictions are placed on the domain, every such voting rule can be relied upon to generate cycles for some configurations of preferences. The most famous illustration of this remains the Condorcet-cycle, generated by the majority rule.

To illustrate the Condorcet-cycle, consider three voters, who rank three alternatives (labelled x, y, z) as, respectively, "x over y over z", "y over z over x", and "z over x over y". Simple majority rule is intransitive under this configuration of preferences. To confirm this, note that, since two of the voters prefer x to y, simple majority rule requires that x be ranked over y; likewise, since two of the voters prefer y to z, the rule requires that y be ranked over z. By transitivity, x should be ranked over z. But since two of the voters prefer z to x, the rule requires that z be ranked over x, which is a contradiction!

Why is majority rule, nevertheless, intuitively appealing? It is because the rule, especially when applied to choices over political candidates, possesses several compelling properties. First, it satisfies the Pareto principle: if all voters prefer alternative x to alternative y, the rule ranks x over y. Secondly, it is anonymous: the rule treats all voters symmetrically in the sense that the ranking is independent of voters' labels. Anonymity, therefore, captures the second of Dahl's five criteria: voting equality among citizens. And thirdly, majority rule satisfies neutrality: its ranking over any pair of alternatives depends only on the pattern of voters' preferences over the pair, not on the alternatives' labels.

Neutrality is symmetry with respect to alternatives. In the context of representative democracy, neutrality is a natural requirement of a voting rule: it prohibits procedural discrimination against candidates. Rules that violate neutrality have built into them preconceived rankings, for example, favouring the status-quo. If preconceived social rankings are to be avoided, neutrality is the condition

¹ We are using "values" and "preferences" interchangeably here because their distinction plays no role in what follows.

that can ensure its avoidance.

But majority rule is not the only voting rule satisfying anonymity, neutrality, and the Pareto principle; there is a vast array of others (e.g. the 2/3-majority rule; and the Pareto-extension rule, wherein two alternatives are considered to be socially indifferent unless all voters prefer one to the other). However, all are subject to Arrow's stricture, that is, each will generate cycles for some configurations of preferences.

In this context, Dasgupta and Maskin (1998) have constructed a new defense of majority rule when the number of voters is large. They have shown that, among all voting rules that satisfy anonymity, neutrality and the Pareto principle, majority rule is immune to cycles (i.e. it is transitive) on the largest domain of individual preferences; moreover, it is the unique such rule. To be precise, they have shown that if, for some domain of individual preferences, a voting rule satisfying anonymity, neutrality, and the Pareto principle is transitive, then so is majority rule transitive on this domain. Moreover, unless a voting rule is itself the majority rule, there exists some domain of individual preferences on which majority rule is transitive, but the voting rule in question is not. The result captures the sense in which majority rule is robust.²

To obtain an understanding of the result, let us return to the Condorcet example. Imagine that there are three voters and three alternatives $\{x,y,z\}$. Imagine also that the voters can have strict preferences only. It then follows that there are in all six possible preference orderings for each voter: $[x,y,z]$, $[y,z,x]$, $[z,x,y]$, $[x,z,y]$, $[z,y,x]$, $[y,x,z]$.³ It will be noticed that there are now two possible Condorcet-cycles, one generated from the first triple $\{[x,y,z], [y,z,x], [z,x,y]\}$, another from the second triple $\{[x,z,y], [z,y,x], [y,x,z]\}$. It is an easy matter to show that majority rule is transitive on a domain of preference profiles if, and only if, for all triples of alternatives $\{x,y,z\}$, one of the orderings $\{[x,y,z], [y,z,x], [z,x,y]\}$ and one of the orderings $\{[x,z,y], [z,y,x], [y,x,z]\}$ are absent from the domain; Condorcet-cycles are thereby avoided. It is also possible to show that for any other voting rule satisfying

² Maskin (1995) explored the robustness of majority rule for the case of a finite number of voters. He proved that it is robust when the number of voters is odd. But the oddness restriction is discomfiting. It is invoked to avoid pathologies that arise when, for example, exactly half the population prefers x to y and the other half prefers y to x . In large organizations such knife-edge cases are unlikely to occur. In order to formalize this idea, Dasgupta and Maskin (1998) have studied the case where the number of voters is a continuum.

³ In writing $[x,y,z]$ we mean that x is ranked over y and y is ranked over z . And so on.

anonymity, neutrality, and the Pareto principle to be transitive on a domain of preference profiles, a greater number of preference orderings must be absent from the domain.

In order to illustrate this, consider for example the 2/3-majority rule. It can be shown (Dasgupta and Maskin, 1998) that this rule is transitive on a domain of preference profiles if, and only if, for any triple $\{x,y,z\}$, there exists a member, say, x , such that for all preference orderings in the domain, x is either the best, or the worst, or strictly in between y and z . This means that at least four of the six possible strict orderings $\{[x,y,z], [y,z,x], [z,x,y], [x,z,y], [z,y,x], [y,x,z]\}$ must be omitted from the domain (two from the first group of three, and two from the second group of three).

As another example, consider the plurality rule, wherein candidate x wins over candidate y if and only if the number of voters who rank x over all other candidates exceeds the number of voters who rank y over all other candidates. It can be shown (Dasgupta and Maskin, 1998) that this rule is transitive on a domain of preference profiles if, and only if, for any triple $\{x,y,z\}$, there exists a member, say, x , such that for all preference orderings in the domain, x is either the best or the worst. This again means that at least four of the six possible strict orderings $\{[x,y,z], [y,z,x], [z,x,y], [x,z,y], [z,y,x], [y,x,z]\}$ must be omitted from the domain (two from the first group of three, and two from the second group of three).⁴

These considerations bear on the character of voting rules. In recent years though the spheres in which democracy ought to be practised have received greater attention. Of particular interest are findings on the management of local common-property resources. We turn to this.

3. Local Democracy and the Local Commons

Garrett Hardin's famous statement on the fate of common-property resources (Hardin, 1968), that they erode because people "free-ride" on others and, so, consume them in excess, was telling for such globally mobile resources as the atmosphere and the open seas. But Hardin's essay has often misled people into thinking that the "tragedy of the commons" is an apt metaphor also for geographically localized common-property resources, such as ponds, streams, woodlands and local forests, threshing grounds, swidden fallows, and grazing fields. The theory of games taught us some time ago that the local commons can in principle be managed efficiently by the users themselves, that there is no obvious need for some agency external to the community of users (e.g. the State) to assume a regulatory role, nor a

⁴ We may conclude, therefore, that the plurality rule is transitive on a still smaller domain of individual preferences than the 2/3-majority rule.

need for privatising the commons (Dasgupta and Heal, 1979, Ch. 3). A large body of recent evidence confirms the theory's prediction: members of local communities have often cooperated in protecting their commons from excessive use.⁵

Why should we expect such a marked difference between the fates of local and global common-property resources? One reason is that individual use is more easily observable by others when the resource isn't spread out spatially; which means that it is easier to prevent people from free-riding on the local commons. (Contrast the use of a village tube-well with the littering of streets in a metropolis; or cattle-grazing in the village commons with deforestation on mountainous terrains). However, bargaining, enforcement, and information costs also play a role in the relative efficacy of the various rules that can in principle be invoked for sharing the benefits and burdens associated with an efficient use of common-property resources. Thus, it matters whether the users know one another (contrast a village grazing ground with ocean fisheries); it matters whether increased mobility makes future encounters among group members more uncertain (contrast a traditional village with a modern metropolis); and it matters whether population pressure leads bargaining costs to exceed the benefits of cooperation. The confirmation of theory by current evidence on the fate of different categories of common-property resources has been one of the most pleasing features of modern economic analysis. Since much of the evidence comes from poor countries, we will concentrate on them.

Are common-property resources extensive in poor countries? As a proportion of total assets, their presence ranges widely across ecological zones. In India they appear to be most prominent in arid regions, mountain regions, and unirrigated areas; they are least prominent in humid regions and river valleys (Agarwal and Narayan, 1989). There is, of course, an economic explanation for this, based on the common human desire to pool risks. An almost immediate empirical corollary is that income inequalities are less where common-property resources are more prominent. However, aggregate income is a different matter, and it is the arid and mountain regions and unirrigated areas that are the poorest. This needs to be borne in mind when government policy is devised. As may be expected, even within dry

⁵ There is now a large empirical literature recording both the successes and failures of common-property resource management. Chopra, Kadakodi and Murty (1989), Feeney *et al.* (1990), Ostrom (1990, 1996), Baland and Platteau (1996, chs. 10-13), and Netting (1997) offer good reviews of the findings.

regions, dependence on common-property resources declines with increasing wealth across households.⁶

Jodha (1986) used data from over eighty villages in twenty-one dry districts from six tropical states in India to estimate that, among poor families, the proportion of income based directly on the local commons is for the most part in the range 15-25 percent (see also Jodha, 1995). This is a substantial proportion. Moreover, as sources of income, they are often complementary to private-property resources, which are in the main labour, milch and draft animals, cultivated land and crops, agricultural tools (e.g. ploughs, harrows, levellers, and hoes), fodder-cutting and rope-making machines, and seeds. Common-property resources also provide the rural poor with partial protection in times of unusual economic stress. For landless people they may be the only non-human asset at their disposal. A number of resources (such as fuelwood and water, berries and nuts, medicinal herbs, resin and gum) are the responsibility of women and children.

A similar picture emerges from Hecht, Anderson and May (1988), who describe in rich detail the importance of the extraction of babassu products among the landless in the Brazilian state of Maranhão. The support such extraction activity offers the poorest of the poor, most especially the women among them, is striking. These extractive products are an important source of cash income in the period between agricultural-crop harvests.⁷

Typically, the local commons are not open for use to all: they are not "open access" resources. In most cases they are open only to those having historical rights, through kinship ties, community membership, and so forth. Social capital, viewed as a complex of interpersonal networks is telling in this context: it hints at the basis upon which cooperation has traditionally been built.⁸

Communal management of the local commons is not restricted to poor countries. In summarizing his findings on the management of the local commons in the Swiss Alpine forests, Netting (1997) reported that the elected village council marked equivalent shares of standing timber for cutting,

⁶ For further discussion of this link, see Dasgupta and Mäler (1991). In his work on South Indian villages, Seabright (1997) has shown that cooperatives (that are not necessarily connected with the management of local commons) are more prevalent in the drier districts.

⁷ For a similar picture in the West African forest zone, see Falconer (1990).

⁸ See Coleman (1990) and Putnam (1993). Cohen and Rogers (1995) have developed these ideas further by studying certain features of local communitarian activities, in particular their role in fostering democratic institutions. Dasgupta (1997) contains an economist's account of the notion of social capital.

and community members drew lots for these shares. Punishment was meted out to those who took more than their share. In the summer, cattle owners could graze only as many beasts on the communal alp as they fed from their own supply of hay during the preceding winter. Thus the total number of animals was kept roughly in line with the fodder potential of all village irrigated meadows, but individual owners of larger hay lands had the right to graze more cows on the commons.

Thus far the prevalence of local common-property resources. As we noted earlier, the empirical literature has also confirmed that resource users in many instances cooperate, often through not undemocratic means, to ensure that the resource base is not eroded. Attempts have also been made by social scientists to explain observed asymmetries in the distribution of benefits and burdens of cooperation in terms of underlying differences in the circumstances of the various parties. For example, in her study of collectively-managed irrigation systems in Nepal, Ostrom (1996) has explained observed differences in benefits and burdens among users (e.g. who gets how much water from the canal system and who is responsible for which maintenance task) in terms of such facts as that some farmers are headenders, while others are tailenders. Ostrom (1990) has also tried to explain why cooperation has failed to get off the ground where it did not get established, and why cooperation broke down in a number of cases where it did break down.

There are a number of curious implications of modern game theory that too have been useful in interpreting evidence. In a summary of her research findings on local irrigation in Nepal, Ostrom (1996) notes that systems that had been improved by the construction of permanent headworks were in worse repair, delivered substantially less water to the tail-end than to the head-end of the systems, and had lower agricultural productivity than the temporary, stone-trees-and-mud headworks that had been constructed and managed by the farmers themselves.

Ostrom has an explanation for this. She suggests that, unless it is accompanied by counter-measures, the construction of permanent headworks alters the relative bargaining positions of the head- and tail-enders, resulting in so reduced a flow of benefits to the latter group that they have little incentive to help repair and maintain the headworks, something the head-enders on their own cannot do. Head-enders gain from the permanent structures, but the tail-enders lose disproportionately. She also notes that traditional farm-managed systems sustained greater equality in the allocation of water than modern systems managed by such external agencies as the government and foreign donors.

Wade (1988) has also conducted an empirical investigation of community-based allocation rules

over water and the use of grazing land. Forty-one South Indian villages were studied, and it was found, for example, that downstream villages had an elaborate set of rules, enforced by fines, for regulating the use of water from irrigation canals. Most villages had similar arrangements for the use of grazing land. In an earlier work on the Kuna tribe in the Panama, Howe (1986) described the intricate set of social sanctions that are imposed upon those who violate norms of behaviour designed to protect their source of fresh water. Behaviour dictated by social norms could seem incongruent with the democratic ideal, but the theory of repeated games has shown that there can be a close connection between the two. Social norms can be viewed as self-enforcing behavioural strategies. Even if a resource allocation rule among members of a community were chosen democratically, there would be a problem of enforcement. Norms are a way the rule could be enforced without the community having to rely on the coercive powers of a higher authority (e.g. the State).⁹

This said, it is important to caution against romanticising communitarian arrangements over the use of the local commons. Beteille (1983), for example, contains examples of how access is often restricted to the privileged (e.g. caste Hindus in India). Rampant inequities exist in rural community practices. We are laying stress upon the fact that the local commons are often not unmanaged; we are not suggesting that they are invariably managed efficiently, nor that they are inevitably managed in ways that involve an equitable distribution of benefits and burdens. Good management of the commons requires more than mere local participation; it needs enlightened government engagement as well.

Not surprisingly, information about the ecology of the local commons is usually in the hands of those who, historically, have made use of them. This means that, as a general rule, decisions regarding the local commons ought to be left in the hands of the users themselves. It forms one reason why it is so important that local democracy be encouraged to flourish in rural communities of poor countries. The local commons will almost certainly remain the single source of vital complementary and insurance goods for poor people for a long time to come. One of the duties of the State is to help develop rural infrastructure and markets for credit and insurance, each of which could be expected to lessen the community's reliance on the commons. However, there is little case for centralized command and control over the use of the commons; quite the contrary, there is a case for helping the growth of local democracy. As women are often the ones to work on the commons, they would be expected to know

⁹ Fudenberg and Maskin (1986) contains a general proof of the proposition.

much about the ecological processes upon which their communities depend. So an important task for the State is to help women participate in the democratic process. More generally, the State is obliged to ensure that local decision-making is made in an open way. It would help prevent the economically powerful among rural communities from usurping control over such decisions. This tension - the simultaneous need for increased decentralization of rural decision-making, and for State involvement in ensuring that the seat of local decisions is not usurped by the powerful - poses the central dilemma in the political economy of rural poverty. Civic engagement, local democracy, income security, and environmental protection would appear to be tied to each other.¹⁰

4. Representative Democracy and Political Competition

At a village level, participatory democracy may well work. There are problems with it at a more extensive level, which political theorists have long noted. The case Dahl (1989) makes is, consequently, for representative democracy. But no discussion of representative democracy, however brief, can get off ground without an acknowledgement of the instrumental worth of political competition.

Competition in the political sphere not only enables citizens to shop among contenders to govern, it also enables them to shop for ideas on governance. Pluralism in the political domain is akin to competition in the market-place. Competition is desirable even in an unchanging environment: it discourages inefficiency. Competition is necessary to keep incumbents from slacking.¹¹

Under changing circumstances and the birth and growth of new ideas, the argument for political competition is, possibly, even stronger. It isn't merely personal dictatorships that are likely to be a harbinger of disaster over the long run. Even party systems, unless disciplined by political competition, are prone to ossification. Admittedly, even single-party systems can field competition, as members vie with one another for control of the party apparatus. But for a political party to be definable, there must be something fixed on its agenda, at least over the short-to-medium run; it wouldn't be a party otherwise. For this reason single-party systems seem unable to field the spectrum of ideas political democracies can. Moreover, the judiciary is often unable to act independently of the legislative and executive branches of government under a single-party system. Over time this proves corrosive, stifling, and ultimately

¹⁰ See Esman and Uphoff (1984) and Ghai and Vivian (1992) for case studies on the effectiveness of local democracy for rural development.

¹¹ Besley and Coate (1997) have developed a formal model in which political competition provides the necessary mechanism for representative democracy to yield an efficient outcome.

oppressive. Political competition enables citizens over the long run to change their portfolio of risks, much as they can in financial markets.

Unless they can be held accountable by independent bodies at every level, however, even democratically elected governments are not immune to the commands of powerful groups.¹² But authoritarian regimes in general, and dictatorships in particular, are a different species. Except possibly in emergencies, they can be expected to be inefficient, because among other things they have little incentive to encourage the production, dissemination, and use of information. Moreover, even seemingly-benign authoritarian regimes turn nasty when economic circumstances run into awkward corners, or when citizens (often minorities) seek changes in their social and political situation, or begin demanding patterns of goods not currently obtainable in the economy, or, more generally, demand changes in the resource allocation mechanism currently in operation.

Admittedly, authoritarian regimes can leave citizens alone to pursue their lives. Authoritarian governments have also been known to provide a good environment for economic activity. But a commonly-held belief that benevolent authoritarianism is a sure-fire route to sustained economic betterment is a belief in an incongruent object: sustained benevolent authoritarianism. Pointing to economies that have achieved significant economic progress under authoritarian regimes is no guide to political action. Citizens cannot will wise authoritarianism into existence, nor can they remove an authoritarian regime readily if the political leadership proves to be unsound. A central problem with authoritarianism is its lack of incentives for error-correction, a point that has repeatedly been made by advocates of liberal democracies.

From this it does not, of course, follow that political democracy guarantees progress, nor that it propels economic growth or promotes substantial equality in well-being. In fact it guarantees none of these things. What political pluralism does, when it is allied to a commitment on the part of citizens that good government must protect and promote civil and political liberties, is to encourage the creation of a social and economic environment where citizens have a chance to thrive. Of course, if civic order and general civic responsibility have broken down, there is no prescription to be had, either one way or the other. It is hard to know what prescriptions one can conceive at this moment for Rwanda or Somalia or the Sudan.

¹² Dixit (1996) and Myerson (1997) offer good accounts of what is currently understood about political competition subject to transaction costs.

These brief remarks have been deliberately speculative. They are certainly not uncontroversial, most especially, perhaps, in the context of poor countries. So in the following section we will look at some statistical evidence.

5. Democracy and Human Development: Some Evidence

Is democracy associated with human development? For example, is growth in national income per head, or increases in life expectancy at birth and the infant survival rate, or improvements in literacy, greater in countries where citizens enjoy less curtailed civil and political liberties?

The case-by-case approach to such questions has enjoyed a long tradition, but it is often so case-specific, that it is difficult to draw a general picture from the studies. An alternative is to conduct statistical analyses of cross-country data.¹³ But the limitations of statistical analysis are often noted by social scientists, many of whom find them mechanical, bloodless, and lacking in the kind of insights that only micro-historical studies can offer. There is something in this, but it is also good to recognise their strength. Statistical analyses should be seen as complements to the case-studies of nations and regions. Their strength lies in that we avoid getting enmeshed in historical details, which can mesmerize us into thinking that whatever happens to be the case has had a certain inevitability about it.

The study of cross-country statistics is frequently criticized also on grounds that figures for such indices as national income, the literacy rate, and life expectancy at birth are well known to be defective. To give an example, for several sets of countries the available data are not quite comparable: not only were they not collected in the same year, the methods deployed for collecting them were not the same. In the extreme, some of the data reflect not much more than interpolations on data collected in neighbouring countries. But all this provides an argument for being careful in designing their analysis (for example, making only ordinal comparisons, so as to nullify systematic biases; see below), it is not a reason for assuming a coy posture and pretending that cross-country statistics have nothing to offer.¹⁴

A further criticism of cross-country statistical inquiries into the links between civil and political liberties, on the one hand, and improvements in the standard of living, on the other, has been that they have often arrived at contradictory results. But it is as well to check the methodologies deployed in such studies before worrying if their answers tally. Numerical indices of civil and political liberties have no

¹³ Taylor and Jodice (1983) contain studies based on time series.

¹⁴ World Bank (1991) contains a good discussion of the limitations of international statistics.

cardinal significance, they make only ordinal sense. However, a number of published studies have ignored this and run linear regressions between indices of freedom and measures of the living standard. That the findings in such studies are not consonant with those that make use only of ordinal information is no reason to think that the latter are uninformative.

In an early statistical inquiry, Dasgupta (1990) explored possible links between political and civil liberties and changes in the standard of living. The study was restricted to poor countries. Only ordinal information was used and no attempt was made to search for causality in the relationships that emerged. In the remainder of this section we will summarize the findings.

The sample consisted of countries where, in 1970, real national income per head was less than \$1,500 at 1980 international dollars. There were 51 such countries with populations in excess of 1 million (Summers and Heston, 1988). The period under observation was the decade of the 1970s. Table 1 summarizes the data.¹⁵

The first column of Table 1 presents the average of the 1970 and 1980 figures for real national income per head. We will use this average as reference, rather than income per head at some given year during the decade, because growth rates differed across countries during the period. One common measure of economic performance is the percentage change in real income per head. This is provided in column (2). It will be noticed that an astonishing 15 of the 51 countries experienced a decline in real income per head during the 1970s.

Column (3) records life expectancy at birth in 1970. We need to construct a measure of the change in this index over the decade. This is a delicate matter. Equal increments are possibly of less and less ethical worth as life expectancy rises to 65 or 70 years and more. But we are measuring performance here. So it would seem that it becomes more commendable if, with increasing life expectancy, the index were to rise at the margin. The idea here is that it becomes more difficult to increase life expectancy as life expectancy itself rises. A simple index capturing this feature is the ratio of the increase in life expectancy to the shortfall of the base-year life expectancy from some target, say 80 years. Column (4) of the table gives this index of improvement over the period 1970-80 for 51 countries. All but two countries, Rwanda and Uganda, recorded an improvement.

Column (5) provides infant mortality rates in 1970. Construction of an index of improvement in

¹⁵ The account here is taken from Dasgupta (1990, 1993).

these poses a similar problem. The ethical issues here are, no doubt, different from those concerning increases in life expectancy at birth. But we are trying to record performance in this field. A figure of 10 per 1000 for the infant mortality rate is about as low as it is reasonable for poor countries to aspire to for a long time to come. So we take the index of improvement to be the ratio of the decline in the infant mortality rate over the period in question (1970-80) to the base-year infant mortality rate minus 10. All countries in our sample have shown an improvement in infant survival rates. Column (6) presents values for this index of improvement.

The construction of an index of improvements in literacy rates doesn't pose problems of the kind we face in connection with life expectancy at birth and infant survival rates. It isn't immediately clear why it should be a lot less or a lot more difficult to increase the literacy rate when people are more literate; except, that is, near 0 and 100 percent. This suggests that we should simply measure increases in adult literacy rates if we want to measure net improvements in this field. The net increase in literacy rates is provided in column (8). It will be noticed that all countries recorded an improvement.¹⁶

Columns (9) and (10) present indices of political and civil rights in the sample of countries, averaged over the period 1973-79 (Taylor and Jodice, 1983, Tables 2.1 and 2.2). The indices range from 1 to 7, where 1 is the highest level of political (resp. civil) rights. Even a glance at the two columns tells us that for the most part political and civil liberties have been scarce goods in poor countries. There are exceptions, of course, most notably Botswana, the Gambia, India, Mauritius, and Sri Lanka, but statistically, poor countries during the 1970s had very poor records on political and civil rights, a matter to which we will return.

We will now study rank orders. Table 2 consists of the 21 (Spearman) rank correlation coefficients associated with the seven columns of figures we are studying, namely, real national income per head and its percentage growth; improvements in life expectancy at birth, infant survival rates, and adult literacy rates; and the extent of political and civil rights enjoyed by citizens. The correlation matrix tells us that:

1. Political and civil rights are positively and significantly correlated with real national income per head and its growth, with improvements in infant survival rates, and with increases in life expectancy at birth. (The level of significance is 6.6 percent for growth in real income per head. Each of

¹⁶ The coverage here is smaller. Figures for adult literacy rate are not available for a number of countries. The period of coverage is also different from that of the other columns: 1960-1980.

the others figures is at a level of significance less than 5 percent.)

2. Real national income per head and its growth are positively and significantly correlated, and they in turn are positively and significantly correlated with improvements in life expectancy at birth and infant survival rates.

3. Improvements in life expectancy at birth and infant survival rates are, not surprisingly, highly correlated.

4. Political and civil rights are not the same. But they are strongly correlated.

5. Increases in the adult literacy rate are not related systematically to incomes per head, or to their growth, or to infant survival rates. They are positively and significantly correlated with improvements in life expectancy at birth. But they are negatively and significantly correlated with political and civil liberties.

These observations suggest that literacy stands somewhat apart from other "goods". It doesn't appear to be driven with the three other measures of the living standard being studied here. Furthermore, regimes that had bad records in political and civil rights were associated with good performances in this field. We have no explanation for this, but it is difficult to resist speculating on the matter. One possibility is that literacy was used by a number of States in the sample to promote the acceptance of established order. This would seem plausible in rural communities, where the classroom provides a relatively cheap means of assembling the young and propagating the wisdom and courage of the political leadership. Education in this case would be a vehicle for ensuring conformity, not critical thinking.

Do these findings tally with those others that are based on ordinal measures? Barro (1996) is one of the few subsequent studies to have taken the ordinal nature of political- and civil-rights indices seriously.¹⁷ His sample contains 100 countries, and he finds that middle-level democracy (as measured by the same indices of political civil liberties as the ones here) is more favourable for growth in living standards than low levels. This is consonant with the findings we have reported here.

Of course, the correlation observed in the data doesn't imply causation. Each of the indices would in any case be "endogenous" in any general political theory. For example, it is most probable that democracy is correlated with some omitted feature (e.g. the extent to which the rule of law is exercised and rights to property are secure) that enhances growth in national income per head, or life expectancy at

¹⁷ But only in the second half of the article. The first half was devoted to running linear regressions.

birth. We should also bear in mind that indices of political and civil liberties can change dramatically in a nation, following a coup d'etat, a rebellion, an election, or whatever; and as a six-year average index (the period 1973-79) has been used for them in Table 2, we must be careful in interpreting the statistical results.¹⁸ Subject to these obvious cautions, what the evidence seems to be telling us is that, statistically speaking, of the 51 poor countries on observation, those whose citizens enjoyed greater political and civil liberties also experienced larger improvements in life expectancy at birth, real income per head, and infant survival rates. The argument that democracy is a luxury poor countries cannot afford is belied by our data. This seems to us to be eminently worth knowing.

¹⁸ As a matter of fact, though, changes in political and civil liberties indices over the period 1973-79 were slight for most countries in the sample.

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**Table 1
Improvements in Living Standards**

	Y	?Y	E	?E	M	?M	L	?L	R1	R2
Bangladesh	499.0	17.9	45.0	8.6	140.0	0.0	22.0	4.0	4.9	4.2
Benin	552.5	-6.5	40.0	17.5	155.0	21.4	5.0	23.0	7.0	6.3
Bolivia	1383.0	23.6	46.0	11.8	153.0	16.1	39.0	24.0	5.6	4.1
Botswana	1179.0	67.7	50.0	16.7	101.0	25.3	41.0	**	2.1	3.1
Burundi	324.0	5.7	45.0	2.9	137.0	8.7	14.0	11.0	7.0	6.4
Cameroon	789.0	24.5	49.0	12.9	126.0	17.2	19.0	**	6.1	4.4
C.A.R.	499.0	-4.7	42.0	13.2	153.0	7.0	7.0	26.0	7.0	7.0
Chad	409.5	-24.2	38.0	9.5	171.0	14.9	6.0	9.0	6.4	6.4
China	1315.5	60.0	59.0	38.1	69.0	47.5	43.0	26.0	6.7	6.7
Congo	986.5	-1.1	51.0	13.8	98.0	17.0	16.0	**	5.9	6.1
Ecuador	2005.0	85.8	58.0	22.7	100.0	27.8	68.0	13.0	6.4	3.7
Egypt	833.0	48.3	51.0	24.1	158.0	33.8	26.0	18.0	5.6	4.7
Ethiopia	333.0	-4.7	43.0	2.7	158.0	2.0	4.0	11.0	6.3	6.1
Gambia	561.0	-1.8	36.0	9.1	185.0	14.9	**	**	2.0	2.0
Ghana	494.5	-25.9	49.0	9.7	110.0	10.0	27.0	**	6.6	5.1
Haiti	623.0	26.5	48.0	12.5	162.0	19.7	15.0	8.0	6.4	6.0
Honduras	1001.0	16.0	53.0	25.9	115.0	26.7	45.0	15.0	6.1	3.0
India	595.0	6.6	48.0	18.8	139.0	24.8	28.0	8.0	2.1	3.3
Indonesia	811.0	90.2	47.0	18.2	121.0	14.4	39.0	23.0	5.0	5.0
Jordan	1653.0	32.7	55.0	28.0	90.0	40.0	32.0	38.0	6.0	6.0
Kenya	607.0	19.9	50.0	16.7	102.0	20.7	20.0	27.0	5.0	4.6
Korea	1779.0	99.2	60.0	35.0	51.0	46.3	71.0	22.0	4.9	5.6
Lesotho	527.0	92.8	49.0	9.7	134.0	14.5	**	**	5.3	3.9
Liberia	694.0	-4.0	47.0	15.2	124.0	21.1	9.0	16.0	6.0	4.3
Madagascar	631.0	-12.5	45.0	17.1	183.0	21.4	**	**	5.1	4.4
Malawi	359.0	38.5	40.0	10.0	193.0	13.1	**	**	6.9	6.0
Mali	336.5	12.3	40.0	10.0	204.0	10.3	2.0	8.0	7.0	6.6
Mauritania	573.0	1.1	39.0	9.8	166.0	15.4	5.0	12.0	5.9	6.0
Mauritius	1254.5	44.8	62.4	17.0	61.4	31.5	**	**	2.7	2.3
Morocco	1037.5	36.9	52.0	17.9	128.0	22.0	14.0	14.0	4.6	4.4
Nepal	498.0	-3.2	41.6	9.1	157.4	10.3	9.0	10.0	6.0	5.0
Niger	421.0	10.0	38.0	9.5	170.0	12.5	1.0	9.0	6.7	6.0
Nigeria	727.0	30.8	44.0	11.1	158.0	27.0	15.0	19.0	5.7	4.0
Pakistan	893.0	24.1	46.0	8.8	142.0	13.6	15.0	9.0	4.3	4.9
Paraguay	1584.0	66.4	65.0	6.7	59.0	24.5	75.0	9.0	4.9	5.4
Philippines	1322.5	41.8	57.0	17.4	66.0	25.0	72.0	3.0	4.9	5.1
Rwanda	323.5	41.4	48.0	-9.4	135.0	6.4	16.0	34.0	6.9	5.3
Senegal	752.0	-2.1	43.0	5.4	164.0	11.0	6.0	4.0	5.6	4.4
Sierra L.	485.5	11.5	34.0	8.7	197.0	13.4	7.0	8.0	5.6	5.0
Somalia	394.5	11.0	40.0	10.0	158.0	8.8	2.0	58.0	7.0	6.4
Sri Lanka	1108.5	17.8	64.0	25.0	52.0	42.9	75.0	10.0	2.0	3.0
Sudan	667.5	-4.5	42.0	10.5	149.0	18.7	13.0	19.0	5.9	5.7
Swaziland	911.0	45.2	46.1	16.5	145.2	8.7	**	**	5.7	3.9
Tanzania	318.0	24.7	45.0	14.3	132.0	10.7	10.0	69.0	6.0	6.0
Thailand	1378.5	59.4	58.0	18.2	73.0	34.9	68.0	18.0	5.4	4.1
Tunisia	1460.5	71.5	53.9	24.9	127.2	30.2	16.0	46.0	6.0	5.0
Uganda	304.5	-27.0	47.0	-3.0	117.0	3.7	25.0	27.0	7.0	7.0
Yemen	742.0	81.6	38.6	10.4	187.8	13.6	3.0	18.0	7.0	7.0
Zaire	291.0	-37.4	45.0	11.4	131.0	16.5	31.0	24.0	7.0	6.1

Zambia	752.5	-9.3	46.5	10.7	106.0	16.3	29.0	15.0	5.0	4.9
Zimbabwe	870.0	14.8	50.5	15.3	96.2	16.0	39.0	30.0	5.9	5.0

Key to Table 1

- Y: gross national income per head; average of 1970 and 1980 values at 1980 international prices
- ?Y: percentage change in Y over the decade 1970-80
- E: life expectancy at birth in 1970
- ?E: life expectancy improvement index =
$$\frac{(\text{life expectancy at birth in 1980} - \text{life expectancy in 1970})? 100}{(80 - \text{life expectancy at birth in 1970})}$$
- M: infant mortality rate in 1970
- ?M: infant mortality improvement index =
$$\frac{(\text{infant mortality rate in 1970} - \text{infant mortality rate in 1980})? 100}{(\text{infant mortality rate} - 10)}$$
- L: adult literacy rate in 1960
- ?L: adult literacy rate improvement index = (adult literacy rate in 1980 - adult literacy rate in 1960)
- R1: political rights index, averaged over 1973-79 (decreasing with increasing liberty)
- R2: civil rights index, averaged over 1973-79 (decreasing with increasing liberty)

Abbreviations: Sierra L. (Sierra Leone) and C.A.R. (Central African Republic)

Source: Dasgupta (1993, Table 5.4).

Table 2

Correlation Matrix of Indicators of Improvements in Living Standards

ΔY	.5883*					
ΔE	.6578*	.4113*				
ΔM	.7546*	.4129*	.7917*			
ΔL	-.0308	.0660	.2710*	.0631		
R_1	.5187*	.2956*	.2383*	.4058*	-.3769*	
R_2	.4493*	.2776*	.2788*	.3730*	-.2806*	.7290*
	Y	ΔY	ΔE	ΔM	ΔL	R_1

Note: (*) indicates that a correlation is significant at a 5% level. The correlations are based on 51 observations, except that those for the changes in adult literacy, ΔL , are based on 42 observations.

Source: Dasgupta (1993, Table 5.5).

