Rationality is, more than we admit, in the eye of the beholder. It has something to do with the optimal means to achieve a goal, any goal, what Weber called "formal rationality." And it has something to do with the relative wisdom of the goal that is given priority, what Weber called "substantive rationality" (Rationalität materiell). I think it would be useful to approach the issue in terms of what I see as the three mental operations in which scholars/scientists necessarily engage when dealing with any topic.

There is the intellectual task of attempting to discern what the phenomenon is, what were its origins, what are its links with other phenomena, what has been its trajectory, and what we may anticipate its future trajectory to be. In the modern world, this intellectual task has been the domain in which scholars/scientists are considered to be the specialists. It is they who regularly study the phenomena, develop their explanations, verify them to the extent that they can, and report their results to the wider community of scholars/scientists, and sometimes to the general public.

But assuming this is well done, or reasonably well done, we are not through with our mental operations. We have the necessary task of moral evaluation. Have the results of the past trajectory of the phenomenon enabled us to realize ends that we consider to be moral ends? Has the phenomenon been morally progressive, regressive, or neutral? What alternatives existed in the past that might have resulted in more substantively rational objectives? (And if they exist, why weren't they taken, which is an intellectual question?) Most important of all, given the existing reality, in which direction ought we to be heading? Proponents of value-neutral objectivity have always insisted that this moral evaluation was outside the defined role of the scholar/scientist. But not all of us have agreed. Gunnar Myrdal (1958) laid great emphasis in his writings on what he called "value in social theory" and refused to segregate this moral task from that of intellectual analysis.

Finally, even if we have accomplished as much as we feel we can do in the intellectual and moral evaluation of a phenomenon, there remains, quite clearly, the political question. In the light of our intellectual analysis, how would it be possible in the present to move towards the achievement of our designated moral objectives? What historical choices do we have? What kind of long-run strategy and short-run tactics will lead us most probably in the direction we think the world ought to move? Scholars/scientists are constantly adjured to leave these political judgments to others - politicians, specialists, citizens. But of course we are all citizens, and we are all in fact specialists in something (usually something relevant). Leaving these judgments to others means endorsing de facto what these others do, even if we think in fact that it is in error.

The rich literature about global environmental change moves uneasily and a bit fuzzily among these three
mental operations, without always formulating clearly the distinctions. For, while it is true that no scholarly or scientific activity can ever segregate the intellectual, moral, and political tasks into different spheres for different persons, it is not true that the three conjoined tasks are identical. And it is true that, if we are unsure on which ground we are standing, which mental operation we are pursuing at any given moment, then we are more prone to error in judgment. So, I would like to review what I think have been and ought to be the issues before us in these three mental operations, when the phenomenon in which we are interested is global environmental change.

When we confront the intellectual issues, there is little debate that global environmental change is a constant of the earth's history, indeed one that precedes by far the existence of human beings on the planet. We also agree that humans have constantly affected in serious ways the ecology of the planet. Human actions have no doubt been motivated by efforts to survive and flourish, and one way to read the earth's history is to see it as the story of the rise to primacy in the animal world of *homo sapiens*. The problem has been that, in this rise to the top, human actions have had the consequence of undermining the "conditions of production" in ways that may ultimately sap the ability of humans and others to survive on this planet.

While some environmental historians analyze this symbiotic (and in many ways) hostile relationship of humans and the natural environment (especially the soil, what grows on it, what is located under it) as a continuous historical reality, others see a dramatic worsening of this constant with the advent of capitalism as the defining system of the modern world, what Marx discussed as the "metabolic rift," a theme taken up in some detail in recent years by John Bellamy Foster (2000) and discussed as the "second contradiction of capitalism" by James O'Connor.

The basic difference between a capitalist system and other kinds of historical systems is the minimization of effective constraints on the endless accumulation of capital, which is the defining feature of a capitalist system. This is why capitalism may be said to have created "a new, historically unprecedented relationship...between the economic process and nature" (Deléage, 1994, 38). Under capitalism, the search for profits necessarily presses producers to reduce their costs at the two key bioeconomic moments, that of the extraction of raw materials and that of the elimination of the waste of the productive process. The behavior that maximizes the profits of any given producer is to pay absolutely nothing for the renewal of natural resources and next to nothing for waste disposal. This so-called externalization of costs puts the financial burden on everyone else, which has historically meant that, for the most part, no one has paid. This therefore has meant, as J.R. McNeill (2002, 11) has put it, that the "most serious overexploitation" of nature has been at precisely these two points: "sinks for wastes" and "renewable, biological resources."

After 500 years of such serious abuse in our modern world-system, we live today with an enormous "burden of the past" (Ponting, 2002). And the question that is regularly discussed is whether or not we can somehow surmount this burden of the past. The usual concept with which we discuss this analytical question is that of "sustainable development," defined by the Brundtland Commission as development which "meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development, 1987, 2). There is in the first place the question of whether this is still ecologically possible. I suppose it probably is, although J.R. McNeill does throw some doubt on this when he cites Machiavelli, to open his chapter entitled "Epilogue: So What?" (2000, ch. 12, 357), in which Machiavelli talks about ailments that in the beginning are "easy to cure and difficult to understand" and which later are "easy to understand and difficult to cure."

The real question however is not an ecological question but a political question. Is sustainable development possible within the framework of a capitalist system? I have already expounded once my
view that, at the present time, there is "no exit" (1999) within our existing historical system. On the other hand, I do not believe that our historical system is going to last that much longer, for I consider it to be in a terminal structural crisis, a chaotic transition to some other system (or systems), a transition that will last at most another 25-50 years. I therefore believe that it could be possible to overcome the self-destructive patterns of global environmental change into which the world has fallen and establish alternative patterns. I emphasize however my firm assessment that the outcome of this transition is inherently uncertain and unpredictable (2).

Since I believe that the world-system is in a process of crisis and transition, the moral question of the direction in which we wish to go is inescapable on our agenda. And I observe that most persons engaged in studying global environmental change feel as well that this is true. But what are the moral questions? First of all, there is the question of reparations. As we know, environmental damage may have affected all people, but it has not affected all people equally. There are important class differentials. Even if damage is diffuse, one can escape some of its effects with money. Even more important, there are significant geographic differentials, which correlate highly with the core-periphery axial division of labor. This is why Martinez-Alier (2002, ch. X) can speak of an "ecological debt" resulting from both the uncompensated negative externalities of raw-materials exporting countries and the use by wealthy states of the space of poorer countries for such things as carbon dioxide sinks.

This is of course not some terrible accident. It was built into the structure of the capitalist system from the beginning. Moore (2003, 309) states this well:

The 'local' environmental transformations precipitated by these [expanding] frontiers [of Europe] were not simply consequences of European expansion; they were in equal measure constitutive of such expansion, condition as well as consequence. Degradation and relative exhaustion in one region after another were followed by recurrent waves of global expansion aimed at securing fresh supplies of land and labor, and thence to renewed and extended cycles of unsustainable development on a world-scale.

Ramachanda Guha (2002) discusses this same issue when he asks the question, "How Much Should a Person Consume?" The implication in the question is that some consume too much (greed) which results in other consuming too little (injustice). Guha bemoans that the issue of imbalanced consumption is too little discussed. And asking why, he cites Carl Sauer, who attributes it to Occidental culture, which has the "recklessness of optimism" and fails to understand "the difference between yield and loot" (cited p. 50). But it is not a question of Occidental culture but rather of capitalist culture. And the difference between yield and loot is the difference between middle-range profits and short-range profits. Moralizing does not help us to respond to the moral questions.

Nor is Garrett Hardin's "lifeboat ethics" (1998) as a response to the critical situation either analytically possible or morally ethical. First of all, it mistakes the fundamental issue. Were we somehow to reduce world population miraculously by half overnight, this would not eliminate the crisis, merely postpone the moment of systemic collapse. Furthermore, it is clearly politically impractical. It would require massive warfare, and quite probably wreak as much havoc on those who wished to stay in the lifeboat as those they were trying to expel or keep out from it. As for its morality, it is but a variant of what R.H. Tawney called "the Tadpole Philosophy" (1952, 109). Tawney is speaking of the ability of some to achieve much within a capitalist system, as though it were some consolation for social evils that "exceptional individuals can succeed in evading them," and that the noblest use of their talents "were to scramble to shore, undeterred by the thought of drowning companions."
Judgment about the past however is the least of our moral issues, and probably the least useful to which to devote our energies. The real question is the construction of a more morally acceptable mode of global environmental change. I assume that change is unavoidable, but that there exist some ways of channeling it, limiting it, making its outcome more palatable. Here we come to the other question Martinez-Alier has outlined (1994, 23) so clearly:

The ecological critique of mainstream economics is based on the question of unknown future agents' preferences and their inability to come to today's market, and therefore the arbitrariness of the values given at present to exhaustible resources or to future social and environmental costs....In sum, the ecological critique points out that because of the temporal dimension in material life, the economy involves allocations of waste and diminished resources to future generations. ...

Here we are not discussing the relationship between the rich and the poor, the core and the periphery, but the living and their future descendants.

The relationship of the generations is larger than the issue of the living and their descendants. Grosso modo, there are four generational claimants to the distribution of resources at any given time: the young, the adults, the elderly, and the unborn. Much of modern politics, not only the politics of the environment, is concerned with this distributive question. Take, for example, the question of health. On the assumption that there exists a given quantum of resources to devote to health needs, what percentage should be allocated (by whatever mode of allocation we use) to children, adults, and the elderly. The unborn enter the picture as well when we decide how much resources we should devote to long-term and long-shot investments in medical research whose benefits may only be seen 25-50 years from now, if then. Similar questions can be raised about educational allocations. And obviously, they are central when we discuss the bioeconomic allocations involved in ecological decisions.

There is no simple or self-evident mode of deciding the proper allocation among the four generational claimants. In a capitalist system, the allocations are made primarily by the adults in their own favor, which are in fact "lifeboat ethics." It is when we try to find an alternative moral mode of allocation that we see the difficulties involved in substantive rationality. It is here too that we see the wisdom in the long philosophical debates in which pre-modern historical systems regularly immersed themselves, in a sense to decide precisely such generational allocations and their morality. I have no ready-made formula to offer. But I do think we are called upon to discuss such questions publicly, openly, often, and politically, and to search collectively for optimal allocations, while leaving open the possibility of regular rediscussion and redivision of resources. We at present have no collective mode of doing this.

So that brings us to the political question. Can we arrive at such a collective mode of debating and deciding generational allocations? And if so, what might this mode look like? Note that I have said generational allocations. I might have said class, race, gender allocations. I didn't for one reason that seems obvious to me. As long as class, race, and gender generate sharp inequalities in social life, there is no hope of sensible generational allocations. So a prerequisite to generational rationality is a major reduction in class, race, and gender inequalities, such that the inequalities that remain are at a structurally minimal point.

This will never happen as long as we are located within a capitalist world-system. Happily, I don't think we shall be too much longer. I cannot make this argument here but I have done so elsewhere (Wallerstein, 1998). We are, as I have said, in the middle of a transition, but also a transition whose outcome is inherently uncertain. That is to say, it is quite possible that in 2050, when capitalism is no more, we shall be living in a system that is equally or more hierarchical and unequalitarian than the present...
one. But it is also possible that we shall be living in a relatively democratic, relatively egalitarian historical system. The outcome will be decided by the political activity of everyone now and in the next 25-50 years. To be a political victor will almost surely require a good analytical understanding of the historical alternatives, as well as a sharp moral commitment to an alternative vision.

The politics of the world today are triple: There is the conflict among the major loci of capital accumulation (the U.S., western Europe, and Japan/East Asia) for primacy in the next 50 years. This struggle for hegemony is a constant of our present system, and it is now open once again with the clear decline of the U.S. Secondly, there is the struggle between the North and the South. This is also inherent in the ever more polarizing reality of the capitalist world-economy. And finally there is the struggle between what I shall call metaphorically the camp of Davos and the camp of Porto Alegre (Wallerstein, 2003). While the first two struggles are no doubt terribly important and dominate the concerns of most people who are politically active and continue a long-existing pattern of political division, it is the third struggle that is new. It is a product of the fact that the world-system is in structural crisis. The two camps are fighting not over the realities of the present system but over what will replace it. Make no mistake. The camp of Davos, even though they don't say it and perhaps many or even most of its members don't realize it is not fighting to preserve capitalism but to replace it with something different in which they will maintain their privileges and authority.

The World Social Forum (WSF), whose initial meetings were in Porto Alegre, thinks of itself as a "movement of movements." Its governing slogan is "another world is possible." This is not mere sloganeering. Porto Alegre represents a new turn in the history of antisystemic movements. They are not seeking power within the modern world-system. They are laboring to make sure that, in the bifurcation through which we are going, the outcome will be that of a more democratic and egalitarian world.

The very structure of the WSF represents a rejection of the basic strategy of the historic antisystemic movements, the so-called Old Left. The Old Left was oriented to obtaining state power, state by state. And it believed that its organizations had to be unified, centralized, and more or less tightly structured. The WSF brings together movements without any central structure, and certainly no discipline. They are movements of different scope - local, national, regional, worldwide - and of different primary concerns - gender, race, environment, the work place, land reform, etc. These movements are adjured to listen to each other, learn from each other, and cooperate without denouncing each other for their failures. Furthermore, the WSF cuts seriously across the North-South divide.

The WSF has been marvelously successful in the first few years of its existence. It has placed itself in the center of the world stage, and it has forced the powerful to recognize that they are a force with which to be reckoned. It has energized movements across the globe, with some new optimism and creative impulse. BUT...it is now in danger. The problem the WSF faces is that thus far it has been a movement sticking its finger in the dike, stopping egregious proposals put forth within the framework of the WTO, opposing the arrogant impositions of the IMF, encouraging local movements in their immediate struggles against local tyrannies. These are tasks that have to be done. But they are negative tasks. They stop still worse from happening.

A world movement, especially a movement of movements, cannot survive for too long on this negative diet. They need to see alternatives in action - short-run and middle-run, which therefore may portend a long-term construction of a different historical system. This will not be easy. For one thing, the very structure of the WSF limits the ability to engage in collective decision-making of a positive program. It is as though it had to evolve slowly from the base. And, while not organizationally impossible, it is certainly not the most rapid path.

We have been talking about rationality. The WSF is not formally rational in its structure. But its structure
reflects the kind of substantive rationality it hopes to promote. Global environmental change? It will go on, of course. Substantively rational decisions about global environmental change? This is a political question. And environmental movements will get essentially nowhere in the next 25-50 years if they cannot find a symbiotic relationship with all the other kinds of antisystemic movements. It's not a question of merging into one big pot, but of creating a family of movements whose underlying affectionate ties will balance out the inevitable differences of emphases and priorities. It's not a question of saying that everyone is right in promoting their "local" priorities. It is a question of earnest discussion about the pluses and minuses of these priorities.

Finally, a word should be said about the camp of Davos. It is not at all a unified, homogeneous camp. It is divided between the intelligent minority who have normally controlled things and the larger groups of persons with narrower vision and more aggressive tactics. The latter want to smash the camp of Porto Alegre. The former wish to edulcorate it, coopt it, and adapt its objectives to their needs. They come to seduce the camp of Porto Alegre. But in the end, the world they wish to construct will still be deeply inegalitarian and undemocratic.

The intelligent minority of the powerful can be awfully persuasive, combining sensible argument with apparently large concessions, and a new rhetoric. They also of course have money and guns. The camp of Porto Alegre can work with them to stem the radical right from their most immediate and most destructive impulses. But the camp of Porto Alegre cannot really work with the what I am calling the intelligent minority of the powerful in constructing a new system, not if they want this system to be substantively rational.

So we have to tread a difficult political line. This requires not only moral commitment but intellectual acuity. The recent history of environmental movements illustrates all the political pitfalls that we face.

Bibliography


Cheltenham, UK: Edward Elgar.


4. Foster (p. 156) cites Marx (*Capital*, I, 637-638): "[A]ll progress in capitalist agriculture is a progress in the art, not only of robbing the worker, but of robbing the soil....Capitalist production, therefore, only develops the technique and degree of combination of the social process of production by simultaneously undermining the original sources of all wealth - the soil and the worker."
5. "The basic cause of the second contradiction is capitalism's economically self-destructive appropriation and use of labor power, urban infrastructure and space, and external nature or environment - 'self-destructive' because the costs of health and education, urban transport, and home and commercial rents, as well as the costs of extracting the elements of capital from nature, will rise when private costs are turned into 'social costs.'" (O'Connor, 1988, 177). The article with this title first appeared in *Capitalism, Nature, and Socialism*, No. 1, Fall 1988, . It is also reprinted in T. Benton, ed., *The Greening of Marxism*, New York: Guilford, 1996, 197-221 with four commentaries.

6. It is not that there are zero constraints. Richard Grove (1995) makes the case that colonial governments, often enacted environmentalist regulations. (Indeed, he credits them with being the originators of the environmentalist movement.) He is no doubt right about their role, but this does not necessarily negate what I am arguing. States have frequently represented the middle-range interest of capital accumulation against the typically short-range view of most individual entrepreneurs.