9 A Postmodern Evolutionary-Ecological Environmental Ethic

WHAT IS POSTMODERNISM?

Postmodernism is modish (no conundrum intended). It is also ambiguous.

On the one hand, *deconstructive* postmodernism claims that all religious and philosophical worldviews are fabricated to justify the power of a dominant élite. None is true. And a person's preference for and loyalty to this one or that depends on how well it serves his or her interests. Deconstructive postmodernism is both nihilistic and cynical.

On the other hand, *reconstructive* postmodernism is creative and optimistic. It aims to clear away the rubble and rubbish of the dilapidated modern worldview founded on now-defunct modern classical science, and, in its stead, to rebuild from foundations constituted by the "new physics" (relativity and quantum theory) and the "new biology" (the theory of evolution and ecology).

Modern natural philosophy—essentially, classical mechanics—has been overturned by the new physics. Everything else modern—the social contract between egoistic social atoms, economic reductionism (including both capitalism and anticapitalistic Marxism), preference utilitarianism, and so on—which has orbited about modern natural philosophy has been left without a center. Because reconstructive postmodernists can't be quite sure what modernity's successor will turn out to be, they remain cautious and call this interregnum "postmodernism," while they wait for "organicism," or "systems theory," or some such label to take hold.

In 1989, the ecofeminist philosopher Jim Cheney took a deconstructive "postmodern turn" in the field of environmental philosophy and ethics.[1] According to Cheney, with the "demise of modernism" there has occurred a "shattering into a world of difference, the postmodern world."[2] No reconstruction is possible, in his opinion, since Cartesian certainty is most

certainly unobtainable and the underlying political agenda of all intellectual constructs has been exposed. And further, no reconstruction is desirable, since any comprehensive worldview represents a "totalizing" package of concepts which would "colonize" other systems of thought. Deconstructive postmodernists are content to deconstruct the old texts and declare that there will be no new master narratives, no new *New Organons*, *Meditations*, or *Principias* to set the course for generations to come.

As this book consists of a global sampler of traditional and indigenous environmental attitudes and values, one might expect it to close with a resounding endorsement of deconstructive postmodernism and the pluralism it implies. Certainly this book recognizes and celebrates cultural diversity and intellectual pluralism. But untempered pluralism, especially if harnessed to deconstructive postmodernism, courts conflict rather than mutual understanding and cooperation. The endpoint of untempered "claims of otherness and an ethic of difference," so warmly endorsed by Cheney, is the violent ethnic conflict now plaguing the world.[3] A unity and harmony in multiplicity must be achieved, if our common environmental crisis is to be cooperatively—and successfully—addressed. What is needed is a Rosetta stone of environmental philosophy to translate one indigenous environmental ethic into another, if we are to avoid balkanizing environmental philosophy. Or, to continue shifting metaphors, we need a conductor's score in addition to charts for all the individual players, if we are to orchestrate effectively all the world's voices singing of a human harmony with nature.

Biological diversity is a good thing. So is cultural diversity. They are, moreover, intimately linked. Cultural diversity is a reflection of biological diversity, a fact more clearly recognized by tribal totemism than by contemporary social science. The same forces—transnational corporations, Green Revolution agriculture, and a global market, among others—driving cultural homogenization and impoverishment also drive biological homogenization and impoverishment. And the conservation of cultural diversity is instrumental in the conservation of biological diversity. Since the life-ways of foragers and vernacular agriculturalists are so thoroughly integrated into their local biotic communities, culture conservation is tantamount to biological conservation.

The myriads of species that make up biological diversity do not, however, exist in isolation from one another. Each is integrated into an ecosystem. How, analogously, might we unite the environmental ethics of the world's many cultures into a systemic whole? That is the principal task for this penultimate chapter. The ecofeminist philosopher Karen Warren has suggested an appropriately feminine metaphor for the union—or "soli-

darity," more precisely—of diverse ecofeminist "voices": a patchwork quilt.[4] But the colors in a patchwork quilt may clash, and the whole will then have no systemic integration or integrity. A patternless patchwork quilt is a poor analogue of an ecosystem. We want a genuine multicultural network of environmental ethics, rather than an eclectic and conflictive patchwork.

Hence the "postmodernism" of this chapter's title is of the reconstructive sort. And the evolutionary-ecological environmental ethic founded on such a postmodernism is intended to embrace and unite, as well as complement, the traditional and indigenous environmental ethics so far reviewed. We must be keenly aware of human differences, and we must defend cultural diversity as ardently as we defend biological diversity. But we must also be aware of what unites the world's diverse cultures, no less keenly than we are aware of the ecological relationships binding the myriads of species into hierarchically nested ecosystems.

THE ONE-MANY PROBLEM

An oft-repeated refrain of this study has been that there is one species of *Homo* but many peoples; one planet but many worlds. The modern scientific worldview, however, has partly unified the planet intellectually, making it—to some extent—one world as well as one planet. Science is Western in provenance, as the historical sketch in the next section of this chapter suggests, but science is now also international in practice and influence. The modern scientific worldview has become a cognitive lingua franca. It coexists and often insidiously intermingles with the many and diverse traditional cultural worlds. Thus, it is one of the ties that unite them.

We all live in distinct bioregions, each with its characteristic climate, topography, flora, and fauna. But the shores of all continents and islands are washed by one ocean, and we all inhale one atmosphere. Similarly, we all inhabit distinct traditional cultural worlds, each with its characteristic ontology, epistemology, cosmology, aesthetics, and ethics. But, for better or worse, Western ideas have become a pervasive cognitive ether that nearly everyone breathes in—more or less deeply. The curricula of secondary schools and universities from China to Brazil and from Tanzania to Canada include standard biology, physics, and chemistry along with indigenous culture studies. Further, the hardware icons of the modern Western scientific worldview are ubiquitous. And they invade the most intimate aspects of the lives of all but the most remote and isolated of the earth's peoples. Airplanes fly over the Kalahari Desert; Land Rovers crisscross the Serengeti Plain; chain saws buzz in the forests of Borneo; snowmobiles ply

the frozen Yukon; diesel-powered ships anchor off remote Pitcairn Island; hydroelectric impoundments flood vast reaches of the Amazon Basin.

Machines, no matter in what cultural context they may be found and no matter what traditional agendas they may be employed to serve, are microcosms of the Newtonian macrocosm. They embody the modern scientific paradigm, and constantly, remorselessly reiterate and validate it. Vaccinations put the stamp of the modern scientific worldview on the shoulders of infants in Africa; intrauterine birth-control devices insert the modern scientific worldview into the wombs of women in India; when the Shining Path guerrillas of Peru grasp AK-47 assault rifles, they grasp the modern scientific worldview. When such technologies as these "work," they confirm the "truth" and the power of the ideas that engendered them and which they manifest.

The irony, of course, is that, theoretically speaking, the "modern" scientific paradigm is now obsolete. A new postmodern natural philosophy has been taking shape during the whole of the twentieth century. From a postmodern scientific point of view, the mechanico-industrial transmogrification of nature appears to be a grotesque and dangerous outrage, requiring us to develop an environmental ethic to temper its effects. And while the modern Western worldview and its associated values represent a hostile intellectual climate for the development of a direct or nonanthropocentric environmental ethic, the emerging postmodern paradigm promises to be much more hospitable to such an enterprise. The central section of this chapter is devoted, therefore, to the construction of a postmodern evolutionary and ecological environmental ethic, which is offered both as a complement to and a touchstone for the indigenous environmental ethics sketched in the preceding chapters.

How, more precisely, is the postmodern evolutionary-ecological environmental ethic here constructed related to the foregoing traditional and indigenous environmental ethics? What exactly do "complement" and especially "touchstone" mean?

The "land ethic" developed in this chapter is a sister to those in the preceding chapters. But it is more than that. It is not just one option among many, standing alongside, say, the Jain *ahimsa* environmental ethic, and appealing only to members of a specific sect or culture. It is a sister environmental ethic, but it is also proffered as a universal environmental ethic, with globally acceptable credentials, underwriting and reinforcing each of the others. Further, it is also intended to serve as a standard for evaluating the others.

Mindful of Jim Cheney's condemnation of totalizing and colonizing discourse, one might well wonder if such claims on behalf of the land ethic

were not an arrogant assertion of philosophical imperialism, a bid for intellectual hegemony. Notice that throughout this book an evolutionary and ecological worldview has implicitly served as a standard for evaluating the environmental attitudes and values associated with traditional cultural worldviews. For example, in chapter 3, Hindu substantive holism was found to be a problematic basis for environmental ethics, because it differed significantly from the systemic holism characteristic of ecology. For another example, in chapter 6, the woodland American Indian concept of multispecies socioeconomic exchanges was touted, because it was, abstractly speaking, identical to the ecological concept of a biotic community, which is foundational to the Leopold land ethic. The implicit normative appeal to an evolutionary-ecological worldview and its associated environmental ethic may here and now be explicitly acknowledged. But is such an appeal warranted? Can it be justified?

Since science is Western in provenance, one cannot pretend that a scientifically grounded environmental ethic is culture-neutral. But science is now practiced internationally, with only the slightest culture-specific variations from nation to nation. These variations are so slight, in fact, that expressions like "Japanese science" or "Indian science" refer not to different and mutually unintelligible species of thought but to the international science going on in Japan or India, largely untouched by Shintoism or Hinduism. One can fairly assert that at least the ever-evolving scientific worldview enjoys genuine international currency.

The postmodern evolutionary-ecological environmental ethic here outlined may therefore make a claim to universality simply to the extent that its scientific foundations are universally endorsed—whether openly and enthusiastically or sub rosa. As just noted, the ubiquity of education in science and the ubiquity of modern and now postmodern technology, which is the fruit of Western science, has, for better or worse, inoculated all other cultures with Western attitudes and values. Citizens of Iran watching a fundamentalist ayatollah fulminate against Western ideas and values on TV receive contradictory messages. One message is conveyed by the words of the speaker, the other by the medium of communication, which is an object lesson (so to speak) in Western ideas and ideals. For the citizens of Iran, an evolutionary-ecological land ethic could be both a sister to the Islamic stewardship environmental ethic and a reinforcement of it, grounded in a contemporary science that, however much a fundamentalist regime may rail against it, has wormed its way into the contemporary Persian mind.

Certainly no worldview can claim to be absolutely and finally true. We human beings are prisoners of our imaginations and cognitive constructs.

We cannot step outside our minds to see if our ideas correspond to Reality with a capital "R." Hence we cannot know the Truth with a capital "T." No worldview is epistemologically privileged in the sense that it alone is certifiably true and all the others are false. It follows that traditional cultural worldviews cannot be said to have a share in *truth* only to the extent that they jibe with science. So how can an evolutionary-ecological worldview be presumed to serve as a standard for assessing the credibility of the others?

Though they may be considered neither true nor false, worldviews are neverthless subject to rational criticism and comparative epistemological evaluation. One worldview may consistently comprehend more of human experience than another. If so, it may make a peremptory claim on our credulity, or at least on our intellectual allegiance. Or to express the same thought negatively, a worldview that cannot accommodate the full range of human experience, or cannot do so coherently, fails to capture our intellectual allegiance and may be eclipsed by a more inclusive one. And over the course of human history our range of experience has grown enormously and is constantly expanding, more rapidly now than ever.

To take a familiar example, neither of the biblical origin myths discussed in chapter 2, if literally construed, can accommodate a certain set of experiences not enjoyed by Bronze and Iron Age Hebrews, indeed not enjoyed by anyone until very recently. Close observation of fossils in sedimentary rocks and of other geological phenomena made it impossible for a few thoughtful people in the late eighteenth century to credit the idea that the world had suddenly come into being about six thousand years ago. Charles Darwin consolidated a competing origin myth, which embraced these experiences and coherently united them with others (such as the many family resemblances among living species). The publication of his unbiblical uncreation story stimulated learned debate, which had the effect of familiarizing educated opinion makers in the West and its colonial outposts with "the fossil record" and other formerly obscure phenomena. Eventually, the whole literal worldview sketched in Genesis became itself a fossil—an extinct worldview preserved in the textual sediments of the Old Testament (and in the minds of die-hard Islamic, Jewish, and Christian fundamentalists).

Scientists, moreover, scrutinize one another's work. Skepticism and faultfinding are cardinal scientific virtues. One measure of a genuinely scientific hypothesis is its logical linkage to novel experience that will either confirm (but never finally prove) or contradict it. If, in the course of their investigations, scientists stumble on phenomena that contemporaneous scientific theory cannot account for, such phenomena are not simply ignored—at least, not if they keep intruding; certainly they are not delib-

erately suppressed. The old master narratives are first stretched to accommodate the new experiences. When the familiar theoretical constructs burst at the seams, patches are added. Finally, the old scientific paradigms become hopelessly rent and tattered. Then a rare opportunity opens up that begs for genius. A Copernicus, a Darwin, an Einstein steps forward to reweave the entire tapestry of scientific thought. Thus new, ever more subtle, sophisticated, and comprehensive scientific paradigms arise to replace the older ones.

The scientific worldview is, therefore, epistemologically privileged—not because it and it alone is uniquely true but because it is self-consciously self-critical. Hence, the evolutionary-ecological environmental ethic—shortly to be elaborated—may stake a coattail claim to epistemological privilege, since it is grounded in the epistemologically privileged reconstructive postmodern scientific worldview.

Today we live in the dim light of the dawn of a brand new Western natural philosophy. Ours is a time of great anxiety, because the old Western natural philosophy—articulated most paradigmatically by Galileo, Descartes, Locke, and Newton—has fallen apart and the shape of the new has not become entirely clear even to the most sharp-sighted visionaries. By the same token, ours is also a moment of great opportunity. Contemporary philosophers can help give shape to the Western worldview that future intellectual historians will date to the beginning of the third millennium C.E.

In this process, traditional non-Western worldviews can play an important role. Val Plumwood argues that they can provide a multiplicity of critical perspectives, bringing to light "areas that we may have failed to see as important" and deep assumptions that might otherwise go unnoticed.[5] Fritjof Capra has argued that there exist profound similarities between the new physics and traditional non-Western worldviews, especially those of Asia.[6] While Capra naïvely treated "Eastern philosophy" as if it were a monolithic historically and culturally unified tradition of thought like Western philosophy, he nevertheless struck a note of truth. The "new science," shaped as much by evolutionary and especially ecological biology as by relativity and quantum physics, though growing directly out of the old, has laid the foundations for a very un-Western Western worldview of the future.

However revolutionary, the new science is expressed in the same abstract language as the old. The new physics is not completely accessible to anyone without training in advanced mathematics. The new biology is also liberally laced with mathematical formulas, tables, graphs, and equations. A few philosophically gifted high priests of science struggle to convey something of the sweeping and profound intellectual implications of the

arcane new doctrines and rites over which they preside. Albert Einstein, Werner Heisenberg, and Erwin Schrödinger, for example, have been effective popularizers as well as principal architects of the new physics. Perhaps no one has been a more successful communicator of the philosophical implications of the new biology than the ecologist Aldo Leopold.

But the articulation and dissemination of something so general, multifaceted, and fundamental as a new picture of nature, human nature, and the relationship between the two cannot be effected by a few able writers in each relevant scientific field. The process of worldview poiêsis is gradual, cumulative, and ongoing. Generalizing Capra's insight, and correcting for the limitations of his *Tao of Physics*, we may confidently say that there are interesting similarities between the ideas of the new science and non-Western traditions of thought. Indigenous worldviews around the globe can contribute a fund of symbols, images, metaphors, similies, analogies, stories, and myths to advance the process of articulating the new postmodern scientific worldview. Thus the contemporary custodians of traditional and indigenous non-Western systems of ideas can be cocreators of a new master narrative for the rainbow race of the global village. They have a vital role to play. Historically, the reconstructed postmodern worldview will be Western. Substantively, it will not. It will be more Buddhist than Platonic, more Kayapoan than Cartesian.

In this way, indigenous environmental ethics may complement a postmodern evolutionary-ecological environmental ethic as well as vice versa. We may anticipate a global intellectual dialogue, synthesis, and amalgamation to emerge, rather than an era of Western philosophical hegemony, or—just as bad—an era of intellectual balkanization, bickering, intolerance, and ethnic cleansing: the bitter fruit of claims of absolute "otherness" and irreconcilable "difference."

Note that the comparative dialogue here envisioned is a far cry from the caricature, drawn by some writers, of starry-eyed Western environmentalists hoping to convert the West to the ecological attitudes and values of various non-Western cultures. Deborah Bird Rose, for example, warns of

> the possibility that people who perceive a lack in their own culture will be drawn to a romantic and nostalgic glorification of other cultures and seek to transplant another culture's ethical system into their own. The attempt is misguided. Every culture is the product of particular beings living particular lives within the particular options and constraints of their own received traditions, their mode of production and so on.[7]

No such transplantation is suggested here. Nevertheless, even the more limited and careful cross-fertilization envisioned here has been severely

criticized. "Mining" the "conceptual resources" of indigenous intellectual traditions for insights and images that will help articulate the environmental attitudes and values latent in the emerging postmodern scientific worldview is a reprehensible kind of philosophical colonialism, according to the comparativist Gerald James Larson—a kind that differs from but is related to the colonizing about which Cheney complains.[8]

Is comparative environmental philosophy guilty of "stealing the discourse of the other"? Such a charge, however politically fashionable, is preposterous. Things of the mind are not diminished when they are shared. When the conquistadors took New World gold back to Spain, the New World indigenes were the poorer. Would that the Spanish had taken New World ideas back instead! Quite the contrary: the conquistadors were as anxious to export their own ideas as to import the physical riches of the peoples they subjected. Let us not be deterred by caricatures of comparative environmental philosophy. Let us drop these unpersuasive charges of intellectual piracy and instead seek a mutually enriching fair trade in ideas—East and West, North and South.

Rose warns that "the attempt to appropriate another culture's ethical system is self-defeating because it is self-contradictory: the act of appropriation is so lacking in the respect which is the basis of the desired ethic that the appropriation becomes annihilation."[9] A moment's reflection suggests that this charge, too, is just so much politically fashionable rhetoric. The "act of appropriation" is on the face of it an indication of respect rather than disrespect—imitation being the sincerest form of flattery. Neither are things of the mind debased when they are shared. Again, quite the contrary: favorable comparison with the emerging postmodern scientific worldview—which is what this study attempts—validates traditional and indigenous intellectual achievements. It gives them new meaning, dignity, and power.

A GENEALOGY OF SCIENCE

Science, in the current sense of the word, is a legacy of the Western intellectual tradition. In the West, the first philosophy, temporally speaking, was natural philosophy. And "modern" science, which came into its own in the seventeenth century C.E., is just Western natural philosophy consolidated and united by a universally accepted paradigm (the mechanical paradigm), method (the inductive-hypothetical-deductive-experimental method), and division into areas of inquiry (astronomy, astrophysics, physics, physical chemistry, chemistry, biochemistry, biology, and the rest).

The West's first philosophical question was, Of what is the world composed? It was asked by Thales of Miletus, if we may infer the question from