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CHAPTER

The "Nature" of Western Thought



*P*lease indicate, by circling the appropriate number, how much you agree or disagree with each of the following statements:

Natural resources are ample for all human needs.

1. Strongly agree
2. Mildly agree
3. Mildly disagree
4. Strongly disagree

Mankind was created to rule over the rest of nature.

1. Strongly agree
2. Mildly agree
3. Mildly disagree
4. Strongly disagree

Plants and animals exist primarily to be used by humans.

1. Strongly agree
2. Mildly agree
3. Mildly disagree
4. Strongly disagree

Humans need not adapt to the natural environment because they can remake it to suit their needs.

1. Strongly agree
2. Mildly agree
3. Mildly disagree
4. Strongly disagree

If you agree with these statements more than you disagree, you probably hold what Pirages and Ehrlich¹ have called a "Dominant Social Paradigm." Most of us have in the past, or still do believe in "abundance and progress, growth and prosperity, faith in science and technology, and commitment to a laissez-faire economy, limited governmental planning and private property rights."² Pirages and Ehrlich call these views dominant because they illustrate the modern Western worldview that has been held by many generations. Using these assumptions we believe that land that is not used for economic gain is wasted; that individuals have the freedom and right to develop land for economic profit; and that human beings should convert however much of the natural world they can procure to support their private well-being. Faith in science mitigates concern about approaching limits or destruction of the ecosphere.

This viewpoint is not only the dominant viewpoint of our past, it is also widely held in the present; its most vehement version is currently expressed in the "Wise Use Movement." Funded by hundreds of extractive industries, and comprising many ranchers, farmers, miners, and other landowners who believe that they have a right to use the land as they see fit, this movement is pushing for county ordinances that restrict federal environmental regulations. For example, a recent plan approved by Ontonagon County, Michigan, asserts that:

All natural resource decisions affecting Ontonagon County shall be guided by the principles of protecting private property rights, protecting local custom

¹Pirages, D. C., and Ehrlich, P. R., *Ark II: Social Response to Environmental Imperatives* (San Francisco, CA: W. H. Freeman, 1974).

²Dunlap, R. E., and VanLiere, K. D., "The 'New Environmental Paradigm': A proposed measuring instrument and preliminary results," *Journal of Environmental Education*, 9 (4) (1978): 10-19.

and culture, maintaining traditional economic structures through self-determination, and opening new economic opportunities through reliance on free markets.³

Such a statement upholds traditional American values while subtly elevating local county over federal law.

The value on private property rights and free markets is, and has been, part of the American fabric for several centuries. Confronting the problem of our planet's limited carrying capacity means examining suppositions that have been operating successfully for several hundred years. If debates about the environment get heated and angry, it is often because our most precious assumptions, those most deeply embedded in our Western worldview, are being challenged. People who hold these beliefs are not necessarily stubborn individualists (although they may be that also); they are expressing their cultural heritage, their earnest faith in the Western worldview, a worldview that historically has worked well. This worldview gives us a particular definition of nature and our relationship to it. More specifically, this Western worldview embraces the ideas that (1) nature is composed of inert, physical elements (2) that can and should be transformed by (3) individual human beings who are seeking private economic gain and (4) whose work results in progress (mostly economic development).

It may seem obvious and common-sensical to view nature as a set of resources to be used, and in fact, all human societies do transform some part of the natural world for human subsistence. Concern about the depletion of nature is not new: Lucretius in the first century B.C. pointed out that the fertility of the soil was declining. Civilizations have failed because of resource depletion; for example, as we discussed in Chapter 1, the Babylonians overirrigated their fields and thus salinized their soil.⁴ Yet modern industrialized society is transforming our ecosystem at unprecedented rates. Meanwhile, our view of nature both condones and celebrates using nature for our own purposes.

There are many positive and valuable outcomes from our Western worldview: a successful science and technology that have solved many practical, medical, and industrial problems; a sense of freedom and opportunity unknown in most parts of the world; a creative and hard-working populace

³Rauber, P. "Wishful thinking: Wise use cowboys try to rewrite the constitution," *Sierra* (Jan/Feb 1994): 40.

⁴For a highly readable discussion of earlier ecological crises, see Black, J., *The Search for Dominion: Ecological Responsibility of Man* (Edinburgh: University Press of Edinburgh, 1970).

whose output is tied to economic reward; and a lively, forward-looking, quickly evolving society that enjoys unparalleled material abundance. Yet as sensible and obviously valuable as our worldview is, it is a subjectively constructed view of the world (as are all worldviews). Our modern worldview results from centuries of Western thought, which we will discuss in this chapter. Our beliefs derive from many sources. Among the most important are the Greek philosophers, the Judeo-Christian tradition, the Enlightenment thinkers and the Scientific Revolution, European colonialism, and the Industrial Revolution. But in terms of human history, both our extravagant use of nature and our views of that use are very recent events. Human beings with our current brain structure (*Homo homo erectus* with our enlarged frontal lobe capacity for language) have been living on earth for somewhere between 300,000 and 500,000 years; our modern worldview and its accompanying resource use has been in place for no more than 300 years.

To get a sense of how recent our modern beliefs are, imagine our (conservatively estimated) 300,000-year human history reduced to a year. If humans began on January 1, most of their year was spent in small bands of hunting/gathering tribes. Agriculture and the formation of the first cities in the Near East did not begin until December 19 (about 10,000 years ago). The Greeks, to whom we owe much of our cultural heritage, did not create their gloried civilization until December 26. The Scientific Revolution, responsible for a massive change in the way Europeans viewed nature, happened after 11 p.m. on December 31; at the same time European civilization began to spread to the rest of the world through colonialization. And the Industrial Revolution (19th century) did not occur until 20 minutes to midnight, just about when psychology as an academic discipline was getting started. We will examine how each of these events helped shape our modern worldview, but my point right now is that even the most ancient roots of it have occurred very recently in human history.

We usually take our worldview as a given: we accept our assumptions as obvious and common-sensical. Unless we participate in intellectual communities where debates are frequent and vigorous, our Western assumptions are rarely a matter of contention; rather, they provide a conceptual framework from which we interpret our experience and create meaning. Our worldview acts like the frame of a house: it determines the shape and coherence of the particular beliefs it supports. We see and experience the particular beliefs (walls) instead of the frame, but the frame exerts pivotal influence on which beliefs we hold and how they are related to each other. In order to understand the house, we must examine its frame.

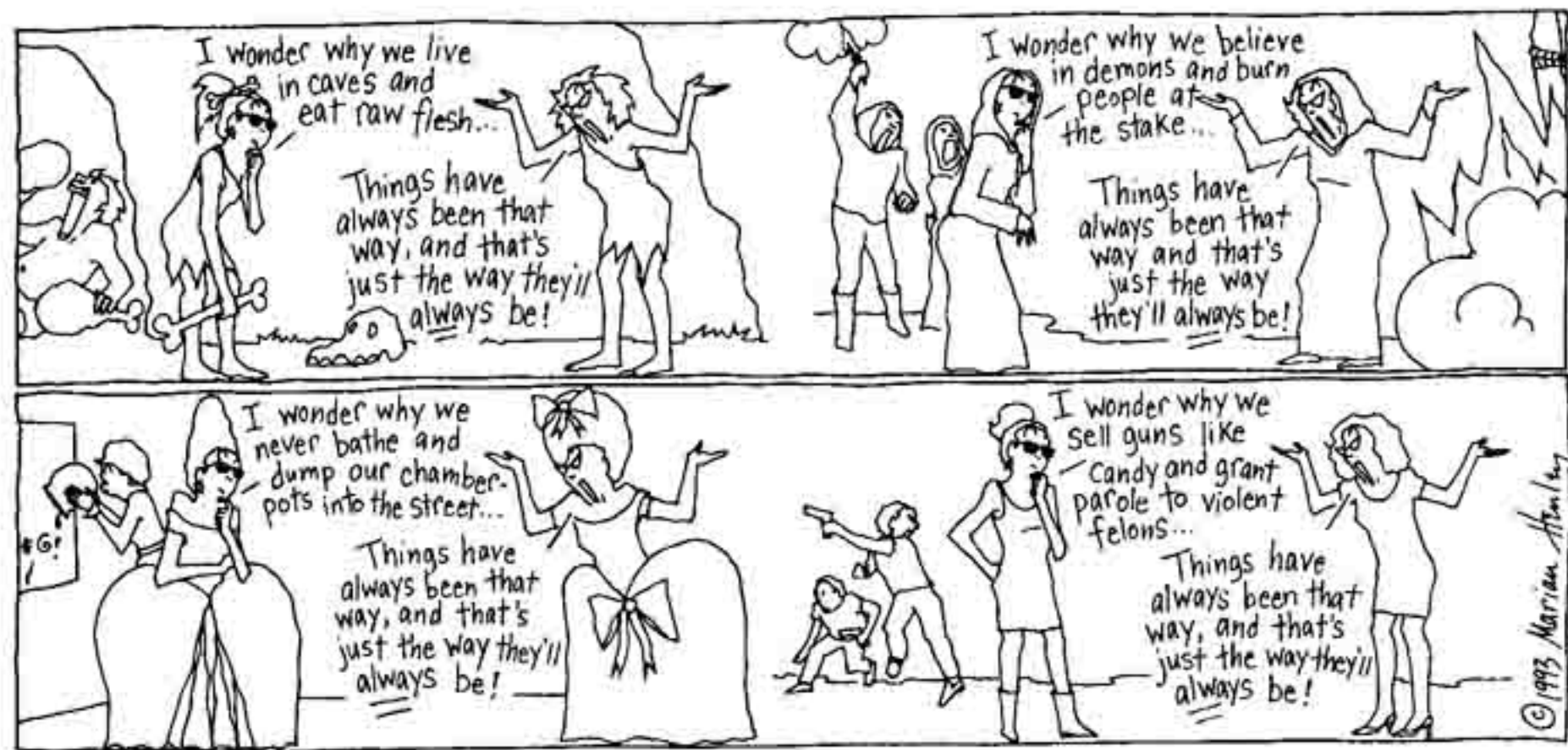
Each culture develops methods for knowing the world that are consistent with its assumptions about reality. In our own modern Western cul-

ture, psychology is both a field of knowledge and an illustration of the conceptual frame provided by our Western worldview, and we will speak much more about this point in Chapter 8. My point right now is that every worldview, including our own, is arbitrary, distinct, and limited. The frame provides a shape to understanding our experience which is coherent and integrated, but by necessity, also bounded and confined. From the perspective of a different worldview, ours looks just as distorted and irrational as that one would look to us. For example, to a Choctow Indian, white people elicited "a strange kind of pity. . . . These hopeless . . . creatures . . . possessed no magic at all, no union with Earth or sky, only the ability to hurt and kill. . . . They were sad and dangerous like a broken rattlesnake."⁵

The central premise of this chapter is that **we are approaching our planetary limits in carrying capacity in part because our modern worldview provides a set of beliefs that encourages us to use and abuse nature.** Our Western (North American and European) intellectual tradition, which has developed over many centuries, bequeaths us a concept of nature that we generally do not discuss or debate: we merely use it as a framework from which to interpret our experience and make decisions. In order to fully grasp the **psychological** dimensions of our ecological predicament, we must begin the difficult task of turning around to examine our psychological houseframe: the assumptions on which our perception of reality, and especially of nature, is constructed. Becoming aware of the limited and distinctive set of beliefs that we Westerners call "common sense" is the first step toward understanding the psychology of our unsustainable behavior.

In this chapter, we will first discuss the legacy of our Western tradition, focusing on the pictures of nature and human nature it has given us, and a few of the most obvious thinkers whose writing can be credited as sources for these ideas. (Examining the historical roots of our views about nature will also illuminate the historical roots of psychology, which is a distinctly Western discipline. In Chapter 8 we will return to this history when we critically analyze where psychology has been and where it should be going.) After we discuss the legacy of our Western views about nature, we will contrast our worldview with some elements from traditional cultures so that we can see more clearly the distinctiveness of our own. Finally, we will examine how psychologists have studied the concept of worldview and demonstrated the force it exerts on people's attitudes about the environment.

⁵Haslam, G., "Hawk's flight: An American fable," in Ortiz, S., ed., *Earth Power Coming* (Tsaile, AZ: Navajo Community College, 1983). Quoted by Glendinning, C., *My Name is Chellis and I'm in Recovery from Western Civilization* (Boston: Shambhala Publications, 1994), p. 88.



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But before we proceed, let me make clear that my **main point is that our view of nature is constructed by our intellectual heritage, not that one worldview is better or worse than another.** While I believe alternative worldviews have something to teach us, I am not arguing that we should dump ours and trade it for a pre-industrial one (not that we could, even if we wanted to). No one worldview has all the answers to all human existence, least of all to the complicated problems of modern life (especially our new ecological ones), which we have hardly even begun to face. All worldviews have both assets and limits.

To give you a concrete example of the positive and negative features of worldviews, let us look for a moment at Nepal. Kathmandu, the capital city, is a wonderfully cacophonous place, and walking through its streets means confronting, appreciating, and dodging the best and the worst of many Asian cities: Hindu and Buddhist temples, and their festivals filled with dignified yet casual participants, incense, flowers, and tinka powder; half-paved and dirt roads crammed with deafening, asphyxiating traffic; obnoxious street hawkers, ragamuffin children, and hideously diseased beggars; exquisite Asian crafts and intricately carved wooden buildings; revolting piles of garbage, complete with human excrement and dead dogs floating in the main river that supplies the city water. Add to this list the impossibly gentle expressions of Nepalis, smiling serenely behind their face masks as they pick their way through the mess. (There is so much bacteria carried in the dust of that city that it is possible to get seriously ill simply by breathing the air.) To say that the streets of Kathmandu are a culture shock to the Western tourist is a considerable understatement: Kathmandu is also a real physical blow to any immune system accustomed to sanitation procedures such as sewers and garbage collection. What is even more disturbing about

the condition of Kathmandu is that Nepal has received as much foreign aid as any country in the world and yet still remains one of the world's poorest, both in terms of gross national product, as well as more direct social indices such as life expectancy, literacy, infant mortality, and nutritional status. How could Nepal in general, and Kathmandu in particular, have wasted so much financial assistance?

There are many answers to this question (ineffective aid planning; rampant corruption by the Royal family and other officials; lack of infrastructure for completing construction projects; runaway population growth). But one of the most oft-cited reasons is the Nepali worldview. Nepal has been heavily influenced by the Hindu notion of caste. Although the caste system in Nepal is not as rigid as India's, it does lead to a sense of fatalism, so that one's birth into the social structure determines everything; concomitantly, Nepalis are generally indifferent to the ideas of both progress and personal competence. In the words of an important Nepali political scientist, Dor Bahadur Bista,

The absolute belief in fatalism, that one has no personal control over one's life circumstances, which are determined through a divine or powerful external agency . . . has had a devastating effect on the work ethic and achievement motivation, and through these on the Nepali response to development. It has . . . led to the expectation of foreign aid as a divinely instigated redistribution. . . . In the present context aid becomes merely something that is justly due to Nepal and not a resource that is meant to be considered seriously and used productively.⁶

My point is not that the Nepali worldview is bad (although it is probably bad for industrial development and probably good for human equanimity in the face of physical suffering). My point is, rather, that every worldview has behavioral repercussions that are both helpful and hurtful, depending on which behaviors we are discussing. It would be both naive and dangerous to argue that an entire and complete restructuring of our Western worldview is necessary for us to solve our ecological problems; naive because it cannot be done anyway, and dangerous because a total upheaval of a social structure would mean abandoning certain essential tools, like science, that we will need to solve our problems. But while we cannot replace worldviews, we may be able to tweak them; I believe there is much value in examining certain features of our own view that might need to be modified. As we do so, having a clear idea of the constructed nature of our worldview and its historical roots will greatly support our inquiry.

⁶Bista, D. B., *Fatalism and Development: Nepal's Struggle for Modernization* (Calcutta, India: Orient Longman Limited, 1991), pp. 4, 5.

OUR WESTERN VIEW OF "NATURE"

Our common sense does not come directly from our experience, nor is it arbitrary or accidental. Instead our view of the world is shaped by centuries of intellectual tradition, so thoroughly embedded in our educational and social institutions that it is often difficult to appreciate it or its effects. A chronological description of the history of Western thought would be too great a task for the present chapter, but we can accomplish our goal of understanding some of the historical roots of our environmentally relevant beliefs by examining the four assumptions listed on page 27 of this chapter, where they originated, and why they have thrived.

As we look at each assumption, I will be reaching back in history to reveal scholars' best guesses about where our beliefs came from and why they became popular. Western intellectual history is not a smooth path, and my discussion here will exclude many important debates and detours. Nevertheless, if we look at key moments, we can see the origin and impact of these assumptions. In a relatively short amount of time, human beings changed from living in small tribes of hunter/gatherers, where nature was often imbued with a living and sacred quality, to living in technologically based cities, where nature has become a set of resources awaiting our use. The immensity, rapidity, and potency of this change cannot be underestimated, and we will examine how it came about by addressing each of the four assumptions of our Western worldview.

Assumption 1: Nature Is Composed of Inert, Physical Elements

In the vast majority of human cultures, nature is seen as a living, organic unity, intimately tied to the activities of human beings. Even most of our Western history shows allegiance to the idea that the natural world is divinely ordered and alive. The world was thought to be united by a *spiritus mundi* (soul of the world), which Plato, in his *Timaeus*, proposed was the source of all movement and activity in the universe. Likewise, for the Stoics of 3rd century B.C. Athens and 1st century A.D. Rome, the world was an intelligent organism. Matter was alive with expansion and contraction, which gave life to all objects in the universe. Similarly, for most people in most ages, daily, immediate interaction with the natural world accompanies a belief that nature is not only alive, but it is also imbued with the same qualities as human beings. In most societies, rituals recreate and honor the link between the living human and nonhuman worlds. Such animistic and anthropomorphic beliefs underlie prayers, ceremonies, and sacrifices while linking the individual to the natural and supernatural realms.

Clearly, our own modern life shows a very different orientation. Housed in cities and buildings that remove the natural world from our daily experience, we think of nature as somehow different from us. We understand natural phenomena such as the weather, earthquakes, and volcanoes, to be the result of inherently inert matter that responds to physical rather than spiritual forces. They are caused by shifts of wind and temperature, not the work of angry gods and goddesses. We also believe that we have very little impact on these events: earthquakes do not happen because of human errors or angry gods; earthquakes happen because of physical phenomena outside our control, and often outside our understanding as well. Nature works like a machine: orderly, if not always predictable.

Where did this mechanical view of nature begin? Although the distancing between human and physical worlds had many contributors throughout Western history, the most important transition from a spiritual to a mechanical universe took place during the Enlightenment period. In Europe between 1500 and 1700, thanks to the work of Copernicus (1473–1543), the geocentric model of the universe was replaced by the heliocentric model. In the heliocentric model, the earth moves around the sun, instead of heavenly bodies around the earth. This new model "struck at the core of Aristotelian and Christian belief [because it] removed the earth from the centre of the universe and so from the focus of God's purpose. In the new scheme man [sic]⁷ was no longer the creature for whose use and elucidation the cosmos had been created."⁸ Moreover, during this period, the natural world came to be understood as a machine, made up of small, separate units (which we now call atoms) operating according to mechanical laws.

There were many contributors to this mechanical worldview, none more important than the French philosopher René Descartes (1596–1650). Descartes asserted that God had made the world, and that the world's complete orderliness was proof of God's all-knowing intelligence. Descartes' view of a mechanically driven universe was enormously influen-

⁷Throughout this book I will be noting use of the word "man" for "human" as [sic] because of the gender bias that so-called generic masculine language promotes. (I'll discuss the evidence for this problem in Chapter 3.) Generic masculine language is no longer considered acceptable, as illustrated by the American Psychological Association's guidelines on its use. [See *Publication Manual of the American Psychological Association*, 4th ed. (Washington, DC: American Psychological Association, 1994), pp. 50–51; 54–56.] Once one notices how often such usage occurs, one begins to sense the subtle but pervasive ways language helps keep women out of the mental picture created by public discourse.

⁸Burke, J., *The Day the Universe Changed* (Boston: Little, Brown, 1985), p. 134.

tial. Because God was so all-powerful and intelligent, He⁹ created a world with unchanging laws of physical reality. Thus, once created, the world operated with clockwork-like precision without God's intervention. In Descartes' view, everything in the universe was mechanical, save one thing: the human mind, which he believed was of a different substance, which he called mental. "The soul" argued Descartes, "is entirely distinct from the body . . . and would not itself cease to be all that it is, even should the body cease to exist."¹⁰ This mind/body dualism is one of Descartes' most lasting contributions, and it provides the basis for our *split between human consciousness and the rest of nature*. The human mind, imbued with soul, was under the jurisdiction of the church; the rest of nature, including our bodies, "lower" animals, and all other objects were material, and operated strictly according to mechanical laws. We could know these laws through logic and rationality of the mind (just as the Greeks had argued several centuries earlier). The emotions, belonging to the body, were not to contaminate the pure rationality of the mind. We will return to the implications of Descartes' severing the mind from its emotional context in Chapter 7.

The point right now is that for Descartes, humans did not anger the gods who then produced natural events at whim; instead the natural world was set and operated according to strict mechanical principles. This transformation of nature from a dynamic, alive, and spiritual entity to nature as an orderly, mechanical, and clockwork machine has been called "the death of nature" by historian Carolyn Merchant:

The rise of mechanism laid the foundation for a new synthesis of the cosmos, society, and the human being, construed as ordered systems of mechanical parts subject to governance by law and to predictability through deductive reasoning. A new concept of the self as a rational master of the passions housed in a machinelike body began to replace the concept of the self as an integral part of a close-knit harmony of organic parts united to the cosmos and society. Mechanism rendered nature effectively dead, inert, and manipulable from without.¹¹

Seeing the world as a mechanical system had three important ramifications. First, it freed humans from the worry of placating uncertain gods. Second, it lifted what now seem like irrational superstitions underlying ne-

⁹I use the masculine gender here consciously because I am talking about our historical view of God, which is masculinized. I will discuss the gender implications of seeing God as male and nature as female in Chapter 3.

¹⁰Descartes, R., Discourse on method, part 4. In *Descartes Philosophical Writings*. Selected and translated by N. K. Smith (New York: The Modern Library, 1958), p. 119.

¹¹Merchant, C., *The Death of Nature: Women, Ecology and the Scientific Revolution* (San Francisco: HarperSanFrancisco, 1983), p. 214.

farious rituals such as human sacrifices. Third, it liberated human energy to adjust the machine. Thus, a mechanical and spiritless natural world allows for the possibility (and eventually, as we shall see, the moral mandate) of human control over natural phenomena. To see the world as a machine is to see it as made up of discrete parts that operate according to regular laws; a machine can be studied in a limited, specifically defined domain and it can be manipulated and controlled by human intervention.

By the middle of the 17th century, Descartes' ideas were widely discussed and increasingly substantiated. Sir Isaac Newton (1642–1727), whose *Principia* (1687) spelled out the mechanical principles of force and motion in the physical world, validated Descartes' view of a mechanical universe by providing mathematically verifiable predictions about the movement of stars and objects. Newton's work still provides the basis of our modern worldview: matter is seen as inherently inert; it is made up of objects that move only because outside forces move them, like billiard balls whose direction and motion can be successfully predicted. Although Newton agreed with Descartes that only God could have created such an exquisitely ordered universe, Newton helped pave the way for our modern secular worldview by demonstrating how orderly and precisely predictable the movement of objects is (objects above the level of the molecule, that is; as we shall see in Chapter 6, modern physics of the 20th century, which has focused on the movement of atoms and their parts, gives us a very different view of nature).

Assumption 2: Nature Can and Should Be Controlled

To see nature as inert matter without spirit is to invite human control and use of it. After all, those with consciousness should use anything that lacks it for their own "higher" spiritual ends. Along with the mechanization of nature during the Enlightenment period came calls for the control of nature. In fact, the Scientific Revolution of the 16th and 17th centuries was born from the argument that nature can and should be controlled.

An important voice in the plea for human control of nature was Francis Bacon's (1561–1626), called by Alfred North Whitehead "one of the great builders who constructed the mind of the modern world."¹² Bacon's views of science were tremendously persuasive and helped escort the secular worldview to primacy over the medieval Christian worldview. Before the Scientific Revolution, knowledge about the world was delivered through the church, according to key texts and religious insights produced

¹²Quoted by Dick, H. G., Introduction to *Selected Writings of Francis Bacon* (New York: The Modern Library, 1995), p. ix.

by contemplation of divine principles. After the Scientific Revolution, very much like our current worldview, knowledge about the world comes from observation of it, best done through controlled experiments.

Bacon was an important architect of the Scientific Revolution by virtue of his forceful writing on the conduct and goals of science. As a successful member of the British Parliament and holder of the highest appointed offices under James I, his passionate criticisms of the ineffectual knowledge of his day had great impact. Bacon argued that philosophy had been unproductive because it was based on speculation rather than on fact. Vowing to free knowledge from the stranglehold of the cloistered institutions of church and university, Bacon argued that we must abandon "the little cells of human wit" for the "reverence [for] the greater world"¹³ and bring nature to light through observation rather than by "triumphs of confutation, or pleadings of antiquity, or assumption of authority, or even by the veil of obscurity."¹⁴ Moreover, Bacon argued that we must study nature (which he saw as female) by controlling "her." In his view, science should observe

not only . . . nature free and at large (when *she* is left to *her* own course and does *her* work *her* own way)—such as that of the heavenly bodies, meteors, earth and sea, minerals, plants, animals—but much more of nature under constraint and vexed; that is to say, when by art and the hand of man *she* is forced out of her natural state and *squeezed and moulded* . . . seeing that the nature of things betrays itself more readily under the vexations of art than in its natural freedom.¹⁵ (emphasis added)

Only by constraining nature and subduing "her" could "man" understand her secrets, and thereby gain mastery over the world. In the next chapter we will look at the psychological implications of conceptualizing nature as female to be "squeezed and moulded" by inquiring "man." For now, let us go on and examine Bacon's view that controlling the natural world was a moral imperative. Bacon used the Biblical story of creation to argue this point. To Bacon, science was the way back to paradise. When we were expelled from the Garden of Eden, we lost our "dominion" over the earth and its creatures, and were subject to the earth's dangerous forces such as droughts and floods. Bacon believed that God, "who gavest the visible light as the first fruits of creation, and didst breathe into the face of man [sic] the intellectual light as the crown and consummation thereof"

¹³Bacon, F., "Preface of The Great Instauration," in Dick, H. G., ed., *Selected Writings of Francis Bacon* (New York: The Modern Library, 1955), p. 437.

¹⁴*ibid.*, p. 435.

¹⁵*ibid.*, p. 447.

would bless scientific understanding as "coming from Thy goodness [and] return to Thy glory."¹⁶

Thus, we could regain our blessed place in creation by exerting our power over nature through scientific understanding; science thereby offers human salvation. By learning about nature through scientific inquiry, we could return to that original state of dominion over the natural world. Science, in other words, will give us control over the rest of creation, which will return us to God's favor.

But as much as the Enlightenment philosophers of the 17th century were setting a new direction away from the church, most of them still relied on the fundamental belief in a Judeo-Christian God and His creation of the universe. Bacon's use of the creation story shows how important this tradition is in shaping our view of nature. All societies have creation stories—explanations for how the world was made—which deliver understandings about human beings and their relationship to the rest of the world. Unsurprisingly, the Genesis story from the Old Testament reveals our Western assumptions about nature and our use of it:

And God said, Let us make man in our image, after our likeness: and let them have *dominion* over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth. So God created man in his *own* image, in the image of God created he him; male and female created he them. And God blessed them, and said unto them, Be fruitful and multiply, and replenish the earth, and *subdue* it: and have *dominion* over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth.¹⁷ (emphasis added)

It is especially the words "dominion" and "subdue" that have been blamed for human beings' arrogant attitude about the natural world and our abuses. For example, in an influential essay called "The Historical Roots of our Ecologic Crisis," anthropologist Lynn White has argued that

By gradual stages a loving and all-powerful God had created light and darkness, the heavenly bodies, the earth and all its plants, animals, birds, and fishes. Finally, God had created Adam and, as an afterthought, Eve to keep man from being lonely. Man [sic] named all the animals, thus establishing his dominance over them. God planned all of this explicitly for man's benefit and rule: no item in the physical creation had any purpose save to serve man's

¹⁶Bacon, F., "Preface to The Great Instauration," in Burt, E. A., ed., *The English Philosophers from Bacon to Mill* (New York: The Modern Library, 1939), p. 23.

¹⁷Genesis, Chapter 1, verses 26–28, King James' Bible, Authorized Version of 1611.

purposes. . . . Christianity, in absolute contrast to ancient paganism and Asia's religions . . . not only established a dualism of man and nature but also insisted that it is God's will that man exploit nature for his proper ends.¹⁸

Blaming our ecological crisis on Christianity alone would be an oversimplification, perhaps even an unfair distortion of the meaning in the Biblical text. Some Christians concerned with ecological problems have argued that the word "dominion" has been mistranslated to mean domination. Instead "dominion" implies responsibility for stewardship. In the words of U.S. Vice President Albert Gore:

In the Judeo-Christian tradition, the biblical concept of dominion is quite different from the concept of domination, and the difference is crucial. Specifically, followers of this tradition are charged with the duty of stewardship, because the same biblical passage that grants them "dominion" also requires them to "care for" the earth even as they "work" it. The requirement of stewardship and its grant of dominion are not in conflict; in recognizing the sacredness of creation, believers are called upon to remember that even as they "till" the earth they must also "keep" it.¹⁹

But even if we agree with Gore that dominion *should* be understood as responsible stewardship, in large part it has not been; and use of the word "subdue" hardly suggests stewardship, either. More often, the Biblical story is used as a justification for human control of nature, and the Christian community has often been either indifferent or even antagonistic toward environmental concerns. For example, Pat Buchanan's quarterly newsletter *From the Right* recently published an anti-environmentalist manifesto by Llewellyn Rockwell that concludes:

In holy scripture, God told us to "fill the Earth and subdue it, and rule over the fishes of the sea, and the fowls of the air, and all living creatures that move upon the Earth," for they are ours "to feed upon." We are created in "His own image." And with the Incarnation, the Creator of the universe became a child. Thus any philosophy that equates man [sic] with animals or plants, or subordinates him to nature, is a heresy of astounding proportions.²⁰

¹⁸White, L., "The historical roots of our ecologic crisis," *Science*, 155 (1967): 1203-1207, p. 1205.

¹⁹Gore, A., *Earth in the Balance: Ecology and the Human Spirit* (New York: Plume, 1992), p. 243.

²⁰Rockwell, L. H., "An anti-environmentalist manifesto," in Buchanan, P., ed., *From the Right*, 1 (6) (1990): p. 9.

While contemporary ecotheologists are rapidly working to reframe Christianity so that it embraces ecological principles,²¹ environmental issues have yet to become a focus of the mainstream Christian community.

To give you a sense of how deeply embedded the license we feel toward "lower animals" is in our Western tradition, let me describe an example of my own experience. Recently, I had a friend over to dinner who, as I was cooking, asked me how my book was going and what I was working on. I described some of the thinking in this chapter, particularly this idea that we see humans as superior to the rest of nature, which is subject to our control. As I was describing this idea, a carpenter ant crawled across the counter, and I automatically smashed it. "Is that a problem?" my friend asked. "Yes," I answered, still thinking about our view of nature, "because it allows us to unconsciously manipulate or harm anything we want to in the name of human convenience." "No" my friend said "I mean is *that* a problem?" pointing to the smashed ant. "Yes, those damn things are destroying our house." "But isn't that *the* problem?" persevered my friend. I looked up in puzzlement, and then realized what I had done. Even though I had spent all day writing about our unconscious assumption that we have the duty and right to control nature, I had not even realized that I was using that assumption when I automatically smashed the ant. My worldview is so deeply ingrained that even as I write and think about it, I still unconsciously use it. The point of this example is not that I was wrong to kill the ant (I still smash them because I value my house more) but that I am still very unconscious about my relationship to other species.²²

As our Christian and scientific heritages laid a framework for our relationship to nature, important political institutions followed that further convinced us of human right to control nature. The political ramifications of a mechanical universe were drafted in the 17th century by John Locke

²¹See McDaniel, J. B., "Emerging options in ecological Christianity: The new story, the biblical story, and pantheism," in Chapple, C. K., ed., *Ecological Prospects: Scientific, Religious, and Aesthetic Perspectives* (Albany, NY: State University of New York Press, 1994). Also, Ruether, R. R., *Gaia & God: An Ecofeminist Theory of Earth Healing* (San Francisco: HarperSanFrancisco, 1992). Also, Bratton, S. P., "Christian ecotheology and the old testament," *Environmental Ethics*, 6 (1984): 195-209. Also, McFague, S., *The Body of God: An Ecological Theology* (Minneapolis: Fortress Press, 1993) Also, Fox, M., *The Coming of the Cosmic Christ*. (San Francisco: Harper and Row, 1988).

²²I am still struggling with these kinds of issues, since I believe that all species must harm some others in order to survive, yet humans have abused their neighbors in their habitat. At this point, I try to live with this problem by becoming more aware of my own selfishness. Now when I kill an ant, I try to remember to apologize to it for taking its life so that I can be comfortable. With an apologetic attitude, I might be less likely to abuse other species for inconsequential reasons.

(1632–1704). Locke, a British philosopher and political theorist, worked out the philosophical foundation of democracy by stressing the importance of land ownership. According to Locke, anyone who owned land should vote; owning land earned a voice in the governance of the state because working the land shows merit. He asserted that

As much land as a man [sic] tills, plants, improves, cultivates, and can use the product of, so much is his property. He by his labor does, as it were, enclose it from the common. . . . God and his reason commanded him to subdue the earth, i.e., improve it for the benefit of life, and therein lay out something upon it that was his own, his labor. . . . And hence subduing or cultivating the earth, and having dominion, we see are joynd together. The one gave title to the other. So that God, by commanding to subdue, gave authority so far to appropriate. And the condition of humane life, which requires labor and materials to work on, necessarily introduces private possessions.²³

Locke did argue for constraints on private ownership, proposing that men (not women, slaves, the uneducated, or anyone else who could not reason abstractly!) should own only as much land as they could successfully cultivate.²⁴ Yet because one could buy labor, one could own as much land as one could manage through hired help. Thus, by proposing that private ownership is a God-given right, and that land use is a God-given responsibility, Locke helped tie democratic institutions to the private ownership of common resources, a theme that becomes important in the export of our modern worldview through Third World development (to be discussed below). Moreover, his emphasis on land use as a starting point for democracy helped promote the notion that unused land is wasted land.

²³Locke, J., "Second Treatise: An essay concerning the true, original, extent and end of civil government." In *Two Treatises of Government* (Cambridge University Press, 1988), Chapter 5, Sections 32, 35, pp. 290–291, 292.

²⁴Locke rarely mentioned the role of women, except in his lengthy discussion of the importance of both the mother and the father in teaching the child an early obedience to patriarchy [see Second Treatise, Chapter VII, reproduced in Burt, E. A., ed., *The English Philosophers from Bacon to Mill* (New York: The Modern Library, 1939), pp. 433–441]. However, a quick passing comment about the reasoning power of women demonstrates his lack of confidence in them: "Tis well if men of [wage-earner] rank (to say nothing of the other sex) can comprehend plain propositions, and a short reasoning about things familiar to their minds, and nearly allied to their daily experience. Go beyond this, and you amaze the greatest part of mankind." From *Locke's Works*, 1759, ii, pp. 585–6, as quoted by MacPherson, C.B., *The Political Theory of Possessive Individualism: Hobbes to Locke* (Oxford: Clarendon Press, 1962), pp. 224–5. Thus for Locke, most men cannot reason properly, never mind women.

Assumption 3: Individual Human Beings Seek Private Economic Gain

One of the best ways to examine our worldview is to consider what people say about "human nature." A frequent claim in the West is that humans are motivated primarily by material gain; "it's the buck that counts." Without a profit motive, human effort is often considered unlikely.

Where did the attribution of a core economic motivation come from? Materialistic motivation superseded spiritual motivation when the mechanical worldview displaced the primacy of the church. Again, Locke helped out. Locke provided a positive spin on economically driven land use, first by arguing that God intended "man" to own land, and by so doing, "man" obeyed God's orders. Secondly, Locke provided a convenient justification for material wealth by arguing that "the chief end of trade is Riches & Power," which are essential for the defense of the nation.²⁵ His viewpoint provided a basis for early "trickle-down" economics, since he assumed that private ownership by the wealthy class enables the poorer class to sell their labor and thus gain livelihood. In this way, the problem of limited land for the vast majority was deftly avoided, since poorer people could work for the rich. Locke also noted that "The New World" furnished unlimited land, so that ownership was determined by a person's will rather than circumstance:

Full as the world seems . . . let him [sic] plant in some inland vacant places of America. . . . The extent of the ground is of such little value . . . there is land enough in the world to suffice double the inhabitants. . . . For it is labor indeed that puts the difference of value on everything. . . . There cannot be a clearer demonstration of anything than several nations of the Americans are of this, who are rich in land and poor in all the comforts of life; whom nature, having furnished as liberally as any other people with the materials of plenty—i.e. a fruitful soil, apt to produce in abundance what might serve for food, raiment, and delight; yet, for want of improving it by labor, have not one hundredth part of the conveniences we enjoy, and a king of a large and fruitful territory there feeds, lodges, and is clad worse than a day laborer in England.²⁶

In proposing the use of the New World, Locke conveniently "ignored any inconvenience to either emigrants or Indians."²⁷ Instead he pitied the Native Americans, who were clad poorly by European standards, which he deduced was because they did not work their land. In Locke's vision,

²⁵From Locke's Bodleian Library manuscript, as quoted by MacPherson, C.B., *ibid*, p. 207.

²⁶Locke, J., *An Essay Concerning Treatise*, 6th ed. Locke, J., "Second Treatise," *ibid*, Chapter 5, Sections 36, 41, pp. 293, 296–7.

²⁷Clark, M. E., *Ariadne's Thread: The Search for New Modes of Thinking* (New York: St. Martin's Press, 1989), p. 263.

landowners should provide the poor a means of livelihood, and the laboring class could in turn provide a commodity by which national wealth could be derived. With this symbiotic relationship between the wealthy and the poor, wealth could be accumulated. By this formula, the basic features of colonial expansion were put in philosophical order, and the British Empire proceeded to be built through land grabs of large portions of Asia, Australia, Africa, and America, whereby wealthy landowners were simply providing "enhanced opportunities" to the native populations they plundered. The only constraint on land use that Locke proposed was that nobody should own land that was not cultivated; on the other hand, money could be accumulated, especially if it was reinvested into the public good. Thus, capital investment in the support of colonization was a good way to gain God's favor.

Locke's reasoning was preceded by the work of Thomas Hobbes (1588–1679), whose less attractive arguments did not initially have as much impact as Locke's; eventually, however, Hobbes' views superseded Locke's by bypassing the moral constraints that Locke proposed. Whereas Locke, along with Descartes and Newton, had seen an important role for God in both creating the universe, and setting the moral rules for human conduct, Hobbes carried the mechanistic view of the universe to ultimate lengths by positing that everything, including people, minds, brains, and ideas, are nothing but material and material events. In proposing this irreducible materialism, Hobbes saw human beings as locked in a continual state of competition with each other for material goods and for power. For Hobbes (like Freud, whom we will meet in Chapter 4) nature was chaotic and dangerous, and humans must fight for their own survival against nature and against each other. Hobbes' view of human nature was not a pretty one:

The life of man [sic] [is] solitary, poor, nasty brutish, and short. . . . The condition of man . . . is a condition of war of everyone against everyone; in which case everyone is governed by his own reason, and there is nothing he can make use of that may not help until him, in preserving his life against his enemies.²⁸

Thus, Hobbes saw competitive self-interest as the basis of human nature; because people are inherently in competition against each other, they must enter into market contracts to create some semblance of social order. And those market contracts define each person, since "the value or worth of a man [sic] is as of all other things, his price."²⁹ We owe society nothing,

²⁸Hobbes, T., *Leviathan: Or the Matter, Forme, and Power of a Commonwealth Ecclesiastical and Civil*. (New York: Collier, 1651/1962) pp. 100, 103.

²⁹*ibid.*, p. 73.

but instead are driven by our own selfish concerns. Without a spiritual foundation or creator, our worthiness as human beings could be calculated entirely by our material holdings.

As reductionistic and distasteful as Hobbes' vision of human nature was, it was made progressively more palatable by several important thinkers who followed: Adam Smith, the Scottish economist/philosopher (1723–1790) argued that the state should leave individuals alone to amass their material wealth and that what is good for the individual is eventually good for the state. The utilitarian British philosopher Jeremy Bentham (1748–1832) proposed that human nature always attempts to maximize pleasure and minimize pain, so morality could be defined by the greatest happiness for the greatest number (rather than by duty or obligation). While Bentham defined happiness, other utilitarians set about to measure it. In the words of Mary Clark (whose book *Ariadne's Thread* traces the development of Western thought and its impact on our ecosphere),

To maximize something, you have to be able to *measure* it. Casting about for method of quantifying happiness, the Utilitarian naturally hit upon the most quantifiable item in sight—the monetary value of one's possessions. And so, if it wasn't already, material wealth became equated with that which all persons, by their nature, most desire.³⁰

Add to this material basis of motivation the work of the liberal democrats, such as Thomas Paine (1737–1809), who successfully argued that governments should not interfere with "natural rights, . . . those which appertain to man [sic] in right of his existence. Of this kind are all the intellectual rights, or rights of the mind, and also all those rights of acting as an individual for his own comfort and happiness which are not injurious to the natural rights of others."³¹ As we know, the American Declaration of Independence argued the same point: "All men [sic] are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the pursuit of Happiness." This primacy of the individual over the state became a hallmark feature of American government. And thus our modern worldview was written into a federal constitution and into a national psyche: no longer do we have primary moral or psychological responsibilities to the society (instead they are to our own life, liberty, and pursuit of happiness); no longer is the most important purpose of our life to ensure our passage to

³⁰Clark, M. E., *ibid.*, p. 267. My debt to Mary Clark is important here. Not only did her book awaken me to the general problem of our Western worldview in designing a sustainable culture, but her succinct use of Locke, Hobbes, Smith, Mills, and Jefferson in explicating this problem (pp. 226–252) formed the basis of my discussion.

³¹Paine, T., "The rights of man," in Adkins, N. F., ed., *Common Sense and Other Political Writings of Thomas Paine* (Indianapolis: Bobbs-Merrill, 1953), p. 84.

heaven or to honor our ancestors; no longer is our essential identity based on our family or kin relationship. Instead, our lives are lived as individuals, competitive and separate, pursuing our own material wealth through the God-given rights of freedom and noninterference from the state.³² This is the great achievement of the modern age. To use the words of intellectual historian Richard Tarnas:

While the classical Greek worldview had emphasized the goal of human intellectual and spiritual activity as the essential unification (or reunification) of man [sic] with the cosmos and its divine intelligence, and while the Christian goal was to reunite man and the world with God, the modern goal was to create the greatest possible freedom for man—from nature; from oppressive political, social, or economic structures; from restrictive metaphysical or religious beliefs; from the Church; from the Judaeo-Christian God; from the static and finite Aristotelian-Christian cosmos; from medieval Scholasticism; from the ancient Greek authorities; from all primitive conceptions of the world. Leaving behind tradition generally for the power of the autonomous human intellect, modern man set out on his own, determined to discover the working principles of his new universe, to explore and further expand its new dimensions, and to realize his secular fulfillment.³³

Again, I would like to repeat that I find many positive effects of our modern emphasis on individualism: a sense of freedom, of mobility, of opportunity, and of accountability that I wish more people on the planet could also experience. But excess individualism at the expense of group membership also has its costs. It can sponsor irresponsible self-indulgence and lack of concern for others. In order for America to retain its sense of greatness, we must look at some of the problems, along with the benefits, which its heritage has delivered.

Finally, we cannot leave the discussion of materialistic individualism without discussing the contribution of the Protestant reformers. They upgraded the Hobbesian view of human purpose as material accumulation by putting a moral and religious meaning back on it. To the Calvinists who helped settle America and promulgate the Industrial Revolution in England, work was a divine "calling"; material rewards were signs of God's blessings for labor well done. Concomitantly, poor people deserve their punishment because of their lack of effort; rich people simply reflect God's approval. In Protestant modernism, work and wealth are good; leisure and poverty are sin. Furthermore, as Max Weber's (1864–1920) successful ar-

³²Clark, *ibid.*, p. 268.

³³Tarnas, R., *The Passion of the Western Mind: Understanding the Ideas That Have Shaped Our World View* (New York: Harmony Books, 1991), p. 290.

gument has been described,³⁴ Protestant beliefs encouraged industrial development by "sharply limiting the uses that could be made of [earned] wealth. In reaction against the softness and luxury of Rome, Protestantism was ascetic and forbade expenditures on pleasures of the flesh. One of the few things one could in good conscience do with savings was to 'plow them back into the firm' "³⁵; in other words, invest. In this way Calvinism encouraged the perfect combination of hard work and ascetic self-denial that enabled capitalism to flourish.

While Weber argued that Protestantism established the impetus for the rise of capitalism, his interpretation was really an extension and critique of the theory of Karl Marx (1818–1883), who 50 years earlier had argued the opposite: that economic motivation determined religious experience, and not the other way around. With the industrialization of England as his datum, Marx posited that human relationships in an industrialized society are defined by their economic dimension. One's economic role determines the way one thinks, perceives, and reasons. In Marx's words, the economic interactions—"the modes of production"—provide the substructure or foundation on which is built the superstructure of social interactions, philosophy, religion, and art. "The mode of production of the material subsistence, conditions the social, political and spiritual life-process in general. It is not the consciousness of men [sic] which determines their existence, but on the contrary it is their social existence [their role in the marketplace] which determines their consciousness."³⁶ Because workers become alienated from their products through industrialization's division of labor, their social relationships become defined by money and the commodities that money can buy.

In earlier periods during which modes of production were agricultural or mercantilist, production was directly of one's own making and one could identify with the finished product with a sense of pride, accomplishment, and humanity. But in a capitalist system, according to Marx, social relationships are divided into either owners of production or means (labor) of production. Both roles are dehumanized because in neither case can one identify with one's work. When alienation from one's work occurs, money takes on excessive "fetish" power. Although Marx looked forward to an eventually classless society, as long as the distribution of wealth remains uneven, people would be focused on balancing it. Thus, for Marx, industrialization focuses human motivation on economic realms. Although Marx's ideas

³⁴Weber, M., *The Protestant Ethic and the Spirit of Capitalism*, 2nd ed., translated by T. Parson (New York: Scribner, 1930).

³⁵Brown, R., *Social Psychology* (New York: Free Press, 1965), p. 451.

³⁶Marx, K., *Capital, I*, Ben Fowkes edition (New York: Vintage Books, 1977), p. 929.

about communism are more unfashionable today than ever, it is intriguing to consider how many people would still endorse this economic view of human nature.

Assumption 4: We Must Progress

Even if the Protestant ethic had not provided a religious framework for modern industrial development, the moral imperative of individuals at work for material gain would still be bolstered by our allegiance to the notion of progress. To us, time is a linear event, and we expect that during its passage, growth will occur. Whereas the traditional world saw the passage of time in circular terms, celebrating the cycles of nature (and even in some cases positing the reincarnation of the human being into repeating lifetimes), we in the West are married to the idea of progress. We see time not as a circle, but as a line: as a sequential series of snapshots revealing continuous growth. To return to a previous state is to go backward, to regress. In our Western way of looking at the world, to return is to fail.

Where does our devotion to the idea of progress come from? Some cite Charles Darwin (1809–1882), whose theories of evolution seem to suggest a continual growth of complexity and adaptation in species, although Darwin specifically argued that there was no goal or purpose to evolution. However, evolutionary theory became a popular tool for conceptualizing progress, thanks to the efforts of the English philosopher Herbert Spencer (1820–1903). Spencer proposed that societies, like everything else, undergo the same kind of evolution as do species, from simple to complex:

Whether it be in the development of the Earth, in the development of life upon its surface, in the development of society, of government, of manufactures, of commerce, of language, literature, science, arts, this same evolution of the simple into the complex, through successive differentiations, holds throughout. From the earliest traceable cosmical changes down to the latest results of civilization, we shall find that the transformation of the homogenous into the heterogeneous, is that in which progress essentially consists.³⁷

Thus, societies, like species, evolve from simple to complex, that is from simple agrarian communities to complex industrialized societies. Formulated in a country busily expanding its wealth through colonialization and industrialization, it is no surprise that Spencer's ideas became widely popular: what better concept with which to condone the imposition of British rule on the "less evolved savages" of Asia, Africa, and Australia? "Through-

³⁷Spencer, H., *Essays Scientific, Political, and Speculative* (New York: D. Appleton and Company, 1891), p. 10, as cited by Nisbet, R. A., *Social Change and History: Aspects of the Western Theory of Development* (New York: Oxford University Press, 1969), p. 124.

out the Edwardian period, ordinary people were encouraged to believe that the empire stood for the expansion of civilized values as well as the accumulation of profits."³⁸ Thus, the progress of society and of economic development were tightly linked in the Victorian mind, which, I am arguing, is not so different from our own.

As if to prove Spencer's point, however, America, as England's offspring, complicated and extended the idea of progress. After all, the New World stretched out in what must have seemed infinite wilderness, and the lure of the West soon pulled settlers whose visions of fortune were matched by visions of religious conversion: "American expansionism and Indian salvation began to become synonymous."³⁹ Although westward expansion was debated, many saw it as inevitable, at least those who believed in "manifest destiny":

The American claim is by the right of our manifest destiny to overspread and to possess the whole of the continent which Providence has given us for the development of the great experiment of liberty and federative self-government intrusted to us. It is a right such as that of the tree to the space of air and Earth suitable for the full expansion of its principle and destiny of growth.⁴⁰

"Manifest destiny" expressed a moral imperative to use whatever needed to be used in order for the great experiment of liberty to grow and "possess the whole of the continent." It is ironic that the metaphor of a tree was chosen to suggest the rights of Americans to "their full expansions and destiny of growth," since millions of trees were cut for human settlements, and consequently denied their "space of air and Earth." No matter. The spirit of westward expansion was more potent than its logic. Even though the phrase "manifest destiny" was invented by a New York journalist, whose words appear above, it captured the self-righteous and land-hungry spirit of the newly migrating pioneers. And it hasn't entirely run its course, as the following message from the John Birch Society illustrates:

No one can be free without the ability to own and control property. Free individuals are producers who make life better for all. Free individuals and too much government are incompatible. Free enterprise, including full property rights, gives all the opportunity to enjoy natural beauty.⁴¹

Thus, the particularly American spin on progress was to focus on the freedom of individuals to make life better for themselves, through wide-

³⁸Bowler, P. J., *The Invention of Progress: The Victorians and the Past* (Cambridge, MA: Basil Blackwell, 1989), p. 200.

³⁹White, R., "It's Your Misfortune and None of My Own": *A History of the American West* (Norman: University of Oklahoma Press, 1991), p. 72.

⁴⁰*ibid.*, p. 73.

⁴¹From an ad for the John Birch Society that appeared in Buchanan, *ibid.*

spread land ownership. Progress is made when individuals enjoy the right to own and control their own property. Just as Locke argued, progress occurs when individuals apply technology to convert their land to income. Progress through private land is the explicit assumption of American culture, but it is also, I am arguing, the assumption of Western culture in general. I am not suggesting that land ownership is a bad idea. In light of East European environmental mistakes, it may be less destructive than massive state ownership. What I am saying, however, is that private ownership without group responsibility—the sense that this is my land and I can do anything I want with it—is a deeply ingrained legacy of our Western tradition. Consequently land-use arguments will threaten deeply held commitments to “our American way of life.”

Progress, through land ownership or economic wealth, is a fundamental feature of our worldview. The perception that human life is perched in a *linear time* marked by progress toward something better is mirrored by the Greek and Christian view that we are perched in a *linear power order* as well. In the traditional Western view of the cosmos, God reigns over men, who rule over women, children, animals, plants, and inorganic matter, in that order. This makes humans more important than animals, men more important than women, organic matter more important than inorganic matter, mammals more important than insects, and plants more important than dirt. Intellectual historian Arthur Lovejoy has termed this idea “The Great Chain of Being” and attributed its origin to the Greeks, especially Aristotle. Aristotle proposed that all beings are arranged in a single continuum, a *natural scala*, according to “their degree of perfection.” This perfection is based on the amount of “soul” or “potential realization,” which differs for each kind of being. The amount of soul determines how close they are to God, who of course, sits at the top. In Lovejoy’s words, Aristotle’s notion of unilinear gradation

result[ed in] the conception of the plan and structure of the world which, through the Middle Ages and down to the late eighteenth century, many philosophers, most men [sic] of science, and indeed, most educated men, were to accept without question—the conception of the universe as a “Great Chain of Being.”⁴²

This linear view of the universe exhibits the concept of hierarchical spatial ordering, so familiar in many other Western institutions: the priestly hierarchy, and the divine power of kings, as well as in more contemporary institutions, such as the military with its chain of command; the corporation

⁴²Lovejoy, A. O., *The Great Chain of Being: A Study of the History of an Idea* (New York: Harper & Brothers, 1960), p. 59.

with its vertical structure of power and status; the taxonomy of biological organisms; and even the reductionistic idea of science that complex wholes are made up of simpler parts.

Yet democratic institutions have gradually undermined this strict idea of hierarchy given by The Great Chain of Being. To allocate one vote to one citizen is to begin to level the power hierarchy (although class, race, gender, and ethnicity still help to maintain it). While modernity has weakened our vertical concept of reality, it has not annihilated it. And vertical organization combines with linear progress to form two crucially important tenets of our Western worldview.

In this way, our thinking is dominated by a line—of progress, of power, and of consciousness (or closeness to God). The line is a potent basis of our modernist vision. It sanctions and promotes the idea of growth, which is seen as good, and diminishes the value of sustainability, which is seen as stagnation. We are thoroughly and deeply wedded to the hope of progress, improvement, growth, ascendance, enhancement, as our national and international visions promise. Our international “development” efforts focus on increasing the standard of living, meaning increasing life spans, education, literacy, and technological conveniences of other countries. At the national level, our quarterly reports are saturated with criterion of economic growth. Presidents are elected for their promise of economic growth and measured against the accomplishment of it.

For centuries of Western thought, and the North American implementation of it, progress has seemed not only possible, but evident and incontrovertible. Life spans have increased. Water and land has been claimed for human needs. The average person in the industrialized countries of the planet today lives at a level of material comfort that the richest person anywhere could hardly imagine a century ago. Progress in terms of material comfort, technological innovation, human population growth, and resource utilization seems undeniable.

Yet, in the closing years of the 20th century, we must question our vision of progress, as our technological feats have brought on troubling ecological problems that defy easy solutions. Mounting ecological difficulties force us to ask how beneficent our “progress” is turning out to be. Is it progress to have so many millions of tons of nuclear waste with no known way of ensuring its safe storage? Is it progress to be cutting the last 5 percent of North America’s ancient forests? Is it progress to be exposing ourselves to ultraviolet radiation because we have progressively released more and more harmful chemicals? To be doubling the human population in the next 40 years?

The line has brought us into a troubling relationship with our physical world. As Swedish physician and environmental policy maker Karl-Henrik Robert has observed,

For roughly the past hundred years, humans have been disrupting the cyclical processes of nature at an accelerating pace. All human societies are, in varying degrees, now processing natural resources in a *linear* direction. Our resources are being rapidly transformed into useless garbage. With few exceptions, none of this garbage finds its way back into the cycles of society or nature; it is not taken up for repeated use by industry, nor is it put back into the soil. The ultimate consequences of all this are impossible to foretell.⁴³

For this reason Robert argues that the Third World needs the same thing that the industrial world needs: "cyclic technology." Technology that recognizes our cyclic relationship with nature will be needed to build a sustainable world.

At the end of the 20th century, John Locke's assertion "that there is land enough in the world to suffice double the inhabitants" is clearly no longer valid. Perhaps our worldview is faltering because there is no more "New World," no more "inland vacant places in America" for us to plant, no more infinite sinks into which we can dump. Perhaps our old notion of progress and linear technology requires empty space, which on an increasingly crowded planet, is more of a historical memory than a current reality.

As we question the linear notion of progress, we may begin to question some of the other assumptions intimately tied to it: material consumption; the sanctity of the individual and of individual freedom to live without responsibility to a larger community; and a natural world that operates outside the realm of human activity. A vivid way to examine our own assumptions is to confront worldviews that make a different set.

THE "NATURE" OF TRADITIONAL THOUGHT

If collapsing several centuries of Western thought into a few pages is a difficult task, accurately discussing the worldviews of ancient and non-Western perspectives in a short space is even more daunting. Traditional cultures (by traditional I mean nonindustrialized) show many important differences from each other. Anthropologists typically focus on differences rather than on similarities in order to demonstrate the amazing variation and powerful influence of culture on human behavior. Nevertheless, variations on a theme do not necessarily diminish the validity of the theme; nor do exceptions to the rule, if the number of cases that fit the rule outnumber the exceptions. Thus, I will be discussing traditional culture as an ideal type, acknowledging that not all specific instances of traditional cultures

⁴³Robert, K., "Educating a nation: The natural step," *In Context*, 28 (Spring 1991): 11.

will match it, but still asserting that in comparison to modern industrialized cultures, traditional cultures show the patterns described below.

In most traditional societies, people lived and continue to live in small groups of closely knit relationships, deriving a sustained subsistence from the land, either through hunting and gathering, or from hand-based or animal-based agriculture. The events of the natural world have enormous and direct impact on the well-being of people in traditional society, and people immediately experience the rhythms and changes in weather, water, sun, and wind. In the vast majority of these societies, nature is seen as a living organism, most often as a mother, which is nurturing, beneficent, and ordered, but also at times wild, violent, and chaotic. To personify nature as a female has important ramifications, which we will discuss in the next chapter, but for now, let us consider the effects of seeing nature as a live being. To project human characteristics onto the natural world gives a sense of relationship to it, and often, a restraint to human actions. In Carolyn Merchant's words

The image of the earth as a living organism and nurturing mother had served as a cultural constraint restricting the actions of human beings. One does not readily slay a mother, dig into her entrails for gold or mutilate her body, although commercial mining would soon require that. As long as the earth was considered to be alive and sensitive, it could be considered a breach of human ethical behavior to carry out destructive acts against it. For most traditional cultures, minerals and metals ripened in the uterus of the Earth Mother, mines were compared to her vagina, and metallurgy was the human hastening of the birth of the living metal in the artificial womb of the furnace—an abortion of the metal's natural growth cycle before its time. Miners offered propitiation to the deities of the soil and subterranean world, performed ceremonial sacrifices, and observed strict cleanliness, sexual abstinence, and fasting before violating the sacredness of the living earth by sinking a mine.⁴⁴

Similarly, in many traditional cultures, rituals before hunting or after harvest are a regular feature of human experience. Such rituals provide constraints to human activities that would disrupt the ecological health of the habitat. For example, Navajo rituals are considered necessary to the sustainability of the community. They are executed not just for tradition's sake, but to reaffirm a deeply felt sense of harmony with the natural world.

A Navajo does not say a prayer to the inner form of a deer explaining his need for the deer and asking for the deer's indulgence simply because it is a kind and gracious thing to do; he does so also because it reminds him of the deer's right to life and the necessity for him not to be excessive or overindulgent in his use of the deer, for such excessive behavior could throw the whole world

⁴⁴Merchant, *ibid.*, pp. 3–4.

out of harmony and balance and that would be dangerous to his own survival.⁴⁵

Likewise, regular rituals honoring the sun, moon, water, fire, etc. are performed to maintain or restore balance, harmony, or connection with the natural world. In Ladakh (a region of northern Kashmir high on the Tibetan plateau) prayers and rituals are performed to accompany the agricultural cycle:

When the sun reaches the right place for sowing . . . the spirits of the earth and water—the *sadak* and the *lhu*—must be pacified: the worms of the soil, the fish of the streams, the soul of the land. They can easily be angered; the turning of a spade, the breaking of stones, even walking on the ground above them can upset their peace. Before sowing, a feast is prepared in their honor. For an entire day a group of monks recites prayers; no one eats meat or drinks *chang* (the local barley beer). In a cluster of trees at the edge of the village, where a small mound of clay bricks has been built for the spirits, milk is offered. As the sun sets, other offerings are thrown into the stream.⁴⁶

Dances, prayers, sacrifices, and stories re-establish the sacred quality of human appreciation and use of the natural world. In traditional cultures, spiritual worship of natural phenomena is a regular and crucial practice. The natural world is imbued with spirit, and human beings are part of, rather than rulers of, this living being. For example, in the esoteric Hopi tradition,

the cornstalk, the talking stones, the great breathing mountains—all are significant and alive, being mere symbols of the spirits which give them form and life. These invisible spiritual forms are in turn but manifestations of the one supreme creative power which imbues them with meaning, which moves them in their earthly orbits and seasonal cycles in unison with the constellations of the midnight sky. And again, their unhurried, stately movements follow the inexorable laws of universal life itself—symbols for symbols, layer upon layer of ritual esotericism, through which man [sic] reaches at last the ultimate meaning of his brief existence on this one puny planet among countless myriads more. Such are the truths deeply embodied in Hopi ceremonialism, whose complex symbolism and ritualism have long been the despair of rational observers.⁴⁷

In addition to the close relationship with the natural world, traditional cultures also tend to revere close relationships between people, so that kin-

⁴⁵Witherspoon, G., *Language and Art in the Navajo Universe* (Ann Arbor: University of Michigan Press, 1977), p. 180.

⁴⁶Norberg-Hodge, H., *Ancient Futures: Learning from Ladakh* (San Francisco: Sierra Club Books, 1991), pp. 19–20.

⁴⁷Waters, F., *Book of the Hopi* (New York: Ballantine, 1963), pp. 153–154.

ship and clan identities are far more important than the individual person. In most (although of course not all) such cultures "relationships are activated and animated through proximity, and proximity is determined by affection and friendliness."⁴⁸ Small groups afford face to face interaction, so that

Democratic decision-making is likewise a common characteristic among nature-based peoples. Because of ongoing face to face contact, as well as councils for decision-making in some communities, every member has the opportunity to talk things out, make suggestions, have them heard, and participate in guiding the group. Among the BaMbuti (Pygmy) of the African Congo, interpersonal conflict and offensive acts are settled without any apparent formal mechanism at all. Anyone can discuss any issue that is of concern to the community, and anyone can join in creating solutions.⁴⁹

Likewise, in most traditional cultures in which subsistence is successful, a person working for private economic gain in competition with others would be considered a perversion, if not an impossibility. Unlike the view of human beings proposed by Hobbes, reciprocity and belonging rule human interaction, much more often than do competition and hoarding. The notion of private property is rare; shared communal spaces and cooperatively tended land are far more typical. The purpose of life is not to amass personal wealth, but to live in harmony with one's group, honoring tradition and continuity with ancestors, as well as the spiritual world, which provides for human needs. In these ways, traditional worldviews support ecological sustainability.

At this point it may sound like I am glorifying traditional cultures, committing the common error of seeing only positive qualities in that which is different from our own culture. Rousseau's dream of a Noble Savage comes to mind, whereby all that is good in human nature was perceived to exist before the evil force of Western civilization contaminated our pure innocence. Let me repeat, then, that I do not exalt traditional cultures over our modern industrial one. Life is difficult in most traditional cultures: infant mortality rates are high, physical safety and survival is uncertain, and physical comforts are rare. Traditional cultures do not have enough wealth to enable their members much travel, higher education (although sophisti-

⁴⁸Wilson, P., *The Domestication of the Human Species* (New Haven, CT: Yale University Press, 1988), p. 33. Quoted by Glendinning, C., *My Name is Chellis & I'm in Recovery from Western Civilization* (Boston: Shambhala, 1994), p. 45.

⁴⁹Glendinning, C., *My name is Chellis & I'm in Recovery from Western Civilization* (Boston: Shambhala, 1994), p. 41. Glendinning cites Turnbull, C., *The Forest People* (New York: Simon and Schuster, 1962), Chapter 6, on the BaMbuti's democratic practices.

cated forms of education exist), or even medical care. Having visited some nomadic tribes in Tibet, a tiny farming community in central Nepal, and small preindustrial villages in southern Nepal and northern India, I can tell you that I would not choose to live in any of those settings. In spite of their much more sustainable systems, I would find the physical discomforts and threats of disease (not to mention their treatment of women) unbearable. Furthermore, the sense of belonging that I admire comes at the price of freedom, so that identity and roles are determined by birth rather than by choice. I am too much a Westerner to be able to tolerate such psychological confinement even though it comes with the sense of social belonging.

Nevertheless, I did experience that the people in those settings have something most Westerners lack: a calm and open attitude (at least toward a white tourist), a sense of play and lightness, and a clear sense of kinship, connection, and identity. Mostly, they were much more relaxed than we. I danced with Tibetan nomads in a park in Lhasa, who delighted in spending their afternoon drinking chang (barley beer), singing, and dancing in the crisp sunshine (a common Tibetan practice). When they saw a white person looking on, they invited me to join them, laughing at my awkward attempts to follow their dance steps and insisting that I drink their precious chang and eat their tsampa (barley flour and rancid yak butter—a truly unique dining experience). My point is not that all traditional people spend their time laughing and dancing: they also engage in gruesome wars (witness Rwanda), painful sexism (infertile Tibetan women are abandoned by their husbands for fertile women), and their own forms of ecological destruction (slash and burn agriculture in the Amazon). Rather, I am suggesting that we have something to learn from traditional cultures, both about psychological well-being and ecological sustainability. Looking at traditional cultures helps us see our own more clearly. More specifically, as compared with the four assumptions of the industrialized West discussed at the beginning of this chapter, in most traditional worldviews (1) nature is alive and whole (rather than inert and particularized), (2) humans try to fit in to and honor nature (rather than transform and subdue it), (3) humans value belonging and kin relationships (more than private economic gain), and (4) harmony and sustainability are valued (more than economic development).

Although our Western worldview is quite new, it has evolved through the contributions of innumerable thinkers, many more than I have been able to consider in this chapter. But we can summarize what we have discussed so far with the following table, which allows an overview of the main points of the chapter.

View of:	Traditional View	Modern View	Important Contributor
Nature	Alive; imbued with spirit	Mechanical; made up of bits (atoms)	Bacon; Descartes; Hobbes
Land	Common	Privately owned	Locke
Humans	Group member	Individual	Bentham; Jefferson
Human nature	Cooperative	Selfish, competitive	Hobbes
Time	Circular	Linear	Darwin; Spencer
Purpose of life	Harmony; sustainability	Progress; growth; material wealth	Locke; Smith; Calvin

Without suggesting that our worldview is better or worse, or so mutually exclusive as this chart might imply, it is possible to ponder the implications of quickly spreading our worldview to other traditional cultures. Pre-industrial societies are fast disappearing as international development efforts proceed. While foreign aid has been implemented with the best intentions, it has often been difficult to foresee some of the ecological and psychological prices it is now extracting. This is because our worldview leads us to be addicted to the idea of development.

THIRD WORLD "DEVELOPMENT"

The word *development* connotes an attractive idea to Westerners, who value growth, change, and progress. When Harry Truman presented the idea as the Point Four Program in his 1949 inaugural address, he met little resistance.

The old imperialism . . . has no place in our plans. What we envisage is a program of development based on the concepts of democratic fair-dealing . . . a bold new program for making the benefits of our scientific advances and industrial progress available for the improvement and growth of underdeveloped areas.⁵⁰

Instead of the military invasions, puppet governments, and overt land grabs that the European countries used to assemble their colonial empires, the United States built an economic empire with financial loans, social service

⁵⁰Quoted by Stone, R. D., *The Nature of Development: A Report from the Rural Tropics on the Quest for Sustainable Economic Growth*. (New York: Alfred A. Knopf, 1992), p. 35.

programs, and subsidized markets. In general, the 50-year history of Third World development has meant more development for the U.S. economy than for the Third World. Although the gross national product (GNP) in many developing countries did grow, the per-capita income gap has continued to widen, so that a few rich landowners have gotten wealthy while many more poor have gotten poorer.⁵¹

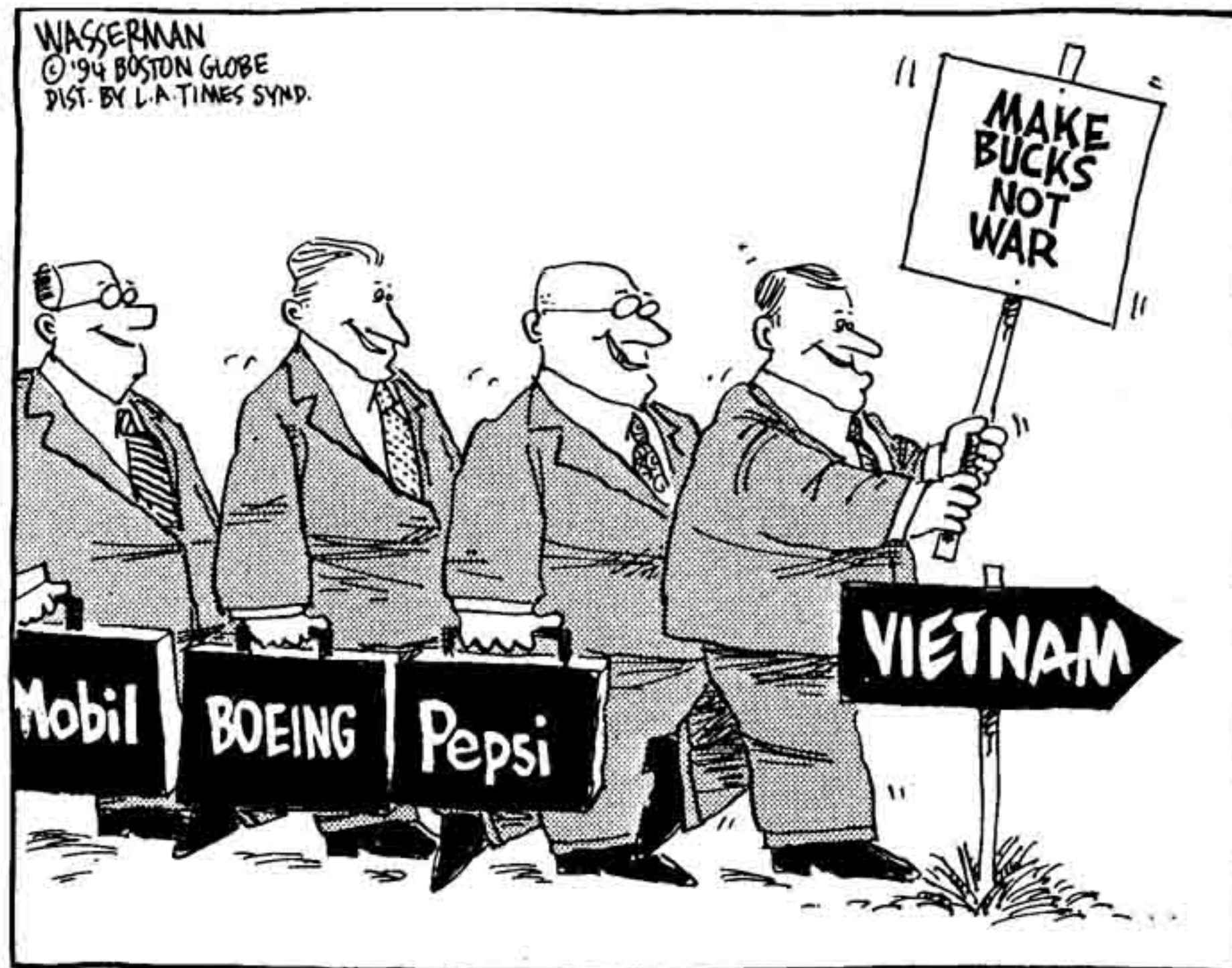
Poverty has worsened as a result of "development" because subsistence economies have been converted to market economies, weakening the ability of peasants to make a living off the land. In pre-industrialized cultures, people feed themselves from hunting, gathering, and limited farming; exchange of goods is done more by barter than by cash; and commonly owned land provides or augments the family food supply. The major story of Third World "development" has been loans provided by the World Bank and International Monetary Fund for capital-intensive investments in large projects such as dams, roads, power plants, and machine-based agriculture. In order to qualify for these loans, the land must be privately owned, so com-

mon land has been converted to private holdings, forcing peasants to work for wages on the land they used to work for their own food. Because peasants have no control over the prices paid for agricultural products and because food prices are often artificially low to subsidize the more politically powerful populations who live in cities, poverty among many rural poor has actually increased as a result of "development." As noted in Chapter 1, poverty drives population growth, as rural families have more children to ensure economic survival. Furthermore, financial debt now eats up enormous portions of many "developing" countries' GNPs, replacing their subservience to overt military and colonial power with subservience to global economic, financial power.

Moreover, "development" has worsened ecological problems in almost every country in which it has occurred. For example, excessive tilling of sloping land in the Himalayas has produced soil erosion and flooding in Nepal. Attempts to eradicate the tsetse fly (which is harmful to cattle) in Africa has resulted in increased herds, overgrazing, desertification, and soil erosion. The Green Revolution has brought increased food production at the cost of soil erosion, water pollution, and salinization. In spite of a threefold increase in food production worldwide, global food production per acre is now declining, as monocrops become vulnerable to new forms of pests and disease, urbanization claims farmlands, and topsoil is lost through erosion.

But from a psychological point of view, the most dangerous legacy of Third World development is the replacement of traditional cultures and their diversity with our modern Western worldview. Like big-scale agriculture, which replaces small diverse crops with one large monocrop, we are replacing cultural diversity with monoculture. It is difficult to overestimate the degree of cultural hegemony now displayed by the West. English is the world's most prevalent second language, a requirement for any educated person who wishes to participate in the modern world. In every corner of the earth, Coca Cola is the most recognized brand name; television exports Western cultural values and understandings on a daily basis. The materialist values of the West have become the "progressive" values for the "developing" world. Peasants have learned to have contempt for their material frugality. If we in the West have already created a dangerous ecological predicament by our extravagant conversion of the natural world into personal wealth, the prospects for reversing this trend in the next decades seem slim when we consider the fierce commitment to "development" that the "developing" nations now display.

Third World countries are understandably attracted to industrialization and are enthusiastic recipients of the foreign aid and cultural messages that promote it. After all, industrialization feeds the hungry, cures the sick, and makes life more pleasant, comfortable, and convenient while it reduces



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⁵¹Harrison, P., *Inside the Third World* (London: Penguin, 1988), pp. 418-427.

suffering caused by physical hardship. Our humanitarian impulses converge with market forces to make global industrial development an almost universally accepted goal. Even more potently, the lure of industrialization attracts each country's powerful elite because a country's power and prestige in the international community is directly related to its economic development. Even if we have some concerns about the long-term wisdom of unsustainable resource conversion, Third World countries often find those reservations both hypocritical and patronizing when such questions are directed toward them.

In short, our modernist vision has not only justified our own raid of our ecosphere, but it increasingly is being used by the rest of the world for the same purpose. And while we may begin to question the wisdom of our materialist lifestyles, it is much more difficult to ask Third World countries to abandon a consumption goal that they have yet to meet, particularly in light of the escalating number of desperately poor who must increase their consumption in order to survive.

A PSYCHOLOGICAL APPROACH TO WORLDVIEW

So far I have argued that our Western worldview gives us a set of beliefs about the importance of the individual and about our relationship to nature. In doing so, I have taken a historical and philosophical approach, documenting the origins of key ideas and tracing their impact. Until quite recently, psychologists have not given such concerns much attention. As I will describe in Chapter 8, psychologists usually assume, rather than investigate, the importance of the individual in explaining human behavior. And unless you are a student or professor in a "History and Systems" course in psychology, the intellectual roots of psychology are rarely addressed. However, a few people calling themselves cultural or cross-cultural psychologists have begun studying the links between individualism, culture, and beliefs about nature from a psychological perspective.

What do I mean by "a psychological perspective"? Remember that in Chapter 1 I defined psychology as the scientific study of human behavior and mental life. For the most part, psychologists test ideas about human behavior and mental life with empirical evidence. In other words, while it may make philosophical sense to claim a link between culture, individualism, and environmental attitudes, psychologists would ask for data. Recently, two intriguing lines of psychological research have demonstrated empirical relationships between individualism and (1) industrialization and (2) environmental attitudes.

The empirical connection between individualism and industrialization was first investigated by Geert Hofstede who in the early 1980s studied

more than 117,000 IBM employees in 66 different countries. Asking workers to respond to a series of survey questions, Hofstede showed the impact of national differences in individualism versus collectivism in their answers. In Hofstede's words

Individualism pertains to societies in which the ties between individuals are loose: everyone is expected to look after himself or herself and his or her immediate family. Collectivism as its opposite pertains to societies in which people from birth onwards are integrated into strong, cohesive ingroups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty.⁵²

Thus, collectivist or "we" cultures stress collective identity, emotional dependence, group solidarity, sharing, duty, stable friendships, and group decision making. Individualistic or "I" cultures stress autonomy, emotional independence, individual initiative, right to privacy, and pleasure seeking. Moreover, "I cultures" are clearly the most industrialized: United States, Canada, and Western European countries; collectivist countries are the least individualized: Asian, Latin American, and African nations.

So much research was stimulated by Hofstede's initial findings that the 1980s has been called the "individualism/collectivism" (I/C) decade in cross-cultural psychology. Researchers have produced both replications and refinements of Hofstede's basic findings. Most interestingly, from the perspective of environmental concerns, is John Berry's (1994) theory which proposes that variations in I/C result from "ecological demands" of subsistence on social structure.⁵³ Specifically, Berry proposes that agricultural subsistence societies require collectivism from their social organization: group interdependence, belonging, reciprocated help and cooperation, in order to accomplish crop planting and harvesting within optimal time frames. Industrial societies require the opposite: individual initiative, mobility, competition, and striving. Interestingly, Berry argues that hunter-gatherer societies also demand individualism because "a good deal of personal initiative and self-reliance are considered valuable attributes in the successful hunter." Although many of his ideas still need to be tested, he cites indirect empirical evidence that supports his theory, including data

⁵²Hofstede, G., *Cultures and Organizations: Software of the Mind* (London: McGraw-Hill, 1991), p. 51. Quoted by Kim, U., Triandis, H. C., Kagitcibasi, C., Choi, S., and Yoon, G., eds., *Individualism and Collectivism: Theory Method and Applications* (Thousand Oaks, CA: Sage Publications, 1994), p. 2.

⁵³Berry, J., "Ecology of individualism and collectivism," in Kim *et al.*, *ibid.*, pp. 78-79.

that show that hunter-gatherer tribes tend to be independent on cognitive/perceptual tasks.

To pin a worldview on the requirements of subsistence is to flip the reasoning of this chapter upside down. Up to this point, I have been arguing that our worldview shapes our attitudes about, and hence our use of, the environment. This is called an "idealistic" view of human history because it posits that ideas determine our actions and that our physical existence results from our ideas. Perhaps the opposite is more true: the qualities of our physical environment determine our worldview. This way of looking at human history is called "materialistic": it posits that the material demands and offerings of our physical environment shape our views. Marx argued this by positing that economic structures determine our art and ideas. If the materialists are right, our worldviews are not as important as I have made them out to be. Population pressures may well be a far more potent cause of ecosystem damage than worldviews. Debating our visions of nature could be moot exercises if the planet's population doubles in the next 40 years. I will argue from this materialistic position in the last chapter when we look at the larger contributions from psychology. But from a psychological standpoint, examining the shape and force of our worldview helps us understand the passion with which environmental issues are disputed in the late 20th century. **We are not just debating environmental regulations: we are debating entire versions of reality.** Whether or not they are caused by the physical environment, worldviews are important psychological phenomena.

The second line of research that empirically documents the importance of worldviews is that done by Karl Dake and colleagues at the University of California in Berkeley. Relying primarily on surveys and interviews of California residents, Dake's work shows that perceptions of environmental risks are linked to worldviews "entailing deeply held beliefs and values regarding society, its functioning, and its potential fate."⁵⁴ More specifically, people who value individualism fear social deviance more than environmental degradation. They "believe that nature is resilient" and that "unfettered market mechanisms will increase abundance for all, thereby more than compensating for any environmental damage."⁵⁵ But they fear economic deterioration caused by inflation, debt, overregulation, and unstable investment climates. In contrast, people who value egalitarianism "believe that an egalitarian society is likely to insult the fragile environ-

⁵⁴Dake, K., "Orienting dispositions in the perception of risk: An analysis of contemporary worldviews and cultural biases," *Journal of Cross-Cultural Psychology*, 22 (1991): 61-83.

⁵⁵Dake, *ibid.*

ment just as it exploits the poor."⁵⁶ Egalitarians do not worry about economic risks as much as they worry about "environmental pollution, worldwide overpopulation and starvation, and restriction of civil liberties." Dake is careful to point out that even though risk is socially constructed, this does not mean that risks are not real. People *do* die from environmental pollution and *are* hurt by diminished economies. What socially constructed risk *does* mean is that one's worry about risk is related to other socially determined beliefs about the ideal organization of society with respect to its constituent members.⁵⁷ Our beliefs about nature are socially constructed.

In summary, then, our attitudes about the environment and our concern for environmental problems are part of a larger worldview shaped by several centuries of Western thought. As we begin to confront the physical limits of our behavior on the planet, it is useful to contemplate the intellectual tradition that has formed our behavior in the past. Examining the thinkers who shaped our Western worldview can help us be more aware of the way in which it was constructed. Examining the views of other cultures, which make different assumptions about nature, also helps us understand the constructed nature of our own. **Becoming aware that our assumptions about nature are constructed does not mean that they are wrong—or that they are right. It does mean that environmental issues are deeply philosophical and psychological ones.** Psychologists who have taken up these questions empirically have shown the links between our assumptions about the individual and both industrialization and environmental attitudes. In short, our views about the environment, about the importance of the individual, about the purpose of life, and about the effects of industrialization, are culturally transmitted and socially constructed.

The social construction of belief reveals the important role that other people play in shaping our environmental concerns and behaviors. To confront our ecological predicament is a social psychological activity: we learn from and are influenced by the messages we hear, the people who promote them, and a wide range of other potent elements in the social transmission of knowledge. To examine these factors more directly, it is now time to turn to the study of social psychology.

⁵⁶*ibid.*

⁵⁷Dake, K., "Myths of nature: Culture and the social construction of risk," *Journal of Social Issues* 48 (1992): 21-37.