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WHERE IS EVOLUTION GOING?

FOR most biologists, the answer is: everywhere and nowhere. Standard Darwinian theory understands evolution to be a free-for-all, governed by random combinations of DNA and lucky environmental selection. Living things evolve in all directions, opportunistically occupying any niche for which their genetic roulette prepares them. The "survival of the fittest" means the survival of those that "fit" the shifting ecological contours of their habitat. The process is ceaseless, shapeless, mindless.

Darwin, we must recall, created his theory of natural selection during the high noon of dog-eat-dog capitalism. Malthus and the Manchester School were never far from his thoughts. The prestige of classical economics has long since faded; but evolutionary biology remains linked to the image of ordered randomness once seen in the competitive free market. Natural selection is the biological version of Adam Smith's "invisible hand." In both cases we have dynamism without design, vitality that describes no vector. Both ideas claim to be value free but they are far from being philosophically neutral. Classical economics was invented to chase government from the marketplace; similarly, Darwinism was quickly seized upon to drive God from the state of nature. The universe ran by itself; no central planning agency was needed.

But such biological laissez faire has always been troubling to those who see the history of life on Earth as an adventure rather than a succession of accidents. The uncertainty set in early. Alfred Russel Wallace, cofounder of natural selection, was among the first dissenters. He agreed that natural selection explains adaptation; but in his eyes adaptation was essentially conservative and unenterprising. It moves in a purely horizontal direction molding plants and animals to their environment in ever more specializing and so inflexible ways. Overlaying it, Wallace saw a more daring vertical movement which boosts evolution toward higher levels of complexity and consciousness.

If evolution were merely a matter of survival by adaptation, we might still be a planet of hearty bacteria. Clearly, something more dramatic and risky has been going on. Life has been building itself up into more delicate, sentient forms. And at the cutting edge of this vertical thrust, we find the most surprising development of all: the human brain, an organ that vastly transcends the competitive advantage we may once have needed to outsmart our primate rivals.

What is the status of art and music in evolution? Wallace asked. Do they perhaps point toward a destined goal beyond physical survival? Fascinated by the transcendent impulse of the mind, Wallace, in his later years, was drawn to spiritualism and parapsychology as possible keys to human nature.

Standard biology has a name for the unaccountable exaggeration of an organ or structure which the brain's strange excursion into cultural creativity would seem to represent. *Hypertrophy:* excess—perhaps the sort of excess that leads a species to extinction, as in the case of the Irish Elk whose antlers may have grown to the point of becoming a lethal encumbrance. But a name is not an explanation. And there is surely something odd about so dismissive a treatment of the very mind that generated evolutionary theory. If we value the quest for truth, as every scientist must, are we to regard the brain that searches for truth as no more than a luxurious surplus of electro-chemical circuitry?

Following Wallace, countless evolutionary philosophies have pondered the place of mind in nature. All have agreed that it is the frontier of

evolution. Admittedly, this is a self-serving view. The whales and the oak trees are in no position to dispute the role we assign ourselves as the vanguard of life on Earth. We announce that status, but only the silence of our fellow species surrounds us. Yet the claim need not be made arrogantly; nor need it ignore the hazards and responsibilities that befall pioneers. It can, indeed, be a humbling and civilizing lesson to see ourselves at the forefront of a grand, cosmic vista that dwarfs the selfish passions and petty distractions of the moment.

But it is one thing to decide that mind is the leading edge of evolution; another to decide what "mind" most essentially means. Whose mind do we choose as our model? Here is where controversy sets in. Scientists understandably cast human nature in their own intellectual image, preferring the analytical and empirical habits that characterize their professional life (but which may actually have little to do with great imaginative breakthroughs like Darwin's own discovery of natural selection). Such an approach to the evolution of intelligence is well illustrated in Carl Sagan's recent book, *The Dragons of Eden.* For Sagan intelligence is wholly a matter of problem-solving and tool-making, practical talents to which natural selection easily applies.

This Robinson Crusoe-Tom Swift image of mind is good, solid eighteenth-century science. John Locke, David Hume, and Benjamin Franklin would have heartily approved. Here is the mind as a rational instrument without shadowed corners or hiding places. It is the mind of *homo faber,* closed to dreams and unsettling visions, never in need of psychiatry or spiritual counseling. We are left to wonder how such a mind could ever make itself sick with thwarted desire. In the evolution of efficient intelligence, why would the burden of neurosis not have long since been selected out? We are reminded that Freud, searching for the secret of madness, turned to the Romantic poets for insight, just as C. G. Jung, seeking the archetypal roots of consciousness, turned to myth, religion, and alchemy.

Not surprisingly, Sagan's study of mind finishes with an enthusiastic chapter on artificial intelligence, obviously the way ahead for the brain as data-processor. Conceive of the mind as a computer, and the computer is bound to look like a rather promising mechanical mind—possibly a better one than the human original. It calculates faster, files more data, follows logical rules more accurately, even plays chess better than most. It uses words and numbers with unambiguous precision; it does not sleep, dream, lie, forget, goof off, or go crazy. Is it not everything a mind should be?

There are many computer scientists who would agree. If evolution points toward better mental data processing, then the best data processors of the future may not be flesh and blood. It is not only science fiction that now flirts with the possibilities of human obsolescence. Imagine, at the present rate of progress, two or three more centuries of research in artificial intelligence and genetic self-replication. Imagine the two fields of study coalescing into one science. What wonders of transhuman evolution might then be within reach of our technology!

"The amount of intelligence we humans have is arbitrary," observes computer expert Marvin Minsky of MIT. "It's just the amount we have at this point in evolution. There are people who think that evolution has stopped, and that there can never be anything smarter than us." Minsky has called the brain a "meat machine" which, like all machines, can be analyzed, adjusted, and improved upon.

In the same vein, Professor Robert Jastrow of NASA and Columbia University believes that "human evolution is nearly a finished chapter in the history of life. That does not mean the evolution of intelligence has ended on the earth. We can expect that a new species will arise out of man, surpassing his achievements as he has surpassed those of his predecessor *Homo erectus.*

The new kind of intelligent life is more likely to be made of silicon." In a recent study, *The Enchanted Loom: Mind in the Universe*, Jastrow offers an ecstatic celebration of computers-to-come as "the mature form of intelligent life in the Universe."

Jastrow thinks the evolutionary leap to sentient computers may still be a million years off. In the meantime one can foresee problems along the way. Artificial intelligence is, after all, a technology. Like all technologies, it is somebody's property. That is a seldom mentioned but significant difference between computers and human brains. Brains—*some* brains—can be hired or bribed, but they cannot all be owned. Data banks and computer software can and are. They are more and more owned and programmed by governments, corporations, and the military, interlocking super institutions that use computers in their own interests. In a world of increasing military-industrial concentration, to imply that artificial intelligence is superior to human intelligence—to advertise it as the inevitable next step in evolution—is to deliver the persuasive power of facts and figures into ever fewer hands. As speculative as they may seem, such evolutionary predictions are not politically inconsequential.

There is another danger to which the computer model of mind opens us. It ignores a basic lesson of evolution: overspecialization kills. In an industrial economy, crisp logic and rapid data management may be supreme necessities of life. But an urban-industrial society is only one possible human habitat, and perhaps not a long-lived one. The computers themselves may accelerate the pace of life beyond human tolerance, to the point that confusion, misjudgment, or the slightest lapse of attention are unaffordable. The thermonuclear war machine—the most highly computerized system yet developed—has already reached that degree of inhuman exactitude.

To narrow our criterion of mind to fit the needs of the industrial style of life, to make ourselves wholly dependent on the computer technology which that style demands, may be a prescription for extinction. Even in strict Darwinian terms, variety is the secret of adaptability; it is also what makes life interesting.

Fortunately, outside the small, busy world of the Artificial Intelligentsia, philosophers of evolution have celebrated many other dimensions of mind. Nietzsche and George Bernard Shaw envisaged the evolutionary Superman as artist and philosopher. Teilhard de Chardin believed it is the saints who will usher us to the culmination of human development. The systems theorist Erich Jantsch (in his book *Design for Evolution*) regards love and the "feminine element" as the rejuvenating force of human evolution. Henri Bergson placed mystic intuition at the forward edge of the Elan Vital. He argued that the task of the mystic (whom he saw as an emergent new species) is to humanize technology so that it might liberate us from material necessity for a higher, religious calling. "Man will rise above earthly things if a powerful equipment supplies him with the requisite fulcrum. He must use matter as a support if he wants to get away from matter. In other words, the mystical summons up the mechanical."

To emphasize, as these philosophers do, the evolutionary role of the compassionate, the creative, the mystical is a useful corrective to the current infatuation with computerized intelligence. It reminds us that, under the shadow of thermonuclear annihilation, our survival depends more on the saints who set humane goals than on the technicians who provide ingenious means. Norbert Wiener, the founding father of cybernetics, knew as much; he warned us that "know what" comes before "know how."

The mind is bigger than logic and mathematics; bigger than any machine it invents. But it is just as important to realize that the mind is bigger than art and religion as well. It is bigger

than anything we can stand away from and view critically as an option—which is, quite simply, every element of human culture. Indeed, the mind is so big that we cannot see its boundaries any more than we can see the edge of the universe. Whatever we say about it (including what I say here) becomes one more idea within it capable of being debated and negated.

Nothing so characterizes the mind as its inherent elusiveness. It cannot encompass itself. That paradox is an evolutionary one. It is grounded in the fact that, at a certain point, evolution reaches a reflexive state which generates the idea of evolution. Whatever "direction" means in evolution, it has something to do with evolution's capacity for self-envelopment through consciousness.

Over the past two generations, evolution has become the most comprehensive scientific concept since Newton's laws of motion. Beyond living things, it is now invoked to explain the creation of matter out of the Big Bang, the spontaneous organization of prebiotic molecules, the development of stars and galaxies. The human mind, which alone reaches out to grasp the cosmic process from which it has emerged, clearly holds a special, frontier position in evolution. But it is not any one focus or fascination of the mind that points the way forward; it is the whole mind (or as much of it as any of us can experience) exercised in a condition of graceful integration.

There are certain forms of mysticism—those like Zen Buddhism, which use an open, nondiscriminating style of meditation—that bring us close to appreciating the expansiveness of the mind. The impish humor of Zen stems from the ability of the mind to stymie itself with paradox—and become larger by the act. But it may not be beyond computer science to find the same wise delight in the mind's often comic effort to capture itself. In mathematics, Gödel's theorem of incompleteness states that the axioms of any formal system cannot be wholly proved from within the system itself. Thus no logical system can ever come full circle and bite its own tail. There will always be a gap that has to be filed from outside.

Computer scientists differ in their evaluation of Gödel's theorem. One interpretation by Professor Hao Wang holds that "the human mind is incapable of formulating (or mechanizing) all its mathematical intuitions. I.e.: If it has succeeded in formulating some of them, this very fact yields new intuitive knowledge." This seems to me—as a nonmathematician—to be a stiffly logical way of describing the mind as the Zen masters did: "a sword that cuts but cannot cut itself, an eye that sees but cannot see itself."

Perhaps, then, with a bit of humility and a sense of humor, computer science could help us learn something about the mind's radically transcendent nature. After all, it is the human mind that invents artificial ones (as much for the fun as for the utility of it) and then has room left over to defy the logic of its inventions or grow bored with their predictable correctness. That "room" is the evolutionary margin of life still waiting to be explored. What computers can do represents so many routinized mental functions we can now delegate and slough off as we move forward to new ground. The machines are *behind us,* not ahead.

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THEODORE ROSZAK

REVIEW
SIMONE WEIL

AN extraordinary power was let loose by the life of Simone Weil—a brief thirty-four years, from 1909 to 1943—measured perhaps by the great differences among those who were affected by it. Her mind moved freely across sectarian and partisan borders in a way that at first generated bewilderment, then admiration, and in some cases awe. Books *about* Simone Weil may not be as important as books by her, yet the book we have now for review might prove a persuasive reason for close attention to her writing. It is *Simone Weil—Interpretations of a Life* (University of Massachusetts Press, 1981, paper, $7.50), edited by George Abbot White.

Who was Simone Weil? She was a Jewish girl of middle-class Parisian origin who obtained a magnificent education and then outgrew or broke free of every conventional mold of thinking and acting provided (or imposed) by the culture of her time. Her primary concerns were truth and justice. She taught school (philosophy) for a time; then, wanting to know at first hand the life of unskilled laborers, she worked in factories and fields at jobs she was ill-equipped to handle. Meanwhile she was writing for French journals lucid commentary on current issues and events. After the second world war broke out her friends got her to London to save her from death at the hands of the Nazi invaders, and there she wrote (for the Free French in London) her book, *The Need for Roots,* intended as a cultural and political guide to establishing a new France after liberation from the Germans. It is a book, in the opinion of some, absolutely fundamental in insight, yet completely impractical as an actual program. The same might be said of Plato's *Republic,* and Simone Weil was more of a Platonist than anything else.

What do the contributors to White's book agree upon with respect to its subject? Searching for a parallel, we thought of Lafcadio Hearn's comment on Tolstoy's *What Is Art?* You can, Hearn said in effect, find all sorts of things wrong with this essay, but you will find, if you read carefully, that it is "a very great and noble book," and he added that "I also think it is fundamentally true from beginning to end." He is saying that the faults don't matter, or matter very little; he is saying that one ought not to snap at the heels of giants, but *learn* from them. So with the mood of the contributors on Simone Weil. So we say, read them and then read Weil.

Where did her power come from? It came, we think, from the chief thrust of her life, which turned all that she knew and was capable of—both manifestly considerable—to the service of a principle she recorded in 1933 (when she was twenty-four): "There is no difficulty whatever, once one has decided to act, in maintaining intact on the plane of action those very hopes that a critical examination has shown to be well-nigh unfounded; in that lies the very essence of courage."

Simone Weil was not, you could say, a model a sensible person would choose to adopt, but this, too, doesn't seem to matter. The question raised by her life is: What is the reality which rises to the surface in some few human beings and which refuses, in the face of alien circumstances and overwhelming odds, to give up? This is a question that needs an answer. She had a kind of vision the world is badly in need of, and what if her determination to apply that vision in life led into practical follies we can hardly explain? She couldn't force the environment of her life to fit what she was resolved to do, so she died trying. Should one conclude that the world has no need of individuals of such herculean intent, or would it be better to say that the errors in judgment made by such individuals are trivial compared to their demonstration of a quality of determination which has almost disappeared from the modern world?

After a summary of evaluations and criticisms of Simone Weil's work by various reviewers, the

editor, George Abbott White, says in his Introduction:

> Contradictory views—though of course all are correct. Hers *was* a body at home with ascetic detachment and discipline as well as with assembly-line engagement with chaos. Hers *was* a mind at home with Greek philosophy and mathematia as well as with the intricacies of Communist Party reversals and Hitler's *realpolitik.* Hers *was* a spirit at home with Benedictine plainsong as well as Baptist spirituals. Simone Weil was also demanding, ridiculous, stubborn, abrasive, extreme.

Then, following a complimentary reference to Simone Petrement's biography, *Simone Weil: A Life* (New York: Pantheon, 1976), White says:

> For any reader of that essential survey, the results became fourfold.
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> First, . . . Simone Weil's early, original, remarkably penetrating insights into each of our oppressive twentieth century *isms*—colonialism, imperialism, state socialism—emerge in all their intended provocativeness.
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> Second, given a clean translation into English, it is clear for those who wish to see that the meaning of Simone Weil's life is neither blurred nor obscured by the particulars of that life which in true Platonic fashion, she herself regarded as intimations and finite, though quite real all the same. The meaning of her life is simply unbearable to accept, because accepting those insights and accepting that exemplary life would require nothing less than our radically changing our own.
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> Third, one thinks of George Orwell and T. E. Lawrence in England, F. O. Matthiessen and Dorothy Day in America, Ignazio Silone in Italy, but almost alone among the intellectuals of her time (and our own, sad to say) Simone Weil went beyond brilliant but cerebral insights into oppression, by choosing to engage the more profound question of injustice itself. . . .
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> Finally, when she wrote to a former lycee student in 1934: "Culture is a privilege that . . . gives power to the class that possesses it. . . . let us try to undermine this privilege by relating complicated knowledge to the commonest knowledge," she was carrying the engagement a step further. She and those of similar privilege were not mere spectators in the vast industry of injustice.

The privileges of intellectuals, she concluded, made them part of the problem of injustice, and so, throughout her life, she rejected those privileges with every thought of her mind and breath of her body.

Who are the contributors to this book? Among those we know and have read are Robert Coles, the child psychiatrist, Michael Ferber, a draft resister and resistance organizer who stood trial with Dr. Spock and others in 1968 in Boston, Staughton Lynd, historian and anti-war campaigner, now a lawyer who helps working people to know and defend their rights, and Conor Cruise O'Brien, an Irish scholar, editor, writer, and politician.

Dr. Coles says that "she helps us to understand ourselves—because her struggle is ours: how to preserve political liberty, yet enable a radically larger degree of social and economic equity." He continues:

> She saw, early, very early, the monstrous nature of Stalinism. She gave the back of her hand to some of the psychoanalytic thinking of her time with a stunning remark that is worth a volume of appraisal: "The whole of the Freudian doctrine is saturated with the very prejudice which he makes it his mission to combat, namely, that everything sexual is base." . . . She wanted very much to understand how others live, but she was not a sociologist, an anthropologist, a "participant observer." Nor was she a labor organizer, anxious to exhort anyone to the liberal or Marxist gospel. The "roots" she wrote about are radical in a spiritual sense—though, God knows, she had contempt for capitalists as well as Stalinists, and she certainly drove Trotsky to full exasperation. She keeps referring to the "soul," not the "mind," and certainly not the personality. One minute a shrewd and agile critic of capitalism, she quickly turns on an exaggerated collectivism—an issue that socialists and communists are obliged to acknowledge: who is to hold the keys to the state, be the planners, the successors to previous political or economic entrepreneurs? She opposed what she called "large factories," and she wanted a system of checks and balances that allowed no group hegemony. Her critique was essentially that of a utopian who was, at the same time, a pessimist.

Her religious search was as intense as her social questioning. Another contributor, Michele Murray, says:

> Almost frantically, she ransacked the myths of other religions and cultures, called on the witness of the Egyptian Book of the Dead, Gilgamesh, the Norse Eddas, her beloved Bhagavad-Gita and Plato, Neoplatonic thought, the wisdom of the Pythagoreans, and even the creation myths of primitive people from Australia to Africa, to satisfy herself that Christ was but one avatar of God, supreme perhaps, yet not unique.

Michael Ferber gives her definition of art: "Art is an attempt to transport into a limited quantity of matter, modeled by man, an image of the infinite beauty of the entire universe." We need, Ferber says, her vision:

> It will help keep us from the illusions that easily beset social reformers and revolutionaries. Her critique of Marx and Lenin is a bracing wind that blows cobwebs from the mind. Her vision of war's effects on man in the *Iliad* essay, and of the automatism of violence, if not of all force is an essential contribution to our moral literature.

She had profound sympathy for working people—so deep that she made it an identification—and she went to Berlin in 1932 to see what the rise of Hitler was doing to the trade unions and the Left. In a concluding essay George White relates that she was struck by the sectarian struggles between the German socialists and German communists:

> Closer in spirit to the Soviet Union than she would be again, still, she had nevertheless come to feel that the greatest danger to a workers' movement was for it to be put into the hands of a Russian bureaucracy, no matter what its professed sympathies. Later that summer she pressed on with her critique of Lenin. His destruction of the soviets and what she now read of his admiration of Taylorism made her contemptuous.

Again and again, Simone Weil saw realities that were not recognized by others until thirty or forty years later. Her intensity is rivalled only by her clarity, her idealism only by her uncompromising struggle to realize it in action, whatever the cost. This is what comes to the reader through the eyes of the contributors to this book. It was a bad old world she lived in, but her life made a brave new focus for compassion guided by inclusive and ranging intelligence. Simone Weil is a writer to return to, again and again.

COMMENTARY
AN EARLY EVOLUTIONIST

THROUGH writers like Theodore Roszak, we are getting another chance to make up our minds about the meaning of Evolution. The first chance came after the seventeenth and eighteenth centuries, when Renaissance and Enlightenment thinkers freed the Western mind from the confining—and actually materializing—beliefs of the inherited Christian religion. By the nineteenth century, the first decision about evolution became clear—it was purely biological. Then, in our own century, it was further decided that it happened by chance.

Now, as Roszak shows in this week's lead article, both these decisions are up for review. The reasons are clear enough. We want our lives to make sense, and this no longer seems possible if we follow the thinking of our Western intellectual ancestors.

How far back shall we go in history to find a new starting-place for thinking about evolution? Actually, the Enlightenment thinkers were not simply enemies and destroyers of religion: they wanted to regenerate it, as Ernst Cassirer shows in *The Philosophy of the Enlightenment.* One great effort in this direction began earlier, as part of the Florentine Revival of Learning. At the end of the fifteenth century, in his *Oration on the Dignity of Man*, Pico della Mirandola formulated a conception of human evolution which might serve us well today (if put in other language). Man, Pico declared, is self-created, self-evolved. The explanation is made in the words of the Creator:

> "We have given you, Oh Adam, no visage proper to yourself, nor any endowment properly your own, in order that whatever place, whatever form, whatever gifts you may, with premeditation, select, these same you may have and possess through your own judgment and decision. The nature of all other creatures is defined and restricted within laws which We have laid down; you, by contrast, impeded by no such restrictions, may, by your own free will, to whose custody We have assigned you, trace the lineaments of your own nature. . . . We have made you a creature neither of heaven nor of earth, neither mortal nor immortal, in order that you may, as the free and proud shaper of your own being, fashion yourself in the form you may prefer. It will be in your power to descend to the lower, brutish forms of life; you will be able, through your own decision, to rise again to the superior orders whose life is divine."

CHILDREN
. . . and Ourselves
A BALANCED WORLD

READERS of Dee Brown's *Bury My Heart at Wounded Knee*—the history and story of what white Americans did to the plains Indians between 1860 and 1890—are likely to believe whatever this author says about the Indians, since his work rings so true. We take, then, an extract from his later novel, *Creek Mary's Blood* (Holt, Rinehart & Winston, 1980), as an accurate representation of Indian—in this case Cheyenne—philosophy, as given by a ninety-one year-old Cherokee who had joined the Cheyenne tribe before the Civil War. While the novel covers most of the nineteenth century, the time of the telling of the story is when Theodore Roosevelt was President (1900-1908). The ancient Indian says to the white narrator:

> "It's strange how a man views life in a different way when he discovers that his existence is necessary to other persons. I don't know why I never felt that way about Jerusha and Pleasant [his wife and their son]. Maybe I was too young. Maybe it was because they were so much a part of the white man's world that I was not necessary to them.
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> "You see, in those days there were always two levels in the world of the Cheyennes. We did not consider the world of hunting or hide curing or arrow or moccasin making, or any of those things as the real world. The real world was a place of magic, of dreams wherein we became spirits. I lived with the Cheyennes a long time before I learned how to cross into the real world, and all that time my wife and children would do this and they were puzzled because I could not join them there. By fasting for long periods of time and through the ceremony of the Medicine Lodge, I was able to find my way into the real world with my family. I discovered mysterious powers within my memory and learned that when you pray for others to become strong you become strong too, because that connects you with everything else. You become part of everything and that is how I knew that I was necessary to my family and they were necessary to me."

Why not invite a class of teenagers to take this *seriously* and consider both the value and the truth in this "two-worlds" idea? If anyone says that it's just a primitive notion, like other superstitions, he might be introduced to another form of the idea, as found in Friedrich Nietzsche. Hannah Arendt quotes it to show what the German poet-philosopher meant by "God is dead!" in *Thus Spake Zarathustra.* Her framing of the quotation is of value:

> What has come to an end is the basic distinction between the sensual and the supersensual together with the notion, at least as old as Parmenides, that whatever is not given to the senses—God or Being or the First Principles and causes (*archai*) or the Ideas—is more real, more truthful, more meaningful than what appears, that is not just beyond sense perception but *above* the world of the senses. What is "dead" is not only the localization of such "eternal truths" but the distinction itself. . . . The sensual, as still understood by the positivist, cannot survive the death of the supernatural. No one knew this better than Nietzsche, who with his poetic and metaphoric description of the assassination of God in *Zarathustra*, has caused so much confusion in these matters. In a significant passage in *The Twilight of Idols*, he clarifies what the word meant in *Zarathustra*.
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> It was merely a symbol for the supernatural realm as understood by metaphysics, he now uses instead of God the words *true world* and says: "We have abolished the true world. What has remained? The apparent one perhaps? Oh no! With the true world we have also abolished the apparent one." . . .
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> In other words, once the always precarious balance between the two worlds is lost, no matter whether "the true world" abolishes the "apparent one" or vice versa, the whole framework of references, in which thinking was used to orient itself, breaks down. In these terms, nothing seems to make sense any more. ("Thinking and Moral Considerations," *Social Research*, Autumn, 1971.)

To return to the context of Indian thought, we provide another quotation from Vine Deloria, a Sioux Indian who wrote *The Metaphysics of Modern Existence* (Harper & Row, 1979) to demonstrate the underlying unity of mythic Indian meanings and the emerging "holism" of Western philosophy in the present. In their way the Indians sought "the true world" which, as Nietzsche said,

modern positivism has denied, and in effect destroyed, and Deloria shows the effect of this stance (which prevails in present-day education) on young Indians who go to the white man's schools:

> Attending school away from the reservation is a traumatic experience for most Indian people. In the white man's world knowledge is a matter of memorizing theories, dates, lists of kings and presidents, the table of chemical elements, and many other things not encountered in the course of a day's work. Knowledge seems divorced from experience. Even religion is a process of memorizing creeds, catechisms, doctrines and dogmas—general principles that never seem to catch the essence of human existence.

Deloria goes on to tell what it means to Indians to have taken away from them their feeling and sense of "the real world":

> No matter how well educated an Indian may become, he or she always suspects that Western culture is not an adequate representation of reality. Life therefore becomes a schizophrenic balancing act wherein one holds that the creation, migration, and ceremonial stories of the tribe are true and that the Western European view of the world is also true. Obviously this situation is impossible although just how it becomes impossible remains a mystery to most Indians. The trick is for them an initiatory act that admits them to higher status for employment. They do not seem concerned with the ultimate truth of what they are taught. Indians, for the most part, fail to comprehend the sanity of this attitude at all.

A point to raise here is the loss suffered by white students who are unaware of what their cultural heritage has denied them—the very possibility of another, "real" world to which they might look for resonances of transcendent meaning. Have at least some of them vaguely felt this loss, and wondered what was missing from their lives? There are now teenagers able to consider this question.

Fortunately or unfortunately, there are substantial reasons why young Americans find it difficult or impossible to "borrow" the Indian conception of the real world. In Dee Brown's novel, the narrator asks the old Indian: "What was the ceremony of the Medicine Lodge?", obtaining this reply:

> "Oh, that was the Cheyenne's Sun Dance. The Sioux borrowed part of the ceremony from the Cheyenne and called it a Sun Dance. It's a renewal of life. When the white men penned us on the reservations they forbade the ceremonies among all the tribes. The missionaries could not stand the sight of us putting roped-skewers through incisions in our breasts and then tearing the flesh loose by dancing and pulling at the ropes fastened to the Medicine Lodge pole. Maybe that was our way of baptizing.
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> We never tried to stop the missionaries from baptizing or any of their other practices that seemed barbaric to us." He unbuttoned his shirt and showed the old yellow scars on his pectoral muscles, then rolled up his sleeve to another scar. "No more damaging to me than this smallpox vaccination mark that a dirty-fingered surgeon forced on me when we came back here from Canada."
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> "What is it like, the real world?" I asked.
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> He remained silent for a while and then spoke slowly. "Being a man who loves words, I've often thought about that. But some things cannot be put into words. The closest I ever came was one English word. Shimmering."
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> "Shimmering?"
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> "Yes, like swimming in the moonlight." He grinned at me, and I was not certain whether he was teasing or being serious.
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> "The Cheyenne way of life as you've described it seems idyllic," I said. "Was it really?"
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> "Idyllic?" he repeated. "Pleasing, picturesque, romantic, I think the word means. I suppose it was all of those things especially to an outsider like me. Oh, we killed and were killed. We had our quarrels, accidents, pestilences, deaths. But most of our diseases came from the whites. Mainly it was a balanced world that we lived in. We were in harmony with the animals and plants, the forest and waters. When the white men came they destroyed the balance and almost destroyed us. They are still at it. . . . Red Cloud of the Oglala Sioux saw it coming, and later on so did Sitting Bull of the Uncpapas. But none of us dreamed how quickly the storm would sweep over us."

It should not now be difficult to get students to take seriously the idea of a "real world." More

and more people are realizing that, as Bruno Bettelheim said recently: "What our society suffers from most today is the absence of consensus about what it and life in it ought to be."

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In conclusion, we add a note on *The Bowel Book* by David Ehrlich and George Wolf (Schocken, 1981, $6.95). Books on diet and health seem to come out by the dozen, every month, so there is a certain resistance to picking them up. This one was worth picking up. Its sound sense (in a layman's judgment) doesn't invade you with biological threats, and there are no rigid formulas. The content is eclectic, giving folk recipes along with the latest findings of medical science. Peter Albright, M.D., says in the Foreword:

> David Ehrlich and George Wolf provide advice that is based on the assumption that we are complex beings, that no two of us are identical, but that all of us possess the capacity to take control of our lives and our health. It is with this understanding—which, by the way, is one of the foundations for the holistic health movement—that the authors urge the reader to be more aware of the signals the body sends out, to be aware of the warning signs of imbalance of physical function so that we can do the things that are necessary to correct them and avoid the more serious problems that may irreversibly damage our health. With common sense and sound information of the sort provided in this book we should be able to keep our gastrointestinal systems functioning in a healthy way, avoiding the need for a wide array of chemical remedies that fill newspapers and television.

This is a common-sense book which gently converts the reader to what he should have known all along.

FRONTIERS

The Challenge and the Tools

A WHILE back we received in the mail No. 10 of the *Food First News* (published by the Institute for Food and Development Policy, 2588 Mission Street, San Francisco, Calif. 94110), which is mostly about what the Nicaraguans have been doing for the hungry and the poor since they overthrew their dictator, Somoza, in 1979. Finding out about this was a natural interest for Frances Moore Lappé and Joseph Collins, authors of *Food First* (Houghton Miflin, 1977, and Ballantine paperback, 1979), in which they show that hunger around the world is mainly due, not to scarcity of food and lack of arable land, but to misuse of the land by profit-seeking corporations. As they said in their book:

> In Central America and the Caribbean, where as many as 80 per cent of the children are undernourished, approximately half of the agricultural land, invariably the best land, is made to produce crops and cattle for a domestic elite and for export—instead of basic food for the people. In 1973, 36 out of 40 of the world's poorest countries—those classified by the United Nations as being most seriously affected by inflated world food prices—exported agricultural commodities to the United States.

This book commands attention, and so does the newsletter, *Food First News,* published by the San Francisco Institute founded by the authors. Invited by the Nicaraguans to join them in meetings for agricultural planning, they attended gatherings in Managua in 1980 and 1981. The problem was that the country's food imports were increasing while prices were going down on its exports.

> After lengthy debates a consensus emerged: Nicaragua could do both. It could increase its exports of coffee, sugar, cotton and meat primarily by more efficient use of the land already engaged in their production. It could also increase its corn and bean production by allowing peasant and landless workers to plant currently unused land.

Last year a plan was put into effect under which small producers were encouraged to grow more corn and beans—the country's staple foods—with government-guaranteed prices and credit for small farmers and cooperatives at favorable rates.

> These pro-peasant policies mean that the food producers themselves are already eating better. Prospects look good for Nicaragua achieving food self-reliance in 1982, making the country virtually independent of imported food staples.

While the land that Somoza and his close associates had owned was first nationalized and then turned over to farming co-ops, 64 per cent of the land remained in the hands of large and medium size farmers. Yet in the case of land-owners who lived abroad and refused to use or rent their holdings, the peasants who moved in and began farming on this property were permitted to stay. An agrarian reform law which went into effect on the first anniversary (1980) of the revolution legalized such takeovers but prohibited them in the future, while guaranteeing that "idle land will be distributed in an orderly, legal fashion."

> The new law makes it very clear that abandoned land and land left idle or under-used can be redistributed. Moreover, the government can redistribute lands rented to tenants on large farms above a specified size. Large farms that are entirely rented out (mainly cotton plantations) can be nationalized, then rented out to the same producers, but with the rent going to the public good rather than to the absentee landlord.
>
> Unlike land reforms in many countries, the pragmatic Nicaraguan reform sets no ceilings on the size of landholdings. Even the very largest land-owners can keep their land as long as they obey the laws governing wages and working conditions, and do not rent it out.

Lands that become available for distribution go first to the over 100,000 farmers who haven't sufficient land to meet their basic needs, with preference to those who form cooperatives. Landless farm workers will also benefit. The third priority is for government-operated farms.

> The priority for cooperatives reflects the view that, at least in the long term, cooperatives rather than individuals can take better advantage of economies of scale and new facilities for health and education as well as crop-processing. Finally, putting government-run farms last reflects the government's judgment that it has enough on its hands with the farms it is already responsible for.

The over-all goal is a mixed economy with 50 per cent of the land in independent cooperatives, 30 per cent in privately owned farms of various size, and 20 per cent in government-run farms. The article concludes:

> Creating a new way of life in the Nicaraguan countryside, and achieving self-reliance in the basic food crops, are difficult, long-range programs. But the pragmatic, one-step-at-a-time approach of the new Nicaraguan government offers dramatic hope to the people so long forced to live in misery.

For readers who don't have an atlas handy, Nicaragua is the largest of the Central American countries, lying between Honduras and Costa Rica. The population is well over a million.

This is the sort of news we need about other countries—our neighbors to the South, as well as everywhere else—but which we seldom get in the daily press. That we get it at all, in this case, is probably due to the evolution of interest and concern in the life of Frances Moore Lappé, who once was known mainly for her book, *Diet for a Small Planet,* first published in 1971 by Friends of the Earth and Ballantine Books. From an interesting interview by Alex Jack in the February *East-West Journal,* and his biographical sketch of Mrs. Lappé, we learn that she first wrote *Diet* when she was twenty-five, living in Berkeley, where she had made a study of the benefits of "natural foods," easily available in that area. The book grew out of realizations which came to her as her own diet changed. She saw that "there was a direct connection between what we eat and world hunger." She was surprised and encouraged by discovering that so many others had a similar interest. She told the interviewer:

> To give you some sense of what I thought the level of awareness was in 1970 when I first worked on *Diet for a Small Planet,* I thought it might appeal to 500 people in the greater Berkeley area. I intended to publish the book myself because I was sure that it didn't have any commercial promise. As it happened, several million people read the book. So to go from that perception to where we are today is just one representation of the change in interest and understanding.

She took her children—a boy of six, a girl of three with her on a four-week stay in Guatemala where she, and even they, saw at first hand the contrast between the landed wealthy with huge estates and the people along the road who had no homes. In reply to a question about practical steps for change, she said:

> One of the themes of all my work is that if we don't experience ourselves changing then we don't believe that changes are possible at a national level or in other countries. So the answer to your question really is that we must do that which changes us, and for each of us that is slightly different. If I offer people blueprints for that they wouldn't be changing themselves. Changing yourself has to be an internal process; so I think that all people like us at the Institute can do is provide people with the challenge and the tools with which they can change themselves.