

## A SCIENCE OF MAN?

MORE than fifty years ago an eminent chemist gave the basic explanation of why there is no science of man. There are plenty of would-be sciences that attempt to provide accounts of human behavior, but what they leave out is always more important than what they declare. The chemist, Albert P. Mathews, wrote in his contribution to *General Cytology* (edited by E. V. Cowdry, University of Chicago Press, 1924):

Living things show an attribute which we may call mentality or psychism, and this psychism is as yet unrecognized elsewhere than in living things. No one speaks of the psychology of this great rock upon the illuminated surface of which we crawl. . . . But who can deny to the inorganic earth that which is in the same inorganic elements when in the organized, the organic form? The biochemist of the future will discuss the psychology of hydrogen, of oxygen, indeed, that of the electrons, positive and negative, themselves. For who can doubt that those properties of the atoms which show themselves in the psychical phenomena of living things are also present in the same atoms in the inorganic form? For the atoms are the same in living and lifeless, and every moment they are turning from the one to the other. . . .

We cannot understand chemistry, therefore, and certainly not big-chemistry, the chemistry of cells, until the relation between material and psychic things is worked out. . . . We must leave out, because of our ignorance, the psychic side of chemical reactions. Our equations, therefore, will be as incomplete as if energy were omitted. The transformation of matter and energy alone can be considered . . . which becomes hence like Hamlet with Hamlet left out. Let us not blind ourselves to this fact.

The first part of this statement may seem arguable—after all, it is hardly possible to discern the properties of water in the separate atoms of hydrogen and oxygen—but the final paragraph rings absolutely true. Our studies of man are inconclusive because we don't know how to assign a role to the psychic factor—the mental factor—in human life. Is there a *mind being*, and

has it in some respects an autonomy in relation to the physical or material side of man, or are the psychological phenomena in human behavior only the reflection or reflexes of physical "reality"—merely "epiphenomena," as Thomas Huxley maintained?

On its face, and in terms of immediate intuition and common sense, the claim that man is no more than the product of chemical and physical and biological laws, without a unifying psychic identity—and perhaps an *independent* psychic identity—is simply preposterous. We refuse to believe it in our everyday life, whatever the books of the scientists and the learned doctors say. Yet we repeat their reductive doctrines when called upon to make what explanations we can of human beings. Is there a comprehensible reason for the persistence (in science) of this dehumanizing account of what we are?

The reasons are several. To assemble them we need to go back to the eighteenth century. The thinking men of that time were the inheritors of Cartesian materialism; Rene Descartes' fascinating mathematical method—so precise, so certain, so free of theological doubletalk—had taken the European mind by storm. While Descartes didn't come right out and say that man is a "machine," as Lamettrie did a little later, he was certainly the founder of mechanism in biological theory, and the anticipator of Behaviorist doctrines. While he spoke of the soul, he gave it little or nothing to do. The long-term effect of this isolation of body from mind has been that scientific thinkers decided that they had no need of "mind" as a causal agency to explain anything. It played no part in Nature, and had only a charade-like, ineffectual existence in human behavior. Chemistry the struggle for existence, and the conditioned reflex could account for it all.

But why so firm a denial of the reality of man's inner life? To understand the *moral* forces behind this rejection it is necessary to know a little of the part played in European history by organized religion. Freedom-loving men—and the eighteenth century gained its character from them—despised the priestcraft of their time. Lamettrie wrote with outspoken Materialism (in *Man a Machine*):

If Atheism were universally disseminated, all the branches of religion would be torn up by the roots. Then there would be no more theological wars: there would no longer be soldiers of religion, that terrible kind of soldier. Nature which had been infected by the consecrated poison, would win back her rights and her purity. Deaf to all other voices, men would follow their own individual impulses, and these impulses alone can lead them to happiness along the pleasant path of virtue.

The study of nature would explain everything to us, Lamettrie declared in *L'Homme Machine*, published in 1744. What need have we of God or his priests, or any of the "spiritual" doctrines of the Church? (Europeans knew no other.) The French *Encyclopedie*, edited by Denis Diderot in this spirit, although not overtly atheistic, was opposed to church and government and even Christianity itself, and the revolutionary spirit in both Europe and America was largely generated by its immeasurable influence. (The first volume appeared in 1751.) It was brilliant, if uneven, and condemned by its theological enemies as the gospel of Satan. Its positive appeal was that of the Enlightenment in general—the progress of Science would solve all problems. Interestingly, only Diderot, among the *philosophes*, as Carl Becker shows in *Every Man his own Historian*, foresaw the devastating psychosocial effects of the materialism implicit in the Newtonian and Cartesian doctrines.

This anti-clerical hatred of priestly authority, and in consequence the rejection of any sort of "spiritual" thinking, provide initial explanation of the lasting energy of the materialistic outlook, which was, as Bertrand Russell pointed out in 1925, "a system of dogma set up to combat

orthodox dogma." Its authors, he added, were not men who loved dogma, but "men who felt that nothing less definite would enable them to fight the dogmas they disliked." Another reason for the hold of materialistic (or mechanistic) thinking lies in the fact that the method of science does not lend itself to dealing with metaphysical or non-material forms of experience. To qualify for attention from scientific intelligence, a claim or proposition must be capable of either proof or disproof. Statements about the subjective side of human beings seem, therefore, irrelevant to most scientific minds, whose conception of how to proceed in a scientific investigation is based upon the methodological prototype of objectivity—physics. In most of the sciences, therefore, what is not amenable to the typical practice of the method is either denied reality or ignored—today mostly the latter. William James said in his introduction to *Psychology: Briefer Course* (1899) that psychological science "abstracts from freewill, without necessarily denying its existence," but he immediately added: "Practically, however, such abstraction is not distinguished from rejection; and most actual psychologists have no hesitation in denying that free-will exists." Psychology, in other words, firmly denied everyday common sense, to say nothing of jurisprudence, and continued its withering claim as late as 1971, when B. F. Skinner's *Beyond Freedom and Dignity* appeared. Nobody, Skinner declared in effect, is responsible for anything he does because "responsible" is without meaning when there are no "egos" and no "freewill." A dramatic example of how good men felt able to get along with this theory, without any idea of moral responsibility, is available in the life of Clarence Darrow, whose career as an altruist and militant champion of the "victims" of society was not in the least confined by his mechanistic convictions, but even, as he thought, supported by them!

But meanwhile, science was losing the awed admiration of thoughtful people. If science could not really deal with humans as they are, but must

abstract from their qualities until their humanity had disappeared, then science the Great Science of the Enlightenment—is really only a kind of technique. Ortega summed up this emerging view in 1940, in *Toward a Philosophy of History* (Norton):

Science is in danger. In saying this I do not think I exaggerate. For this is not to say that Europe collectively has made a radical end of its belief in science, but only that its faith, once living is in our day become sluggish. . . . What has happened to bring about such a situation? Science today knows with incredible precision much of what is happening on remote stars and galaxies. Science is rightly proud of the fact, and because of it, although with less right, it spreads its peacock feathers at academic gatherings. But meanwhile it has come about that this same science, once a living social faith, is now almost looked down upon by society in general. And although this has not happened on Sirius but only on our own planet, it is not, I conceive, bereft of importance. Science cannot be merely science about Sirius; it claims also to be science about man. What then has science, reason, got to say today, with reasonable precision, concerning this so urgent fact that so intimately concerns it?

Just nothing. Science has no clear knowledge on the matter. One perceives the enormity of the position, the shame of it. The upshot is that, where great human changes are concerned, science, strictly so called, has got nothing exact to say. The thing is so enormous that it straightway reveals to us the reason. For it causes us to note that the science, the reason, in which modern man placed his social faith is, speaking strictly, merely physico-mathematical science together with biological science, the latter based directly on the former and benefiting, in its weakness, from the other's prestige—in short, summing both up together, what is called natural science or reason.

"Merely physico-mathematical science" retains our respect as such, but is something far less than the all-inclusive Science of the Enlightenment. So, as Ortega says—

The present position of physical science is in consequence somewhat paradoxical. If there is anything in the repertory of human activities and pursuits that has not proved a failure, it is precisely this science, when one considers it circumscribed within its genuine territory, nature. This is so

unquestionable that one has difficulty in understanding straightway why man is not today on his knees before science as before some magic power. The fact remains that he is not on his knees, on the contrary, he is beginning to turn his back. He does not deny, he is not unaware of, its marvelous power, its triumph over nature, but he realizes at the same time that nature is only one dimension of human life and that a resounding success with regard to nature does not preclude failure with regard to the totality of our existence.

In the upshot the paradox resolves itself into a supremely simple observation. What has not collapsed in physics is physics. What has collapsed in it is the rhetoric, the trimmings of childish presumption, of irrational and arbitrary additions it gave rise to, what, many years ago, I styled "the terrorism of the laboratory."

Where does this leave us? Ortega puts the matter well:

Physical science can throw no clear light on the human element. Very well. This means simply that we must shake ourselves free, radically free, from the physical, the natural, approach to the human element. Let us instead accept this in all its spontaneity, just as we see it and come upon it.

Here we have a choice of some importance. It is not the choice or opportunity set by Ortega in these brief sentences, but one which we must nonetheless make. The point is, who, except an Ortega or some Maslovian self-actualizer is really *able* to cut himself loose from all previous conditioning and confront the reality of being human and the facts of human experience just as they are and as they come to us? Who in fact *dares* to risk such confrontation without the distance of a proper objectivity, the guard of prescribed method, and the habits imposed by several generations of abstracting from experience what we suppose is really worth looking at?

Take for example one really thumping reality that we are all aware of—we can't escape it—and consider the great difficulty of its intellectual recognition, or even of speaking of it openly and discussing it in terms of ethical obligation and social theory: the reality of the numerous *differences* among human beings.

Why is this subject taboo?

Again, we must return to the eighteenth century. While the Athenians laid a foundation for the conception of the equality of all men—even Plato, seldom regarded as an egalitarian, declaring that men and women are psychologically alike—it was not until the revolutionary epoch that equality became a central contention concerning the nature of man. As Crane Brinton says (in the *Encyclopædia of the Social Sciences*, 1930):

. . . there are three elements in this modern notion of equality not wholly discernible in the ancient. First, physical science supplied the essential metaphysical basis, the concept of a real uniformity behind apparent diversity. The law of gravitation rather than the law of nations provided the model for the political reformer. The true laws of politics must be simple, like all good scientific laws. They could not be simple unless the entities with which they dealt—men—were assumed to be identical. Bentham's felicific calculus could hardly have been applied save to units with a like capacity for feeling pleasure and pain. Second, the powerful and recently enriched middle classes, especially in France and England, were anxious to achieve social and political equality with the nobility. Third, the notion of an actual previously existent state of nature, to the stoics hardly more than a logical haven for their rationalism, became with Shaftesbury and Rousseau a belief in the natural goodness of man, a belief held with a mystic fervor rarely attached to so worldly a dogma. All these elements went into eighteenth-century egalitarianism: reason and faith both showed men to be identical at birth; if they were now unlike, the cause must be sought in something outside them—their environment; but that environment could be manipulated, as the science of Newton had shown; if men were treated alike they would become alike. The American and the French revolutions finally established as part of a creed the proposition that all men are born equal. Jefferson's phrase and the famous *Liberté, égalité, fraternité* entered into the ritual of the two great nations and acquired thereby something more and less than meaning.

In this brief account we may recognize both the inspiring quality of the idea that all humans are equal—which our hearts respond to and validate—and the weaknesses of its modern grounding. We know that the human essence—

the reality of self-consciousness, the moral sense of knowing good from evil, however opinions may vary, and the feeling of freedom of choice, however constrained to a limited field—is the same in all human beings. This is not only the conclusion of feeling and common sense; anthropologists also testify. At the end of his *Theory and Processes of History*, Frederick J. Teggart notes that "there is an important body of evidence which indicates the "psychic unity of mankind," and after several illustrations he cites Franz Boas, who said that "in the main the mental characteristics of man are the same all over the world," and G. L. Gomme, who declared that "The working of the human mind is on the same plane wherever and whenever it operates or has operated." In short, there is substantial empirical truth in the verity adopted by the eighteenth century.

There are difficulties, however. To be equal in an essential and perhaps metaphysical sense is not to be the *same*. This assumption, that men who are equal are in all ways the same seems a great flaw in the principle, evident from the parallel with the atoms of Newtonian physics. Moreover, the passivity of identical units opens the way to the manipulators among ideologists—those who believe that humans can be "conditioned" into becoming better by design of the correct environment. Herman Melville anticipated a great many of the objections to the reductionist reading of the egalitarian ideal in a few lines in *Clarel*:

Myriads playing pygmy parts  
Debased into equality:  
In glut of all material arts  
A civic barbarism may be.  
Man disennobled—brutalized—  
By popular science—atheized  
Into a smatterer.

No one in the eighteenth century, however, could see far enough ahead to realize that the ideal of high individual achievement and excellence would wither and hide itself to avoid being branded as elitism and escape the charge of

aristocratic leanings. The fact of the matter is that we have found no way of understanding or dealing with human differences save in terms of strong and weak, superior and inferior, powerful and powerless. So the discussion of the differences among humans is not pursued except in jocular or pejorative ideological language. Yet in practice we recognize these differences in our hiring and firing, in our choice of companions, in the selection of ideal examples, and of heroes, if any, while carefully avoiding any expression of opinion as to how these individuals became as they are.

Meanwhile, the philosophic critics of materialism keep pointing out that hierarchy is the law of nature in biology, that it appears even in physical structures, and that transcendence seems to be the process whereby the best human beings make their appearance. But these conceptions still seem morally intolerable without a basic world-view which includes spiritual and moral as well as physical reality, without a non-physical conception of evolution such as that proposed in Roszak's *Unfinished Animal*, and without the Gandhian idea of human excellence or superiority as embodied in individuals who will never exert coercive power over anyone else. It is difficult to see how there can ever be a science of man except by broadening the conception of science to include such substantial realities.

## *REVIEW*

### ON LESTER BROWN

SINCE we have quoted him here with respect for some seven years, finding an article on Lester R. Brown in the September *Country Journal* was something to take particular note of. Brown's writing on world food supply soon gains the confidence of the reader. His way of using words has a quiet solidity that holds your attention and gives reason to quote him. The title of the *Country Journal* article is "This Man Is Changing the World," which may seem extravagant but has a foundation in what is told about him. Explaining the claim, the writer, Hugh Sidey, says of Lester Brown:

His first study in 1963, when he was a planner in the Department of Agriculture, helped alert this nation to the increasing dependence of the rest of the world on North American food production. From the White House on down to the farmer, ideas about exports were changed by Brown's discoveries. In 1966, when he was named one of the nation's ten outstanding young men by the Junior Chamber of Commerce, it was noted that his article predicting a 1965 crop failure in India had been instrumental in launching a huge food rescue mission. In nations like Pakistan, where resources are always stretched, Worldwatch findings are a beacon. Not only do government officials pay attention, last year in Pakistan the influential *Statesman* ran Worldwatch material in forty-six of fifty-two issues.

The Worldwatch Institute, of which Brown is president, is a nonprofit body with a budget of half a million dollars, endowed by the Rockefeller Brothers Fund. A dozen or so people who work at the Institute interpret the available research facts, producing studies to which governments and scholars and policy-makers give attention. Its most recent—thirty-fifth—study considers the link between energy and food costs. Hugh Sidey says that the Institute gets its raw data from places like the U.S. Department of Agriculture, the International Monetary Fund, and the World Food Organization.

There is no shortage of surveys or other data. Brown's unique function is to bring all these facts

together to form images of a shifting world. He is a map maker of sorts, plotting the collision points of human appetites and the probable limits not only of fossil energy but of those basic biological systems which support all life. He is, as he would suggest himself, that fellow who scans the horizon and sees what is developing on the far left and understands how it will affect what happens on the right.

For all of Brown's prodding and poking, he appears to be one of the few figures in this contentious world who is immune to the usual doctrinal envies and conflicts that beset other trailblazers. It may be because he is virtually the only person willing to embrace the globe, and he is very cautious with the data he gathers from others as he fits it all into a new mosaic.

Knowing about Brown's origins and early life adds to one's confidence in what he says. His father was a tenant farmer in New Jersey and Lester—he is now forty-five—grew up cleaning horse stalls, milking cows, and raising tomatoes. He and his brother had land next to the family farm and during school vacations they raised tomatoes for the market, reaching production of 1.5 million pounds a year, which helped to finance a degree in agricultural science for Lester at Rutgers. (He still grows a few tomatoes in his small backyard near Washington, D.C., where Worldwatch has its offices.) After college Lester spent a year in India, living in villages in several parts of the country. The impact of this experience gave direction to his life:

Brown began to understand the terrible economic differences dividing people in the world. His interest in global food production and its effect on people was kindled during these months abroad. Back in New Jersey, the thought of spending the next forty years raising tomatoes was not enough to satisfy Brown. He wanted to dig deeper into the international food problem. . . . Joining the Department of Agriculture in Washington, he began to assess the life-sustaining systems of the world, which he had reckoned were already beginning to falter. . . .

In Washington his life retains the simplicity that he advocates for others. He does not own a car, preferring to rent one for those few trips where such transportation is necessary. Around the city he uses public transportation, or when the weather is good he

rides his bicycle seven miles to his office, a trip he can make in twenty-two minutes in the best of conditions.

Looking to the future, Brown believes that basic changes will be forced upon us all. Good roads and the dispersal of industry have brought people back into rural areas, although at the cost of much increased consumption of energy.

Now, Brown believes, many of these same people, having found the new country life much better to their liking, may seek even further withdrawal from the energy-consuming cycle. He believes that a resurgence of sheep farming in New England is such an indication, and another is the upswing of vegetable farming in the Middle Atlantic states.

As Brown goes on into the new decade tracking the broad movement of people, he thinks he will also see the smaller signs of adaptation. It is a pretty sure bet, he says, that as people search for ways to reduce their dependence on fossil fuels, solar collectors will begin to sprout on U.S. rooftops and that back-yard wood piles will swell even more than they have in the past few years. As usual, Lester Brown is of two minds about this latter development. Worldwatch has charted the stress already placed on woodlands and he urges caution in consumption. Yet the woodstove boom is a special delight of his. "It is," he says, "one of the few things in life that works better than we expected it to." Brown has an enduring faith that more such gratifications are in store for us if we develop a true partnership with the earth.

In addition to the article about Lester Brown, *Country Journal* presents an extract from a forthcoming book. Here Brown draws a parallel between the sudden collapse of the Mayan civilization in Guatemala in the tenth century, due, apparently, to ecological deterioration, and our present environmental decline. Brown discerns other parallels:

Like the lowlands of Guatemala, which once supported as many people as all of contemporary Guatemala, the Tigris-Euphrates area may have supported more people in early times than it does today. And the same may be said for other regions of the world. North Africa was once the granary of the Roman empire. But today Libya and Algeria cannot begin to feed themselves: Libya imports more than half of its total grain supply and Algeria's dependence on imports is rapidly approaching that level.

If environmental stresses led to the undermining and collapse of earlier civilizations, whose population-doubling times were measured in centuries, what is the effect of the environmental stresses of our late twentieth-century global civilization, whose doubling time is measured in decades?

Our economic system, Brown says, is largely dependent upon three basic biological systems—oceanic fisheries, grasslands, and forests. In many parts of the world, the demand for the products of these systems now exceeds the supply, which means that the systems themselves are being depleted. The progressive exhaustion of the world's oil reserves represents another threat. We have only a few decades more of oil, and, "Unfortunately, the world is far behind schedule in developing alternative sources of energy to power its economic system as the oil wells go dry." Our problems, Brown points out, are *global*, while the instruments of control are in the hands of rival nation-states: "We are in many ways like a rudderless ship in a storm, being buffeted one way then the other, in danger of both running aground and capsizing." The solution, he declares, is a matter of will. We cannot plead ignorance, although Brown would probably admit that there is a lot of willful ignorance around. He says:

In looking to the future we cannot afford to delude ourselves about the real choices facing us. The Mayans may not have realized that their society had become unsustainable in the absence of some major adjustments. We have the advantage of knowing what happened to earlier civilizations that followed an unsustainable course. We know what must be done if civilization is to be sustained. What we do not know is whether we have the will and ingenuity to do it.

Lester R. Brown is an articulate representative of the conscience of the country, embodying also peculiarly American common sense.

We should add a brief note about the *Country Journal*, published monthly at 205 Main Street, Brattleboro, Vermont, at \$15.00 a year. Besides the material by and about Lester R. Brown, the September issue contains much else of interest to

MANAS readers. There is an article by an English farmer, Sam Mayall, who has practiced organic methods on a large farm for thirty years—on why and how the organic system works well for commercial farmers. He was moved to change from chemical to organic methods by a sudden rash of infertility among his cows, due apparently to a mineral deficiency in their diet. "I *had* to make a change," he said, and he never regretted it. The article tells why.

Next comes a rather full report on the decision of the U.S. Department of Agriculture to investigate organic farming, and on the conclusions of the investigators, which "could mark a turning point in official attitudes toward organic farming." Another article summarizes the dissatisfaction of rural people with some fifty years of "consolidation" of their schools, presenting evidence that the quality of education has declined with the change to bigger institutions, and giving effective arguments for a return to smaller, community schools. Then there is an exciting report on "School at Home" by a mother who adopted John Holt's program of teaching her own children, and of the adventures which followed, including the enlistment of her neighbors as auxiliary teachers!

## COMMENTARY

### TWO QUOTATIONS

THE first is a paragraph from an editorial in the *Nation* for last Sept. 13, by M. J. Akbar, editor of an Indian news weekly:

American foreign policy, like Russian foreign policy toward its satellite states, is rooted in arrogance. This is the arrogance that says that while the rest of the world must understand the United States and its needs, the United States has no obligation to understand other nations (e.g., Iran and its revolution) if it does not wish to. Such arrogance holds that other nations do not necessarily need democracy and freedom; what they need are governments that have Washington's blessing. No matter that such governments are headed by barbarous, sadistic and inhuman robbers like the Shah of Iran or the feudal monarchs of Saudi Arabia.

The second is from a Quaker writer who visited Iran early last year with the intention of understanding Iranian attitudes. Many Americans believe that the shah tried to bring Iran out of the Middle Ages into the modern world. The Iranians saw him as a tyrant who changed their way of life without allowing any dissent. Lynne Shivers wrote in the *Friends Journal* for last July:

The White Revolution was the shah's land reform program. Before 1963, Iran basically had a feudal agricultural system. Tenant farmers grew crops for themselves, and landowners were paid through a portion of the crops raised. Land was passed from generation to generation. This system meant there were few surplus crops for urban markets.

The shah's White Revolution attempted to change this system. Control of the land was given to large banks or friends of the shah. Peasants were hired as laborers who competed against each other, and much of the land was used to grow export crops (e.g., wheat, sugar beets, cotton). Laborers were influenced by the market system and they were not able to survive the stiff competition; they could not make enough money to feed their own families. As a result, farmers were forced off their land, and they moved to cities to find work. Most were unsuccessful and became the urban poor and unemployed.

In 1963, there were some 44,000 villages in Iran; by 1978 there were only some 10,000. The shah benefitted from agricultural export capital; this money went toward the purchase of military supplies. Iran bought \$20 billion worth of military equipment and supplies, mainly from the United States, from 1952 to 1973.

## CHILDREN

### . . . and Ourselves

#### WORDS, SATIRE, AND NUANCE

BACK in the '60s, Herbert Kohl was teaching the sixth grade in Harlem. The children were bright, but the school was dull—seen by the young as a focus of the enemy. The class was supposed to be "backward," but Kohl found out by getting the students to trust him that they wouldn't reveal to their teachers how much they knew—how well, for example, they could read. Alice, whose records said that she was at a low third-grade level, bet him she could read everything lying on his desk, including the novel he was absorbing on the subway going to and from school. And she did. "How," Kohl asked her, "could you have such a bad reading score?" "Listen," she said.

Alice picked up a book and stumbled through several paragraphs. She paused, stuttered, committed omissions, and reversals, *i.e.*, read on a low third-grade level. Then she looked at my astonished face and burst out laughing.

Alice was tough and angry and brilliant. She was hypersensitive and incapable of tolerating insult or prejudice.

What could he do to disarm those bright children and get them interested in learning more about language? He began one reading lesson with the question: "Do you believe Harlem was here a thousand years ago?" It didn't work. He couldn't break the ice that way. But newspaper reports of the first Patterson-Liston fight got things going. He was able to introduce and gain interest for Patterson's book, *Victory Over Myself*, and the class found the *New York Times* analysis of the qualities of the two fighters exciting:

The kids wanted to know who made the guarantee to the fighters, whether it was verbal or written, how much the government took. The questions were real and the curiosity genuine. I answered as many as I could without preaching or handing out dictionaries, without pausing for a lesson on percentage or saying, "Don't you wish you could read now?" The children knew what they couldn't do, and were grateful for the fact that one time in school a teacher answered their questions when they needed

answering, and didn't make them feel foolish for asking in the first place.

On one occasion, when a pupil called another "psyches," because he was stumbling badly in a reading lesson, Kohl made the epithet into access to the world of Greek myths, telling them the story of Cupid and Psyche, and tracking the meaning of "psyche" from ancient times. They talked about some other English words derived from the myth, and Kohl helped them to see how language grows.

Charles jumped out of his desk and spoke for the first time during the year.

"You mean one day the way we talk—you know, with words like *cool* and *dig* and *sound*—may be all right?"

Kohl explained that language is alive and changes, and a girl asked him, Mr. Kohl, is that why our reader sounds so old-fashioned?" The jeerer said, "Mr. Kohl, when I called Michael *psyches*, was I creating something new?" (The quotations are from Kohl's *36 Children*.)

The children liked the idea and felt better about their spontaneous speech.

A passage from Mitchell's *Less than Words Can Say* gives justification for this sort of teaching:

Like any argot, Black English can be eloquent and poetic. While it is not in any sense at all a different *language* from English, it is in social terms at least what Old English once was to Norman French, the private talk of the oppressed. It is rich in subtle invective. . . . Its extravagant lexicon seems the result partly of a desire to exclude outsiders and partly of the exuberance of a skillful performance. In the mouth of a fluent speaker it is a powerful incantation. It is furthermore, an illustration of the many differences between speech and writing, as anyone who tries to write discursive prose in Black English will soon discover. . . . Its metaphors can be subtle and penetrating, and its blithe disregard of standard grammatical forms is as crafty as it is cocky. Unfortunately, however, it will not serve us when we want to explain or understand the rationalistic epistemology that informs constitutional democracy or how birds fly. A child who comes out of school knowing only black English will never trouble us by seeking employment as a professor of political science or as an aero-dynamic engineer.

When Kohl's children asked him to forget English grammar and let them study only their own

everyday speech, he may not have made this objection right away—there is a right time for everything—but he doubtless was able to get the point across. After all, their minds were awake and they were working *with* him, just as he worked with them.

For some reason or other, reading a piece by Mark Strand in a *New Yorker* of more than a year ago (July 23, 1979) reminded us of Herbert Kohl's ingenious teaching. Mr. Strand is ingenious, too—incredibly ingenious—in another way. He wanted to create for his readers the atmosphere and images of the dream life of an "ideal" (by Hollywood standards) California couple, Mr. and Mrs. Baby. The technique is impressive and a passage at the beginning would make a fine illustration of what is meant by satirical *tour de force*, as well as other things experts in rhetoric will be able to identify:

Mr. and Mrs. Baby looked familiar. Bob Baby had the wide but serious mouth of Alan Roscoe when he played in "The Last of the Mohicans," and his blue eyes were like Bing Crosby's in "The Bells of St. Mary's," with the same soft, otherworldly look; yet at times they took on the stern, no-nonsense gaze that was Bing's in "Going My Way." His black hair fell down over his right eye the way Gable's always did. His cheeks had the fallen firmness of Ronald Colman's in "Lost Horizon" or Richard Egan's in "Khyber Patrol." But the marvelous jaw was straight Cooper—the Cooper of "Beau Geste." His nose was Heston's, with the same tip and the same slant of nostril. His walk and his air of purpose were just a cut below Kenneth More's in "The Admirable Crichton"—he always dreamed of going tuxedoed to the beach. His ears were unmistakably Herbert Marshall's and his eyebrows were perfectly peaked, with just the right amount of hair; in other words, they were Errol Flynn's—the great Flynn of "The Charge of the Light Brigade." His body, alas, was undistinguished, with the same bleached rubescence of Walter Slezak's in all his movies since "Once Upon a Honeymoon."

This is technique gone engagingly mad, and in a direction hardly worth following, except for the writer's *reductio ad absurdum* purposes and in the *New Yorker*. But it shows one kind of skill and might enlist the attention of film addicts who have decided that they'd like to learn to write.

Well, having fallen into this somewhat disreputable vein, we may as well provide another quotation—another sort of *tour de force*—this one by a writer unhappily no longer with us, Warren Miller, whose *The Way We live Now* will be remembered fondly by some. The passage from Miller is out of *Looking for the General* (1964), called by Eugene Burdick a "brilliant mixture of satire and realism." It is, you could say, a moody account of a grey innocence belonging to the air-conditioned nightmare:

In big countries, someone is always awake. When I was in England I could say to myself, at three in the morning: Now you are the only one on this island who is still awake; because I could feel it all around me, asleep, dark, quiet, small as a hospital ward, ordered. In Russia and here in America it has never been possible to say such a thing; someone is always wandering about . . . (We are like those chickens who are made to lay eggs twenty-four hours a day because night has been banned from the coops.) In those novels there was always *someone*—in Petersburg or Moscow or Chichicov's crazy villages—who was coming in at four in the morning stamping snow from his boots; or going out at two to dance with gypsies or talk to a friend.

And here in our country it is the same way; and I think it is one of America's most precious delights (I'm feeling a lot better today) that we are like this. I don't care what it means; I really do not. I like this revealing phenomenon, this manifestation of unease which exists in every American town: the All-Night Diner and the restaurant with the sign that reads: *Open 24 Hours. We Threw Away the Key!* They are everywhere; I've never been in a town, North or South, that did not have one: asylums for the nonsleepers, sanctuaries for the restless, the nervous ones, the frightened who know a thing or two. They stir their coffee rather longer than necessary; they listen to the all-night disk jockey on the station that never goes off the air—"And now for all the guys and gals at Al's Diner . . ."—and the tension grows, faces go pinched and white, until dawn comes, mint green and reassuring, bringing release from the vigil. It is all right now; they can go home now; they have seen it in; another day. All's well.

What makes this worth noticing? Miller is a past-master at communicating nuance. He makes you captive of his word-magic, although not for long.

## FRONTIERS

### The "Moral" Authorities of Progress

IN a postscript to an article ("How Much Is Good Health Worth?") on public policy in relation to human health, first published ten years ago, and now reprinted as a contribution to *Valuing Life: Public Policy Dilemmas* (Westover Press, Boulder, Colorado 80301), Vince Taylor challenges the conception of "consumer sovereignty" as the basis for formulating policy. He traces this normative idea to the outlook of Adam Smith in *The Wealth of Nations*, which appeared in 1776. It represents, Taylor says, "the application of the scientific view of the material world to social philosophy," and it still governs policy decisions. In this view—

Society is seen as composed of independent, atomistic individuals controlled by "natural laws" of behavior, just as atoms in metal are controlled by the "laws" of gravity and electromagnetism. If government policies are to have their desired effects, they must take into account these natural laws, which in Adam Smith's view could no more be repealed by state authority than the law of gravity.

The most important of the laws governing human behavior is self-interest. The genius of Adam Smith was in showing how, under conditions commonly existing in his time, individual pursuit of self-interest would provide material benefit not only for the individual but for other members of society as well. Selfishness, which had hitherto been seen as a curse of mankind, a work of the devil, a human failing to be fought against, was transformed into a social blessing.

In short, the impetuous appetites and desires of the individual become the natural, admitted, and accepted rule of life, whatever the lip-service given to traditional moral ideas. Lest it be thought that economists of the twentieth century would at least try to avoid so materialistic a foundation, we recall here the inverted pieties of John Maynard Keynes. E. F. Schumacher quotes him early in *Small Is Beautiful*:

Instead of listening to Gandhi, are we not more inclined to listen to one of the most influential economists of our century, the great Lord Keynes? In

1930, during the worldwide economic depression, he felt moved to speculate on the "economic possibilities for our grandchildren" and concluded that the day might not be all that far off when everybody would be rich. We shall then, he said, "once more value ends above means and prefer the good to the useful."

"But beware!" he continued. "The time for all this is not yet. For at least another hundred years we must pretend to ourselves and to every one that fair is foul and foul is fair for foul is useful and fair is not. Avarice and usury and precaution must be our gods for a little longer still. For only they can lead us out of the tunnel of economic necessity into daylight."

Commenting, Schumacher summarized Keynes' deliberated view: "Ethical considerations are not merely irrelevant, they are an actual hindrance. . . . The road to heaven is paved with bad intentions."

Commenting in turn, Vince Taylor says:

In our time, the view of reality that underlies this premise [of Smith and Keynes] is so widely accepted that few ever think to question whether it is correct. It is a belief so fundamental that most don't even recognize it as a belief, considering it to be a simple, unquestionable, uncontroversial description of reality. In fact, it is merely a hypothesis, and one that is at almost total variance with the view of reality held by all the great spiritual teachers: Lao Tzu, Gautama Buddha, Jesus Christ, Mohammed, to mention only the most prominent.

What warrant have we for accepting the ideas of these teachers as the higher ground of reality in both natural and human life? That is the great question now before the modern world. Interestingly, it is now being pressed or implied, not only by philosophers, but also by scientists active in the *life* sciences! For example, J. Stan Rowe, an ecologist at the University of Saskatchewan (in Saskatoon), Canada, said in a recent letter to the *American Scientist*:

What we call "science" has never claimed to comprehend all human experience. A sense of wonder—inspired if you will by the magic of reality—motivates at least some scientists though it surely lies beyond science's ken. . . . To be honest, however, scientists should present their mechanistic interpretations for what they are: mechanistic interpretations. After all, science's utilitarian value is

not in doubt, why imply that it can deliver more than power and control?

Science will gain more public support when its "coherent body of explicable testable hypotheses" are not advanced as a substitute for the world's magic but as the fruits of a certain kind of instrumental thought, impelled by a manipulative kind of curiosity, focussed on a limited spectrum of human existence.

Farmers, too, are beginning to voice certain restorative convictions. In *Quest* for last May an article titled "An Iowa Farmer Rediscovered Nature's Way" begins with this quotation from the farmer:

"I was out washing the hog pens one day when I got the word. That's a dirty job and a funny place to learn something that will change your life. But I heard a voice as clear as daylight, and it said to me, 'Get along, don't go along. Get out of the rat race.' You may think I don't know what a rat race is, being a farmer, but believe me, we have them too. I don't know any farmer anywhere who wouldn't do anything he could just to beat his neighbor by a bushel an acre."

Meanwhile a retired engineer, John D. Hamaker, points out in newspaper articles and releases that the food supply of all the world is under imminent threat from the rapid increase of carbon dioxide in the air. He gives three reasons:

First, the pressure in the tectonic system is up. In 1977 there were 35 active volcanoes. No one knows how much carbon dioxide they emitted. Secondly, fossil fuels are a heavy contributor. Third, the plants, principally forests, have maintained the atmospheric carbon dioxide balance for ten thousand years simply by consuming excess carbon dioxide and growing faster. They are not doing it now simply because the soils, after supporting 10,000 years of growth, can no longer furnish the minerals necessary for growth. In fact, trees are diseased dying and burning, as well as being used up by four billion people looking for lumber and fuel. . . . Fifty years ago the rate of increase of carbon dioxide in the atmosphere was slow. According to some exponential equation it is now proceeding at a fast rate. This means that we have only a few years to reverse the process before we lose our grain crops in the northern states, Canada, and Russia. . . .

Humanity should have seen impending crisis in the slow rise in atmospheric carbon dioxide and the

deterioration in forests and jungles. It would have been easy 50 years ago to remineralize the world's soils and bring the carbon dioxide level back to normal. Now we must stop the rise in carbon dioxide level in 6 or 8 years . . . after all this time we do not have a permanent energy policy. All the hired mouths are saying coal and nuclear is the way to go. Yet nature has decreed that only by increasing biomass growth rate 2, 3, and 4 times can we hope to get the raw materials for food and energy and at the same time effect our survival by taking carbon from the air and storing it in soils and forests.

Mr. Hamaker also thinks that glaciation will result from the excess of carbon dioxide in the atmosphere. (His address is 110 S. Nelson, Potterville, Mich. 48876.)

This is mostly what we read reports of today—awakenings and warnings. Whatever the structural relation of the moral to the physical universe, we are no longer getting along well with our environment or with other peoples in the world. Have we been wrong in insisting that selfishness is the only feasible rule of life?