

PARADOX AND OBJECTIVITY

TWO books concerned with Tolstoy—one containing his early letters, the other the recollections of his daughter Tatyana—have added to the strength of the present revival of interest in this extraordinary man of letters. Martin Green's *The Challenge of the Mahatmas*, which presents both Gandhi and Tolstoy, with no attempt to edit them to the writer's preferences, has played a part in this revival, contrasting the heroic stance of these two with the conventional ideas of the scholars who try to measure them. "Every humanist must feel very disturbed by Tolstoy," Mr. Green remarks in a recent essay. In his later life Tolstoy questioned practically every value which had won him so much stature before the world. And he proclaimed ideals which seemed both unattractive and even unreachable—quite beyond himself, as one biographer has suggested.

Probably no one can read or write about Tolstoy without feeling extremely uncomfortable. Given magnificent ingredients, he doesn't turn out to be the sort of man we'd like him to be. So we praise him but pick at him in self-defense. He is of course vastly vulnerable to these tactics, as Hearn showed in his essay on *What Is Art?* (in *Talks to Writers*—possibly the best brief defense of Tolstoy that exists).

Martin Green sets the problem well in *Challenge of the Mahatmas*:

This anger, as is obvious, directs itself against Tolstoy as a whole, as a man, not just against his late stories. And something similar is to be found in other books about Tolstoy. Another vivid example is Edward Crankshaw's 1974 book called *Tolstoy*. Crankshaw's tone about his subject is extraordinarily aggressive, considering the kind of book he is writing. He says that Tolstoy could never truly love those nearest to him, even when young, and he developed into an insufferable and sometimes revolting young man, full of "violence and devilish

pride." His fanatically literal mind had not a breath of poetry in it, and he quarreled with Turgenev because he knew that Turgenev was his moral superior. He was such a materialist, behaviorist, determinist, that he "could not believe in the reality of other people." The clumsiness and congestion of his prose expresses his determination to allow words no life or poetry of their own but to direct the reader every inch of the way and make him see only and exactly what Tolstoy saw. He was, Crankshaw agrees with Orwell, of bad character. As a human being, Tolstoy was a failure.

The inevitable question:

Why then should we concern ourselves with him? Because of his art, because of the novels he wrote before he tried to become a prophet. "His greatness lay elsewhere. Everyone knows about that. It blazes across a century of human suffering; a signal of hope, a fixed point of orientation, a monument to a man who refused to take any stock in what seems hope to most of us, a celebration of life by a man who turned his back on it."

Martin Green comments: "The liberal humanist, the man of culture, shows himself challenged in his own identity by Tolstoy—he shudders at the sudden breadth of a phenomenon beyond the management of intelligence, beyond the scope of taste."

There are two ways to respond to the usual objections to the weaknesses or contradictions in Tolstoy's life. One is to say—quite rightly—that they hardly matter; that we shouldn't snipe at a great man who has given us so much. Hearn says exactly this with great effect, and in an essay on Tolstoy late last year (*Saturday Review*, Oct. 28) Norman Cousins tells why critics pick at him, but then echoes Hearn. Among the offenses were his calling "for renunciation from worldly goods and pleasures without quite being able to serve as an exemplar of his own teachings," and being "a self-professed ascetic who could savor the luxuries of aristocracy."

So there were indeed inconsistencies, and not quite the sort defended by Emerson. Mr. Cousins has this to say:

Nothing is easier than to try to destroy a man because of his inconsistencies. Jefferson, author of the Declaration of Independence, is inconsistent with Jefferson the slaveholder. Abraham Lincoln was never beset by greater doubts than when he issued the Emancipation Proclamation. Some of Gandhi's closest friends were multi-millionaires. And Gandhi looked the other way when Nehru found himself forced to use violence in Kashmir. Albert Schweitzer showed little interest in training a black doctor to be his successor in his African jungle hospital. Yet what is truly significant is not the ambivalences or inconsistencies of these men but the fact that their words and ideas had a life of their own, transcending the human weaknesses of their authors and providing the moral energy that other human beings—including those with the same contradictions in their souls—could translate into social progress. . . .

The fact of paradoxes and inconsistencies is not what is most important in any evaluation of Tolstoy and his work. What is important is that he had a vision of true nobility—not the nobility conferred by political or ecclesiastical authority but the nobility conferred by human decency and acceptance of moral responsibility. Through the magic of his words he brought sensitivities to life that helped shape the contours of human thought in millions of people everywhere. His words were sublime in a way that gave a vision of what human beings might achieve or become.

So, whether or not Gandhi actually "looked away" when Nehru resorted to arms, or Lincoln doubted the wisdom of the Emancipation Proclamation, or Schweitzer was uninterested in a black medical successor—and all these questions might bear looking into for subtleties critics have overlooked—we are not relieved of the responsibility of listening attentively to the words of great men, nor excused from the hard path of emulation because they were imperfect examples. That seems to be Mr. Cousin's point.

But there is another sentence in this brief essay that should be examined: "If people come to life in their paradoxes, then Tolstoy enjoyed a triumphant existence." It raises the question: If

not just Tolstoy, but all of us, come to life in our paradoxes, our psychological health might be greatly improved by better understanding of this situation. Why are our lives so filled with contradictions and inconsistencies? Why are our ideals so frequently beyond our reach?

At issue, one could say, is the Platonic doctrine that a perfect correspondence between idea and act is not possible on earth. It is the nature of man to dream visions and strive to fulfill them, but it is the nature of our circumstances and embodied condition to limit what we attempt. Only poor approximations are possible, and even these are difficult to attain. This may be the reason why, traditionally, humans have deified their greatest men, the ones who seemed to come close to accomplishing the impossible. Who but gods could be so capable? This, we may recall, was the Grand Inquisitor's argument in confrontation with Jesus: "I ask again," the old man said, "are there many like thee?"

In modern language, Tolstoy's critics have been saying something similar: "You expect people to behave like little Jesuses, and you can't even do it yourself!"

Tolstoy lost practically all his quarrels with the world. The nations would not make peace. Educators were not interested in making students the equals of their teachers. The simple life did not attract people busy pursuing "progress" and their own idea of a good time. And since we believe in majority rule, even our ways of thinking have been shaped by various orthodoxies, including the scientific one against which Tolstoy struggled in vain.

But one should look at the other side of the ledger. If we rewrite Tolstoy, taking from him only his exciting novels and stories, ignoring his "fanatical" moral demands, then what do our orthodoxies become? Even in his day Tolstoy thought they were systems of mind-control, and this is confirmed for us by an effective modern critic of conventional psychological doctrines.

Writing in the *Harvard Educational Review* (Fall, 1968), A. H. Maslow said:

Classical academic psychology has no systematic place for higher-order elements of the personality such as altruism and dignity, or the search for truth and beauty. You simply do not ask questions about ultimate human values if you are working in an animal lab.

Of course, it is true that the Freudian psychology has confronted these problems of the higher nature of man. But until very recently these have been handled by being very cynical about them, that is to say, by analyzing them away in a pessimistic, reductive manner. Generosity is interpreted as a reaction formation against stinginess, which is deep down and unconscious, and therefore somehow more real. Kindliness tends to be seen as a defense mechanism against violence, rage, and the tendency to murder. It is as if we cannot take at face value any of the deficiencies we value in ourselves, certainly what I value in myself, what I try to be.

Maslow was a psychologist who spent all his life trying to show the reality of the visioning capacity with which Tolstoy was so generously endowed. Ignore the heroic struggle of the man—not even conceding that while he was a failure, he was a *glorious* failure and you have only the dull, unaspiring mediocrity of today's theories of human nature which encourage you never to look up! Maslow continues his argument:

It is perfectly true that we do have anger and hate, and yet there are other impulses that we are beginning to learn about which might be called the higher needs of man: "needs" for the intrinsic and ultimate values of goodness and truth and beauty and perfection and justice and order. They are there, they exist, and any attempt to explain them *away* seems to me to be very foolish. I once searched through the Freudian literature on the feeling of love, of wanting love, but especially of giving love. Freud has been called the philosopher of love, yet the Freudian literature contains nothing but the pathology of love, and also a kind of derogatory explaining-away of the finding that people do love each other, as if it could be only an illusion. Something similar is true of mystical or oceanic experiences: Freud analyzes them *away*.

This hiding from view of the subjective or moral excellences in human life is a basic tendency of the scientific method, done in the name of objectivity. Its defense is quite familiar: Human beings are bundles of inconsistencies; not only Tolstoy was inconsistent; we all are. So, if we are going to obtain impartial knowledge about the world, we must get rid of the human element. We must keep out of our theories anything resembling human hopes and fears. Eventually, when we get all our knowledge together, we'll be in a position to take a look at people and see what we can do to straighten them out and fit them in. But meanwhile, don't tell us what you think and feel—we have no time for such distractions. So Tolstoy, whose unceasing determination was to make sense out of his life, decided that the scientists were no help at all. As he said in *My Confession*:

"What is the meaning of my life?" . . .

I received an endless quantity of exact answers about what I did not ask: about the chemical composition of the stars about the movement of the sun toward the constellation of Hercules, about the origin of species and man, about the forms of infinitely small, imponderable particles of ether; but the answer in this sphere of knowledge to my question what the meaning of my life was, was always: "*You* are what you call your life; you are a temporal, accidental conglomeration of particles. . . ."

With such an answer it appears that the answer is not a reply to the question. I want to know the meaning of my life, but the fact that it is a particle of the infinite not only gives it no meaning, but even destroys every possible meaning.

This is the man of whom Bertrand Russell said it was a pity that he had "so little power of reasoning." He did not, that is, think as Russell did, and perhaps we should be thankful for that. Tolstoy's point, in defiance of the intellectual establishment of his time, was that one *must* find a meaning for one's life, and having formed a view, begin to live by it. It is as John Schaar says of great men:

They *are* their views. We have views. . . . We did not create them. . . . Great actors of course also take some of their views from others. . . . But once the idea or vision is forged or assimilated, it is held in a certain way. The actor does not have or possess the idea, rather, he is possessed by it. He lives his views.

This was Tolstoy's cross, a heavy one to carry since his views demanded so much. If he had not tried so hard, he would have been more like the rest of us, and his "inconsistencies" would not have become notorious. (Ours don't.) He would not have insisted on his vision against the leading opinion-makers of his time and given offense to so many.

Mr. Schaar's analysis helps us to understand the intensity of Tolstoy's convictions, if not to agree with them:

We do not appreciate that great actors earn their knowledge the hard way—by asking questions and living the answers—while we earn ours the easy way—by borrowing from others, and by waiting until the case is closed, the action finished, before pronouncing on it.

A passage on heroic thinking applies directly to Tolstoy:

Very many great actors think in mythic terms. They are possessed by a myth, they act within it, they see it as more real than the world others call real. We, of course, think ourselves beyond myth: we are cool, intelligent. We know the difference between myth and reality. . . . We can only see others' myths, not our own. And, finally, we cannot see that an element of the mythic mentality is probably necessary for action, because we never know—in the meaning we ordinarily give that term—enough to secure a successful outcome.

Tolstoy was a man who did his best to live by his myth, and the contrast between his vision and his failures made him the target of endless criticism.

But what does it mean to live by a myth instead of according to the scientific view of the universe? Well, Tolstoy would have said that he refused to live in a world which acknowledged no rule except mechanistic necessity. At any rate, he declared for living in a universe of moral

necessity. He found it extremely difficult, but what if he was nonetheless right?

Let us state a case for his position, one that relies solely on the subjective value of making sense. If we grant that each man's life is a drama—the living out of a myth—then whatever the constitution of the world and the laws of physics, chemistry, and biology, that world is but the theater of our drama. It supplies the scenery and props but does not give the plot: We write it. We write it, not out of certain knowledge of ourselves and the world—the world whose life is so interwoven with ours—but from partial knowledge of both, and a knowledge which undoubtedly includes misconceptions and errors, great and small. That is the human situation, and will go on being the human situation, long enough to amount to "forever," so far as we are presently concerned.

Our knowledge of the world—which means our "science"—is of course of great importance. We have houses to build, children to feed, places to go, for good or bad reasons. All this involves science. We also have culture to evolve and consolidate. What is culture? It is the elaboration of the sense of meaning we have for our lives. It is the limping of relationships between the world of practical necessity and the world of transcendent meanings—the fruit of our attempt to establish a harmony between the two while getting our priorities right. If there is some science for doing this, it must be called "metaphysics," an unpopular word, so let us say simply, "philosophy of life," even if lack of rigor and large amounts of wishful thinking commonly afflict "philosophies of life" undisciplined by metaphysics. The point is that we need and have to have a philosophy of life.

What is our life? Well, it is a passage in and through the world, each one either a little or very different from all the others. We do not experience the universe all at once (except, perhaps, for those who attain to mystical ecstasy), but only small portions of it, and our

circumstances constantly change, so we make do with what science we have (the available know-how), and get on with the drama as well as we can. Our important decisions are all moral, and these are best understood in mythic terms. The myth is concerned with who we are, where we are going, what we have been and what we may become. We have intuitions, feelings, longings about these matters. We would hardly be alive as human beings without them. They are not enough, but are what we've got.

There are also a lot of resistances, obstacles, frustrations, and opacities in the world around us, and in ourselves. The resistances, one could say, represent the project—the raw material of life. We have the world—are in it, whether we like it or not; and we have our vision, or dream, our myth of concern—whether or not we have worked it out well or poorly—and we cope. There isn't anything else to do.

How shall we look at all this? A modern cliché serves quite well. We call it all a "learning experience." Is there a better way to characterize our lives? Can the whole of human culture be understood in any other terms? What for example is tragedy—classical tragedy? It is the turning of human failure into a learning experience. In tragedy wisdom and only wisdom survives. Human beings are obviously unfinished, incomplete. What besides wisdom could complete them, given all that we know in our hearts?

Tolstoy was a great pursuer of knowledge—as all the biographies attest. But in the middle of life he became convinced that wisdom was the kind of knowledge he sought, and being a "great actor," he sought it with all the strength he possessed. This made the climax of his drama—a drama in which he had to become another sort of protagonist. His life then grew to the dimensions of a tragic life, and *of course* he was guilty of inconsistencies and a whole catalogue of what men devoted to other myths called his "mistakes." But those who try to share something of his vision—and they are "millions," according to one

hopeful guess—may prefer to say that he took up the Promethean mission and suffered the Promethean ill. Have many men who aimed so high done better, or anywhere near as well?

REVIEW

PRESCRIPTION AND PRACTICE

FIFTY years ago Ralph Borsodi published *This Ugly Civilization* as an all-out attack and diatribe against the factory and the factory system. Now reprinted by Porcupine Press (Philadelphia, \$17.50), the book will almost certainly find more enthusiastic readers than those who were able to agree with it in 1929. The book is not just an attack, but also describes a program Borsodi called subsistence homesteading, which, he believed, would send down the roots of a beautiful civilization for the future. His *Flight from the City* (published in 1933) tells about his own activity in this direction, proving for himself and his readers the cultural and practical value of homesteading. *This Ugly Civilization* provides the broad analysis and supporting logic.

Borsodi was an unusual combination of a responsible scholar and a practical pioneer. He was also a dreamer:

If the day ever comes when we devote to the organization of our homes and families the thought and interest which it is now believed should only be devoted to the organization of business, of religion, of education and of politics, we may develop true organic *homestead!*—organic in that they are consciously and with the maximum of intelligence organized to function not only biologically and socially but also economically. We shall then have homes which are economically creative and not merely economically consumptive.

The introduction to this edition, by Robert S. Fogarty (of Antioch College), provides a useful summary:

For Borsodi the factory and its attendant processes was the cancer on the body politic: "Above all this civilization is ugly because of the subtle hypocrisy with which it persuades people to engage in the factory production of creature comforts while improving the conditions which destroy their capacity for enjoying them." Men were slaves to factories—not machines—and it was necessary to understand that the factory "is reducing all men and commodities to a dead level of uniformity . . . ; which encourages wastefulness . . . ; which is responsible for class

antagonism . . . ; which is destroying the skilled craftsman. . . ."

What the factory destroyed was the economic foundations of the home and man's ability to use domestic machinery for his own ends. Instead it stole from each generation its natural birthright and deadened its capacity for creative living. In one passage Borsodi sums up the factories' devastating effect and clearly suggests why his philosophy is so compelling for the latest generation: "By destroying the economic foundations of the home it has robbed men, women and children of their contact with the soil; their intimacy with the growing of animals, birds, vegetables, trees and flowers; their familiarity with the actual making of things, and their capacity for entertaining and educating themselves. If we live in flats and hotels, eat from tin cans and packages, dress ourselves in fabrics and garments the design of which we only remotely influence, and entertain ourselves by looking at movies, baseball and tennis . . . it is due to the fact that we have applied the factory technique, not the machine technique, to sheltering, feeding."

What does Borsodi mean by this last distinction? He means that the factory technique involves organizing human life around the necessities of mass production, in contrast to using machines to improve the productivity of the home. In this respect Borsodi is essentially a Gandhian. He is for machines which free human beings from drudgery and against factories which turn men into machine-tenders. The second chapter of this book, had it been written today, would doubtless have been titled "Appropriate Technology."

It is the factory, not the machine, which has transformed man from a self-helpful into a self-helpless individual, which has changed mankind from a race of participators in life to a race of spectators of it. . . . Finally, it is the factory, not the machine, which is responsible for the extension of the soul-deadening repetitive labor that is the greatest curse of this civilization. Not only are the natural-born robots of the nation condemned to perform the same identical operation hour after hour and day after day, but those who are capable of creative work in the crafts and arts and the professions are forced to conform to repetitive cycles because the factory leaves open no field in which they may exercise their talents and live. In some cases it entirely destroys the market

for their services; in others, it limits the market to a small part of what it should be in a great civilization. We have a great market only for the mass-producers of culture—for mass-art: rotogravure; for mass-literature: newspapers and magazines; for mass drama: movies. This is the ugliest crime of which the factory, not the machine, is guilty. Accepting the democratic dogma that the individual, no matter how gifted, must be subordinate to the welfare of the mass, mankind is forgetting that the destruction of conditions which make it possible to impose their tastes upon society means the destruction of any really desirable way of life for all the race.

Although the expression "impose their tastes" seems an unhappy choice of words, Borsodi's meaning is clear: The deadly uniformities of mass production shut out the expression of individual taste and the delighting variety of craftsmanship. Culture is systematically attacked by the necessities of the factory system:

. . . the factory influence upon the products we consume is responsible for the fact that goods have now to be designed for sale rather than for use. The factory's products are designed to be made as cheaply as possible instead of as finely as possible. The real objective of the factory is not to make goods, but to sell enough so as to maintain the volume of production on which its profits are dependent. . . . The salesman and the advertising man thus tend to usurp the functions of the designer and the maker. The vulgar taste is imposed upon the actual design of the product. This tends to restrict the scope of the designer. Instead of the designer being given full opportunity to educate the public to standards which intimate study of the factory-made product would enable him to evolve, he is forced to create on the plane which may be called the least common denominator of the taste of the consumers of his product.

We should remember, in considering what Borsodi says, that he was more than a theorist. He worked in New York as an economist, but he bought a piece of land in Suffern, New York, put down a well, built himself a stone house, planted a vegetable garden, and devised various gadgets to reduce the labor around the home. Mrs. Borsodi wove her own cloth and designed and made her own clothes. Between them they created an ideal environment for bringing up their children.

Borsodi kept books on all these domestic operations in order to show how home production cost no more or less than store-bought food and goods. It was less when transport of factory-made items or packaged foods raised expenses above the level of home production.

Borsodi claimed that people didn't *have* to live in cities—that there was enough arable land even in crowded New York State for all the workers to have real homes—"land enough to furnish each family in the state with gardens, orchards, yards for vegetables, for fruits, for chickens, for pigs, for goats." He is especially eloquent on what the factory system does to our children:

It is a pathetic commentary upon the pass to which the factory has brought us, that modern pedagogy has had to discover the crippling effect upon the mind of this ignorance about the production of the goods we consume. The progressive schools furnish our children a substitute education for the direct education which the factory has taken from them. They grind grain so that their pupils may know something about the flour and cereals they eat; they make paper, spin yarn, weave rugs and cloth, work in wood and iron all in order that their pupils may have some understanding of the myriad of things which the factory sets before them and about the production of which they would know absolutely nothing. The factory having cheated the children of the factory age of any normal education in the crafts, the school is stepping into the breach and trying to reintegrate their personalities with a school-made substitute.

The book is filled with fundamental verities like the following:

We cannot equip ourselves psychologically for life if we secure our knowledge of it vicariously from books, plays and pictures. No school, no pedagogic system nor textbook can take the place of seeing, hearing, touching tasting, smelling and feeling for ourselves. Vicarious experience may illuminate personal experience, but it cannot act as a substitute for it. Only by a sufficient amount of personal experience can we acquire the psychological mastery of ourselves and the emotional training which is essential. . . .

But since our conception of work in this factory-dominated civilization is confined to activities which enable us to earn money, conventional education warps our entire framework of thought in a most unholy fashion. It implants a set of values in us during childhood in which acquisition is exalted and sensitivity blunted. We emerge from our schooling fully convinced that the problem of how to live and what to think about life is nothing more nor less than the problem of becoming successful—of wresting enough things from nature or our fellow men to gratify our needs and desires.

Obviously, back in 1929 Borsodi knew a great deal about what the best writers of our time are talking about today. He saw and added up the price of industrialization in terms of its cultural consequences and did the only thing then possible for a man to do: He set an individual example of what ought to be done by all.

Read *Flight from the City* (Harper paperback) first, then get *This Ugly Civilization*. Borsodi was a man able to act on his own prescriptions.

COMMENTARY

TOLSTOY ON COMMUNITY

GANDHI, Tolstoy, Borsodi, Schumacher—they were all communitarians, and the idea of community now seems the only solution for the troubles and mistakes of the modern world to an increasing number of people. We may not know everything, they say, but the community scale of living would prevent a great many of the evils that now seem inescapable. In community people can at least live with their mistakes and are able to make necessary corrections in what they do. In a great modern state, people are practically powerless, while in community they have some control over their lives.

Other arguments may be even more persuasive. A reader who knows something of the history of community experiments and achievements has spent some time with the members of the Hutterian Society of Brothers, which has a settlement at Rifton, New York. He summarizes his impressions:

Here we found a microcosm of what the world might be. There is no unemployment, no crime or delinquency, no trade deficits, no divorce, no fear, no feeling of insecurity, no alcoholism; in fact none of the ills from which the larger world society suffers.

If the energies and dreams of a thousand people can be successful and joyously directed toward cooperative and creative ends, why not a hundred thousand?

An interesting if somewhat oblique comment on the community movement is found in the writings of Tolstoy, who greatly admired the community efforts founded in his name, yet never joined a community. After praising one such group, he said in a letter to a friend:

One thing, however, displeases me: some of them say and think that there is no other life for a Christian to follow than their own and that in any other mode of life—yours and mine for instance—one is engaged in "cannibalism," that is to say, in the exploitation of others. All the same, there is something good in this affirmation; it reminds us of

our continual sin, which we are too often inclined to forget.

Elsewhere (in his "Intimate Diary") Tolstoy was more extreme:

To withdraw into a community, to live this community life, to preserve it in a certain innocence—all this is a sin, an error! One cannot purify oneself alone or even in a small company. If one wishes to purify oneself, it must be done with others without separating oneself from the rest of the world. It is like wanting to clean a place by working at the edges where it is already clean. No! He who seeks to do good work must plunge right into the mire. At least if he is already in it, he must not think that he should escape from it.

Yet Tolstoy was delighted by the manifestations of the community spirit in Russia. His point, as Henri Lassere observes, was that "Communities cannot escape their share of collective responsibility for the crimes of the existing social order." The community "must look to the welfare and emancipation of all men."

In other words, the paradox remains unresolved. Some communities keep this ideal always before them, and they are probably the best of all.

CHILDREN

. . . and Ourselves

UNEARTHLY REALITY

HERE is more from the astronomer's autobiography we quoted a few weeks ago—more on the Latin teacher in a Denver high school (Ralph Putnam) who, along with tenses and declensions, taught his students what to put in the place of their "crumbling beliefs in personalities."

While men might be shams, we need be neither disillusioned nor disenchanted with life. With numerous illustrations from the classics, he showed us the power of ideals and principles. He introduced us to heroes worthy of emulation, saying that they probably didn't do any of those things attributed to them, but that it didn't matter. The fact that men can visualize and honor such deeds is what matters. The hero may not have been real as a historical figure but he was and is real as a carrier of the ideals and principles of mankind. That perfection does not exist, and may never exist, is not what is important. What is important is our ability to conceive of perfection and be inspired to pursue it. The world taken as it is may depress us; then in a fit of what's-the-use, we may fall in with it. But if we can see beyond the corruption and degeneracy of the world as it is to the world as it *ought* to be, and as we have the power to make it, then life always remains worth living.

Headly stuff for teenagers? Not at all. Putnam was speaking to the unbattle-scarred idealist alive in every teenager. He was telling it "like it was" while reminding us that there was another side to the coin.

This teacher was good at bull-detection. He had worked in Washington, D.C., as a lawyer and out of this experience he helped the students to recognize blarney, pretension, and fraud. He helped them to move their hungering for trust from tawdry personalities of national eminence to the very ideals that were being betrayed.

What is the case for attempting this?

The case is strong but seldom stated. The weighty cultural influences of the time are all in the opposite direction. Take image politics. Even serious journalists, quite talented ones, are

continually sketching portraits of politicians—repeating their declarations and claims, describing their foibles, telling what their wives and children (or husbands and children) are like—as though we really had to know all this—as if, forsooth, politicians are the hope of the world! The writers don't say they're the hope of the world, but who else could lay claim to so much attention?

Then come the exposés—the books of the Watergate variety. Our leaders turn out to be mostly fall guys for journalistic sensation-mongers. All this filters down to the young, easily displacing pallid courses in civic affairs.

What antidotes are there? Well, a reading of the *Federalist Papers* might help, and then, for studies of another age, *Plutarch's Lives*. But this is strong medicine for a teenager. And after all, corruption in government is not a pedagogic problem but a situation made and tolerated by the adult world. For broad and searching diagnosis, we can think of no better text than John Schaar's "Reflections on Authority," which appeared in No. 8 of *New American Review* for January, 1970. His discussion is long, detailed, and often profound, but the essential conclusion is brief and quotable:

Modern man has determined to live without collective ideals and disciplines and thus without obedience to and reliance upon the authorities that embody, defend, and replenish *those* ideals. The work of dissolution is almost complete, and men now appear ready to attempt a life built upon no other ideal than happiness: comfort and self-expression. All ideals are suspect, all other straits and disciplines seen as snares and stupidities, all collective commitments nothing but self-imprisonments.

Teachers, especially teachers with agile critical faculties, need to be very careful not to become half-conscious collaborators in this disaster. It is so easy to expose and condemn, and so difficult to point to the ground for trust.

What is the case for trust? We think of one simple example. If you go into a store, not with a need but a problem, and the clerk or owner gets involved in helping you solve your problem—

which may mean not selling you anything—you go away from that place with some trust restored in human beings. The example can be multiplied—the friendly nurse, the smiling motorman, almost anyone who spontaneously shows non-acquisitive concern—with people like that all around, what a pleasant life we would all lead! The point is to note that these experiences are in areas where power is not relevant or at issue. For trust to prosper, we need to enlarge those areas, and give as little nourishment to power relationships as we can. For another thing, we could stop reading and talking about the people who rely on image politics. They ignore principle and impoverish our lives and the lives of our children.

Another part of the case for trust lies in the morally neutral region of mathematics. Mathematics is the study or science of abstract relationships—actually, perfect relationships, which are of course nonexistent on earth. In science and engineering, we make-believe that the relationships of the world are perfect, using mathematics; and when we go out into the world with our figures to build something, we make the necessary adjustments on the spot. The world is filled with flaws from a mathematical or ideal point of view, but this doesn't stop us from using the figures. There is no other way to make things work even tolerably well.

The parallel we are seeking is suggested in a paragraph from Jack Gibb's book, *Trust* (sent to us by a reader):

As trust ebbs, we are less open with each other, less interdependent, less interbeing—not into each other in deep and meaningful ways; we look for strategies in dealing with each other, we seek help from others; or we look for protection in rules, norms, contracts, and the law. My defenses are raised by fear that I do not or cannot trust you. The ebbing of trust and the growth of fear are the beginning of alienation, loneliness and hostility. In a very real sense, we can say that trust level is the thermometer of individual and group health. With it, we function naturally and directly. Without it, we need constraints, supports, leaders, managers, teachers,

interveners, and we surrender ourselves and our lives for guidance, management and manipulation.

Jack Gibb's list of the things that happen when trust is diminished or lost seems like an account of practically all our major psychological ills.

What circumstances foster trust? This is an underlying point in Schumacher's *Small Is Beautiful*: When social arrangements are on a human scale, people don't need to suppress the impulse to trust. In face-to-face relationships, we can and do trust one another.

The fact is that people for the most part live in terms of their hopes, which are personal ideals. We continually idealize ourselves and others. We can't help it. We have a faculty of imagination that makes us think in terms of the ideal, just as engineering insists on mathematical precision. (A teacher who holds up the ideal of perfect accomplishment gets better work from students.)

What about all the contradictions and disappointments? Well, to have and clarify ideals is not to be ignorant of the imperfection and evil in the world. We say *ideal* to suggest a contrasting condition. And the realization of an ideal under adverse conditions provides us with the meaning of the word "hero." The human culture which grows out of a rich heroic literature—if kept alive—is probably the best that humans can achieve.

Without a heroic literature, what do we get? Well, one thing we get is a literature which includes Camus' *The Stranger*, Kafka's *The Trial*, and Beckett's *Waiting for Godot*.

FRONTIERS

Causes Obscure, Effects Evident

THE difficulties in the way measuring the effects of technological innovation on human well-being were described by Harvey Brooks and Raymond Bowers in the *Scientific American* for February, 1970. Three of their illustrations suffice to convince the reader that there are practically unsolvable problems:

For example, the number of television sets in the U.S. rose from 100,000 in 1948 to a million a year later and 50 million a decade later. The social and psychological consequences of such an explosion are hard to contemplate, let alone predict.

The history of asbestos demonstrates the effects of scale in one of its most insidious forms. Asbestos is so diversely useful that it has found its way into every automobile, train, airplane, factory and home and thence into human lungs, where, remaining as indestructible as it is in nature, it can cause grave disease. So also with the proliferation of automobiles: as recently as 1958 an authoritative book on the consequences of the automobile failed to mention atmospheric pollution.

The measured conclusion of these writers:

The achievement of a better system for assessing technology faces major obstacles. The society is ill-equipped to handle conflicting interests. It does not know how to value in a quantitative way such goals as a clean environment and the preservation of future choices. Analytical tools are primitive, and crucial knowledge is often missing.

Two editors of *Environment*, Christopher Hohenemser and Robert W. Cates, in the September issue, began an attempt to assemble and improve these "analytical tools," presenting articles on the hazards of the environment and methods of hazard control. The threats to life and wellbeing from the natural environment, they show, are comparatively unimportant and fairly well under control. Technology-caused hazards, on the other hand, are largely unpredictable and growing. Effort to reduce or control these hazards, the *Environment* writers say, has led to "an immense and growing bureaucracy, a series of

seemingly irresolvable political battles, and an interplay between science and values that often confounds rational discussion."

Much of the *Environment* article is devoted to explanation of the method of analysis the writers use, which can hardly be summarized. Here we give their broad conclusions:

Taking the place of the ancient hazards of flood, pestilence, and disease are new and often unsuspected hazards predominantly rooted in technology. These hazards now have an impact as large or larger than the natural hazards. As concrete examples of the cost of technological hazards and their management, consider that the United States currently spends \$40.6 billion per year or 2.1 per cent of its GNP on air, land and water pollution, that the cost of automobile accidents is estimated to be \$37 billion, or 1.9 per cent of GNP; and that the death toll alone from technological hazards involves, in our estimate, 20 to 30 per cent of all male deaths and 10 to 20 per cent of all female deaths, and a value in medical costs and lost productivity of \$50 to \$75 billion, or 2.5 to 3.7 per cent of GNP. Overall, expenditures and losses due to technological hazards may be as high as \$200 to \$300 billion, or 10 to 15 per cent of GNP.

As for identification of the causes in particular, the writers remind us of how little is known of chronic diseases, so that the only certainty that can be established is that technology is a contributing cause. On the other hand—

. . . it is . . . clear that widespread release of pollutants in relatively low concentrations are degrading aquatic and terrestrial ecosystems at an unmitigated or even increasing rate. Calculated ratios of man-made to natural fluxes of heavy metals, for example, indicate that natural cycles of mercury, lead, antimony, and selenium are being significantly altered by human activities. . . . This explains, in part, why toxic metal pollution was cited by thirty-five of forty-one states that reported water quality problems to the Environmental Protective Agency in 1976. . . .

Finally, acid rain, resulting from regional deterioration of air quality in areas downwind from urban centers is having a number of effects. One of the most remarkable and potentially hazardous of these is the fact that it apparently results in a complete shift in forest floor mineral cycling processes which may eventually lead to problems with

nutrient availability and metal toxicity, as well as direct damage to leaf tissue.

Thus, for ecosystems, as for human mortality, we observe a change from acute to chronic effects, from easily understood to complex causal structure. Much of what is happening in ecosystems is in fact so incompletely understood that no clearcut directives can flow from scientific work to hazard management. All that science can presently hope to provide are warnings about what may possibly happen.

The article on hazard management is hardly more encouraging. Often, the measures introduced bring new hazards, such as the risk of cancer to children wearing pajamas treated to reduce fire hazard. Then there is the unwillingness of industry to sacrifice profits. The idea of entrusting control to industry is called "fatally flawed because of its inevitable ambivalence between profit maximization and social responsibility."

For those who question this distrust of industry, a *Los Angeles Times* (Oct. 18, 1978) story on conditions in the meat-packing industry might prove upsetting. After recounting several instances of extreme disaster to persons on the job—loss of an eye, burns down to the bone—the writer gives the almost unbelievable facts:

No other industry—not even logging or coal-mining—has a higher incidence of injuries and illnesses than meatpacking. Roughly 35 meat workers out of 100 are hurt on the job or afflicted by an occupational disease each year, compared to the national average of 9.2 for all industry, according to the latest survey by the U.S. Bureau of Labor Statistics. . . . Chemical burns are a growing problem. The industry, in its quest for better sanitation, is using highly caustic cleaning compounds. One spilled drop can leave—to use Upton Sinclair's words—a "spot of horror" on the skin. . . . repetitive motion of deboning hundreds of pieces of meat day after day . . . inflames the tendons in the wrists and hands. Last year, one out of four workers at Wilson Foods Corp.'s boxed-beef plant [Minnesota] developed tendonitis, and more than 25 workers at Wilson's [Iowa] pork plant had surgery for tendonitis.

It begins to be obvious that the scientific-bureaucratic approach to environmental

protection and control is both too little and too late. How long will it be before it is openly admitted that the *scale* of our economic activities has become a formula for self-destruction?