

PHILOSOPHER OF SCIENCE

ALFRED NORTH WHITEHEAD'S popular books—*Science and the Modern World* and *Adventures in Ideas*—are models of insight, balance, and measure in the use of the mind. We may find that, as the years go by, he becomes a better and more lasting guide in the philosophy of science than anyone else—mainly because he never relinquished the sovereignty of the human mind to any external authority. While he took cognizance of fashions and trends in thought, he never submitted to them. He remained a philosopher. He saw the utility of specialties in the pursuit of truth, but pointed out the delusions which result when specialties dictate beyond their competence.

Whitehead devoted his life to clarifying what can be done by science, conceived as an empirical discipline, and to showing in what ways science requires the assistance—or, one might say, the orientation—and value-perceptions—of metaphysics. The disciplined exposition of these views, in his technical books, is certainly beyond the ordinary reader. One would have to join the company of "learned" men and give years to an assimilation of Whitehead's vocabulary to follow his reasoning here, yet even in these books are points of extreme clarity where it seems that the philosopher has made some very simple decisions of great importance. The illumination of these decisions is the task undertaken by Paul F. Schmidt, whose *Perception and Cosmology in Whitehead's Philosophy* (Rutgers University Press, \$9.00) was published last year. We shall make no attempt to "review" this book. It would be pretentious to claim even to have "read" it. Yet there are certain decisive statements which contribute to an understanding of why Whitehead sees the world about us so clearly and so symmetrically.

Whitehead is plainly a thinker rather than a collector or a counter. Science does not lose its empirical virtue, in his view, by dealing with what he calls "thought-objects." Sense perceptions, in themselves, are meaningless. They become the data of science only in union with thought. It is much as Adelbert Ames said many years later concerning perception: "our perceptual awarenesses are not disclosures of what we are looking at but only provide us with a prognosis as to its significance"; and "significance to the individual means importance to him." The sense data isolated as facts are really judgments about potential significances. In Whitehead's words: "So far as physical science is concerned, the facts are thoughts, and thoughts are facts." A definition follows:

"The field of physical science is composed of these primary thoughts (primary in the sense that we can find none more basic), and of thoughts about these thoughts. These primary thoughts are the facts of science, the sense data, the immediate awareness. Their ontological status is a metaphysical problem in Whitehead's terms, a problem outside of science. Science is only concerned with the interrelations of these facts."

Again:

The relations and concepts of the scientific world are abstract; the problem is how they are connected with experience. Logic is the means whereby scientific concepts are derived from perception; a logic of classes building extended bodies from classes of perceptions. The aim of science is to harmonize "our reflective and derivative thoughts with the primary thoughts involved in the immediate apprehension of sense-presentation." Secondly, it aims to systematize the derivative thoughts into scientific theory.

Whitehead's conception of science seems quite immune to the charge of what he himself termed the "fallacy of misplaced concreteness." He is clear on matters to which Polanyi has

devoted chapters in *Personal Knowledge*. For example, from the way science gets into textbooks, one would think that the natural world is as neat and tidy as the scientific abstractions which deal with its phenomena. The world is not like that at all. Yet, as Whitehead says, the descriptive language of science "foists on us exact concepts as though they represented the immediate deliverances of experience." The world of experiences is rough and disordered and a philosophy of natural science must accept as its fundamental problem "the elucidation of the precise connection between this world (the "smooth," tidy world as portrayed in scientific concepts] and the feelings of actual experience." Whitehead says: "My point in this respect is that fragmentary individual experiences are all that we know, and that all speculation must start from these *disiecta membra* as its sole dictum."

One sees that there is no possibility of Whitehead dogmatizing about "physical reality" in the fashion of naïve realists. Nor can he ever show the disdain for "truth" of the positivists, who seem to compensate by devoting themselves very strenuously to less important matters. Whitehead assigns to metaphysics all necessary judgments concerning meaning and value. Science must tell us without prejudice how nature works, but metaphysics—"in Whitehead's meaning of metaphysics as the synthesis of nature and value"—must estimate the worth of a scientific pursuit and also "define the conditions—logical, moral, or æsthetic—which characterize the perceiving consciousness with respect to possible objects appearing to it." Dr. Schmidt makes this summarizing comment:

The close relation of perception and science in Whitehead is revealed when he claims that "science aims at harmonizing our reflective and derivative thoughts with the primary thoughts involved in the immediate apprehension of sense-presentation." These thoughts, primary or secondary, are the so-called material facts which science interprets. The question must surely arise: isn't this a kind of subjective idealism or phenomenism in science? I think it is not, for the reason that Whitehead has

nowhere claimed that reality is constructed out of these thought-objects or that the thought-objects are in some way appearances of real objects. In fact the question was not faced by him at this time. He wanted an empirical foundation for science, and this was one way to obtain it which seems to do justice to science and perception. But the door is left open on the two metaphysical theses of subjective idealism and phenomenism.

Readers acquainted with the issues of modern theoretical physics will value Dr. Schmidt's discussion of Whitehead's analysis of Newtonian and Einsteinian physics. Here we should like to quote a passage directly from Whitehead (but not in this book) to illustrate the breadth and temper of his thought:

Every construction of human intelligence is more special, more limited than was its original aim. Cosmology sets out to be the general system of general ideas applicable to this epoch of the universe. Abstraction is to be made from all subordinate details. Thus there should be one cosmology presiding over many sciences. Unfortunately this ideal has not been realized. . . . The various cosmologies have in various degrees failed to achieve the generality and the clarity at which they aim. They are inadequate, vague, and push special notions beyond the proper limits of their application. For example, Descartes is obviously right, in some sense or other when he says that we have bodies and we have minds, and that they can be studied in some disconnection. It is what we do daily in practical life. This philosophy makes a large generalization which obviously has some important validity. But if you turn it into a final cosmology, errors will creep in. The same is true of other schools of philosophy. They all say something which is importantly true. Some types of philosophy have produced more penetrating cosmologies than other schools. At certain epochs a cosmology may be produced which includes its predecessors and assigns to them their scope of validity. But at length, that cosmology will be found out. Rivals will appear correcting it, and perhaps failing to include some of its general truths.

In this way mankind stumbles on in its task of understanding the world.

One thing seems certain: If a man decides that "understanding the world" is a matter of the first importance, he could hardly find a better guide than Alfred North Whitehead in establishing initial

balances for the use of the senses and the mind. It is difficult to fault Whitehead on any ground of importance, while the practice of his free-ranging intelligence, his careful examination of assumptions, the self-validating character of his thought, and his essential sense of measure and limit have made him an ideal example of philosophical intelligence at work in the field of science.

What might be said in criticism of Whitehead? Very little, to our way of thinking, given that the primary undertaking of man ought to be "understanding the world." Whitehead surely brought this undertaking to a climactic height. There is a sense in which Whitehead accomplished a Platonic emancipation of the philosophy of science from its Aristotelian and Baconian chains. The ground for this view may be seen in Robert E. Cushman's account of Plato's valuation of science (in *Therapeia*, Chapel Hill, 1958):

The Platonic sciences, represented in Book VII of the *Republic*, are abstract and theoretical rather than concrete and applied. The incentive prompting these sciences is hardly distinguishable from interest in truth as such, although they are concerned with specialized provinces of truth. There are indications that Plato regards the sciences as partly inspired by aesthetic concern for perfection of form. Moreover, the sciences, although they afford truth of a certain rank, are instrumental to a yet higher knowledge; for the knowledge which science affords assists the mind to apprehend intelligible Being and, at length, to achieve intellectual intuition of the Good. With Francis Bacon, on the contrary, the motivation of "natural philosophy" is application. His interest is one of control and exploitation of physical nature for man's comfort and convenience. Science has no such limited purpose for Plato. Applied sciences he described in the *Republic* as rather vulgar and "mechanical." In the *Philebus*, he takes a more favorable view; however, he still rates the applied sciences below the theoretical and these, in turn, are subordinate to dialectic, which aims at intelligible and immutable Being. The justification of the pure sciences is not the measurement of land, exact accounting in business, the prediction of eclipses, or calculation necessary for navigation and construction. These purposes the sciences may indeed serve. But the true aim of the sciences is, principally, to

habituate the mind to the use of pure thought and to "convert" the soul from the world of generation to that of essence. Anomalous as it may appear to our modern viewpoint, the justification of the sciences is, for Plato, their serviceability for moral and spiritual ends. Pursuit of them facilitates apprehension of ultimate reality. By that "measure" men and cities might conceivably govern themselves in righteousness. In the case of both Bacon and Plato the sciences possess utility; but their conceptions of utility are quite different. Nevertheless, in both instances, the scientific purpose is controlled by a judgment of value and of purpose. It is a decision about the "good" which engenders the sciences and justifies their existence.

It is pre-eminently clear that the study of science served Platonic purposes for Whitehead. It certainly habituated his mind to "pure thought." The rigor of his thinking, growing out of the discipline of mathematics, has immediate appeal to the same quality in other minds. And in him, as in other distinguished scientific thinkers, one finds the efflorescences of intellectual and moral excellence which, until Hiroshima, had for many of the young refurbished the conventional image of the "hero."

Well, what is wrong with having the scientific "searcher after truth" as a symbol of ideal man?

Nothing is wrong with it, so far as it goes. It served education and various forms of social aspiration effectively for several generations; but with the uses that came to theoretical physics with the discovery of nuclear fission—when physicists, as Robert Oppenheimer said, "knew sin"—the shortcomings of *abstract, formal knowledge* about the forces and dynamics of the external world began to be apparent. It then became crucial to recognize that knowledge of that world is *not enough*. A further effect of concentration on the abstractions of science was the creation of an intellectual elite whose feelings about moral responsibility seem almost a matter of chance, yet whose powers have generated an experts-and-passive-masses civilization which recalls past ages of childlike servility. As Cyril Connolly put it, speaking for our times: "I have a scientific attitude

toward magic, but a magical attitude toward science."

The point we are getting to is that a truly popular scientific culture does not exist, and probably cannot exist, unless you count, say, the *Popular Mechanics* audience as a form of scientific culture, and this is not what we mean by culture, here.

We are suggesting that the very nature of scientific theory, carried to the levels of abstraction which modern physics has achieved, and requires of its students, makes its popular understanding impossible. One can admit that all advanced knowledge demands hard discipline and a special sort of intellectual clarity, but still point to the fact that there is something basically wrong with a sort of advanced knowledge which, when put to use, makes democracy impossible and becomes a technological sword of Damocles hanging over the heads of all mankind.

It was Plato's view that the merely scientific canon of truth is too limited in its scope. Exclusive focus on the world "out there," and on a mathematics concerned only with natural phenomena, he maintained, could lead men to blindness of soul. Much argument supporting this view has been accumulating for the past hundred years. The testimony first came from artists, poets, and writers—from men like Amiel, Heine, Tolstoy, from Carlyle, Emerson, and Thoreau; and now it is coming from all thoughtful men, from even scientists themselves, one of whom, Barry Commoner, said recently: "the technical content of the issues of the modern world shields them from moral judgment."

Well, why didn't Whitehead ever say anything like that? Why didn't he tell people: It is just as important to ask who or what you are, as to seek understanding of what you see—the world out there.

One answer might be: Whitehead brought to completion a past cycle of the constructive activity of the human mind; he was not

inaugurating a new one. Or, you could say that this question, while implicit in the way he approached the problems of science, could not really come out as a strong and compelling idea during the age in which he flourished.

Today, the common sense of asking about the self—about what is inside the human being; about the intelligence which wants to know about the external world—is becoming overwhelmingly manifest. Because of the mediocrity of the scientific establishment—this is not a criticism of science, *per se*, but of its enormous expansion and bureaucratization; *all* establishments are diluted by mediocrity—and its comparative failure to follow up the leads of pioneers who have been urging such questioning for a generation, the vacuum of the inner life of modern man has led to the mushrooming of vulgar cults which cheapen the idea of self-knowledge simply by talking about it. Because science is difficult, and not about the self, the impression has been allowed to spread that knowledge about the self is easy to get. You just "feel" it. One hears the claim that since intellectuality often erects barriers to self-knowledge, the thing to do is to turn against the mind, or "blow" it with drugs.

Yet all serious tradition concerned with the pursuit of self-knowledge speaks of the disciplines required, with the same emphasis on independent cognition as one finds, today, in treatises on scientific method, but also with clear identification of the fundamentally *ethical* character of such knowledge. The purity of this tradition seems to vary inversely with the emphasis given to its institutional forms. The more "organization," the less reliable the counsels and directions for "research." You can start almost anywhere in the investigation of this tradition—with the *Bhagavad-Gita* and the *Upanishads*, with Plato and Plotinus, or with later expressions consistent with these sources. The only *caveat* that seems in order is that one probably ought to expect self-discovery to be at least as difficult as scientific discovery, but far more requiring of what the

Greeks spoke of as "virtue." It is the *virtue* in self-knowledge which preserves its simplicity and guards truth against the arrogance of an intellectual élite.

A great deal is said today in criticism of the "knowledge industry." Humanists are appalled at the technologizing of education, and even of scholarship and literary criticism. These Humanists insist—and they are right—that knowledge is not a business. Knowledge is answerable only to itself, and not to some kind of "client." The same fundamental attitude applies to self-knowledge. It is very easy to show by historical analysis that the modern preoccupation of men of active mind with the external world, in what we call "secular" pursuits, came in direct reaction, tired and angry reaction, to a thousand years of experience of the self-knowledge-industry of organized religion. It is probably natural, now, for disturbed and uneasy people who realize that salvation will not come from the purchase of electronic gadgets to look about, anxiously, for a line of psychological or even "philosophical" gadgets to buy instead. We may have learned to disbelieve the materialistic dream, but we still have all its habits. The difficulty, now, will be to be sure that we do not mistake a change in denomination for a change in heart. Truth at a price cannot possibly be an honest product. Truth is not a transferable product. It is not, indeed, a product. Only science and technology can offer products. Conceivably, truth is a state of being or an attitude toward becoming. In a society where "the truth" is customarily sold, philosophers have no choice but to take to the streets, and since there are so many people on the streets of a mass society, and so many streets, a philosopher gets pretty hard to find.

He can be known by the fact that a philosopher is a man without a product. It is just as Sartre said: "man is the being through whom nothing comes into the world." That is, no "thing."

REVIEW

THE UNBORN CANADA

THE MODERN CENTURY, by Northrop Frye, was apparently intended to be a book about Canada by a Canadian, but Mr. Frye has done something far more important. He has written a book about modern man, and honored Canada by doing it so well. (The book is published by the Canadian branch of Oxford University Press, 1967, \$3.00.) Actually, the author would have found himself ridiculously limited by the subject, "Canadian culture." As he early says:

It is widely believed, or assumed, that Canada's destiny, culturally and historically, finds its fulfillment in being a nation, and that nationality is essential to identity. It seems to me, on the other hand, quite clear that we are moving towards a post-national world, and that Canada has moved further in that direction than most of the smaller nations.

One expects good things of a man who discusses culture in these terms, and many good things are found in this book. Its theme is the humanization of man, partly through dissolution of "national consciousness." The contents are rich and diverse, containing, for example, a musing evaluation of McLuhan which really explains why he is confusing to many readers; there is a splendid passage on modern art which could well appear as a separate monograph with illustrations; and magnificently clear statements on the difference between technological progress and human progress. The book should be owned for these if for no other reasons.

In the discussion of "progress," Mr. Frye combines an artist's insight with the knowledge of a social historian. The following shows how the idea of "progress" became a dominating obsession in the Western mind:

The conception of progress grew up in the nineteenth century around a number of ideas and images. The basis of the conception is the fact that science, in contrast to the arts, develops and advances, with the work of each generation adding to its predecessor. Science bears the practical fruit of technology, and technology has created, in the modern world, a new consciousness of time. . . . the pace of news, with telegraph and submarine cable,

helped to dramatize a sense of the world in visible motion, with every day bringing new scenes and episodes of a passing show. . . . The prestige of the myth of progress developed a number of value-assumptions: the dynamic is better than the static, process is better than product, the organic and vital is better than the mechanical and fixed, and so on. We still have these value-assumptions and no doubt they are useful, though like other assumptions we should be aware that we have them. And yet there was an underlying tendency to alienation in the conception of progress itself. In swift movement we are dependent on a vehicle and not on ourselves, and the proportion of exhilaration to apprehensiveness depends upon whether we are driving it or merely riding in it. All progressive machines turn out to be things ridden in, with an unknown driver.

Whatever is progressive develops a certain autonomy, and the reactions to it consequently divide: some feel that it will bring about vast improvements in life by itself, others are more concerned with the loss of human control over it.

Here, quite obviously, is the nub of the argument about the "two cultures," the key lying in the idea of whether one is a proud, authoritative "driver" or an impotent passenger.

After a discussion of McLuhan, in which the author shows that the uncomfortable feelings produced in a great many readers by McLuhan are due to the deterministic power with which he charges the mass media (what can we do but "submit"?), Mr. Frye makes answer to enthusiasts who claim that technology will "set man free":

Technology cannot of itself bring about an increase in human freedom, for technological developments threaten the structure of society, and society develops a proportionate number of restrictions to contain them. The automobile increases the speed and freedom of individual movement, and thereby brings a proportionate increase in police authority, with its complication of laws and penalties. In proportion as the production of retail goods becomes more efficient, the quality of craftsmanship and design decreases. The aeroplane facilitates travel, and therefore regiments travel: a modern traveler, processed through an immigration shed, might think ruefully of the contrast with Sterne, travelling to France in the eighteenth century, suddenly remembering that Britain was at war with France, and that consequently he would need his

passport. The same principle affects science itself. The notion that science, left to itself, is bound to evolve more and more of the truth about the world is another illusion, for science can never exist outside a society, and that society whether deliberately or unconsciously, directs its course. Still, the importance of keeping science "free," i.e., unconsciously rather than deliberately directed, is immense. In the Soviet Union and increasingly in America as well, science is allowed to develop "freely" so that the political power can hijack its technological by-products. But this means a steady pressure on science to develop in the direction useful to that power: target-knowledge, as the Nazis called it. I am not saying that there are no answers to these questions: I am saying that no improvement in the human situation can take place independently of the human will to improve, and that confidence in automatic or impersonal improvement is always misplaced.

Confidence that other peoples' "machinery" can make good or bring us good goes back pretty far in history. In the fifteenth century, a great many people were persuaded that the purchase of an Indulgence would give them access to the machinery of salvation—free from all guilt and punishment—and Torquemada (in Dostoevsky's tale) worked out a pretty complete ideology for managing medieval society with all the moving parts of this machinery left in the hands of cassocked drivers who knew how to make integral connection with the Prime Mover behind everything.

By the nineteenth century, the locus of power had changed. In 1842, J. A. Etzler published in London an early version of the Good News according to Technology, under the title: *The Paradise within the Reach of All Men, without Labor, by Powers of Nature and Machinery. An Address to all intelligent Men.* Of Etzler, Thoreau wrote:

... his success is in theory, and not in practice, and he feeds our faith rather than contents our understanding. His book wants order, serenity, dignity, everything—. . . How many fine inventions which do not clutter the ground?

Clutter and glut, a timeclock grasp of destiny under the tyranny of a production schedule: these are "side-effects" of technology, even as Friedrich

Juenger explained in *The Failure of Technology* (Regnery) twenty years ago. This is hardly a question of "attack" on technology. The attack is on the delusion that the excellences of the machine can take the place of the excellences of man—make him free from all guilt or punishment. The prophets of technological salvation are as right—or as wrong—as their angry Luddite enemies, both having the same sort of "reason" behind their arguments.

Northrop Frye teaches literature at the University of Toronto. He first attracted wide attention by his book, *Fearful Symmetry: A Study of William Blake*. And the present volume, made up of the Whidden Lectures for 1967, has a Blakean conclusion. It makes reference to figures in literature and the arts in Canada—to people who will not be known to most readers in the United States—but this passage might be the reason for looking them up:

I referred earlier to Grove's *A Search for America*, where the narrator keeps looking for the genuine America buried beneath the America of hustling capitalism which occupies the same place. This buried America is an ideal that emerges in Thoreau, Whitman, and the personality of Lincoln. All nations have such a buried or uncreated ideal, the lost world of the lamb and the child, and no nation has been more preoccupied with it than Canada. The painting of Tom Thomson and Emily Carr, and later of Riopelle and Borduas, is an exploring, probing painting, tearing apart the physical world to see what lies beyond or through it. Canadian literature even at its most articulate, in the poetry of Pratt, with its sense of the corruption at the heart of achievement, or of Nelligan with its sense of unfilled clarity, a reach exceeding the grasp, or in the puzzled and indignant novels of Grove, seems constantly to be trying to understand something that eludes it, frustrated by a sense that there is something to be found that has not been found, something to be heard that the world is too noisy to let us hear. One of the derivations proposed for the word Canada is a Portuguese phrase meaning "nobody here." The etymology of the word Utopia is very similar, and perhaps the real Canada is an ideal with nobody in it. The Canada to which we really do owe loyalty is the Canada we have failed to create. In a year bound to be full of discussions of our identity, I should like to suggest that our identity, like the real identity of all nations, is the one that we have failed to achieve.

COMMENTARY ON HORROR STORIES

IT often happens that the men who say they love peace and want to put an end to war tell the wrong kind of horror stories. Horror stories concerned with death and cruelty have their inevitable effect. They generate emotional reaction. But horror stories also make men feel righteous in that *they*, as they believe and tell themselves, could not possibly do such hideous things. Now this feeling of virtue has its roots in a reality which is by no means predictable. The provocations of righteousness often create an apparently incurable blindness. If our knowledge of psychology gave us full understanding of the dynamics of the moral emotions, instead of information about the mechanisms of involuntary behavior, we might know more about what to do in order to put an end to war.

Yet it is becoming quite clear, today, that the emotion of self-righteousness is a very dangerous force for the peace movement to invoke. This is evident when you consider that the stubbornest obstacle to peace is the uncompromising certainty of righteous men. It is possible to mediate between many sorts of opposing forces, but no one can mediate between righteousness and unrighteousness. No one will try. Every human instinct, every moral tradition, every feeling of moral identity is against it. A man who bargains with his righteousness has no self-respect. He becomes everything we say a man ought not to be.

So, simply on principle, it seems quite foolish to hope for peace through generating a greater self-righteousness in peace-makers. And that is practically all that the horror story, as a technique, can do. This was of course well known to Gandhi. It was a foundation principle of his theory of *Satyagraha* that you never seek to make your opponent feel the force of your moral condemnation. Human beings react constructively only to the moral criticism originating in themselves.

Correct a wise man and he will love you, it says in *Ecclesiastes*. But peacemakers are not dealing with wise men. And if they allow themselves the moral luxury of "correcting" others, it might be said that they prefer their own virtue and righteousness to finding the path to peace. It is of course very difficult to reject evil without condemning evil-doers.

What is wrong with self-righteousness, apart from the fact that it may be misplaced? Well, it creates a fundamentally separative idea of human identity. In practice, it converts a judgment about the evil of war into a metaphysical classification of the men who make it. This classification of men as good and evil takes all moral relativities out of the war situation, and where there are no relativities, there can hardly be change. So, self-righteousness freezes the status quo into a conflict between moral absolutes. What is the infallible formula for irrepressible conflict? A difference of opinion between self-righteous men. You don't negotiate or subdivide your identity. Righteousness *must* survive.

So it is that self-righteousness is a prime cause of war.

But wouldn't giving up self-righteousness mean giving up virtue? And isn't that really loss of identity?

Well, human identity is not virtue. Human identity is potentiality for change. It is the capacity to choose.

It may be said: "But look at the terrible crimes these men are committing! How can you justify such things!"

An important principle enters here. If a man has to work out the calculus of greater and lesser evils in order to feel morally comfortable, himself, he may find himself unable to stop making judgments of other men. Moral judgment of others is like addiction. Once you acquire the habit of basing your own righteousness on it, you can't stop. You are always measuring the degrees of sin in other people and taking a position.

Doing this as an individual may seem all right, because you don't go around punishing people, and you can always change your mind. But this approach to human behavior is behind all the harsh, judgmental, punitive codes of history. It shapes the justification of every national policy, every act of state. It gives the appearance of impartiality, of measured rational decision, to all the "righteous" things men do that lead to war.

Well, what *else* can people do? Don't we have to try to put things right?

These are self-defeating questions. We can't do much of anything about putting an end to war, so long as we talk about it in both righteous and collectivist terms. The problem of war, at root, *is* the problem of self-righteousness. "We" can't do anything to reduce the self-righteousness of other men. We can't even do anything about the self-righteousness of our friends and allies, much less that of our "enemies."

All that we can do, as individuals, is to change the point of our horror stories. There is only one true horror story about war. Its point is that the self-righteousness of organized groups of men *always* explodes in conflict. End of story.

CHILDREN ... and Ourselves BASIC EDUCATION

[This is a talk on Gandhi's Basic Education, given recently to an American women's club by a man who lived for years in India.]

IF we are to understand Mahatma Gandhi's scheme of Basic Education, or *Nai Talim*, we must obtain some idea of the condition of the Indian peasant population of hundreds of millions of poor, hungry and illiterate men, women and children whom he set out to help. His *Nai Talim* was a concept of a Basic Education meant especially for these people. The rich had their schools and many sent their children to England for their schooling, especially for their university studies, though many of the universities of India were not second to the best universities of the West. Bear in mind, then, that this Basic Education was evolved for and fitted to the needs of villagers who lived in a poverty and a want not to be imagined by the average man and woman living in our land of plenty. To the Indian peasant, Western Education is a meaningless phrase. Even were it available to him, he could not profit by it.

His values are spiritual values prompted by the simple and natural life he leads. Money means nothing to him. He has none. In many outlying districts in the mountains, the old system of barter and exchange still dictates his relationship with his neighbours. Many of these so-called villages, which are but a group of a number of peasants working on the land, are quite isolated. In the village where we lived for four years, many of the men and women had grown from babyhood into their eighties without having ever visited the hill station only eight miles away. Gandhiji realized that what education was to be given these people must be related to their daily needs. The peasant himself has little or no hope of a change of circumstances. Born a poor man, he expects to remain a poor man throughout his life. His duty well fulfilled in this life will afford him better

opportunities when again he returns to earth. It is a limited interpretation of the law of Karma or retribution, but it is his understanding, and it brings him contentment.

Gandhiji's first problem was to find teachers.

"What we need," he said, "is educationists with originality, fired with zeal, who will think out from day to day what they are going to teach their pupils. The Teacher cannot get his knowledge through musty volumes. He has to use his own faculties of observation and thinking, and impart his knowledge to the children through his lips with the help of a craft. And he must love his work."

Gandhiji's plan presaged the presently adopted ideas embodied in the "Peace Corps." The teacher must live with and as the villagers to whom he went. He must enter their lives, study their needs and, by becoming one with them, gradually inspire them and awaken their interests.

"My plan," wrote Gandhiji, "to impart primary education through the medium of village handicrafts like spinning and carding is conceived as the spearhead of a silent social revolution fraught with the most far-reaching consequences. It will provide a healthy and moral basis of relationship between the city and the villages and thus go a long way toward eradicating some of the worst evils of the present social insecurity and poisoned relationship between the castes and classes of rich and poor."

In another place Gandhiji explained: "The old idea was to add handicrafts to the ordinary curriculum of education followed in the schools. That is to say, the craft was to be taken in hand, wholly separate from education. To me that seems a fatal mistake." To illustrate, Gandhiji uses the example of spinning. "Unless I know arithmetic, I cannot report how many cards of yarn I have produced on the spinning wheel or *takli*, or how many standard rounds it will make or what is the count of the yarn that I have spun. I must learn the figures to be able to do so, and I must also learn addition and subtraction, and

multiplication and division. In dealing with complicated sums I shall have use of the symbol and so get my algebra.

"I shall be led to the history of cotton—how and when it was first grown, the states of its development, the cotton grades in the different countries. As I study the country I shall naturally tell the child something about the country's history.

"That will lead me into economics and the elements of agriculture." And he enters the realm of cultivation of cotton, addressing himself to the farmer or gardener. "I shall teach him to know varieties of cotton, in what kind of soil they grow, how to grow them. Thus Takli spinning leads me into the whole history of the East India Company, what brought them here, how they destroyed our spinning industry, how the economic motive that brought them to India led them later to entertaining political aspirations, how it became causative factor in the downfall of the Moghuls and the Marathas in the establishment of the English Raj, and then again the awakening of the masses in our time. There is no end to the educative possibilities of the new scheme."

But education devoid of ethical awakening is dangerous. And Gandhiji laid great stress on the fundamental concepts of Hindu philosophy. Throughout his long life of teaching and social work he never tired of insisting on the two principal pillars of ethical living: Ahimsa and Satyagraha, *i.e.*, Non-violence or harmlessness, and Truth. These he applied to every problem that confronted him. Especially did they serve him in dealing with politicians and statesmen who would keep India in a state of servitude and subjugation.

In Basic Education there were no competitive examinations, no rivalry for good grades and promotion. What a child did judged him for better or for worse. Each became his own examiner. Discernment and right judgment dictated how he would use his power to read and write—neither of which abilities is either good or evil in itself.

To quote Gandhiji's own words:

"Modern education tends to turn our eyes away from the Spirit. The possibilities of the spirit-force therefore do not appeal to us and our eyes become riveted on the evanescent, transitory and material force." And at his public afternoon gathering, two days before his assassination, Gandhiji reiterated his faith in the power of his Basic Education, if properly worked out.

Basic Education is generally interpreted as education through craft. This is true to a certain extent, but this is not the whole truth. The roots of Nai Talim go deeper. It is based on Truth and Non-violence in individual and collective life. Education is that which gives true freedom. Untruth and violence lead to bondage and can have no place in education.

This basic education must be easily available to every one. It is not meant for the well-to-do who live in the cities, but must be within easy reach of the villagers. This education cannot be given through the dry leaves of books. It can be given only through the book of life. It does not need any expenditure in money. It cannot be taken away by force. It can have nothing to do with the teaching of sectarian dogmas or ritual. It teaches the universal truths common to all religions.

The Teachers of Nai Talim can do their work effectively, only if they have faith in truth and non-violence . . . A teacher of Nai Talim must seek to have the qualities of the wise man described by Krishna in the *Bhagavad-Gita*.

FRONTIERS

Paths to "Involvement"

IN a recent copy of *Education Through Art*, published by John Keel of San Francisco State College, we found the following:

What's in a name? A Viet Cong Communist trooper captured near this central coastal town (Qui Nhon) the other day was asked why he had joined the Viet Cong. His answer—freely rendered—"One day a man came to my hut in my hamlet with a list of names. My name was on the list. He said 'We need you in the Viet Cong. Will you work with us?' In all my life nobody had ever used my whole name. Nobody had ever said I was needed, or asked me to do something for the people. So I joined them." (Howard K. Smith in the San Francisco Examiner, Aug. 11, 1967.)

Another item, taken from a recent issue of *Memo*, national bulletin of Women Strike for Peace, helps to explain a particular disenchantment with the war in Vietnam. It tells of a conference called in New York "to underscore the fact that it is the black G.I.'s who are 50 per cent of the dead in Vietnam and who at home receive only 2 per cent of the 'bread'." On this basis, black women were invited to take part in a silent, black-dress, women's march to the top of the Capitol steps last month (Jan. 15)—led by Jeannette Rankin, the first woman ever to be elected to Congress and the only Congressional representative who opposed America's entry to both world wars.

Another useful exchange, the London *Peace News* (Jan. 5), reprints from a New York paper the news that Bob Hope is having trouble with his material—in Vietnam, at any rate, where he has been entertaining the American troops. Hope and his staff are said to be "confused" by the GI's reaction:

"You'd think jibes at demonstrators and draft card burners would get big yucks," a Hope associate was quoted, "but they didn't from the Marines at Da Nang." From this Hope concludes that the servicemen are simply not interested in political

material. Perhaps a different approach may be in order. Mort Sahl or Dick Gregory, perhaps.

Last September, in a speech before the Senate, Sen. Ernest Gruening of Alaska assembled the evidence for condemning the Sept. 3 elections in South Vietnam as fraudulent. There is so much that we can't repeat it here, but in one place the Senator said:

I have reported before . . . that my visits last winter to South Vietnam had convinced me of the truth of the assertions by Thich Nhat Hanh in his book (*Lotus in a Sea of Fire*) and elsewhere: (1) that the overwhelming desire of the Vietnamese people is for peace, and (2) that there is a significant and vital peace movement coalesced around the Buddhist LaBoi and Catholic Song Dao movements. Their position is that it is *only* American military and economic pressure that keeps the Ky-Thieu government in power and the war continuing. Left to themselves, they say, they would form a genuinely representative government that would proceed at once to end the bombing, call for a cease-fire and proceed to peace negotiations for peace with the NLF and the North Vietnamese, and for military withdrawal from the United States.

Later in his speech Sen. Gruening said:

The Washington *Post* expresses the hope that the Government in Saigon "continue to try to advance, rather than retard, some measure of political reform." It warns that without such reforms "the generals should be on notice that our war effort may suffer, in turn, from an erosion of popular support at home."

I agree with that warning but must point out that all signs indicate that the tide of that erosion grows stronger daily. The question may well be asked: "Must American boys continue to die for that Saigon gang?"

Well, I am asking it. More than 13,000 have already been killed in combat and 100,000 wounded, many of them crippled for life—blinded, armless, legless, paralyzed. It is positively disgraceful that we continue to pretend we are instilling democracy down there, and sacrificing our boys wantonly for that illicit purpose.

Up-front editorial paragraphs in the January *Progressive* reproach the President for seeming "to lump his critics together—the hooligans and

the historians, the bloodsmearing, car-rocking, law-breaking vandals and the conscientious citizens constitutionally petitioning their government." The *Progressive* noted that people who disagree with the Chief Executive's policies are called "weak-kneed" and "nervous Nellies," and pointed out that the appeal for the kind of dissent which "helps us win victories" really means "no dissent at all." As the St. Louis *Post-Dispatch* put it, the basic issue is "whether the national objective should be military victory or a diplomatic settlement." This newspaper also said:

One reason for the emotional forms the protest takes is a deep-seated feeling that no other form of expression is listened to. This is closely related to an equally deepseated conviction that the people have been tricked into the Vietnam war.

The editor of the *Christian Science Monitor*, Erwin D. Canham, noted last Dec. 11 (somewhat sententiously):

The President of the United States, who is presumably a candidate for renomination and re-election less than a year from now, had almost to be smuggled into New York City on Dec. 7 when he attended the funeral of Francis Cardinal Spellman. . . . The opponents of United States policy in Vietnam may be a relatively small minority—exact measurement is difficult—but they are capable of mounting very troublesome protests.

Some of those "nervous Nellies," no doubt.

Marriner Eccles, who was Chairman of the Federal Reserve Board under both Roosevelt and Truman, got warm applause from the members of the Commonwealth Club last summer when he asked a few "weak-kneed" questions, such as the following:

How can we reconcile what we are doing to the South Vietnamese under the guise of saving them from Communism? We have destroyed vast areas of their country. We have killed wounded or burned more than one million children, as well as countless parents, brothers, husbands and sons. The family has been smashed. We can only guess at the terrible long-range social effects that will result from our actions. No wonder the majority of the people do not consider us their savior, but hate us and want us to get out of their country.

Toward the end of his address Mr. Eccles said:

It is tragic that the most powerful country in the world, with 6 per cent of its population and 40 per cent of its wealth, should have lost the respect of most of the world. The world with few exceptions, would like us to leave Vietnam. The continued confidence and good relations with Japan, our greatest asset in Asia, is dependent upon our getting out of Vietnam. The same is true with all West European governments and our friends in Latin America. We cannot survive no matter how powerful we are, in a world without friends.

With these disastrous effects on the nation to continue our ruthless pursuit in Vietnam is madness. To withdraw is sanity. . . .

We can never blot out the deed which stands as a testimony of man's inhumanity to man. Nor can we really make amends for the enormity of our crime against these people, who know us not, but whom we have chosen to save from communism.

But we can try. We can make a beginning. And, in conscience, how can that beginning be less than immediate withdrawal of our evil presence, because that is what it has proved to be in the lives of the Vietnamese. And we can humbly, with vigor, and never ceasing, do everything in the power of a rich and repentant nation to heal, and rebuild and reassure.

The Vietnamese will never forget us, and it is to be hoped that we will never forget the Vietnamese. Because it is this Vietnam tragedy which has shown us ourselves as others see us: a nation to be feared instead of loved, flushed with pride and sure of omnipotence. An arrogant nation, not qualified to handle power wisely.

A lot of young men are now in jail for sharing these views. If the arrest of Dr. Spock is a straw in the wind, the young may eventually be joined by older people. Meanwhile, hardly a day goes by when MANAS does not receive in the mail appeals for help from protest and resistance groups. One of these, for example, is the Student Mobilization Committee, 17 East 17th St., New York, N.Y. 10003, which invites its constituency to "pass around a can for contributions, borrow it from your mother, liberate it from a rich uncle, terrorize your professors, sell pencils, but please

take responsibility for seeing that we can make the next few months the biggest success to date for the student anti-war movement." Another group, calling itself *RESIST*, declares that its members "cannot shrink from fulfilling our responsibilities to the youth whom many of us teach, to the country whose freedom we cherish, and to the ancient traditions of religion and philosophy which we strive to preserve in this generation." The address of *Resist* is Room 510, 166 Fifth Ave., New York, N.Y. 10010.