THE HATERS OF METAPHYSICS

THE haters of metaphysics, being human beings, the same as the metaphysicians, are like the metaphysicians in quest of truth. In fact, they also pursue the "ultimate" truth, although they seldom call it that. They want as much of truth as they can get, which is as "ultimate" as anyone can have. The haters of metaphysics are against metaphysics only because they believe that metaphysics gets in the way of discovering the truth that we can have.

There is more to this analysis than the comment, first made by Bradley in *Appearance and Reality*, that the opponent of metaphysics is really another metaphysician with a rival set of first principles. Bradley is certainly right, but not especially persuasive to the anti-metaphysicians. A brief account of a commonplace incident of some twenty years ago may throw another kind of light on the problem.

A young man in search of a copy of Nikolai Lenin's *Empirio-Criticism* went to a bookstore conducted by convinced Marxists, probably Trotskyists. He bought his book, then fell into conversation about the thought of the Marxists. The bookseller spoke lovingly of the Hegelian Dialectic, borrowed and turned on its head by Marx. The customer, familiar with the subject, remarked that the Dialectic was an approach to meaning that had considerable plausibility. The bookseller said quietly, "I think it is very beautiful." The customer, recognizing that he was in the presence of an honest devotion, nodded and went away with his book.

What is the use of telling such a man that metaphysics, although beautiful, is not necessarily "true"? All over the world, these days, people are in the process of discovering the breath-taking beauty of metaphysics. This process has been going on for ages. It is present wherever a man first raises his eyes to the realization that abstract ideas will enable him to obtain a feeling of *order* about experience. This feeling is about the most precious thing a man can possess, especially when it comes to him for the first time.

You encounter this feeling in many ways. If you wanted to make a study of the common garden variety of metaphysicians, it would be a good idea to send for a dozen or so of the books issued by the vanity publishers. Some of these books reveal the messianic drive of the writers. Having found the "good news," they are bound to impart it to others. Almost always, some "principle," or group of "principles," is involved a principle that makes all things plain. An air of puzzlement pervades the writings-puzzlement at the fact that people have somehow ignored the living truth for so long! The puzzlement continues, of course, but it is soon joined by a mournful realization that people are going to continue to ignore the living truth, after the book which contains it has been published.

Sometimes, however, they don't ignore it. If the generalizations are so well put that they don't sound like "metaphysics," but like a fresh discovery of the laws of nature, and if, in their development, they touch the longings and needs of a great number of human beings, then, instead of indifference, you get a movement, and sometimes the movement becomes a great crusade, like the Communist Revolution.

This being the way the process sometimes works, it is easy to see why the haters of metaphysics are led to take a firm position against the use of intellectual abstractions in philosophy. They have no difficulty in pointing out that metaphysical explanations of "reality" or "experience" or "the human situation" often lead to delusions, sometimes producing immeasurable disasters in human affairs. How much better, as Candide said, to cultivate our gardens!

Once this critique of metaphysics is well established, a regular Watch and Ward society develops to keep it down. If some scientist, for example, who has a talent for sustained abstract thinking, and is able, therefore, to put together a new generalization which accomplishes a notable advance in modern physics-if such a scientist dares to proceed from the physical to the metaphysical, and to offer a judgment about the Nature of Things, the Positivists, who are guardians of the anti-metaphysical front in scientific thought, immediately take him apart. It is not permitted that a scientist should have anything to say about "Reality." Reality is a metaphysical notion. For a scientist to become metaphysical is like a soldier going over to the enemy.

What is a man to do with his metaphysical drive, in times like these? Well, he can turn brazen like T. S. Eliot, and join the Anglican Church. He can become an Existentialist and repeat in modern terms, after Tertullian, "I believe because it is absolutely impossible!" He can become a poet of nuance and hide his sense of order behind metaphor, or a poet of rebellion and advance a no-compromise metaphysic of behavior. He can look for some great and all-encompassing principle in the life-process studied by biological science, and come up with "homeostasis," as Cannon did.

He'll find something to do with his metaphysical drive, something either shallow or profound, depending upon the quality of his mind. If he interests himself in politics, he may formulate some doctrine of "crackpot realism" and become an apologist of "unfocused fears and demands." Or he may become the champion of a much higher estimate of the common moral potentialities of mankind and work out an account of the order under which we live, or ought to live, comparable to the idealism of Albert Schweitzer or Linus Pauling. He may go still further and adopt the Gandhian position.

What right have we to call these various positions "metaphysical"? We can call them metaphysical because they involve judgments of the nature of man, of the nature of the world, and the assertion of some kind of moral order. These judgments are the essential stuff of metaphysics.

What is metaphysics, anyway?

Explanation of the idea we have of metaphysics will be helped by recalling the great intellectual controversy of the Middle Ages-the issue between the Realists and the Nominalists. The Realists, as some may remember, were the Platonists, who insisted that the world of reality lies in Plato's archetypal Ideas or Forms. The world of material things, according to this view, is the world of imperfect images, gross reflections or realizations of ideal reality. The Nominalists, on the other hand, contended that the general idea grows out of many particular things of a certain class. They said that there is nothing at all "up there" to be reflected in matter, that the general idea is only a "name," that true reality exists nowhere except in the particular things and that the general idea, of itself, has no substantial being.

This controversy remained unresolved until the time of Peter Abelard, who drove the Realists from their seats of authority in the Medieval universities by pointing out the pantheistic implications of the Realist position, yet salvaged the thought of his time from the barren materialism of the Nominalists by proposing a limited reality for general ideas—these are real, he said, in that they exist in the mind, and this, he implied, is no small thing. Abelard gave the name of Conceptualism to the view he developed to reconcile the opposing camps of the Realists and the Nominalists.

To metaphysics, it seems to us, is to be assigned the same measure of reality that Abelard gave to Conceptual thinking. Metaphysical systems are like mathematical systems—they have an abstract being of their own which may or may not correspond to the as yet unpenetrated realities of nature.

The speculative metaphysician is like the topologist in mathematics. Both are inventors of schemes of orderly relationships governed by rigorous principles. Such systems have an inner consistency, an elegance of design, a harmony of movement, and afford a resolution of conflicting forces. The better the system, the more it seems to apply in various particulars to the world, or to some aspect of the world, as we experience it.

Now and then an invented system of logical or mathematical relationships seems to correspond rather exactly to the world of nature. It is then that the world of men seems to experience a great illumination. This happened when knowledge of the Copernican Theory spread among men of learning in seventeenth-century Europe. Then, a few generations later, when the work of Galileo, Tycho Brahe, Kepler, and Isaac Newton had been added, a feeling of authentic vision dawned upon the Western World. The sense of order these men provided was awe-inspiring. But Copernicus, whether from a caution bred by the fires of the Inquisition, or from a positivistic withdrawal from any assertion about the "real nature" of things, said only that his formulations "saved" the phenomena-that is, they corresponded to the actual motions of the heavenly bodies.

It was a later enthusiasm—by no means scientifically justified—which transformed the mathematical formulas of the founders of modern physics into veritable "laws of nature." The offense is exactly the same as that with which all metaphysicians are charged—mistaking a theory of relationships for the very stuff of nature itself.

What is at issue, here, is the strong—almost irresistible—tendency of the human mind to make explanatory systems that will enclose the diversities of experience. As a matter of fact, this tendency *is* irresistible, and there is no way under heaven that men can be prevented from making mathematical systems to explain the physical world and metaphysical systems to explain man and the physical world. The problem is to avoid bad metaphysics, and to avoid also the delusion that metaphysics is the same as knowledge of "reality," which is worse, if possible, than no metaphysics.

Of course, just talking like this amounts to admission of the Platonic faith, the idea that there is, after all, an Ideal Reality, a *ding an sich*, "out there" or "in here," which, even if we do not perceive it, may perhaps be approximated in certain respects, just as the Copernican theory has been able to approximate certain major aspects of the physical universe.

What, after all, is wrong with the Platonic faith? Why not believe that there are things knowable, but as yet unknown, "out there"? All the good we have gained from human experience has been derived from rendering some kind of unknown into some kind of known. If we admit this, we are bound to admit that there is more that we can learn how to know; and, granting this, we are obliged to concede that there must be "realities" out there which remain to be understood, and which will some day be comprehended.

This is a somewhat reduced but essential version of what the Platonist contends. He adds, of course, that moral experience is a system unto itself, with laws unto itself, different in kind and in quality from the system of physical experience. And if, for greater explicitness, we may add to the Platonic faith a portion of the Buddhist credo, we are able to say that there are subtle but orderly relationships between the two systems—the-moral and the physical—which complete the circuit of experience for the whole man. It is the task of metaphysics to propose the principles under which these systems operate and affect one another.

How do metaphysical propositions work?

Well, there is Hegel's assertion that all growth-processes proceed according to the Dialectic. There is the thesis, or original movement of the spirit, which seeks embodiment or realization of its ideal. The thesis encounters resistance-the worker is confronted by unwieldy raw material, the mind meets the lazy recalcitrance of unresponsive matter. Then the labor begins. Thesis wrestles with antithesis. Slowly, through the struggle, a new form of expression is shaped. The thesis is enriched by the conflict. The antithesis is molded into a partial likeness of the thesis, yet with something new added-its own contribution. Thus emerges synthesis-the goal and the triumph for what is past, the beginning, for the future, of a new thesis. And so on, universally, and in every direction.

Positive genius may be recognized in this idea. Is there anything at all that the Hegelian Triads will not fit? But if the Dialectic is an infallible system, how could it be borrowed by the Communists and turned into a justification of political absolutism? This question is far too complicated for a simple answer, but one thing may be pointed out. Neither Hegel nor Marx saw fit to apply the Dialectic to individuals. They, no doubt, were interested in the Big Picture—Hegel, in the National idea, Marx in the idea of Working Class revolt. At any rate, there was no selfcorrective principle in the Dialectic to protect men from its misapplication or misuse.

Another sort of metaphysic is embodied in great religious traditions. In this case the metaphysic is represented as growing out of the knowledge of superior beings, such as spiritual teachers. A passage from the thirteenth chapter of the *Bhagavad-Gita* will illustrate a leading proposition of such metaphysics:

"Know, O chief of the Bharatas, that whenever anything, whether animate or inanimate, is produced, it is due to the union of the Kshetra and Kshetrajua body and the soul. He who seeth the Supreme Being existing alike imperishable in all perishable things, sees indeed. Perceiving the same Lord present in everything and everywhere, he does not by the lower self destroy his own soul, but goeth to the supreme end. He who seeth that all his actions are performed by nature only, and that the self within is not the actor, sees indeed. And when he realizes perfectly that all things whatsoever are comprehended in the ONE, he attains to the Supreme Spirit."

Here, we start out with something like Hegel's thesis and antithesis—soul and body. The synthesis is the "production"—whatever is produced by the union of soul and body. And all things, Krishna assures Arjuna, arise from the union of soul and body.

The great question in regard to all metaphysical formulations of the meaning of experience is whether they do in fact correspond truly to the nature of things as they are. Metaphysical ideas have, as Abelard might have said, a conceptual reality. They have their own symmetry, abstract consistency, and pattern of logical being which enchants the mind. It is this that we must enchantment avoid, while endeavoring to test the validity of a metaphysical proposition. Sometimes a metaphysical idea gains confirmation from intense intuitive feelings. For example, the Gita statement, "He who seeth that all his actions are performed by nature only, and that the self within is not the actor, sees indeed," has a strange parallel in a modern war novel. The book is Never So Few, by Tom Chamales (Scribner's and Signet), and the passage which has this quality is the climactic love scene of the story. The man who speaks is an American commander of Burmese (Kachin) guerilla forces fighting the Japanese behind their own lines:

". . . if we love maturely and honestly and believe that love, whole and without fear, is the greatest growth of all, then someday we will outgrow these personal concerns that are the only things that separate us now " he said. And he knew he but hardly knew what he was sating, yet, that he was expressing his belief.

"And if I love you for myself now it is only because I am not as tall as I would like to be for you. But someday, I will try very hard, to love you for yourself first. And that will be love as it is intended. Love so formulated that we will not even be concerned with its relationship to us; because we will know that the true concern of love is another purpose of some kind, and the concern of that will be greater than you and I. . . . I believe that is what we both want " $% \mathcal{T}_{\mathcal{T}}$

The role of metaphysics is to serve as the system of arteries for our intellectual and moral life. It is not the blood, but it makes possible the flow of that current of our being which has intelligible relations with the rest of life. Without metaphysics, a man cannot *conceive* of his own being, although he may still feel and act as a whole being. But understanding is the richest aspect of self-realization, and metaphysics performs the spadework of philosophical understanding.

REVIEW "sutras" of a physicist

ERWIN SCHRODINGER, one of the world's leading physicists in quantum theory, is characterized by an "other-worldly" imagination. The closing passages of his essay, "The Spirit of Science," which concludes the Anchor edition of Schrödinger's *What is Life?*, also derive from his discussion of the meaning of "time." He writes:

Yet the fact remains that time no longer appears to us as a gigantic, world-dominating *chronos*, nor as a primitive entity but as something derived from phenomena themselves. It is a figment of my thinking. That as such it might some day put an end to my thinking, as some believe, is beyond my comprehension. Even the old myth makes Kronos devour only his own children, not his begetter.

Only the insensitive will fail to be impressed by the many references in the writings of leading contemporary scientists to ancient doctrinal teachings. Schrödinger, aside from his notable (Nobel prize) contributions to physical science, is a student of Eastern philosophy. He feels that he has discovered that what he calls "the physical stratum of life" is a definitely metaphysical problem. Schrödinger's reflections upon relations of time to the human being may be said, in part, to constitute a revival of the *idea* of reincarnation.

The Vedas and the Sutras of Shankara, the Upanishads and the Bhagavad-Gita of ancient India take for granted "reincarnation" as a law of life. Why? Because the man who believes that the individual human consciousness is *creator*. must explain the variances of each life circumstance by a theory of causation, including the concept of previous conscious existences. Another way of putting Schrödinger's conclusion is to say that, since we revere the memory of some who have left physical existence, and since we recognize that such memories quite literally "live" for years or ages, it is somehow unnatural to believe that the individuality responsible for memorable ideas and events has been absolutely extinguished. We do not mean to presume upon Schrödinger's statement, yet there is certainly a correlation between his suggestive phrases and the puzzlement experienced by most human beings of agnostic persuasion, when they are driven into metaphysical areas by the thought that the *individual* who leaves a deeply felt legacy to either his family or to science or philosophy may be considered to be less important than the thoughts and emotions he has generated.

Schrödinger, it seems, is sensitive to the kind of "spiritual" or *metaphysical life* intimated by Julian Huxley in some of his later essays: the physical scientist, whether he be biologist, psychologist or physicist, seems, at some point, to encounter the "eternal questions." A further example of Schrödinger's unusual explorations is provided in his essay, "What is Life?", for there Schrödinger attempts to reverse the materialist verdict—that all egoity is the result of physical causality and physical memory. He writes:

Each of us has the undisputable impression that the sum total of his own experience and memory forms a unit, quite distinct from that of any other person. He refers to it as "I". *What is this "I"*?

If you analyse it closely you will, I think, find that it is just a little bit more than a collection of single data (experiences and memories), namely the canvas upon which they are collected. And you will, on close introspection, kind that what you really mean by "I" is that ground-stuff upon which they are collected. You may come to a distant country, lose sight of all your friends, may all but forget them; you acquire new friends, you share life with them as intensely as you ever did with your old ones. Less and less important will become the fact that, while living your new life, you still recollect the old one, "The youth that was I." You may come to speak of him in the third person, indeed the protagonist of the novel you are reading is probably nearer to your heart, certainly more intensely alive and better known to you. Yet there has been no intermediate break, no death. And even if a skilled hypnotist succeeded in blotting out entirely all your earlier reminiscences, you would not find that he had killed you. In no case is there a loss of personal existence to deplore.

Nor will there ever be.

The opening passages of "The Spirit of Science" lucidly describe the relationship between the natural sciences and "metaphysics." He calls attention to the profundity of Shankara's distinction between "subject" and "object," which leaves us far wider scope than the parallel distinction made by materialist philosophy. In Schrodinger's words, "As it is well known . . . that object and subject, which fall under the perception of We and You (or, as we should say, of the Ego and Non-Ego), are in their very essence opposed to each other like darkness and light, and that therefore one cannot take the place of the other, it follows all the more that their attributes also cannot be interchanged. Therefore we may conclude that to transfer what is objective, that is what is perceived as You, the Non-Ego and its qualities, on what is subjective, that is what is perceived as We, the Ego, which consists of thought, or vice versa to transfer what is subjective on what is objective, must be altogether wrong."

Schrödinger then discusses the implications of the Sutras of Shankara, suggesting that in our physical investigations we have long been reversing the very assumptions of materialism upon which the investigations were presumably based:

Thus the ego, the spirit, can never strictly speaking be the object of scientific inquiry, because objective knowledge of the spirit is a contradiction in terms. Yet, on the other hand, all knowledge relates to the spirit, or more properly, exists in it and this is the sole reason for our interest in any field of knowledge whatsoever. The knowledge, or at least the intuition, of this circumstance is indeed as old as the urge for knowledge itself. The naïve and the natural attitude is to conceive of everything in relation to ourselves, to our own Ego. But this naïve attitude was for a time submerged beneath our unfortunate scientific materialism. The sudden and spectacular progress of natural science deluded some of its most brilliant exponents into supposing that science was about to throw light on everything that was worth knowing, that outside of science nothing of the slightest interest would remain, and, above all, that science would soon solve the "problem of the spirit" with a fully objective picture of the thinking process. Perhaps the submersion of the naïve, natural, and philosophically sound relation of all knowledge to the universal human ego (which is the subject of all knowledge but is itself not susceptible to scientific inquiry) resulted in part from a process of inhibition. The intellectual relation of knowledge to the self was thrust aside by a physical relation. Through its technical by-products that often bordered on the miraculous, the knowledge of nature often proved serviceable to the physical Ego. Thus a material "Egoism" took the place of an ideal "Egoism," and perhaps helped many people to forget that the ideal Ego was being submerged.

The object of all science is nature in the broadest sense, *i.e.*, our spatial and temporal environment in all its aspects. The subject of every science is always the spirit and—to vary a well-known saying of Kant—it contains only as much true science as it does spirit.

This insight is valuable in a twofold sense. First, we shall not, in concerning ourselves with the spirit, fall into the error of the Hindus and disregard the natural sciences as though they were utterly irrelevant. True, the spirit is not their object, but this does not mean that they are any less concerned with it than the *Geisteswissenschaften*. For the spirit is never the object of science. But the sciences are a product of the spirit in which they are conducted.

On the other hand, we shall not expect the natural sciences to give us direct insight into the nature of the spirit; we shall not hope to penetrate it, however much we learn about the physics and chemistry of the bodily processes with which we find perception and thought objectively linked; and we shall not *fear* that even the most exact knowledge of the mechanism of these processes and the laws by which they operate-a knowledge the subject of which is and will always remain the spirit-can lay fetters upon the spirit itself, that is, can compel us to regard it as unfree, "mechanically determined," on the ground that it is linked with a physiological process that is mechanically determined and subject to laws of nature. Such an inference would be a parabasis eis allo genos, a transference of the qualities of the object to the subject, such as Shankara rightly stigmatizes as absolutely false.

COMMENTARY A FAILURE IN PURPOSE

AN ASPECT of the failure of the Great Dialogue left without much attention by Mr. Hutchins (see "Children") is the unhappy fact that far too many people think that they have nothing to say, and far too many people who think this are right.

It is entirely appropriate for Mr. Hutchins to neglect this side of the problem, since he writes from an institutional point of view—that is, he is making a criticism of American educational institutions and proposing what ought to be done about and with them. It would sound "defeatist" to lay a substantial measure of responsibility for the failure of the Great Dialogue to the people themselves. When you are working to arouse interest in the reform of institutions, you don't belittle the "raw material" you hope to serve with better institutions—the people who are to be educated.

But what must be faced, along with the weakness of our educational institutions—and the weakness of our democratic institutions—is the woeful lack of interest in the issues that confront human intelligence. We do not mean the issues that confront human fears, or create anxieties and frustrations—we mean the issues that confront *intelligence*.

This situation exists, we propose, for the reason that not very many people think of themselves *as* intelligences. To be intelligent is not their primary role, even though it happens to be the primary role of human beings.

"The dialogue," says Mr. Hutchins, "is impeded by obsolescent practices." Even people who do their best to be intelligent find the dialogue impeded by these practices. The argument, one supposes, is that we must alter, reform, or abandon these practices. We must design a new pattern for the revivification of Democracy. We must reanimate the Dialogue by opening up new channels for thought to flow through. No doubt we must do this. But why have we involved ourselves in all these non-essential impediments? It seems fair to say that the impediments to the vital function of democratic processes are part of a much larger impedimental scheme. "The most characteristic fact about the factory worker today is his loss of interest in his work." Thus a student of the "impediments" to an intelligent life in the modern factory.

The fact is that we live in an age when the activities and interests of men are all focused at the periphery of their being, with the result that a terrible centrifugal tendency is at work in our lives. We have no center, only a raging whirl of busyness to preoccupy and dissemble, to hide our emptiness.

Mr. Hutchins is unquestionably right in holding education responsible for this. But it would be a mistake to say that education alone is responsible. A time comes when men can no longer blame their institutions for their condition, when they must accept the blame themselves.

Back at the beginning of the nineteenth century, when the Founding Fathers of this Republic were still alive, one of the forms taken by the Great Dialogue was a discussion of educational projects for the United States. A distinguished contributor to this discussion said that Europe had fallen into unenlightened grooves of behavior because of her brittle, unchangeable institutions. America, he said, must not allow this hardening to take place. What we need to develop, he said, is *self-regenerating* institutions that will keep pace with the development of the society they serve.

Self-regenerating institutions are a great idea, but there is only one way to get them, and that is by having a population of men who regard institutions as tools to work with instead of as harbors of security, and who, in their choice of work to do, select essential tasks. We speak, of course, of a population sufficiently endowed with leaders who keep these attitudes alive. Our lives are surrounded by impediments because we have not had this kind of leadership. Great walls of obstacles separate us from essential tasks and great sound-proof curtains silence the Great Debate. The walls were erected and the curtains were hung by men who did not care about the Debate.

What this means is that they did not care about *themselves*. They did not care about their intelligence, which is themselves.

It is this contempt of man for himself that we have to do something about, if we want to resume the Great Dialogue, if we want to restore the practice of Democracy.

The speech of issues and principles will not be undertaken except by men who believe that issues and principles are the life-blood of human intelligence, and that the play, exercise and growth of human intelligence is the sole good in human life—the good, that is, without which there is nothing.

We talk about the dignity of man as though its role were a passive one We conceive it as something that requires "respect," that must be "protected." But the dignity of man is something much more than this. It is first a driving sense of purpose, a vital hunger to know, an irresistible longing to penetrate mysteries, to consummate acts of daring. The dignity of man is a *created* thing, not a political guarantee.

The entire tour of human life is a flight of the imagination, of the creative spirit. Our high conception of the human being is generated by the energy of this flight. Ground the human spirit and you put an end to human dignity. What sort of beings are capable of this flight? This is what we must consider. We need some convincing knowledge about the; nature of man in these terms. Without it we shall have no education worth remembering, no politics worth practicing.

CHILDREN ... and Ourselves

"IS DEMOCRACY POSSIBLE?"

FURTHER evidence of the excellence of the Saturday Review as an "educational journal" is provided in the issue of Feb. 21, which has an article by Robert M. Hutchins. Mr. Hutchins, as many are aware, feels that the only legitimate fulfillment of democracy is its assistance to the "Great Dialogue" called education.

To dramatize his contentions, Mr. Hutchins recalls a statement made in 1931 by the historian, Carl Becker. Speaking of the intent of that time, Becker proclaimed that "our supreme object is to measure and master the world, rather than to understand it. . . . Viewed scientifically, it appears as something to be accepted, something to be manipulated and mastered, something to adjust ourselves to with the least possible stress. So long as we can make efficient use of things, we feel no irresistible need to understand them. No doubt it is for this reason chiefly that the modern mind can be so wonderfully at ease in a mysterious universe."

This view of a world continually made better through technical manipulation was typical enough of the thirties, and yet how fatuous it appears in 1959. As Hutchins comments: "At ease, indeed! Anybody who feels at ease in the world today is a fool. And anybody who would say now that he was content to master and manipulate the environment without bothering to understand how it worked or what to do with it. would show first that he did not know what science was, for science is nothing but organized understanding and second that he had no grasp of the kind of problems we now confront. The great overwhelming problems of our country are how to make democracy a reality, how to survive in the nuclear age, and what to do with ourselves if we do survive. None of these problems is technological, though technology has helped to create all of them, and none of them will yield to

the kind of measurement, manipulation, or mastery that Professor Becker had in mind. We may, in fact, reverse his statement of 1931 and come nearer the truth of 1959. Then it would go like this: no doubt it is because we have felt no irresistible need to understand the world that the modern mind can be so wonderfully ill at ease in a mysterious universe." Mr. Hutchins proceeds to a forthright statement of the practical objectives which he feels our education should be presently seeking:

History will find it hard to explain how a nation that is one a nation in which the political subdivisions have almost no relation to social or economic life and very little to political life, can entrust its future to these subdivisions by regulating education to them. History will smile sardonically at the spectacle of this great country getting interested, slightly and temporarily, in education only because of the technical achievements of Russia, and then being able to act as a nation only by assimilating education to the Cold War and calling an education bill a defense act.

We might as well make up our minds to it. If our hopes of democracy are to be realized, every citizen of this country is going to have to be educated to the limit of his capacity. And I don't mean trained, amused, exercised, accommodated, or adjusted. I mean that his intellectual power must be developed. A good way to start finding the money that is needed for education would be to kick out of it the subjects, the activities and the people that make no contribution to the development of intellectual power. Such an operation would produce vast sums. I suggest that two things might be done with this money and with any more that may be needed: first, we should double teachers' salaries, not because all the teachers we have deserve twice as much as they are getting, but because we want to attract the ablest people into the profession; and second, we should establish a national system of scholarships that makes it possible for every citizen of this country to be educated to the limit of his mental capacity, regardless of the financial capacity of his parents.

This, of course, is in some measure rhetoric, but it is useful rhetoric. While not even the most confirmed of Hutchins' admirers can seriously hope that the high schools of the future will swing to an almost exclusively liberal arts orientation,

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even the most rabid of Hutchins' opponents must see one sort of handwriting on the wall: automation leads to more hours of leisure with each passing year. With this leisure a culture can either enrich itself or destroy itself, depending upon the conceptions of the general populace as to what constitutes a rewarding life. Those who hold that true richness of life depends upon a heightening of the mental powers and sensibilities-from which all social and political improvements must come will properly stand aghast at the prospect of the leisure of "the masses" being spent in a sort of extended Saturday Night orgy. Yet unless the vocation of teaching in our high schools becomes an honored profession, there is little chance that many graduating students will ever learn what their minds are for. The ability discuss to intelligently-whether the subject be plays,. novels, art, music, political issues or religion-is the sine qua non of enjoyable and mature human relationships, whether between members of a family, among friends and acquaintances, or in community affairs.

As to community affairs, we have only to note the almost incredible neglect and fear of the Civil Rights decisions of the present Supreme Court to realize that we cannot afford to be uneducated in the principles which underlie the proper practice of democracy. Nor can segregation be ended unless more and more people come to understand that the issue involved in desegregation is not the issue of real estate values nor one of ethnic incompatibility. The issue in desegregation is the issue of educational opportunity-not just in the schools of the South, but throughout our society. The intent in a democracy is to see that every man has a hearing, and the underlying philosophy in regard to human nature is that the value of what each man has to say is not only intrinsically great, but will become much greater-of benefit to the whole society-if we allow him to improve his individual capacities for participating in the "Great Dialogue."

It is not only the underprivileged whose education, today, is grossly inadequate for intelligent discussion of issues of common concern. Or, rather, most of those with ostensible opportunity for becoming participants in the Dialogue have not actually had the opportunity because little in their education has encouraged the view that a democracy is vital and successful exactly to the degree that its citizens refuse to rely on second-hand opinions and pronouncements. In lieu of this realization, the cumbersome fetters of bureaucracy tie the individual member of the electorate so securely that he will never be able to make himself felt until there is large-scale rejection of the practices of "packaged politics." On this subject Hutchins writes:

Today the dialogue is impeded by obsolescent practices and institutions from the long ballot to the presidential primary, from the electoral college to the organization of cities, counties, and states. In too frequent elections unknown persons by the hundreds running for insignificant offices, and improper questions, like the dozens submitted at every California election, are presented to the electorate. This is not democracy but a perversion of it. The political anatomy is full of vermiform appendices, many of them, like Arkansas, inflamed.

Some of these obsolescent practices stop the dialogue in its tracks, like the failure of the FCC and Congress to develop any concept of the public interest, convenience, and necessity. Some of them distort the dialogue by throwing false weights into it, as the electoral college gives a false weight to the large states and the laws on campaign expenditures give money an overwhelmingly false weight in elections. One thing is certain: if our hopes of democracy are to be realized, the next generation is in for a job of institutional remodeling the like of which has not been seen since the Founding Fathers.

FRONTIERS Our Homeopathic Charms

SANDWICHED in among full-page advertisements offering "creative" jobs to young engineers and scientists in missile research is a book review in the *Scientific American* for February that most MANAS readers would undoubtedly enjoy. The reviewer is James R. Newman, an *SA* editor of obvious competence, and the four books he examines in this article are *The Causes of World War Three* by C. Wright Mills, *No More War!* by Linus Pauling, *Inspection for Disarmament* edited by Seymour Melman, and *Peace or Atomic War* by Albert Schweitzer.

What brings together these four very different books by four very different writers, Mr. Newman proposes, is the thread of moral appeal to the general public which appears in each one. In the Melman book, for example, which is a technical study of the problems of international inspection to control the armament activities of all nations, one finds the idea that if the civilian population can be aroused to help the professional inspectors, great moral strength would be added to the program. The argument is this:

A constant appeal urging the theme that "the international agreement is mankind's shield against mutual extermination and that a violation of this agreement is thereby a crime against humanity" could, in Melman's view, evoke a cooperative response in every country and make untenable the position of any government, or group of officials, found guilty of breaking the law.

Mr. Newman finds this attitude on the part of the contributors to the Melman report of great significance. As he says:

For after assessing the causes of war, analyzing the various strategies, designing meticulous disarmament and inspection schemes, one faces the irreducible truth that we can live together or die together. It is too much to expect men all at once to throw away their weapons and embrace. But a beginning must be made, and that beginning depends, as the authors of the Melman report tell us, on conceding to each other what moral capacity we have, on having faith even in the enemy's awareness of his humanity.

The Mills book is an investigation of the causes of war—and develops once again the thesis of *The Power Elite*—that contemporary history is being made by "crackpot realists," men who "join a high-flying rhetoric with an opportunist crawling among a great scatter of unfocused fears and demands." Newman has a summarizing paragraph on the issue of the book:

Steadily we move toward the abyss. What is to be done? Mills's appeal is addressed mainly to intellectuals. They must stop fighting the cold war. They must make contact with their opposite numbers "among those now officially defined as our enemy." ("With them, we ought to make our own separate peace.") They must help educate one another. They must also remedy the default of religion and help awaken the public conscience; for religion itself is "morally dead" in the U.S. and ministers of God who are responsible for the moral cultivation of conscience, 'with moral nimbleness blunt conscience, covering it up with peace of mind." Scientists should honor publicly those, like the 18 German scientists, who have made their declarations for peace and against working on the new weaponry. Scientists should attempt "to deepen the split among themselves and to debate it." They should denounce secrecy. They should refuse to become members of a "Science Machine" under military authority. They should refuse to make weapons and boycott all research projects directly or indirectly relevant to the military. These are among the steps that Mills says would begin the practice of a professional code. The scientist, by adopting such a code, would reject "fate," for he would thereby declare his resolve to take at least his own fate into his own hands.

Here, again, is the appeal to people to act, as individuals in relation to the threat of war. What is becoming evident, from books of this sort, is that there is nothing else left to do, if human beings are to have a hand in their future. The existing social mechanisms are too much in the hands of people who feel bound to methods and approaches which cannot be changed, which can go in only one direction—toward war.

Mr. Newman's discussion of Pauling's No More War! reviews in some detail the argument between Teller and Dr. Pauling. Newman obviously does not think much of Teller's position. Teller's view, that "radiation in small doses need not necessarily be harmful—indeed may conceivably be helpful," makes Newman suggest that if Teller is right, then fall-out is "in roughly the same category as Lydia Pinkham's remedy." Dr. Pauling regards Teller as a "prime example of a public misinformer."

Newman goes carefully over the ground of past claims that nuclear weapons testing is relatively harmless, citing the facts assembled by Dr. Pauling, Ralph Lapp, and others to show how ill-founded are such claims.

To the argument that the men responsible for national safety have no right to interrupt the weapons-testing program so long as no enforceable disarmament agreement exists among the nations, Mr. Newman produces the reply of the noted German physicist, Max von Laue.

Suppose [said von Laue] I live in a big apartment house and burglars attack me; I am allowed to defend myself and, if need be, I may even shoot, but under no circumstances may I blow up the house. It is true that to do so would be an effective defense against burglars, but the resulting evil would be much greater than any I could suffer. But what if the burglars have explosives to destroy the whole house? Then I would leave them with the responsibility for the evil, and would not contribute anything to it.

Can the issue be stated any more clearly? And if it is as clear as this, then why don't more people see it and act upon it? The basic difficulty is that most people don't believe that they have to act upon it, or that it is their job to assume this kind of responsibility.

That is where the trouble lies. The issue of war, while important enough, is obliging us to discover an even greater problem that we face. We have lost touch with the power of human decision. The emergency of war may help us to get it back. Mr. Newman has a good paragraph which presses home the urgency of the present situation:

That war is today an insane method of solving disputes is a truth so obvious that it is hard to prove. Men are apt to acknowledge it, as they acknowledge their mortality, and then go about their business. But the proposition that we all have to die some day is not the same as that we all have to die the same day. Until now it had always been assumed that, though men were mortal, man would endure. This assumption, as Pauling shows, has become questionable.

Albert Schweitzer, the writer with whom Newman concludes, speaks of the need of all peoples to unite in order to make an end to "paralyzing distrust." A new spirit must be born, and this can happen only as awareness of its necessity provides the strength "to believe in its coming."

The impressive thing about this review article by James R. Newman is the writer's sober acceptance of the major contentions of these four books. It is this that we wish to call attention to here, as much or more than to the books themselves. The Scientific American is a popular magazine. On the whole, its writers deal with the fascinations of science and technology. But on this question of the threat of war, one of its editors turns his considerable skill to giving greater weight to each of these somewhat "radical" books. While the Melman report may not seem to belong in this class, the fact that it "fits" with the others so well leads to an unavoidable conclusion: the cautious findings of specialists, when made to illuminate problems of policy, are beginning to point to actions the very reverse of what we are doing.

Speaking of the Melman volume, Newman says:

It is no small thing to question, as this book does, the validity of the ruling notion of deterrence. It is widely held, and not only by Mills's "elite," that genocidal weapons offer a reasonable guarantee of peace because no nation would deliberately commit suicide. But neither history nor social psychology unequivocally supports this opinion. People do not

vote on going to war, and children are never asked. Deterrents may not deter because the deliberate judgment that is essential to the "if-we-kill-themthey'll-kill-us-so-let's-not-kill-them" sequence rarely comes into play. Small causes may have large effects; moreover the dropping of even a single nuclear weapon is manifestly more provocative than slicing off Jenkins's ear or assassinating an archduke. An accident can set a catastrophic nuclear war in motion, and as nuclear weapons are increasingly available and dispersed in more hands, the probabilities of such accidents must necessarily increase. "One aberrant, psychotic person or person gone momentarily out of control," Melman writes, "could explode nuclear weapons at a random place or over any populated area. A space satellite could be mistaken for a ballistic missile."

It begins to appear that simple common sense is now "radical," that a wholesome hope for the survival of the human race has become practically unpatriotic. This seems a good place to quote some lines from Lawrence Lipton, a contemporary poet, taken from *Prismatic Voices* (a compact volume of 700 pages of modern poetry, published by the Falcon's Wing Press, Indian Hills, Colo.). Lipton writes:

Our age is pivot of the wheeling eons, More than fate of empire or the war Of classes is at stake, the sanity Of man hangs in the balance. Cities tremble In the shadow of the Bomb. Rockets Radar screens and guided missiles, these Shall be our homeopathic charm against The Bomb. And what shall save us from ourselves?