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THE PRECIOUS UNCERTAINTIES

MUCH if not all of the value of the current reappraisal of scientific method and technology will be lost if we fail to reinterpret its strictures for a better understanding of human nature in general. While it is probably impossible to prevent so widespread and fashionable a form of criticism from becoming a species of scapegoating, an easy self-righteousness will almost certainly lead the critics into parallel excesses—and excesses in this case unattended by even those minor mitigations to which both science and technology, being "disciplines," can undeniably lay claim.

What is the case against science and its present modes of application? A passage quoted from George W. Morgan in last week's Frontiers puts the matter briefly and clearly:

> . . . the expansion of science has brought on a crisis of inestimable gravity in man's self-understanding. This crisis is twofold. On the one hand, science by its very nature is such that the sphere which essentially constitutes man as man lies outside its domain; on the other, this crucial fact is ignored or understood inadequately. Science is often regarded as the sole and sufficient way to know man. The consequence of this is that we do not see man as *man*. His humanity is either ignored completely or so explained as to be explained away. He is reduced to purely physico-chemical processes of the body, or to neo-behavioristic "stimulus-response" mechanisms, or to some other mechanism of a psychological, sociological, or political kind, or to the product of cultural forces. His mental life is equated with electro-chemical phenomena in the brain or the workings of electronic computers, or is otherwise reduced, for example, to mathematical models of game theory.
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> Even when science is not regarded as the sole mode of knowledge, it often happens that other ways of knowing are deformed by scientific or pseudo-scientific traits which are deliberately or unconsciously adopted without awareness that they deny the view of man one believes oneself to be holding. Quasi-scientific explanation, quasi-scientific language, and a quasi-scientific attitude of impersonality are found all too frequently even in humanistic and religious areas.

Criticism of this sort is widely acceptable today. Even though it is quite abstract, expressed almost entirely at a generalizing conceptual level, we are "at home" with its assumptions and value judgments. They articulate, one could say, what an increasing number of people feel to be true. Yet the passage would have little meaning to persons who had not developed a conceptual framework similar to this writer's. And a hundred years ago, or even fifty years ago, these judgments could hardly have been put into words. Something *like* this criticism might be found, however, in Carlyle, or in Amiel, but its expression would be more in terms of a common intuitive ground—not "tied in" so effectively with present-day moral sensibility. At any rate, the simple fact is that we understand what Mr. Morgan says because we *know what he means*, and this is a reality prior to any attempt to explain what he means. His criticism obtains its initial force from our intuitive consensus, while its persuasiveness lies in his skill in relating it to various facets of our experience.

Now it is the contention of Michael Polanyi that science is itself a vast special case of a consensus of this sort. His major work, *Personal Knowledge* (University of Chicago Press, 1958), is devoted to showing that a quite similar ground of intuitive agreement lies beneath the structure of scientific knowledge and inquiry; that while science has definite and irreducible relationships with the world of sense experience, it is nonetheless a creation of the human mind, and of minds working in concert. We cannot here give his demonstrations, but will quote his conclusion:

> If we fail to realize that the logical antecedents of science are internal to science, they will inevitably appear as propositions accepted prior to the pursuit of

> science. If we then reflect on them and find that they are not logically inescapable we are faced with the insoluble problem of finding a justification for them. The problem is insoluble, for it seeks an explanation for a non-existent state of affairs. Nobody has ever affirmed the presuppositions of science by themselves. The discoveries of science have been achieved by passionately sustained efforts of succeeding generations of great men, who overwhelmed the whole of modern humanity by the power of their convictions. Thus has our scientific outlook been moulded, of which the logical rules give a highly attenuated summary. If we ask why we accept this summary, the answer lies in the body of knowledge of which they are the summary. We must reply by recalling the way each of us has come to accept that knowledge and the reasons for which we continue to do so. Science will appear then as a vast system of beliefs, deeply rooted in our history and cultivated today by a specially organized part of our society. We shall see that science is not established by the acceptance of a formula, but is part of our mental life, shared out for cultivation among many thousands of specialized scientists throughout the world, and shared receptively, at second hand, by many millions. And we shall realize that any sincere account of the reasons for which we too share in this mental life must necessarily be given as part of that life.
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> Science is a system of beliefs to which we are committed. Such a system cannot be accounted for either from experience as seen from a different system, or by reason without any experience. Yet this does not signify that we are free to take it or leave it, but simply reflects the fact that it *is* a system of beliefs to which we are committed and which therefore cannot be represented in non-committal terms. In leading up to this position, the logical analysis of science decisively reveals its own limitations and points beyond itself in the direction of a fiduciary formulation of science, to which I propose to move on. . . .

What is Polanyi doing here? Is he destroying science by taking away its "certainty"? On the contrary, he is endeavoring to save it by showing its ground, not in some imaginary, outside, "closed system" of objective reality, but in the commitment of human beings and their fidelity to an idea of truth. There is a sense in which he is showing that scientific truth is always and in the nature of things must be an evolution of the human mind. This, in his view, does not discredit science; it discredits only a conception of scientific certainty which ignores and discredits the reality of human beings.

Elsewhere Polanyi quotes from Laplace the paradigm of science as a mechanistic closed system. If there were a mind or intelligence which, at a given moment of time, could know "all the forces by which nature is animated and the respective positions of the entities which compose it," such a mind "would embrace in the same formula the movements of the largest bodies in the universe and those of the lightest atom: nothing would be uncertain for it, and the future, like the past, would be present to its eyes."

This claim, much admired and often repeated, has become the foundation of the assumption that only time separates us from complete knowledge of the universe and everything in it. Science, it is—or was—commonly argued, will get there some day. Yet, as Polanyi points out, the formula requires "that we should explain *all* kinds of experience *in terms of atomic data."* He warns that the conception of man derived from the Laplacean idea of knowledge menaces not only all cultural values, but science itself, and "may yet issue in a sweeping reaction against science as a perversion of truth." Explaining, he says:

> Applied to human affairs, the Laplacean universal mechanics induces the teaching that material welfare and the establishment of an unlimited power for imposing the conditions of material welfare are the supreme good. But our age overflows with inordinate moral aspirations.
>
> By absorbing this zeal the objectives of power and wealth acquire a moral sanctity which, added to their supposed scientific necessity, enforces their acceptance as man's supreme and total destiny. The comprehensive claims of this movement leave no justification to public liberties, and demand that all cultural activities should subserve the power of the State in transforming society for the achievement of welfare. A discovery will then no longer be valued by the satisfaction which it gives to the intellectual passions of scientists, but will be assessed according to its probable utility for strengthening public power and improving the standard of living. Scientific

> value will be discredited and its appreciation suppressed.
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> This is how a philosophic movement guided by aspirations of scientific severity has come to threaten the position of science itself. This self-contradiction stems from a misguided intellectual passion—a passion for achieving absolutely impersonal knowledge which, being unable to recognize any persons, presents us with a picture of the universe in which we ourselves are absent. In such a universe there is no one capable of creating and upholding scientific values; hence there is no science.

One vitally important question has neither been asked nor answered. *Why* do men long and seek for closed systems, and, having found one that seems promising as well as immediately serviceable, adopt it as the sole means to both knowledge and human good?

The closed system of the World Machine was not our first experience of an order of this sort. After warning against the anti-scientific reaction, Polanyi remarks: "This happened before, with much less justification, in the fourth century, when St. Augustine denied the value of natural science which contributed nothing to the pursuit of salvation." Augustine, as we know, was the energetic popularizer of a closed system of religious belief, in which God and only God had power, man being entirely the creature of divine determination. Why, we may wonder, did the antihuman theology which resulted from Augustine's claim and later exaggerations of it obtain so strong a hold on human belief over so many centuries?

The answer seems to be that the one great advantage found in a closed system is that it allows simple, unambiguous beliefs, leading to a codified, externalizing system of morality. It eliminates the pain of private, personal decision. It elevates a caste of "experts" to absolute authority. It places all the power and all the responsibility in one place. It reduces individual subjectivity to little more than a source of error and heresy. The middle men, the interpreters who establish and administer the simple rules, always have this enormous demagogic advantage over those who insist that all human beings have independent responsibilities that no one else can define or fulfill. They also supply rationalizations for the constraints applied against rebellious thinkers. The wish to think for oneself is identified as wicked self-will, a disrespect to the Deity. The first rule of the closed system is submission, and all things, it is urged, will be added to him who submits.

There is little difference, psychologically, between a closed system of religion and a closed system established by "scientific" authority. "Free will" was a completely ridiculous expression in academies of learning embodying the scientific viewpoint, until about twenty years ago. No "wild" subjective factors could be permitted to interfere with the theoretical principles ruling the operation of the Great Machine. Scientists were in process of mastering the unambiguous rules of the universe and would eventually teach them to lesser human beings. And so forth. No worse epithet than "dualist" could be directed at a man who pretended to serious thought.

But this is only the priestly or managerial aspect of the problem. There is also a very practical, if limited, justification of closed-system thinking. Even if it be admitted that we live, as some philosophically-minded scientists have said, in an *open* world, when we act in pursuit of a material end we need closed-system rules to get results. A brand of intellectual honesty, you could say, drove the scientists who were mainly interested in "practical results" to become in reality intellectual engineers and to call themselves "positivists." There is in fact a vast range of finite activities that require closed-system thinking, on the basis of which elaborate skills and techniques have been evolved. So, if "doing things" can be taken as a measure of "knowing," or of "knowing the truth," then we have little difficulty in seeing why science and technology came to be equated with truth and the applications of truth, in our society.

Our problems, now, however, are not with "things," but with "people." For dealing with these problems, the alternatives seem to be two. Either we can say that "people," since they are part of the objective world of nature, are "things," although much more complicated than the things that science and technology have dealt with so successfully with closed-system thinking; or, we can say that they are *not* things, but represent another order of reality, to which other rules apply.

Yet that people have a "thing" aspect seems obvious enough. There are, that is, ways of manipulating people with closed-system techniques, by means of their desires and fears, which produce measurable results. But it is also becoming evident that people despise being manipulated; and that it has a dehumanizing effect on them. We know that discovery that he is being manipulated may make a man bitterly rebellious, and that conscious submission to such external controls, because of hopelessness or timidity, leads to self-disgust and self-hate.

We might set it down as a rule that a normal human being dislikes manipulation and that a strong human being will not permit it. Saying this suggests assumptions about human beings which radically differentiate them from "things." These assumptions include the idea that they need to make independent choices and that growth in the capacity for independent choice is an attribute of their "non-thing" reality. Actually, all that *teachers* have learned about human beings seems to belong to a category of "rules" which apply to relations with men, but not to "doing things" after the patterns of science and technology. Yet as various experienced educators are now declaring, there is an apparently "random" character about the occurrence of growth in human beings. It is possible to say something about the environment which is *hospitable* to growth, but no one can write the formula for producing human growth at will.

Can it be that what we call human freedom requires a beneficent sort of "ignorance" for its exercise and increase? Or that what we properly call "ignorance" in relation to "thing" undertakings is in relation to human beings not ignorance at all, but something very different, akin, perhaps, to wonder and respect? And could we say that the "efficiencies" of closed-system operations are sometimes useful in education but at other times prohibitive of growth?

We might also suppose that any man who has a natural concern for other human beings would find himself obliged to learn how to shift without indecision or faltering from closed- to open-system thinking, from day to day and moment to moment. Such a man would use unambiguous rules for dealing with things, and openness and invitation for dealing with the growth-aspect of other persons. Nearly all his behavior would come to be guided by bifocal vision, if it is regarded in these terms.

He might even reach the conclusion—by no means a new one—that even "things" have a subjective dimension, and are subtly responsive to appropriate consideration or even reverential regard.

Any one impatient of the numerous uncertainties which seem to be involved in determining these other "rules"—the rules appropriate in human relations—might find it salutary to study the history of science. Despite the famous objectivity of scientific facts and the unambiguous rules which result from settled scientific conclusions, he would find that *advances* in science have almost always been attended by just such uncertainties, sometimes extending over a long period of years. Crucial theoretical formulations have at first been looked upon as little more than subjective revery—mere speculation—until, by some coincidence in development, supporting facts emerged in practical experience. Polanyi gives instances of this:

> . . . the mathematical framework by which Dirac succeeded (1928) in reconciling quantum mechanics with relativity, showed some incomprehensible features which were to turn out eventually to be a description of the positive electron when this particle was discovered, independently, by Anderson in 1932. Among earlier examples of this kind is the work of Willard Gibbs which was regarded as purely formal, until Bakhuis Roozeboom discovered the wide and illuminating applicability of the Phase Rule. More recently, the voluminous thermodynamic speculations of de Donder, published without gaining any response in the 1920's came into their own within the new thermodynamics of irreversible systems which they were found to have partly anticipated. But the history of science records only happy endings; far more frequent are formal speculations which lead nowhere. The innumerable papers of van Laar on the thermodynamical potential, published about the same time as de Donder's papers, may be remembered among a vast multitude of such unfortunate cases. This dilution of the meritorious by floods of triviality makes the recognition of true scientific value particularly difficult.

Again,

> In spite of the fact that chemistry is largely based on the speculations of Dalton, Kekulé and van't Hoff, which were initially unaccompanied by any experimental observations chemists still remain suspicious of this kind of work. Since they do not sufficiently trust themselves to distinguish true theoretical discoveries from empty speculations, they feel compelled to act on a presumption which may vie day cause the rejection of a theoretical paper of supreme importance in favour of comparatively trivial experimental studies. So difficult is it even [or the expert in his own field to distinguish, by the criteria of empiricism, scientific merit from incompetent chatter.

It often happens that an important contribution is given attention only because of the *trust* reposed by other scientists in a very great man, such as Albert Einstein, who recognizes its merit.

The point, here, is that, even in science, actual discovery in some way transcends the confidently accepted closed-system rules and must endure the trials of an ambiguous situation until its validity becomes clear.

What if the Socratic contention, that it is better to suffer wrong than to do wrong, and Gandhi's philosophy of nonviolence, had the same sort of validity, in relation to the growth and becoming of human beings? That its truth will become manifest only in the degree that it is tested by an increasing number of men, in their daily lives? Science, a human activity concerned with the order of the natural world, remains vital and truly *growing* only as scientists suffer the ordeal of uncertainty, risking their reputations and careers through their commitment to scientific truth. Can the larger project of managing and ordering human life require less?

REVIEW
A NEVER-ENDING STRUGGLE

A LETTER from a reader in the June *Harper's* berates this publication for obvious contradictions found in an earlier issue containing an essay by John Fischer on ecological "Survival." The letter draws attention to advertisements in that issue aimed at increasing the very abuses the editorial writer attacks. Declaring himself "amazed," the reader asks how a publication could:

> 1. Promote the No Growth principle as applied to roads, cars, and planes, and carry ads portraying the pleasures of travel, new cars, and airplane rides.
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> 2. Print a column which states that the growth of electric power taxes the environment, and run an ad that suggests that electric power must grow.
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> 3. Call a politician with a big family a hypocrite, and permit a cigarette advertisement to occupy the page adjacent to the anti-pollution essay.

Invited to comment, Mr. Fischer said only that he wished the correspondent "had gone one step further and suggested a way to feed our goose without taking any advertising." The publisher of *Harper's* replies to this "charge of hypocrisy" at greater length:

> Broadly speaking, a magazine is legally entitled to reject advertising at will, and *Harper's* has turned down ads for many reasons: because the ad is misleading, because we have had complaints from purchasers of the item advertised, or because the ad itself is ugly. We are reluctant however to exercise this power simply because we disagree with the advertiser's purpose. We have a duty to protect our readers from misrepresentation, but we don't think we should try to protect them from the exercise of free speech.

Here we have somewhat weasel words invoking (1) the survival of the magazine, and (2) a democratic principle. One might hope for something a little better from the proprietors of one of the best magazines published in the United States. The reason that we don't get anything better involves an inquiry of considerable importance. The fact may be that we cannot have a better explanation given openly without first getting a better society.

It is not necessary to support with evidence the claim that every magazine that depends upon the sale of advertising for its economic existence is more or less subject to the same criticism, and makes more or less the same reply. The editors and publishers say, in effect, that they don't like it either, but what can they do? You wouldn't want a fine old magazine to go out of business, would you?

The tough rejoinder to this would be that if all the conscientious editors and publishers in the country were willing to go out of business to keep their pages free of manifest contradiction, it might not be long before another sort of publishing would become possible in the United States. But that, after all, is the kind of spartan discipline and integrity a man is entitled to demand of himself, but not of others.

The only way to *compel* editorial or publishing integrity of this sort would be to have a state-controlled press, and there are very few people left, these days, who honestly think that this would be any improvement over what we have now. A state-controlled press would eliminate not only commercially dominated publications issued solely in behalf of the profit motive, and partly compromised magazines of good intent, like *Harper's*, which are already embarrassed by what they have to do to survive, but also publications that manage to exist by a combination of subscription and subsidy, and are free of commercial bias. One of the costs of freedom in a society of imperfect men is *indiscriminate* freedom. There is no way around this hard and unpalatable reality. Meanwhile, it may be noted that it is a very rare publishing enterprise indeed that can survive simply on income from circulation. Readers seem to prefer to endure contradictions to paying the costs of production for "pure" reading matter. The "guilt" for such psycho-social phenomena as these

contradictions is fairly evenly distributed among all the people concerned or affected.

The fundamental fact to begin with, in such considerations, is, as Ortega puts it, "that society is a reality that is *constitutively* sick, defective—strictly, it is a never-ending struggle between its genuine social elements and behaviors and its dissociative or antisocial elements and behaviors." To participate in the larger processes of society, or to exercise a wide and beneficent influence upon it, without submitting to or embracing some of its sicknesses is a task which only heroes or saints are willing to attempt.

The second fundamental fact is that trying to be a hero or a saint is and must be an entirely voluntary undertaking.

A third fact is that constrained or conventional forms of behavior always involve either plain or hidden contradictions. Ideological conviction—which here means conviction that can be pressed through some kind of party or political line—is almost invariably conviction which condemns some contradictions with moral passion yet remains cool or indifferent toward others.

The impossibility of regimenting authentic conviction is a pragmatic justification for freedom of expression and of the press.

Viewed in this way, the problem of contradictions comes down to a choice of which contradictions the individual decides to be patient about and which ones suggest the need for at least the beginnings of some independent "heroism." A wise man will choose his own "front" or area of struggle, and at the same time remain grateful that other people decide to fight other battles for other causes.

One would hesitate, for example, to ask Willie Morris, who is the editor of *Harper's*, to quit his job because of the contradictions pointed out by a reader. One would be *especially* hesitant in asking Willie Morris to find another way of making a living after reading his long report in the same issue of *Harper's*, "Yazoo . . . Notes on Survival."

Readers who enjoyed Willie Morris' book, *North Toward Home* (Houghton Mifflin, 1967), will find this account of the integration of Yazoo City's public schools, in January of this year, absorbing and inspiring. Mr. Morris was born in Yazoo City in the mid-thirties—he is probably the youngest editor *Harper's* has ever had—and after growing up in the schools of this town of fourteen thousand he attended the University of Texas, then worked as a reporter for the *Texas Observer* until *Harper's* called him. His book is the story of the emancipation of a mind and it gave the people back home in Yazoo City much to think about. A lifelong friend called him long-distance in New York:

> "I just want you to know one thing. This book of yours is the biggest thing to hit town since the Civil War." You couldn't walk twenty feet, Bubba said, without hearing an earnest conversation about it. People were standing in line to get it at the library. "I think half the people in town kind of like it," Bubba said, "and may be a little proud of it. The other half of town is extremely agitated." Bubba went on to say he had the impression that the half which was so agitated consisted mainly of people who were not in the book.

Well, this is just fun, but the article in *Harper's* is deadly serious. Basically, it is the story of how the people of Yazoo City changed their ideas since 1955, when fifty-three Negroes had signed a petition advocating integration of the schools. By one means or another, every one of the signers was forced to withdraw his name, several being obliged to leave town altogether. In 1970, Yazoo City wasn't exactly "ready," but the school officials obeyed the court order and there was no violence incident to carrying it out.

The article is quite long. Situation after situation is described. There are deftly drawn portraits of a number of leading citizens who had a part in the change. In one place Willie Morris says:

> All over town, there were suggestions that something new was coming to the surface here, something never quite articulated with any degree of force or with the courage of numbers in many Deep Southern towns, some painful summoning from the deepest wellsprings. There were whites in town who fully intended to keep their children in the public schools, and who not only would say so openly, but who after a time would even go further and defend the very notion itself of integrated education as a positive encouragement to their children's learning.

The article is extremely quotable, but we urge readers to read it all. The writer's point is that if it can happen in Yazoo City it can happen anywhere in the South. Our point might be that a society which wears its most terrible contradictions right on the surface, visible to all, is a society in deep travail and may have difficult but instructive things to teach the rest of the world. A northern reader needs Willie Morris' help.

It was hard for him to go back to Yazoo City, both because of what he had written and because of the maturities he had gained. Yet he went back and entered into the life of the town. He knew what to do, how to help, although he doesn't say much about that. A person born in the North and who has never been South might want to help but find himself simply not able to. His more or less theoretical approach to hard moral contradiction might turn him into an emotionally rigid man. Yet a militant black told Mr. Morris:

> "This state will solve its racial problems quicker than any state. Economic boycotts and voter registration are more effective here. In the North with the big corporations you don't know *who* to attack. I do think the Black Panthers in Chicago are the most effective way to deal with the situation there. But the Southern white man is more *honest* than in the North. At least you know where he stands. I used to be anti-white. I didn't trust the Northern white workers who came down here. They were like carpetbaggers. But the young kids now, all over the country, are proving their commitment. Racism in the North is more complex and subtle than it is here."

COMMENTARY
THE RULE OF SOCIAL PROGRESS

THE capacity to conceive ideals—to formulate persuasively and attractively what *ought* to be—is surely a defining characteristic of human beings. Without it we could not think of ourselves as purposive intelligences, and would have no history. Nor would there be any literature, any vision, any criticism.

It is another of our capacities, apparently, to be able to speak stirringly about ideals without having reliable knowledge of how they are practically realized. Many of the reform movements of history have brought the form but not the substance of what the reformers promised. In short, the processes of *realization* are not understood. Some part or externality of the ideal is taken for the whole.

We have now had much experience of the inadequacy of compulsion and prohibition as the basis for realizing social ideals, giving reason to think that programs relying chiefly on controlling the behavior of "other people" are absolute blocks to the realization of social ideals. Why should this be? Is it because they depend for their energy on the dynamics of blame? Is it because the conceptual structures and grammar of blame are without power to evoke progress toward an ideal?

There may be a constructive use of the language of blame, but it seems evident that we have not learned it. Perhaps only those wholly without self-righteousness can use it.

This may be the first rule of progress for any society capable of survival into the future—the persevering pursuit of a social ideal without *any* self-righteousness. Were it not for our perfectionism, we would not be men at all, but perfectionism combined with self-righteousness turns out to be anti-human.

Gandhi gave his life to trying to resolve this dilemma. He had his social ideals—concrete objectives he often described—but more important to him was his ideal of human behavior in extreme situations. *He would not attack the character of his opponents.* They were not his enemy—he did not admit to having "enemies." They were the raw material with which he had to work. And since Gandhi himself changed only as *he* decided to change, he spoke to the same potentiality in other men: if they changed, they would have to change themselves. He paid them this highest respect, relying on no other hope or resource.

Since MANAS is now suspending publication until Sept. 2—as announced in the June 3 issue—we make our closing word a recommendation of Horace Alexander's new book, *Gandhi Through Western Eyes* (Asia House, $7.00), in which this theme becomes unmistakably clear.

CHILDREN
. . . and Ourselves
NOTES ON THE UNIVERSITIES

A BRIEF, incisive account of how the universities of the United States look to sophisticated, well-informed radical students is provided by the last chapter of *Long March, Short Spring,* an account of the student uprising at home and abroad, by Barbara and John Ehrenreich, published in 1969 by the Monthly Review Press. Written by a couple who grew up with the student movement and have talked with student radicals in other parts of the world—"We spent more time discussing strategy and common problems than we did making notes"—this book is more a report by participants than one by observers.

This last chapter combines an outline of the changes that have come over universities in recent years with a perceptive description of student hopes, expectations, and disillusionments. In a passage mainly concerned with institutions on the continent, the Ehrenreichs say:

> The function of the universities has changed in all advanced industrial countries, but few countries have adapted their universities' structure to meet their altered function. Most European universities don't even meet the entrance requirements to the twentieth century. The student body multiplied many times over in the last fifty years, but few new classrooms were built, and fewer still of the laboratories, language labs, television-equipped lecture rooms, etc. that are the physical counterparts of the new mass training function of the university. Scholarships and loans are so scarce few of the new "mass" base of the university can afford to attend school full time. If they did attend, there would be no room in lecture halls or libraries. Even if there were no problem of where to sit in class, there is the problem of where to sleep at night. Dormitories are scarcer on the continent than motels. So most students read the professor's lectures after work and show up once a year for exams. Whether you go to class or not, the education is likely to be hopelessly dull and anachronistic.
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> The situation is intolerable both to students and to industry and government. Students go to universities expecting two things: First they'd like a glimpse of the traditional university aura: humanism, the liberal arts, critical reason, etc. Second, they'd like to learn whatever skills are necessary for a job, preferably a job which will pay well enough so that they can occasionally indulge in the other interests they acquire at the university. In most European universities, students lose on both counts. The mass, dictatorial teaching of the liberal arts turns out to be not just a low-grade version of a liberal arts education, but a perversion of it. As for the practical side of education, out-of-date medicine or engineering isn't even partial training, it's useless. Many students started pressuring for university reforms years ago. . . .

The comment, here, ought to be compared with what is said by Luigi Einaudi about the militant students in Latin America, in the *Saturday Review* for Aug. 17, 1968 (briefly noted in MANAS for July 2, 1969).

Coming to the United States, the criticism of the Ehrenreichs changes:

> In the United States, the situation is very different. American universities may have their faults, but you can hardly accuse them of not doing what they are supposed to do. Compared to their European counterparts, American universities and colleges are rational, efficient institutions, neatly adapted to the needs of the expanding economy, industry, and empire. (In fact, the reforms mapped out for the European universities are, in large part, attempts to imitate the American model.) . . .
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> American universities never aspired to autonomy. As training grounds, as advisory centers, as business partners, American universities are as thoroughly integrated into American society as our military academies. In fact, American universities can hardly even be said to have problems of their own. Conflicts within our universities don't reflect trouble between the university and the society, they reflect conflicts within the society itself.
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> American universities are, on the face of it, more stable than their European counterparts, by virtue of their fantastic symbiosis with government and industry. But it is the very smoothness of the university's integration that gets it into trouble. . . . A struggle against the war can become a struggle against university complicity and finally a struggle against the university. . . .

> The American student movement didn't begin as a *students'* movement. People may have had plenty of gripes as students, but these seemed trivial and personal compared to issues like Vietnam, racism, and poverty. (Even the Free Speech Movement at Berkeley was sparked by outside issues—HUAC [the House Un-American Activities Committee] and civil rights.) Vietnam, racism and poverty affect, or at least impinge on all Americans, not just the ones who happen to be in universities.

It was, these writers say, the blatant *contradictions* within the university itself that aroused the students:

> In Civilization-110 you read the thoughts of Pascal; in Chem-320 you learn how to make napalm. In Econ. you read Samuelson's hymn to American capitalism; in American Lit. you might have to read Dreiser. In Business you cram on real estate laws; in History you skim through Marx. In your spare moments you're encouraged to "keep up" by reading the newspaper.

Basically, it was the horror of the war which brought such issues to a head. While the contradiction between the liberal, humanistic ethos and the realities of the larger society had existed for a long time, submission to inconsistencies was also a habit acquired in the university:

> Students were used to thinking critically for a term paper and thinking uncritically about what they were being trained for. . . . It took Vietnam for students to start wondering what they were going to be used for, to start asking if this was a society they really wanted a place in.

There is hardly any stopping questions like that, once they get going.

This book is not of course about education. It has little or nothing to say about what a good university would be like. It is a political book, valuable for its grasp of certain student attitudes and for effective generalizations about some of the reasons for the student revolt.

Interesting evidence of growing faculty sympathy with student protest is cropping up in many places. During the encounter between militant, potentially violent students and National Guardsmen on the campus of the University of Maryland, early in May, a determined group of professors and teaching assistants interposed themselves between the troops and the protesters until the Guardsmen were pulled back by their commanding officer. The students then dispersed. The faculty members of this group wore green paper arm bands and became known as the Green Arms. Led principally by two members of the psychology department, the Green Arms were successful in getting an all-faculty meeting to request withdrawal of all police and guardsmen. They also persuaded the administration to allow students to use large university buildings for their rallies. An instruction sheet circulated among the Green Arms said: "We are not a police force, nor are we trying to cool the students off. We are working to provide rational alternatives to violent confrontation."

The faculty group persuaded the administration to cancel a decision to close the university, since the student strike would have had little meaning if the university were closed. The faculty passed a resolution vowing to keep the university open so that students "could strike or attend classes as they pleased." Another resolution limited police activity on campus and still another called on President Nixon to remove all U.S. troops from Indo-China. The University of Maryland is regarded as "a traditionally conservative school."

Less dramatically, but as surprisingly, the faculty of the privately endowed University of Southern California voted early in May to allow students to strike without suffering either academic or financial penalties (in making up their work), so that there would be no pressure against student protest during what were spoken of as the Days of Concern—the time from the announcement that American troops were entering Cambodia until the end of the semester in June. An implication of the decision of the USC faculty Senate was that professors wishing to strike would have similar freedom and the support of their colleagues.

FRONTIERS

What "Age" Is This?

WE live in a time when it is possible for men of extensive learning and apparent competence to arrive at virtually opposite conclusions concerning the quality of our lives. Reporting on a new book about France in the age of Louis XIV, a reviewer observes that in those days "famine and plague threaded the lives of most men and women," that war "was constant and inescapable, and war meant pillage, rape, murder, disease and hunger." Then, turning to a recent volume by Mortimer Adler, the same writer is obliged to agree with Adler's judgment that, on the basis of "external conditions of a good human life," the United States is "vastly better than any state that ever existed in the past." There is the measured conclusion that "History leaves us in no doubt whatsoever that, whatever horrors the modern world may possess, it is incomparably better to be alive today."

Yet anyone who reads today's books and magazines knows that themes of almost agonized concern, sometimes verging on desperation, form the content of the best or most serious works. The situation is still more or less as Sigfried Giedion described it in 1962 (in *Space, Time and Architecture*):

> Some think that we stand at the beginning of a great tradition. Others, seeing the disaster around them, think that we are at the utmost end of an age. The evaluation of the nineteenth century depends upon which of these is right.
>
> If our culture should be destroyed by brutal forces—or even if it should continue to be terrorized by them—then the nineteenth century will have to be judged as having misused men, materials, and human thought, as one of the most wretched of periods. If we prove capable of putting to their right use the potentialities which were handed down to us, then the nineteenth century, in spite of the human disorder it created and in spite of the consequences which are still developing out of it, will grow into new and heroic dimensions.

While we have all the things to enjoy that Mr. Adler says we have, the fact of the matter is that we do not enjoy them. People who are really enjoying themselves do not behave as the American people are now behaving. This seems elementary. The articulate critics, not only among the young, are aghast at the past and present misuse of "men, materials, and human thought." Continuous recitals of injustice fill the better magazines. The June *Atlantic*, for example, features "Murder in the Schoolroom," first installment of a three-part contribution on how "the public schools kill dreams and mutilate minds" by Charles Silberman. Another article, "Indians in History," indicts American historians for their neglect and misrepresentation of the Indians. The writer, Alvin M. Josephy, Jr., has this paragraph:

> There are now some 750,000 Indians and Eskimos in the United States, and many of their children are attending schools and colleges where they are subjected to the use of insulting books. Their high dropout rates, self-hatred, a suicide rate far in excess of the national average, and their lack of motivation can be traced in great part to the feelings of disgrace and humiliation they suffer from their continual confrontation with stereotype thinking about them.

This author adds an observation that seems equally important at the present juncture of history:

> From the point of view of the American people as a whole the damage is just as serious. The problems we have created for the Indians continue to defy solution because we do not know their history or their true nature. To our detriment, we do not know what they might be able to teach us about conservation, the rearing of children, psychosomatic medicine, and the attainment of harmonious and ordered lives. And we fail utterly to appreciate how knowledge of our mistakes in our treatment of the Indians might now help us in our relations with other people in the world.

There is thus a growing feeling of impotence in the midst of power, a sense of impoverishment in the presence of wealth and countless delectable "enjoyments." For a great many externally

"comfortable" people, these realizations make savoring the claims of American happiness, achievement, and "greatness" psychologically impossible. The fact seems to be that the *canons* of the good life are rapidly changing. Nineteenth-century self-imagery is becoming vapid and unacceptable. In the persons of countless men, women, and children, we find ourselves hungering for another kind of reality.

So far, and for the most part, these new feelings of identity are strongly expressed only in negative terms. Whatever we are, we say, we cannot be, must not be, *that.* In the *Saturday Review* for May 20, Norman Cousins speaks for millions in his reply to the official assertion that the ordering of American troops into Cambodia shows that "America hasn't lost its manhood":

> Whatever manhood is, there are some things manhood is not.
>
> Manhood is not armed soldiers firing into a crowd of students, whatever the provocation.
>
> Manhood is not a powerful nation raining bombs down on the villagers of a small nation, without any risk of counterattack or retaliation.
>
> Manhood is not ordering soldiers to use flamethrowers in tunnels, often incinerating noncombatant civilians who are too terrified to heed the order to come out.
>
> Manhood is not the manufacturing and stockpiling of weapons beyond any reasonable definition of national defense—weapons that far exceed any possible requirement for the use of destructive force.
>
> Manhood is not dealing with error by concealing it or compounding it, or by making false pride more important than intelligence and compassion in America's relationship with the rest of the world.

According to one argument, Americans have every reason to be "proud"; the other argument provides reasons for little more than compulsive shame. But why, it must be asked, do the shame and self-accusation lead to so little affirmation? Why does our moral longing find expression chiefly concerning those things we ought not to do?

It is as though we still say to ourselves: Morality may be "private," but salvation will become possible only through numbers and organized power. One who believes this is likely to find it very difficult to form a coherent self-image in terms of authentic individuality. So shame and blame remain the themes. There is the beleaguered sense of not having the *time* to find out what sort of man would be unable to do any of these shameful things, and then devote our positive energies to developing his qualities—in ourselves and others. Yet it remains entirely possible that time may be the only asset we have not yet squandered or exhausted by facile manipulation. So long as people still have free choices as individuals, the end of time is not yet. The age of post-historic man has not arrived, but we can make its advent unavoidable by waiting for the organization of "power" in order to accomplish significant change.