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SYMBOLS AND MYTHS

THE increasing awareness of the crucial role played by symbols in human life has both enlightening and disturbing effects. It is enlightening in that it leads to better understanding of how one's feelings about meaning become operative in decision and action, and disturbing from recognition that symbols are not in very fact the substance of what we hold dear, but a kind of image or reminder of them. In some measure the faithfulness of the symbols to the values they are meant to represent varies with not easily defined qualities of human character, it following that critical discussion of them becomes exceedingly difficult. For many men, a questioning of the symbols they cherish amounts to an attack on the reality of their lives. Even when the calculated manipulation of those symbols leads to a kind of enslavement of many people, recognition of what is happening is often avoided: what would these people do if they were in fact, or could be, set free?

We are thoroughly familiar with the great historical changes which result when large numbers of men finally accommodate their feelings and hopes to a new set of symbols. We call these changes "revolutions" and we see in the outburst of human energy and inventiveness which follows, the fruit of a fresh vision and pursuit of meaning. In time, the vision is converted into the static rationale of a social order, although the charisma of its symbols may last for generations. When, finally, those symbols are seen as confinements rather than instruments of growth, a period of writhing uncertainty begins. No one finds a sense of violated faith easy to bear, and people who can see nothing but ruin in sudden change try desperately to restore the original inspiration of the symbols, hoping to bring back their former power to order and direct human energies. In such a time, men make terrible accusations against one another. Good and evil, instead of being the varying attributes of all men, turn into absolute characterizations, while differences of opinion are polarized into wild *Götterdämmerung* theologies. Men are now willing to fight to the death for the preservation—or the establishment—of the symbols they have chosen, already hardened into rigid mechanisms adapted to the angry power that serves them.

It is a well-known part of history that a heroic effort was made by our ancestors to neutralize these passions through the creation of what is now called the "secular state." The new-born institution of science was given the responsibility of declaring unequivocal truth, so that men would no longer pursue brutal wars in behalf of endlessly debatable religious doctrines. The scientists enthusiastically began their long task of de-allegorizing of the forces of nature, while the derring-do of emancipated common men gradually created new symbols of personal, material achievement. These, in the Western world, took the place of the old religious imagery.

We see today, however, that the secularization of the operative symbols in human life was only a holding action. The philosophers of the eighteenth century, although men of wide understanding, could not anticipate that there would develop a passionately partisan faith in new and supposedly "scientific" symbols of human good. It was beyond the scope of their imagination to suppose that men would defend theories of impersonal historical process with the same intensity that once animated the embattled advocates of "true" religion. The early champions of secularism embraced the hope—childlike, as is now evident—that from scientific discovery would come mandates for action that were beyond dispute. And they overlooked the dread

possibilities in the misuse of power brought by scientific discovery and invention.

There have been benefits, however. As the fruit of nearly a century of secular education, certain unmistakable truths about man have lately been appearing. We know, for example, that the symbolizing process is fundamental to all thought and that the life of understanding is indeed an endless progression in the use, choice, and refinement of symbols. Mathematics, the language of science, provides the symbols by which we define what we know about both structure and process, and with which we construct the models that enable us to control the forces of nature. The capacity to symbolize, with all that this entails, comes close to being the most comprehensive attribute of human beings, setting them off from other forms of life, and the finest works of the human spirit endure in our memory and elevate our lives by reason of the deep sense of meaning generated by their symbolism.

Through experience in teaching and all educational relationships, moreover, we learn the importance of patient waiting and the complete futility of trying to enforce the acceptance of symbolic meanings. The best educators, we find, are persons who have become chary of certainties and have grown to respect above all the initially fragile and tender plant of independent thinking in other human beings. Since there is no genuine human development without the slow growth and maturation of this kind of thinking, the true teacher learns the art of assisting others in self-reliance and self-criticism, and this means the practice of a heuristic relativism toward all symbolic meanings and symbolic systems. Yet the teacher of necessity acquires his own conception of what it means to be human, from his intimate encounter with the learning process, and it is difficult for him to concede that there can ever be a more important reading of man's nature than what he has personally found out through teaching.

What are the sources of the symbols which men use to interpret their daily experience and to define the purposes in their lives? We have only a historical answer to this question, although, some day, the psychologists may collaborate with philosophers in explaining the subtle processes by which these symbols are invented or perhaps "divined." The oldest symbols seem to come from religion. In the West the Cross is the most familiar. The Buddhists have their Wheel of Life, and the Lotus, with its rich significance of exquisite beauty and transcendent symmetry arising out of formless mud and slime. The Greek myths seem to typify the major encounters of human beings with obstacles and frustrations. Prometheus is a symbol of the struggling human spirit, Theseus, of the hero capable of going into dark places, engaging an enemy, and finding his way home. The story of Proserpine and her captivity was the foundation of a central meaning of the Greek Mysteries, signifying the confinement of the soul by the body. With hardly an exception, the myths and symbols of antiquity provide a "sacred" explanation of the whole of life. Cosmology is no more than a part of this explanation, with all the forces of nature subserving ends which have meaning to human beings.

It is by no means certain where these stories came from. Plausible accounts of their origin may be found in books, but what is not really explained by such speculations is the extraordinary flexibility of the myths—their application to widely varied human situations and psychological crises. In recent years a rich literature on the subject has developed in which the authors emphasize, not the fantasy in such ancient traditions, but the wholeness they contribute to the study of the inner life of mankind. Both educators and depth psychologists mine the lore of ancient symbolism for conceptions which help to provide an over-arching structure of thought in which the stature of man can be better understood. The beginning of a far-reaching restoration of the dignity of the individual seems to be resulting from these efforts.

The symbolic content of the myths is used functionally, in correspondence to the elements of psychological experience; in a word, their psychological truth is now established, regardless of the truth-content assigned to them in the past. They possess, one might say, multi-valued meanings and are capable of endless variety in interpretation. No doubt the fantastic element in them contributes to this.

The symbols which have served Western man in America since the eighteenth century are of a very different order. There are Daniel Boone and Davy Crockett, and the Pioneer Woman, her hand on a wagon wheel, gazing West. There are the Boston Tea Party, the Liberty Bell, the Clipper Ship, the Cowboy, and young Abe Lincoln studying by the fire. Add a few other images—a place in the country to retire to when you get old, a miner panning gold in California, a figure to represent a Captain of Industry, another in a white coat holding a test tube up to the light, and you have nearly the whole list, except of course for the iconography of advertising, which would take us into the profane area of commercial allegory and emblems.

In the modern symbolic scheme, the world is our resource, but not a part of our meaning. We have no symbols of cosmic import, nor any myth which promises a transcendent destiny. Even if we think we need one, it is difficult to imagine how it might be obtained. Myths are born not only of human need but of legitimate parentage in the flow of shared cultural feelings about the nature of things. And the "nature of things," in the modern view, has little in common with the heart's hungers. The world out there is some kind of inventory of material aggregates, whipped into existence by blind primeval forces that are now regarded as public utilities. There's still a lot of power out there that some day will be under our control. We may be reproached for this rudely acquisitive idea, but only by poets and pantheists who, as everyone knows, have little to say about the practical affairs of mankind.

There is another reason for anticipating difficulty in getting a cosmic myth for our time—at least, until physicists find a way of uniting with the ancient Emanationists to obtain justification for a tide of teleological meaning behind the universe of matter and force. It is that the progress of modern science has itself taken place, step by step, as Gerald Holton says, by means of the de-allegorization of motion. The very idea of cause has been practically lost in a maze of equations. The symbolic structuring of dynamic happenings according to mathematical formula has been the means of controlling those happenings, and we have been very sure, until quite recently, that what we know how to control we do not have to explain.

The brute fact is that the only myths that operate for us today are vague collectivist myths. The symbols to which men are responsive in concert are those which have to do with the exercise of power, and the good that they represent is a good which flows from the corporate acts of many men. Since such political activities must deal with merged and averaged motivations, the quality of individual vision and responsibility is inevitably lost in the process. As Andrea Caffi has said:

> As long as today's problems are stated in terms of "mass politics" and "mass organization," it is clear that only States and mass parties can deal with them. But, if the solutions that can be offered by the existing States and parties are acknowledged to be either futile or wicked, or both, then we must look not only for different "solutions" but especially for a different way of stating the problems themselves.
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> What distinguishes "mass politics" is the fact that it reduces human beings and their occasional spontaneity to the function of undifferentiated and interchangeable particles of energy of which the only thing that matters is how quickly they can be agglomerated into large numbers and "big battalions."

Well, shall we say, If that is the way things are, that's the way they are—or shall we ask if another way is possible? One thing is certain: Any changes that take place will have to begin with

individuals. And they will come according to the logic expressed many years ago by William James:

> I am done with great things and big things, great institutions and big success, and I am for those tiny, invisible, molecular forces that work from individual to individual, creeping through the crannies of the world like so many soft rootless or like the capillary oozing of water, yet which, if you give them time, will rend the hardest monuments of man's pride.

The coherence of ancient societies came from the myths of meaning propagated by spiritual teachers and disseminated throughout the cultural community by diverse means. The political community, you could say, was held together by great allegories of meaning, with priests and rulers in *loco parentis* to all the rest. Today we sorely need the function of the allegories, but without the sanction of theocratic authorities, and without the personifications that are totally unacceptable in our de-allegorized world. We have, in short, to accomplish of our own motion the objective of the institutional arrangements of antiquity. We have to manufacture out of the inspiration of our own inner lives those symbols of individual excellence and achievement which are beyond the reach of collectivist compromise. This means taking from the educator his conception of the good life, which is a life of endless learning and reconstruction and refinement of beliefs. The social thinking of educators always strikes this note. Arthur E. Morgan, for example, wrote in 1936:

> Repeatedly, individuals or small groups gain a discriminating view of human conduct and by a great effort rise above the mass, and then in the course of a very few generations the distinctive character they achieved seems to be lost again in the mass, as a wave that has risen to a high crest sinks back into the ocean. Yet, I repeat, wherever a genuine contribution has been made to human living there tends to be a residue, and the accumulation of these residues constitutes civilization.
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> Every person who has poured the energy of his life into an effort to achieve a pattern of living that has enduring significance, craves that the results of his efforts shall not be lost. Seeing the blind stumbling and intolerance of men, and realizing his own shortcomings, he would do whatever he can to throw light on the path of social evolution and to accelerate its progress. . . . Keeping in mind all the dangers and difficulties involved, for many reasons it would be desirable for persons who are committed to actually achieving what I have called the universal expedients of a good social order, to begin to build their own economic and social world. If such men are to escape the constant dilution of their purposes by society at large, it is desirable that there be *islands of brotherhood* where men of like purposes can strengthen each other and can create a milieu in accordance with the universal expedients of a good life.

The ideal to be born in mind in all such undertakings is of a goal, or rather a continuing process, which is not reduced by compromise or deliberate dilution. This is possible only for individuals or very small groups. Growth in understanding is naturally the individual aim, while its by product in social value is the establishment of cultural awareness of ends which, in the nature of things, the political community as such can never hope to attain.

The principle here proposed is that the good life must be made independently self-sustaining. It cannot be manipulated into existence by politics. The hero of the myth has never had behind him the power of the Omnipotent State. The State, fortunately, is not omnipotent. It neither invents nor inspires. At best it gives a frame to order and relate the energies and inventive capacities of individual men. When it attempts more than this, it stultifies not only these but the similar potentialities of all other men.

There is no confrontation of men in the confrontation of States. States cannot make peace. Men make peace. Hence, so long as the vision of men is reduced by States, there will be no peace. The generous act, the patient endurance of hostility until it wears away, the returning of good for evil, the hearing of a desperate cry of pain—these are the acts of individuals. They cannot be incorporated, although if they become numerous, they may be

reflected in national policy. The acts of individuals must regain moral priority in human life. The claim of some States, in memory of the eighteenth century, is that they *reserve* moral independence to individuals, but this priority has been so diminished in the course of nearly two hundred years, that it allows only squeaks of protest in confined areas devoted to such matters. Most of the moral priorities have been preempted by the State: How else could we become involved in what is by all the marks of identification a religious war?

Can we, in the twentieth century, have a symbol of awakened individuals who will work for a restoration of their full being, against the weight and authority of symbols standing for the subdivision of man? Is there, in the lore of psychology, in the principles of education, some transcendent imagery for this purpose? In ages past, the symbols were provided by hierarch and sage and they flourished in the community by multiple display and transmission, until, one could say, a child absorbed them with his mother's milk. But the men of our time make their own tradition. It is a dogma of democracy that truths must be self-generated. Which, we may add, is a form of respect for the learning process.

An age without symbols is either an age of subhumans or an age of gods. The genius of the ideals of modern man is in their resistance to transmitted formulas. Indeed, this is the very meaning of "modern," taken at its best. Symbols became sacred, filled with the power to lift up faces and resonate voices, from the secret resolve of human beings. This may be a time when a torrent of unfixed images of individual man acting for the good is beginning to flow into the consciousness of yearning human beings. Images of this sort, which each one can shape to his own liking, may be the only ones acceptable to the strange and wonderful intelligence of a mankind in radical transition.

REVIEW
A NOVELIST'S ETHICAL ASIDES

ONE would naturally suppose that a storyteller like John D. MacDonald writes to make money rather than to convey a "message" to the reading public. And considering the verve with which he produces so many intricately contrived plots, MacDonald probably enjoys writing his thrillers as much as others enjoy reading them. But, whether by the author's personal credo or by market calculation, all MacDonald's heroes, though "slightly tarnished" (his phrase), have moments of concern with a special brand of ethical perception.

The latest and most persevering MacDonald protagonist, Travis McGee, closely resembles Richard Boone's Paladin in "Have Gun, Will Travel"—a "knight without armor in a savage land." Both belong to what psychologists have called the "cowboy world," that realm of fantasy in which hundreds of thousands of persons from Maine to Tokyo spend a good deal of their time. McGee is an ultramodern Robin Hood who disdains adjustment to the established order of things, seeking neither status, financial security, nor conventional comforts of any other kind. Though the plots in which he becomes involved pit him against one or another criminal exploiter to regain expropriated moneys for his clients, his real dedication is to resistance to routinized living.

From a 1964 MacDonald story, *The Quick Red Fox,* we pick the following version of his recurring theme—an indictment of no-think, properly "adjusted" living. McGee speaks of the tremendous challenge posed to anyone who desires to "keep a little essential privacy." He makes a disheartening projection of present trends into the future:

> Keep a little essential privacy? Our dear Uncle owns over 23,000 polygraphs. Lie detectors. God alone knows how many industry owns. Not satisfied anymore with giving you the whole series of Multiphasic Personality Inventory tests, they want to make damn well certain you are not merely giving them the answers you think they want. They want to nail you into your permanent box right now, brother. Get in and lie still, and forty years from now we'll bury you.
>
> I get this crazy feeling. Every once in a while I get it. I get the feeling that this is the last time in history when the offbeats like me will have a chance to live free in the nooks and crannies of the huge structure of an increasingly codified society. Fifty years from now I would be hunted down in the street. They would drill little holes in my skull and make me sensible and reliable and adjusted.

This is MacDonald's way of opposing the Orwellian horrors of 1984 and the humdrum confinements of W. H. Whyte's *Organization Man.* Who is responsible? Not a league of capable demagogues who plot the submergence of individuality; the real offender is the inertia of so many citizens of the "affluent society." MacDonald describes the smug complacency of the no-think community—"full of plastic people, in plastic houses, in areas noduled by the vast basketry of their shopping centers." He continues:

> But do not blame them for being so tiresome and so utterly satisfied with themselves. Because, you see, there is no one left to tell them what they really should be doing.
>
> The dullest wire services the world has ever seen fill their little monopoly newspapers with self-congratulatory pap. Their radio is unspeakable. Their television is geared to minimal approval by thirty million of them. And anything thirty million people like, aside from their more private functions, is bound to be bad. Their schools are group-adjustment centers, fashioned to shame the rebellious. Their churches are weekly votes of confidence in God. Their politicians are enormously likable, never saying a cross word. The goods they buy grow increasingly more shoddy each year, though brighter in color. For those who still read, they make do, for the most part, with the portentous gruntings of Uris, Wouk, Rand and others of that same witless ilk. Their magazine fare is fashioned by nervous committees.
>
> You see, there is no one left to ask them a single troublesome question. Such as: Where have you been and where are you going and is it worth it?
>
> They are the Undisturbed. The Sleep-Lovers.

> And they fill out an enormous number of forms every year humbly and sincerely. Each one is given a number to use all his life.
>
> Are they going to be awakened with a kiss? They feel vaguely uneasy about their young. My God, why can't these kids appreciate this best of all possible worlds? What's wrong with these restless punks? These . . . these goddam *dropouts!*

As the *American Scholar* Symposium on Morality (Summer, 1965) repeatedly stressed, our time is not so much characterized by backsliders who desert the moralities of the past—it is rather that the moralities of the past have deserted them. The modern (non-Marxist) radical is a "drop-out" from the institutions which have shut out individual awareness of responsibility. Henry A. Murray indicates why a viable morality must now come from personal valuation and decision:

> I look back at my life, not looking at scarcity, nor looking at history, nor looking at all these possible origins or contexts for my decisions: I look at my decisions. When have I been better, when have I been worse, in those decisions—this is a problem that may be illuminated by these remarks, but it is a problem that must be faced. And again and again I ask myself this on the basis of my own history, and my own evolution and my own origins, but with not as much respect for these as for the way I live. And again I keep finding that I have been immoral when I have been incapable of awareness. Just as simple as that. I have been immoral in proportion to my incapacity for awareness, and I'm really going to put it in a wild way: When have I been more aware, and when have I been less aware of the human soul, mine or other people's? In my youth I was unaware not only of other human souls, compared to the way I am now, or hope to think I am now, but also sublimely unaware of the heart of darkness in my own soul. It's in these areas that the question of the problem of morality arises for me. I simply will open my mind to considerations of the origins, history, only if they bear on these intimate decisions between good and good, *et cetera,* that I have made.

A novelist like MacDonald at least reflects something of this awareness, and endeavors to popularize it in his own way.

COMMENTARY
THE STUDENT REVOLT

THE account of high school education by W. H. Ferry in this week's "Children" article would probably be found unbelievable by a great many parents. Unfortunately, not much can be done to aid the understanding of people who say, "It just *can't* be true!"—and here lies the explanation of the general bewilderment at the student revolt at Berkeley last fall. High school students are defenseless against the kind of thing Mr. Ferry is talking about. University students are not, and when they take strong measures in self-defense, the general public remains basically unequipped to understand what is happening, and unwilling to find out. While free speech and other rights of citizens were the immediate issues at Berkeley, the rebellion has been recognized as having deeper roots by dozens of responsible investigators. As A. H. Raskin put it in the New York *Times Magazine* for Feb. 14, 1965:

> . . . one . . . danger sign outranks all others raised by the mess at Berkeley. That is the degree to which it evidences a sense of lost identity, a revulsion against bigness, that is affecting all of our society. On the campus it takes the form of antagonism against the multiversity. In the mass production unions this same feeling of impending obliteration spurred rank-and-file strikes again against General Motors and Ford and may erupt in the basic steel industry this spring. The long-shoremen, fearing the shiny face of automation, voted down contracts that gave them lifetime job security and a generous wage guarantee—principally because they felt the machine was grinding them and their jobs into nothingness.
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> A similar mood of irrationality, of vaporous but paralyzing apprehension, stalks all our institutions in a time of unmatched material prosperity and individual well-being. Young people, in particular, study the unemployment statistics and decide that society is a conspiracy to provide security for the older generation at the expense of the youngsters outside waiting to get in. Education is the magic carpet over the hurdles that make the dropout the shutout in our society. But even at this most distinguished of universities, bigness robs many students of individual dignity or purpose. This feeling helps explain the spread of drug addiction and senseless crime among many well-to-do youngsters. All are part of an alienation that turns even affluence and security into worthless prizes.

The foregoing is quoted from a section in *Student Revolt* (Anchor paperback, $1.95), a collection of papers on the events at Berkeley. However, no single quotation can present more than a fragmentary view of what took place. Along with this book, a Dell paperback, *Revolution at Berkeley* (95 cents), should be consulted. Indifference to the moral energy behind the student revolt is a chief cause of the militance to which it was forced to resort.

CHILDREN
. . . and Ourselves

THE EVER NORMAL COOKIE JAR

STIPULATED: Most American high schools try hard.

Stipulated: Some high schools are exemplary.

Stipulated: Most high school graduates manage to get into college or to get jobs.

Stipulated: High school faculties and administrators are diligent and devoted.

Nevertheless:

American secondary education is a citadel of incoherence, busyness, and broken promises. It produces enough nonreaders and non-writers to transform much of the first college year into remedial jam sessions. Employers of high school graduates complain about their failures with words and figures and their inability at simple reasoning. Secondary education in this country creates an antipathy to learning and distrust of the works of the mind. It disregards the needs of man and stresses the material ambitions of men.

Such considerable failures out of such considerable investments of time and resources are variously explained: unwillingness to flunk students, unwillingness of taxpayers to pay more, failures of counselling, too-large classes, too heavy a load on faculty.

But these are effects, not causes. As all of the effects are parts of a single cluster, so are the principal causes. Secondary education suffers from:

The willingness to do many things poorly rather than the determination to do a few things well.

It is difficult to imagine a human activity or community whim that is not represented in a high school program somewhere. Not every secondary institution is large enough or rich enough to embrace the myriad non-educational activities that comprise so substantial a portion of current offerings. Intrusions on education like baton-twirling, driver training, cosmetology, salesmanship, and yes, home economics, have in common a lack of intellectual focus or content. I pass over the question whether these activities are taught as well in high school as they could be taught by agencies outside the school. The harm in presenting such a Byzantine profusion as part of formal education is five-fold.

They beguile the innocent, who take such courses believing that they are being educated. They confirm, in the community, the disastrous misapprehension that education is merely a cookie-jar of assorted confections, all approximately equal in weight and value. They absorb money and administrative attention that should be devoted to education. They result in so much competing activity that no one will ever be able to figure out where education and intellectual effort leave off and busyness and triviality take over. The principle of conglomeration virtually assures that a sizeable percentage of students will be unable to read, write, or work with abstractions satisfactorily, and contributes to a minimum rather than maximum performance in these areas among the rest. Finally, the cookie-jar approach leaves the student unoriented to his world, either unaware of the perennial questions of human existence or persuaded that they are none of his business. This condition is traceable in turn to a second basic weakness of secondary schools:

Lack of standards, otherwise known as local control of the curriculum.

The right of the local school district to mis-educate, under-educate, or non-educate its children is maintained by parents with the same passion that state's rights are cherished in the South. And for the same reason, commonly stated thus: we know what's best for us. In the case of parents—usually, alas, with the complicity of school boards—what's best amounts to an adding up of transient so-called needs of the students, recollections of their own simpler school

days, stylish new ideas, and confused feelings about too much or too little homework. The prevailing mood of local control is sentimentality. The prevailing rationale is utility. Sentimentality permits parents to ignore the historical datum that local control was long ago found so chaotic that most of the content of secondary education is dictated from state capitals. That part of the high school curriculum subject to local judgment is commonly the part producing the most ludicrous and time-wasting results. They are the tribute exacted by an anachronistic understanding of democracy.

The word "needs" is central to the doctrine of local control. The needs referred to are seldom the real needs of the student. They are far more likely to be the assumed need of the local coal office for stenographers or salesmen; or the need of parents to be relieved of teaching their children how to drive or how to think about sex; or the need of the district to shove throngs of young people through a school system without tilting the tax rate overmuch. In a time of increasing mobility, local control assumes that students will stay put. The historical imagination of local control is about two years long, envisioning at most the high school graduate safely at work or in college. But the student is going to live another 60 years, not just two or three, and high school is likely as not his last crack at formal education. Local control assumes that it has the right, if it cares to exercise it, to loose on the national community students barely able to read and write and never exposed to the grandeur and oneness of the human adventure; but well-versed in the folklore and history and enterprise of their 30-mile-square geographical district.

The answer is not more state standards, which are in themselves an enlarged mode of local control, but national standards. These will be designed to assure that all high school graduates will go to college or to work with some common currency in the essentials of education. The aim will not be to make things easier on colleges or employers, but better for the human community and better for the students. With a lifetime of uncertainties stretching before them, the least they can expect of their first 12 grades is to start out even. Equality before the school is almost as important a democratic dictum as equality before the law.

The secondary school is, however, the object not the author of its circumstances. Today Socrates would say, "That which is cherished in a nation is taught in its schools." The prevailing frame of mind is pragmatic. The high school gets its cues from society, not vice versa. If blame is to be parcelled out, the largest share must be borne by the intellectuals who have disintegrated learning by dividing the educational enterprise into smaller and smaller cubicles of specialization, and by those who have insisted that schools exist to furnish the marketplace with employees and consumers.

A leader in the recent Berkeley rebellion said to his fellows, "Don't trust anyone over 30." He was saying that a generation which had produced such confusions and dangers as confront the nation merits no confidence. He was able to see even if his parents were not that bigness and power are not the same as wisdom and justice. He was turning away from the narrow and incoherent world of self-seeking, which he recognized as the source of the solitariness and impersonality visited upon him, toward a world of communal purpose and concerns.

Here if anywhere is the beginning of the ultimate salvation of the secondary school. Erich Kahler says:

> "The fragmentation of our knowledge and activity in the sciences and in the arts is at the bottom of our general crisis. It is a consequence of the fading away of a common purpose and direction of human affairs, and this, in turn, is due to the loss of awareness of humanity as a coherent whole, of Nature, of the universe as coherent wholes, indeed of the concept of wholeness."

It is futile to adjure school boards and faculties to seek wholeness. They are busy with busyness. They are the over-30 agents of the incoherent demands of other over-30's. But many under-30's and not only those at Berkeley, have a higher aim and steadier view of what is needed. They see a nation endangered by war, self-righteousness, psychic disorder, automation, aimlessness. Their diagnosis is social and political astigmatism of epidemic dimensions. They see the seeds of the epidemic in the educational system. If the under-30's have not yet produced a convincing therapy they are not to be faulted too much. The ailment is pervasive and loved by its victims. The task of restoring reason and singleness of purpose at any level of education is immense. But, unlike the over-30's they are at least trying.

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FRONTIERS

Science as Consensus

THE idea of scientific fact or "objective truth" is an effortlessly stabilizing conception unless you look at it closely enough to see how it is formed. For then you begin to recognize a familiar factor in the shaping of "accepted" science that is not expected to be there at all.

Let us call this factor the human longing for moral security or good, in which scientists participate as much as other men. This is a way of saying that the enterprise of scientific research is framed by philosophical conceptions of the good and that the direction of investigation is for the most part determined by a consensus among scientists as to where fruitful results will be obtained. The most startling discoveries, of course, come from the work of men who have some kind of private immunity to prevailing scientific opinion, and it is in these instances of dramatic advance in spite of old assumptions that the great virtue of the scientific spirit is revealed—for once a man demonstrates by repeated experiment the reality of some revolutionary fact or principle, his conclusion is integrated with previously established knowledge, even if this should be at the cost of extensive rearrangement of many other facts.

We may inspect the history of science for verification of this general scheme of progress and decide that it has proved to be a quite practical arrangement. The inventiveness and daring of unusual individuals bring the forward steps of discovery, while the conservatism and insistence on full proof by the general body of practitioners of science gives protection against extravagant mix-steps.

There are, however, further problems. Scientific activity does not proceed in a laboratory carefully cleansed of all intruding philosophical assumptions. The methodological principles of science are themselves the offspring of philosophical ideas which, at the beginning, were intended to safeguard the integrity of the enterprise by eliminating all incommensurable causes. The physicists and astronomers would, in short, manage without God, the psychologists without soul, or even, as they did for a while, without mind. The methodological assumptions of science are not just rules devised for their own efficiency by a group of highly trained professionals, but reflect the influence of powerful social forces and the leverage applied by passionate reformers. We simply do not know how the historical influence of the Copernican Theory might have changed if it had not been used as a weapon against the psychological tyranny of theologians.

It is at least conceivable, for example, that there could be a science which would undertake to distinguish as well as it can between measurable causes in the phenomena of life and nature, and other factors which do not submit to familiar mechanistic determinations. Admittedly, such a science would be hand-maiden to some kind of over-all metaphysical theory, but it is wholly possible that the ingrained opposition of the scientist to metaphysical ideas derives almost entirely from his recollection of religious suppression through long centuries of man's hunger to know for himself.

In any event, there is plenty of evidence that individual scientists have speculated in this direction, and have even recorded their thoughts. The point, here, is that such reflections are indeed concerned with the larger security or integrity of the scientific enterprise, involving questions bearing on the good of all mankind. It should be evident, also, that if thoughts of this kind were to gain wide currency, the consensus of scientists might eventually alter into overt hospitality to ideas of a universe involving multileveled schemes of causation, in which the metaphysical merges with the physical at subtle frontiers of interrelation—much, perhaps, as the statistically described phenomena of sub-atomic physics become identifiable in terms of Newtonian

mechanics at a critical point in the ascending scale of mass.

There is a curious anticipation of something like this view in the writings of T. H. Huxley, who is usually thought of in quite other terms—as the embattled champion of Darwinism and as the advocate of epiphenomenalism in psychology. Yet this same Huxley wrote in an essay in his volume, *Science and the Christian Tradition:*

> Looking at the matter from the most rigidly scientific viewpoint, the assumption that, amidst the myriads of worlds scattered through endless space, there can be no intelligence, as much greater than man's as his is greater than a black beetle's; no being endowed with powers of influencing the course of nature as much greater than his, as his is greater than a snail's seems to be not merely baseless, but impertinent. Without stepping beyond the analogy of that which is known, it is easy to people the cosmos with entities, in ascending scale, until we reach something practically indistinguishable from omnipotence, omnipresence, and omniscience.

There was little risk, it must be admitted, of anyone then inviting Prof. Huxley to relate these imaginings to his scientific views. He lived in the heyday of the rising-prestige of science and was probably the chief architect of its public image in England. Yet the ranging of his mind to these far-reaching analogues of the known will illustrate the wide difference between a *possible* conception of the natural universe and the prevailing scientific consensus. Some half a century later, more from feelings of moral urgency than from enjoyment of unleashed intellectual speculation, another British scientist, the psychologist William McDougall, made this observation:

> Unless Psychical Research can discover facts incompatible with materialism, materialism will continue to spread. No other power can stop it; revealed religion and metaphysical philosophy are equally helpless before the advancing tide. And if that tide continues to rise and advance as it is doing now, all signs point to the view that it will be a destroying tide, that it will sweep away all the hard-won gains of humanity, all the moral traditions built up by the efforts of countless generations for the increase of truth, justice and charity.

Here we see the influence of a great change in human feelings about the sources of moral security. No longer is there a need for polemics against transcendental thinking, in behalf of scientific freedom of mind. The Holy Office no longer threatens the promoter of heretical ideas. As the moulder of man's destiny, dead matter and blind force are now the twin deities which have been put in Jehovah's place, and thousands of conscientious scientists, having learned to ignore the bearing of "morality" on their investigations, had framed men's lives with a universe in which conceptions of spiritual purpose and ethical responsibility were totally excluded.

But by 1923, when Dr. McDougall wrote the above, a terrible world war had made thoughtful men humble and ashamed. McDougall's interest in psychical research—which helps to explain the themes running through such books of his as *Body and Mind* and *Modern Materialism and Emergent Evolution* (Methuen)—became more apparent when he left Harvard in 1927 to go to North Carolina to head the psychology department at the newly founded Duke University. There he enlisted the help of Dr. J. B. Rhine and his wife, Dr. Louisa E. Rhine, who had come to Duke to pursue a branch of psychical research under the guidance of Dr. McDougall, and the result of this alliance became known in time as the pioneering center of research into extra sensory perception—Duke's Parapsychology Laboratory. A year before he died, in 1937, in the first issue of the *Journal of Parapsychology,* Dr. McDougall asked questions which disclose the deep moral longing which may be said to be behind the development of this daring addition to the conception of psychological science:

> Are mental processes always and everywhere intimately and utterly dependent upon material and physical organizations? Do the volitions, the strivings, the desires, the joys and sorrows, the judgments and beliefs of men make any difference to the historical course of the events of our world, as the mass of men at all times have believed? Or does the truth lie with those few philosophers and scientists who, with or without some more or less plausible

> theory in support of their view, confidently reject well-nigh universal beliefs, telling us that the physical is coextensive with the mental and that the powers and potentialities of mind may be defined by the laws of the physical sciences?

Just published by the Parapsychology Press, Durham, North Carolina ($2.75, paperback $1.75) is a volume, *Parapsychology: From Duke to FRNM*, which tells the story of the work pursued under the inspiration of such questions, which last year eventuated in the Foundation for Research on the Nature of Man. This book relates the story of the beginnings of psychical research at Duke, telling how early experiments were conducted by Dr. Rhine and of the development of the now familiar ESP cards. After the appearance of a monograph on this work, entitled *Extra-Sensory Perception*, published in 1934 by the Boston Society for Psychical Research, a rush of popular interest revealed the potentiality of widespread public support. Dr. Rhine's findings were of course controversial, and there was much argument and frequent attack on his work, but in time the ESP statistical procedures were endorsed by mathematicians and distinguished science editors such as Waldemar Kaempffert of the New York *Times* gave their aid. The scope of the research branched into many directions, covering clairvoyance and pre-cognition as well as telepathy, with some study of psychokinesis, or "the direct action of mind over matter." Today, while acknowledging that "it is only in the idealized conception of scientific truth that we may properly claim that parapsychology is a legitimate branch of science," Dr. Rhine speaks of the progress that has been made, adding—

> for a science that is revolutionary not only for psychology but also for the basic materialistic philosophy that has dominated the entire world of science, recognition must be tardy. If, by the end of the first half of the century, it had become evident to the Duke workers themselves that they were dealing with a distinct branch of science that had a definite area of natural phenomena of its own to claim, it would not have occurred to any of them to anticipate a universal acceptance of the fact before the end of the century.

A statement of the conception of the new Foundation concludes:

> . . . the program is nothing more nor less than a part of the scientific search for whatever lies behind the remaining mysteries of nature, in this case those peculiar to the personality of man. The strange manifestations that remain to challenge the sciences of the mind seem as miraculous as anything in the origins of the recognized branches of science. At least man can lose nothing by the acquisition of all the facts behind these mysteries; certainly, he cannot hope to understand himself fully without them.

Workers in parapsychology seem quietly confident that they have hold of elements of experience which, when better understood, may bring a new conception of the very meaning of scientific inquiry. Other men in other branches of psychology have similar feelings about the promise of their work. What cannot be ignored in the dynamics of these changes is the part played by the hungers of the human heart in giving new direction to research. The object to be known, it seems, is that which gives wholeness to the subject. This is the moral specification for any possible universe which has human beings in it. The practice of science conceived according to this view may have greater long-term stability than our present approach to "natural reality."