ACCESS TO SACRALIZATI ON

PAIN is undoubtedly something we learn from; a world with no pain in it would be a place where human beings as we know them could not possibly survive. Yet the instruction we get from pain is obviously limited. Pain is a communication from nature which tells us that something is wrong in our circumstances, our organism, or our relationships. We are informed that some level of harmony has been disturbed. It does not instruct us in the rules of harmony, but only in the fact of disharmony. Harmony does not call attention to itself in the same way that pain does. Some sorts of harmony do not require attention, may be disturbed by it, and are best maintained through what might be called the practice of benign neglect. At any rate, harmony is intrinsically a Taoistic affair. The term applies to a condition of balance among conflicting forces which, if normal for the consciousness involved, is the way it is Defining how things are supposed to be. supposed to be is infinitely more difficult than the identification of a particular disharmony or pain. Any system of harmony, tending by nature to be virtually invisible and representing a kind of autonomy, has countless interconnections within itself and also with other systems of harmony. The man who said that the doctor amuses the patient, while nature cures him, was suggesting something similar about the harmony of health.

Yet some encounters with pain are deliberately invited, with good reasons in mind. All growth is a disturbance of a now inadequate status quo, which means that pain is usually involved in replacing one system of harmony with another. Some kinds of growth bring disillusionment, which commonly causes pain. There is also what men call existential pain, not well understood but felt to be inevitable in human life. Conceivably, existential pain springs from the fact that the gamut of human consciousness is made by the polarities of subjective and objective awareness. We can feel unities while seeing diversities. We can also feel isolated in the midst of intimate external relationships. There are unutterable longings which go with these contradictions-longings which seem impossible of fulfillment, yet also seem to declare by their insistent presence that fulfillment exists. These longings are translated into a multitude of finite objectives and symbolic goals, resulting in pursuits which produce various sorts of both pleasure and pain. When the pain exceeds the pleasure beyond all ordinary expectation, becoming a pervasive reality, men are driven to attempt philosophical and other explanations of why they suffer.

This is happening today. We are having too much pain without assignable cause. People who are supposed to be "happy" because of claims made for the systems of harmony they have believed in, are not happy at all. The *malaise* we experience is widely admitted and to blame the systems which we have inherited is like beating a dead horse. We know they aren't working well, that people are feeling pain. The question is why. A short passage from a novel by Frederick Wakeman illustrates one barrier to finding an answer. In this story, a Greek girl is trying to make some American interrogators understand the background of her family and people. She says:

... oh, how can a Greek explain herself to an American? Did you know your tragedy *Death of a Salesman* was a comedy in Athens? Audiences laughed, though with exasperation, at your Willy Loman. He has a car, his own house, even that certain sign of wealth, a refrigerator. Food in plenty. What on earth was his problem? It was not a Greek tragedy.

But Americans who have been fortunate enough to live for a while in a Greek community, sharing in the life of the people, might know what she meant. The Greeks couldn't understand Willy Loman because their lives were filled with intimate personal relationships and obligations which Willy had lost touch with. The Greek peasants wanted what Willy enjoyed—or couldn't enjoy—because it represented what was out of reach for them; but the harmony in their lives, which kept them from Willy's course of selfdestruction, was so internalized that they knew practically nothing of its importance.

One of the vast differences between the life of the peasants and Willy Loman's has been generalized by William Barrett in *Irrational Man*:

We are so used to the fact that we forget it or fail to perceive that the man of the present day lives on a level of abstraction altogether beyond the man of the past. . . . Every step forward in mechanical technique is a step in the direction of abstraction. This capacity for living easily and familiarly at an extraordinary level of abstraction is the source of modern man's power. With it he has transformed the planet, annihilated space, and trebled the world's population. But it is also a power which has, like everything else human, its negative side, in the desolating sense of rootlessness, vacuity, and the lack of concrete feeling that assails modern man in his moments of real anxiety.

Readers will recall C. Wright Mills' statement (in *Power, Politics and People*) that modern man lives in a "second-hand world," where the greater part of his everyday life is in a fabricated environment, where "experience itself is selected by stereotyped meanings and shaped by readymade interpretations." Barrett says almost the same thing:

It becomes more and more difficult to distinguish the second hand from the real thing, until most people end by forgetting that there is such a distinction. The very success of technique engenders a whole style of life for the period, which subsists purely on externals. What lies beyond those externals—the human person, in its uniqueness and totality—dwindles to a shadow and a ghost.

Mills points out that modern man's images of the world are supplied by anonymous strangers, and others have shown that, except for the diminishing bonds of the family life, we are increasingly served by strangers—fed by strangers, married by strangers, and buried by strangers. And all these unknown people do things for us that we are no longer able to do for ourselves. We cannot go to a well or stream for water. We cannot make a fire to cook our food. We cannot build our own shelter or make our own light, or own and use our own tools except as a hobby. We no longer touch the outside world; all that is "handled" for us. And even our knowledge of the world is mediated through a vast corps of interpreters. Barrett observes:

When an eclipse of the moon was televised some years ago, E. B. White wrote in the *New Yorker* that he felt some drastic turning point in history had arrived: people could have seen the real thing by looking out of their windows, but instead they preferred looking at the *reflection* of it on the screen.

How can we generalize from all this to some sort of diagnosis of the deep psychological sickness and pain of the age? Not everyone can. Willy Loman certainly couldn't and there seems to be a lot of coarse, low-grade health around which lacks the sensibility to recognize that anything has gone wrong. Yet there are diagnoses, and they are being made with increasing frequency as the symptoms of our cultural ills multiply and spread. There is for example the following from Harold F. Searles, a practicing psychiatrist, who writes on the importance of maintaining "relatedness" to the realities of the external environment:

My thesis is that this [non-human] environment, far from being of little or no account to human personality development, constitutes one of the most basically important ingredients of human psychological experience. It is my conviction that there is within the human individual a sense of relatedness to his total environment, that this relatedness is one of the transcendently important facts of human life, and that if he tries to ignore its importance to himself he does so at peril to his psychological well-being. . . . By "relatedness" I mean a sense of intimate kinship, a psychological commitment to the structural relationships which exist between man and the various ingredients of his nonhuman environment. (The Nonhuman Environment, 1960.)

This was written some years ago. Today a great deal is being said about the need for commitment to the "structural relationships" between man and nature. The flood tide of this criticism and discussion probably began to rise with Lynn White's paper on the exploitation of the environment, in Science for March 10, 1967, in which he traced the disregard of the "rights" of other forms of life than man to inherited Christian belief, and called for a religious reform in Western attitudes toward nature. Later in that year, in the Saturday Review for Dec. 2, 1967, Richard L. Means spoke of the ruthless attack on nature through machines, bulldozers, cranes, factories, and transportation systems, as though man had no interests in common with the life and intelligence around him. He wrote:

. . . the refusal to connect the human spirit to nature may reflect the traditional thought pattern of Western society wherein nature is conceived to be a separate substance—a material—mechanical, and, in a metaphysical sense, irrelevant to man.

It seems to me much more fruitful to think of nature as part of a system of human organization—as a variable, a changing condition-which interacts with man and culture. If nature is so perceived, then a love, a sense of awe, and a feeling of empathy with nature need not degenerate into a subjective, emotional bid for romantic individualism. On the contrary, such a view should help to destroy egoistic. status politics, for it helps unmask the fact that other men's activities are not just private, inconsequential, and limited in themselves; their acts, mediated through changes in nature, affect my life, my children, and generations to come. In this sense, justification of a technological arrogance toward nature on the basis of dividends and profits is not just bad economics-it is basically an immoral act. And our contemporary moral crisis, then, goes much deeper than questions of political power and law, or urban riots and slums. It may, at least in part, reflect American society's almost utter disregard for the value of nature.

We started out with a consideration of pain, saying that it is evidence of a violation of harmony; and then we suggested that while pain is easy to identify, harmony continues unnoticed. But harmony is not *entirely* invisible. Awareness of it comes to men in a certain contemplative frame of mind. Kant gives a familiar illustration: "Two things fill the mind with ever new and increasing wonder and awe-the starry heavens above me and the moral law within me." Wonder, then, and awe, are the natural responses of human beings to the harmony they discern in nature and life. This, we may note, is what Mr. Means felt to be appropriate, as the initial feelings which go with a sense of community with the world of nature. And this, indeed, is exactly what A. H. Maslow felt to be lacking in the practice of science, and especially medical science, during the earlier years of this century when he attended He witnessed a systematic medical school. devaluation of the subtleties and wonder of the human organism, a deliberate reductionism or "desacralization," as Maslow called it—apparently as a means of showing how tough-minded and truly "scientific" the practitioners of modern medicine ought to be. And this, Maslow would doubtless have agreed, was simply another facet of the deep-seated and all-pervasive ill to which Willy Loman and countless others are easy prey.

But diagnosis is not, as we said, a source of normative instructions about what to do. Nor is a feeling of "awe" much more than a declaration of respect or reverence and a hope to understand. Yet awe may also be an indispensable condition of understanding.

What, then, would resacralization involve? We could probably get some help from the poets, whose work is often filled with an overflow of sacral feelings. But first we shall have to admit that the order and degrees of sacralization, or more especially resacralization, can be no more reversal of desacralization. A right is not exactly the opposite of a wrong. That is, a "wrong," like a "pain," tends to have definable limits, while a right may be best thought of as the continuous flow of an attitude of mind. A man can always "do" an act, but he can't always "turn on" an attitude. The deep feelings of the human being come from the whole man, and while he can manipulate lesser parts of himself, he can't do this to or with the whole of his being. He can quote a sage but he can't just *be* one; that is something he must grow into, and from the right sort of longing, which he may not feel or comprehend. Personal desire or ambition is not a sage-like quality and can hardly serve as the motive for this sort of harmony or growth.

So with resacralization: some *worthiness* is involved in all such operations. This may mean that a man can't make much headway in this direction merely because he "wants" to, or because he thinks he "ought" to. Resacralization is a movement of the whole man—he must carry an entire system of harmonizing energies with him. There is perhaps a clue to what is involved in *Man on a Rock*, by Richard Hertz:

Karl Buecher collected hundreds of songs echoing the divine animation that springs forth daily under a thousand different skies—songs which people used to sing during the ceremony we call work. Chinese peasants, moving into the mountain every morning to gather tea, sang a hymn in honor of their enterprise, which they compared to a pilgrimage to the Western paradise. The Volga boatmen "accepted the universe, and the women of Madagascar acted, when they cultivated the rice fields, like bayaderes trying to please a god.

Miguel Covarrubias, in his book on Bali, describes the bandjars, or cooperative societies as we would call them in our dry idiom; they watched the magic of work unfold with proper art and majesty in their Indonesian eden; when night fell they sent the arpeggios of their tireless orchestras through fragrant vales....

The medieval fraternities of workers in Flanders and Lyons, toiling in the frozen music of crepuscular cities, rolled the stone from the tomb of their narrow space; their triumph over the refractory material of the world was not mere routine, but was understood by them in its vast metaphysical connotations. Work interpreted as spiritual discipline gave these people a superhuman patience, detachment from results.

What Richard Means suggests as an appropriate attitude and view for modern man to adopt—that nature and man interact, and that they form a single system—was once the view of all

mankind. "Primitive man," says Robert Redfield in The Primitive World and its Transformations (1953), "is at once in nature and acting on it." That "nature is part of the same moral system in which man and the affairs between men also find themselves," so that "man's actions with regard to nature are limited by notions of inherent, not expediential rightness." The term "primitive" is of course misleading, since it suggests that these ideas had their origin among simple tribal peoples, when the fact is that ancient cosmologies with profound philosophical underpinnings teach the same fundamental doctrine of man's responsibility to nature. It sometimes seems most reasonable to assume that the so-called "primitive" beliefs which express this outlook are simplified and allegorized versions of forgotten philosophical systems-in view, for example, of the majestic conceptions which one finds in the Hopi traditions. But this idea of humans as participants in a single moral system is not only embedded in tradition; it also appears to be spontaneously believed in by children in even modern nations, and is "educated" out of them before they reach maturity. Redfield offers an interesting comparison between the beliefs of Indian and Swiss children:

Of the Swiss children from six to seven years of age, 86 per cent believe in immanent justice. But the older Swiss children began to cease to believe in it; of those from twelve to eighteen years of age, only 39 per cent believed. With the Indian children, the development was just the other way; of the younger Hopi children 71 per cent, and of the younger Navaho children, 87 per cent believed in immanent justice. Among the older children of both Indian groups (from twelve to eighteen years of age), practically all (87 to 97 per cent) believed in immanent justice. The modern European child begins with a more primitive world view which he corrects to conform to the prevailing world view which grows stronger with age.

The study of Hopi religion provided by Laura Thompson in *Culture in Crisis* (Harper, 1950) makes clear the reason for the growing convictions of the young Indians:

Hopi ceremonies form a logical complex which symbolizes the traditional Hopi world view. They depict a series of related mythical episodes, the annual rendition of which is believed necessary for harmonious operation of the universe. Indeed, if man does not carry out his ceremonial obligations faithfully, and even with supreme effort of his will, the functioning of the cosmic web of life uniting nature and man will be impaired. The sun may fail to turn back from his winter "house," rain may not fall, and plants, animals, and human beings may not bear fruit....

Hopi traditional philosophy, therefore, ascribes to man a purposive, creative role in the development of his will. The universe is not conceived as a sort of machine at the mercy of mechanical law. Nor is it viewed as a sum total of hostile competitive forces struggling for existence. It is by nature a harmonious, integrated system operating rhythmically according to the principles of immanent justice, and in it the key role is played by man's will.

Writing in *Diogenes* for the Fall of 1958, Mercea Eliade throws light on the background of all such ceremonies:

All creations—divine or human—are definitely dependent upon the model which constitutes the cosmogony. To create is, after all, to remake the world—whether the "world" happens to be a modest cabin, a humble tool, or a poem. The repetition of cosmogony, whether periodic or not, is not an absurd and childish superstition of a humanity squatting in the darkness of primordial stupidity. In deciding to imitate the gods and to repeat their creative acts, primitive man had already taken upon himself that which, later, was revealed to us, the moderns—the very destiny of man. By this I mean the creation of the world we live in, the creation of the universe in which one wishes to live.

We can hardly imitate the ancients or the primitives—we, a riteless, intellectual people, schooled in abstraction, too long cut off from our roots, bemused in mind, ill in body, and sick at heart. The first requirement for conscious resacralization is a restored cosmogony, and then a life that is capable of bringing such metaphysical ideas to some sort of verification. This means very basic reforms. Our science, as Northrop Frye has said, can hold no I-Thou dialogue. We shall have to evolve a science which holds such dialogue naturally. Then there can be scientific religion and philosophy that is worthy of the name. Resacralization, as reflected in the ways of human beings in life, work, birth and death, could come little by little as a result.

REVIEW THE CHOMSKYAN REVOLUTION

SCIENCE, as Ortega pointed out years ago, is not the same as culture, although it may make contributions to culture. Science has its own technical necessities, its own logic to conform to, and only when the findings of science are seen to have direct application to the beliefs or the vital undertakings of man do they attract much attention. Galileo, for example, might have been left alone if his discoveries and doctrines had not seemed a threat to the psychological drama of Christian belief, and therefore a challenge to religious authority.

The view of Northrop Frye, quoted in last week's lead article, also has importance in considering the effect of science on culture. In *The Stubborn Structure,* Frye suggests that when a scientific idea or hypothesis is adopted as a part of culture, it does not come in as *science,* but is rather "translated" into *myth* in order to play a part in the lives of people. As Frye puts it:

An immense number of conceptions in modern thought owe their existence to the biological theory of evolution. But social Darwinism, the conception of progress, the philosophies of sergson and Shaw, and the like, are not applications of the *same* hypothesis in other fields: they are mythical analogies to that hypothesis.

We could do with a great deal more of such examinations of the relation between science and culture. The few that we have began with E. A. Burtt's *The Metaphysical Foundations of Modern Physical Science*, and a recent contribution of importance was Lewis Mumford's two-volume work, *The Myth of the Machine*, of which *Pentagon of Power* is the second volume. The importance of such work lies in the need to understand the limitations and fallibility of "scientific knowledge," and how it differs from what may be called *human* knowledge. Science is not an extraordinary visitor to this planet, bringing access to final knowledge for a world otherwise filled with uncertainties; its famous exactitudes are achieved almost entirely by excluding from view the areas where uncertainty is a natural and perhaps inevitable and necessary part of human life.

While numerous papers have been written on the impact of science on society, there are far too few concerned with the shaping influence of culture on the assumptions of science. An English psychologist of an earlier generation, W. H. R. Rivers, who was one of the teachers of William McDougall, included in a book published in 1923. Psychology and Politics, an essay on the influence of the Bible and Christian belief on the first scientific ethnologists in the nineteenth century. Because of the common opinion that the entire world had been peopled by the lost Ten Tribes of Israel, ethnology started out with the assumption that the similarities among races and cultures were the result of the diffusion of races from a single This view was eventually point of origin. succeeded by the doctrine of Adolf Bastian, who maintained that "the similarities between the beliefs and customs of different peoples are due to the uniformity of the constitution of the human mind, so that, given similar conditions of climate and conditions of life, the same modes of thought and behaviour come into existence independently, which are in no way due to the influence of one people upon another." Rivers, in turn, was a supporter of the diffusionist hypothesis, now cleansed, one may think, of theological bias; but whether other biases then began to play a part remains an open question.

It seems fairly clear that cultural attitudes have a dominant influence on *which* scientific theories or directions of investigation are permitted to become popular. Even the same "empirical evidence" may be interpreted as having almost opposite meanings, as a result of changes in the cultural temper. For example, in the eighteenth century, Abraham Trembley, a Swiss naturalist, cut up a polyp in several pieces, finding that each piece grew into a complete organism, capable of reproducing itself. La Mettrie seized upon this report as an argument for materialism, urging that no deity was necessary to a world where Nature revealed such wonderful creative Yet in the twentieth century, Hans potency. Driesch urged that similar experiments with sea urchins disproved the mechanistic theory of vital phenomena. The two contentions based upon the regenerative power of organisms are not exactly opposite, but they move in very different directions, showing how large a part is played in scientific thinking by the general tendency of the In the eighteenth century, La Mettrie age. represented the determined effort of thoughtful men to free themselves of confining theological bonds, while early in the twentieth the bonds of materialistic assumption were beginning to be felt as equally oppressive.

A current illustration of this sort of change is found in the new linguistic theories of Noam Chomsky. Chomsky has risen to fame for two reasons: first, his ideas about the nature and significance of language are a challenge to and repudiation of the mechanistic or behavioristic account of human nature; second, he is a radical critic of the present foreign policy of the United States. It ought also to be said that he is an extremely intelligent man, as readers of his *American Power and the New Mandarins* are well aware.

The book *Noam Chomsky*, by John Lyons, which we have for review, is one of the Viking Modern Masters series, issued in 1970 and available in paperback at \$1.85. We are obliged to begin with the admission that a good three quarters of it we could not understand, although the remaining thirty pages or so are certainly worth the paperback price. Chomsky's intention is to work out the rules of a grammar which approximates as closely as possible the way in which "native speakers" of a language ideally govern their use of it. Chomsky is convinced that this grammar or capacity for clear communication through language is innate in human beings, and in *all* human beings it is the same. Like Maslow, he began as a behaviorist in psychology, and, again like Maslow, his study and observation led him to reject the behaviorist theory of how human beings learn. The basis of this rejection lies in what Chomsky finds to be the "creative" use of language. The task he undertook was the formulation of a grammar able to account for and accommodate the way language is actually used by human beings. Mr. Lyons says:

Chomsky has long been an opponent of at least the more extreme form of behaviorist psychology, "radical behaviorism," according to which all human knowledge and belief, and all the "patterns" of thought and action characteristic of man, can be explained as "habits" built up by a process of "conditioning," lengthier and more complex no doubt in its details, but not qualitatively different from the process by which rats in a psychological laboratory "learn" to obtain food by pressing a bar in the cage in which they are housed. Chomsky's attack on radical behaviorism was first made in a long and welldocumented review of B. F. Skinner's Verbal Behavior in 1959, in which Chomsly claimed that the behaviorists' impressive panoply of scientific terminology and statistics was no more than camouflage, covering up their inability to account for the fact that language simply is not a set of "habits" and is radically different from animal communication. It is the same charge that Chomsky now makes in his political writings against the sociologists, psychologists, and other social scientists whose "expert" advice is sought by governments: that they "desperately attempt . . . to imitate the surface features of sciences that really have significant intellectual content," neglecting in this attempt all the fundamental problems with which they should be concerned and taking refuge in pragmatic and methodological trivialities. It is Chomsky's conviction that human beings are different from animals or machines and that this difference should be respected both in science and in government; and it is this conviction which underlies and unifies his politics, his linguistics, and his philosophy.

Chomsky, to put it briefly, adds his not inconsiderable muscle and intellectual resources as a scientific scholar to the growing humanist revival of the present. He is still a young man, being only forty-three, and will undoubtedly have a great deal more of importance to say as the years go by.

What Lyons calls the Chomskyan Revolution in linguistics was launched fourteen years ago with publication of Chomsky's book, Syntactic Structures. It is evident from the brief summaries in the present book that a profitable reading of this volume would probably require intense study of the subject, perhaps for several months, or even years. Part of this difficulty, no doubt, lies in the advanced specialization and compartmentalization of scientific knowledge, which is of course encouraged by the great stress on empiricism and the neglect of synthesizing theory. Today. although the movement toward synthesis is under way, the general reader is still confronted by an endless array of formidable special vocabularies in the sciences, and he cannot possibly deal with more than a few of them with any confidence. This is a very bad state of affairs, yet the way it is now. Here we shall simply conclude by quoting Lvons calls what Mr. the philosophical consequences of Chomsky's ideas, leaving it to the more daring reader to go to the texts to see how he reached them:

Chomsky maintains that it is only by assuming that the child is born with a knowledge of the highly restrictive principles of universal grammar, and the predisposition to make use of them in analyzing the utterances he hears about him, that we can make any sense of the process of language learning. Empiricist theories of language learning cannot bridge the gap between the relatively small number of utterances (many of them full of errors, distortions, and hesitations) which the child hears about him and his ability to construct for himself on the basis of this scanty and imperfect data, in a relatively short time, the grammatical rules of the language. It is the child's inborn knowledge of the universal principles governing the structure of human language that supplies the deficiency in the empirical account of language acquisition. These principles are part of what we call the "mind," being represented in some way, no doubt, in the structure or mode of operation of the brain, and may be compared with the "innate ideas" of Descartes and the rationalist tradition going back to Plato.

COMMENTARY FOUNDATION OF MYTH?

THINKING of what Northrop Frye has said about how science enters popular culture that it can come in only after being translated into myth—the reason for this being that science does not relate to man, while culture relates to nothing else—we wondered if there couldn't be other ways for science to become a part of human life. Need it sail under false colors in the way that Northrop Frye suggests?

Could there be a sort of science that would not require translation into myth for the reason that it is science which takes man as a subjective reality into account?

This would be, of course, a new kind of science, but there can hardly be strenuous objection to this. A great many intelligent people agree that we *need* a new kind of science. The question is, what would it be like?

First of all, it could not be deterministic—that is, not wholly deterministic. It would have to provide for original, *de novo* causation, and for agents of such causation, as for example human beings as moral intelligences. There is nothing wrong with viewing man's life as partly determined and partly free, which is in fact a loose description of how we feel and think about ourselves. A man acts, in some sense freely; he acts, however, in some framework of limiting conditions or he would have no *reason* to act. Then, having acted, the framework he acts in is changed by his action, and so on endlessly. Some sorts of action tend to create an open world, others make a closed-in and confining situation.

This is a very simple metaphysical system, by no means a new one. There are well-developed metaphysical systems which philosophers have taught, such as the Buddhist system, the Platonic and neo-Platonic systems; and the Leibnizian system of the Monads. These systems all take into account the reality of consciousness, of the individual moral intelligence, and deal with the problems of birth and death, good and evil, hope, longing, and the feeling of human destiny. They can be said to be scientific in that they submit to rational examination. They are, one might even say, the logical structures of which the great myths may be dramatic personifications. They have an impersonality similar to mathematical structures, yet affirm a ground of meaning and purpose in life. There may be correlations between such systems and the findings of physical science. Some scientists have believed this to be the case. ATTEMPTING to recapture or repeat the learning process that went on during one's childhood years seems practically impossible. It wouldn't be if we were able, or had been able, to remain children in a fundamental way; and perhaps some people, great artists, do this; but for many of us going back to the mood of childhood would be like looking for some lost mine with only a fraudulent map as a guide.

The point of this is the importance of starting young children off with a rich fare of food for the imagination. The imagery of the Greek myths seems to be dying out for the generations growing to maturity, these days. This is a great pity, since myth is one of the foundations of both language and literature, as well as a natural and spontaneous form of moral generalizations. We could probably find some choice quotations on the enriching character of the stories in the myths, but there is something a little offensive about listing the cultural advantages of what was, in one's childhood, a splendid and beautiful part of life. You don't really want that part of your life tampered with by either analysts or flatterers. That may be why, if the myths have been left out of childhood experience, they can hardly be added in the same way in later years. Even going back and trying to refresh one's memories has its unpleasant aspects. You don't want the story you remember changed to another version, and it ought not to be simplified, prettied up, or condensed for easy reading.

This isn't a question of scholarship but of the flow of the imaginative life. To subject the core feelings one has brought forward from childhood to scholarly criticism and comment doesn't seem the right way to go at a matter of this sort. Some ways of retelling the myths are doubtless better than others, but a basic respect is in order for those majestic figures who played such a large part in the mythic life of the child.

What we want, we suppose, is to keep subjects which are so intimately a part of being human from being made objects of "academic" study. What needs to be preserved is what Gandhi preserved when he discussed social problems and issues. He never found it necessary to use academic language or social-science language. Maybe he didn't know that language, but in any event he didn't need it to say what he wanted to say. People were never really "objects" for Gandhi.

So with the content of the myths: it is vital stuff of the subjective life.

Well, we have a book recounting the Greek myths and the stories of the heroes—a good one, as such books go. It is Four Ages of Man by Jay MacPherson, published by Macmillan of Canada in 1962. We got the book out of the library and read it after noticing a recommendation by Northrop Frye. It was filled with "things we didn't know till now," like just what Hercules had to do in those Labors of his, and a lot of other matters which we had either forgotten or missed a great many years ago. The Four Ages of Man was probably written as an educational tool, but its good qualities manage to survive even this blighting intention. Such books ought to be written for one reason only-because the writer is so filled with delight by the stories that he has to tell them to others, and for readers of all ages.

In planning this article, we decided—and not only for lack of time—not to get bibliographies from libraries on stories of the myths prepared for children. You won't find much fire of the imagination in books like that. Mr. MacPherson, at least, was doing something he enjoyed in writing his book. So we just started remembering, and first of all another James Baldwin, a much earlier one, came to mind, who did write especially for children, and very well. He "retold" stories of the Greek gods and heroes, and also the stories of Roland and Siegfried. A check at a good-sized public library revealed that only the last two are still circulated, while the Greek stories have been out of print for years. Seems awful. But Nathaniel Hawthorne's *Wonder-Book* and *Tanglewood Tales* are still available.

Of course, a child should not be limited to the Greek myths. *Asgard and the Gods* by Wilhelm Wagner—which the librarian says is in the "religion department"—can nevertheless be read by growing boys and girls. The librarian speaks highly of *Asgard Stories* by Mary H. Foster, for children.

Today a much wider selection of myths is available. There is for example Elizabeth Seeger's condensation of the *Mahabharata*, under the title, *The Five Brothers* (John Day), and Dhan Gopal Mukerji's *Rama*, which tells the story of the *Ramayana*.

Versions of African folklore are gradually becoming plentiful. Recent additions to this literature include English translations of the work of René Guillot, who collected material in West Africa for more than twenty years. Gwen Marsh translated a selection of his stories which were published by Franklin Watts under the title *René Guillot's African Folk Tales*. Another collection by Courlander and Herzog is titled *The Cow-Tail Switch* (Holt, 1947). Ethiopian stories were put together under the title *The Fire on the Mountain* (Holt, 1950) by Courlander and Leslau.

People who like old books and enjoy wandering through second-hand book stores might keep an eye out for a copy of Anthon's classical dictionary, which supplies a great deal of the material dropped out of modern anthologies of myth and legend. Somehow, on this subject, the old books seem to be by far the best.

It is difficult to explain how myth enriches the life of the mind, although literature would be an impoverished affair without the endless metaphors and imagery of the myths. The supple strength of great writing seems usually related to the mythopoeic art. Poets are of course myth-makers almost to a man. To know the myths is to have led the imagination through fields where the heroic is natural, customary, and expected. Speech informed by myth is instinct with dignity and garbed in layers of meaning.

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A knowledge of myth and tradition enables a writer to move freely over many terrains of thought. It brings familiarity with that wonderful shorthand which Maslow named the "Blanguage." The following from Octavio Paz, the Mexican poet, illustrates the maturity of prose possible to those whose minds have the mythopoeic skills well developed:

The first rule of a truly free education would be to inspire children with a distaste for today's doctrines of "compulsory happiness." Their paradises are covered with gallows....

The idea of revolution is the major invention of the Western world. Societies of the past had no real revolutions, only changes of regime, empire or dynasty. Apart from these changes, they experienced profound transformations: the birth, death and resurrection of religions. Here again our times are unique. If the modern West is coming to an end, as many claim and as we are told by the very reality all of us live the clearest indication of the approaching end is what Ortega y Gasset prophetically called "the decline of revolutions." It is true that we have never had so many, it is also true that none of them corresponds to the Western idea of what a revolution is. The point is essential because, at the same time. no other society has made the revolution its focal ideal. Like the early Christians expecting the Apocalypse, modern society has been watching, since 1870, for the coming of the Revolution. And revolution comes: not the expected one, but another, always another. Faced with an unexpected reality which cheats us, theologians speculate and try to show, in the manner of Confucian mandarins, that the "mandate of heaven" (the idea of revolution) is the same: what happens is that the prince (the concrete revolution) is unworthy of the mandateexcept that there comes a time when people cease to believe in the speculations of theologians. This is what has begun to happen in the second half of our century. We are now witnessing the conclusion: the rebellion against the system is at the same time a rebellion against revolution as a system. The revolt

of the underdeveloped peoples and student rebellion in the developed countries attack at its very center, perhaps unwittingly, the idea of revolution as well as the conservative idea of order.

The twilight of the idea of revolution is matched by the swiftness with which, in contrast to ancient religions, revolutionary movements are transformed into rigid systems. The best definition that I know of this process is that of a *guerrillero* from Michoacán: "all revolutions degenerate into governments."...

Paz speaks of the student revolts as marking the beginning of something new:

The young are discovering the values that fired such diverse figures as Blake and Rousseau, Novalis and Breton: spontaneity, the negation of man-made society and its hierarchies, a brotherhood not only towards men but towards nature, a capacity for enthusiasm and also for indignation, and for the wonderful ability—the ability to wonder. In one word: the heart....

To be sure, the ideology of the young is frequently a simplification, an unjudging reduction of the revolutionary tradition of the West, itself scholastic and intolerant. The contagion of systemthinking has spread to many groups who arrogantly put forth such authoritarian and dogmatic theses as Maoism and other theological fanaticisms. To embrace as a political philosophy "Chinese-style Marxism" and to pretend to apply it to the industrial societies of the West is both preposterous and distressing. But it isn't the ideology of the young, it is their open attitude, their sensitivity more than their thinking, which is truly new and unique. I think that in them and through them, albeit in an obscure and confused fashion, another potentiality of the Western world is emerging: something that ideologists had not foreseen and that only poets had envisioned, something still as shapeless as a world awakening. Or is it an illusion, and are those upheavals the last gleams of a dying hope?

This translation from the Spanish of Paz is by Monique Fong. It appeared in the *Hudson Review* for the Winter of 1970-71.

FRONTIERS A Case for Heuristics, Too

IN his preface to *East Is a Big Bird* (Harvard University Press, 1970), Thomas Gladwyn gives as his background reason for writing this book the fact that, "Poor people in the United States, regardless of their color or origin, tend to do badly in school," and they usually "achieve low scores on intelligence tests." As a psychological anthropologist, he was interested in finding out why, or making some contribution to an explanation, so he spent a lot of time learning the art of navigation as practiced by the people of the Puluwat Atoll in the Caroline Islands in the Pacific.

How could such an investigation help with educational problems in America's urban slums? The author says:

In a preliminary answer, . . . there is a timehonored and often fruitful tradition in anthropology of looking to another culture for perspective on processes which are at work in our own. This strategy is especially appropriate to the problem at hand because, without making any assumptions whatever about cultural deprivation-its presence or absence, or even its relevance-one can simply state with ample supporting evidence that non-European people who have not had extensive Western schooling, whenever they are tested, tend to perform on intelligence tests in much the same way as do poor people in the United States. This in itself does not prove anything about non-Europeans or about poor people, but it suggests that maybe, just maybe, some of the same factors are at work in both settings in shaping a style of thinking which is poorly adapted to intelligence tests, even those which are nonverbal and designed to be "culture fair."

The book is full of interesting pictures of Puluwat sailing and paddling canoes, and it is evident that the author is—or became—something of a navigator by the stars, Puluwat style. The body of knowledge of the Puluwats, about canoe design and construction, and about sailing the larger canoes to destinations hundreds of miles away, with very few mishaps, is made the basis of a comparison of Puluwat modes of thinking with 13

those known to Western psychologists. Briefly, the author found the Puluwats lacking in the ready use of a flexible, problem-solving intelligence. They had all the makings of this sort of intelligence, but little practice of it was called for by the needs and necessities of their daily lives. They were inventive and open-minded enough when it came to innovations in canoe design, but the basic deposit of information on how to sail from island to island was adequate the way it was. "The navigator must be judicious and perceptive, but he is never called upon to have new ideas, to relate things together in new ways."

The Puluwats, in short, were not strong in problem-solving ways of thinking. In this, he says, they resemble the poor of Western society. The remedy for this weakness he terms *heuristics*, identifying "a heuristic as an experimental device"—"not a rule which once selected and applied guaranteed a result—as do the Puluwat rules of navigation—but rather something which should be tried to see if it works." The heuristic approach in education endeavors to stimulate the learner to find solutions for novel problems, or at least to make discoveries of his own in the solving of any problems, rather than learning as formulas the solutions worked out by others.

The children of the poor seldom have opportunity to get this kind of education:

Heuristics are not something readily learned in a harassed poor family. To use a heuristic means that first one must see the need for one. To see the need for a heuristic means one must perceive a problem. To see a problem means first to ask a question, literally or figuratively, and poor children do not easily ask questions. Nor are they, in contrast to middle-class children, encouraged to do so. Children's questions are a nuisance for an already overburdened mother. The lower class is in effect not a fertile breeding ground for heuristic thought as we know it. If this is true, it is a fact which has important implications for remedial education. Heuristics come before all else in school for they are the building blocks of education. Teaching this style of thinking, when needed, should therefore be an end in itself, not an adjunct to teaching mathematics or any other subject. If a child has to try to learn both

mathematics and heuristic thinking at one and the same time the chances are he will learn neither.

The validity of this contention seems clear enough, yet one thinks immediately of the contrast between the happy Puluwats on their island paradise and the ordeal of children who grow up in the slums. One thinks, too, of the two stages or levels of learning which formed the basis of Prof. Jensen's notorious paper—one representing simple transmission, the other the capacity for problemsolving. Actually, training in "problem-solving" might be a capsule description of education in the "scientific" approach.

A further consideration is that while skill in problem-solving may bring high scores on intelligence tests and open the way to the better employment opportunities, there is a distinct possibility that we already have too many smart people who are adept at short-term problemsolving but blind to the long-term deficits their activities may create at other levels.

The value of the imaginative use of analogy and the formation of hypotheses is of course too great to be ignored. But when you read about the conditions in the schools which the children of the urban poor must attend-of, for example, the short life and pitiful failure of very nearly every reform that is introduced (see the Education section in the Saturday Review for Dec. 18, 1971)—you wonder whether research might not better be given over to "heuristic" discovery of how to awaken a sense of simple justice and decency in people who are not poor, and whose children do not suffer from the deficiencies which have been described. Helping poor children to qualify for opportunities in a social system that is turning out so badly may be unimportant, even though heuristic thinking ought to be "an end in itself" and learned by all.