

PLATO OR BACON?

ARGUMENTS about education and educational method do not seem to be won or lost, although various contentions often lose their vitality and disappear. For example you seldom hear a forthright defense of a "classical education," any more, although some men display the fruits of a classical education to great advantage—as in the case of William Arrowsmith. The issue between the Essentialists and the Progressives was never settled; it was displaced. You no longer hear attacks on the Great Books by social scientists, even though views concerning such matters probably have not changed very much. Instead, differences of opinion are displayed somewhat obliquely, and with another emphasis, in the controversy between the administrators of higher education and articulate students who feel that they speak for the great majority of their contemporaries. Administrators seldom defend themselves; they may not feel the need for it; or they may see no way to change very much what they are doing and so have nothing to say. A technical, disciplined maturity of procedures and objectives characterizes the large university, and this maturity constitutes both its inertia and its momentum. It is a finished sort of thing, making far-reaching change difficult to imagine.

Administrators do defend themselves, of course, in relation to what they regard as administrative necessities, but this does not speak in intellectual terms to the questions being raised by the students. It speaks to the disorder on the campus, but not to the ideas which have a part in giving rise to the disorder. Some of these ideas are put clearly by Richard Kean in his contribution to *Dialogue on Education* (Bobbs-Merrill):

Not surprisingly, it is the computer that students have chosen to symbolize their distaste with present trends in university growth. It has become the symbol of the anonymity, the instrumental brutality, which they sense is beginning to characterize university life. It has come to symbolize the fact that,

for students, the university is moving further and further away from the educational goals which originally attracted them there.

From beneath the struggles for student power—for the right to live one's personal life on one's own terms—springs a far more important fountainhead of student unrest. This unrest is gaining momentum in a critique of the way the university organizes its educative functions.

Essentially, the university today is organized in divisions of knowledge which serve instrumental goals. That is, underlying university teaching procedures is the assumption that what is most valid is information which can be manipulated in order to achieve ends determined somewhere outside the system. This information is value-free, except in the very important sense that it is uniquely suited to serve manipulative ends.

Because it is manipulative, the university treats information as medieval society treated property, parcelling it out in bits and pieces and exercising slavish control over its tenants. The university operates on the fatal assumption that by forcing the student to specialize, to become a small but efficient cog in a very large machine, an element of control has been exerted over the entire scheme.

Students are unimpressed. They sense that they are being manipulated and are expected to manipulate in return and find the techniques strikingly irrelevant to the needs they feel in the life they see around them. Their sense of global responsibility and their desire to confront their world as whole persons push them to rebel at this type of unnecessary compartmentalization. . . . To the professor's insistence that facts and the ability to manipulate them are all-important, the student answers that he wants to learn the nature of relationships. To the expert's claim of achieving factual objectivity, the student answers that achieving a subjective base for interpersonal understanding is much more important.

Each, on his own terms, is right. And each is living in a different world. That is the central, revolutionary fact of our age as it relates to the university.

Can we say that here the world of ends confronts the world of means? Would it oversimplify to claim that this is another instance of the historic difference between the early Ionian physical scientists and the Socratic school which focused on the needs of the human soul?

The case for manipulation is easy to state. Matter and motion are there to be used, and everything we make is a result of learning how to manipulate them. It is for this reason that complaint about manipulation sounds ridiculous to many people. Think of all the obedience to manipulation—obedience by both matter and men—that had to take place before we could have the convenience of a subway turnstile! Nobody wants to do away with subways and turnstiles—not so long as they get us to our jobs on time. The turnstile is a good symbol of matter that has been manipulated and which in turn manipulates man. Sartre made effective use of it in his essay on individualism and conformism in the United States:

There is generally only one way of using a mechanical object, namely, the one indicated in the accompanying leaflet. The American uses his mechanical corkscrew, his refrigerator or his automobile in the same way and at the same time as all other Americans. Besides, this object is not made to order. It is meant for everyone and will obey anyone, provided he knows how to use it correctly.

Thus, when the American puts a nickel in the slot [fares have gone up since 1945!] in the tram or the underground, he feels just like everyone else. Not like an anonymous unit, but like a man who has divested himself of his individuality and raised himself to the impersonality of the Universal.

Sartre comments: "It was this complete freedom in conformism that struck me at the very beginning."

The extra time provided by rapid transit is indeed a freedom made possible by technological manipulation. While we are benefiting from it we probably don't resent it in practical terms. But many people get around to resenting subways in aesthetic terms. And these grimy journeys one

must take every day may eventually seem basic types of the oppression of people by the necessities of the technological system. It is when conformities claim too much and the resulting freedom seems to amount to so little that the resistance to manipulation begins to build up pressure. This resistance is difficult to express in rational terms. It is like a toothache, as Milosz says, when you cannot even tell which tooth is aching.

No one really attacks the conformity exacted by turnstiles as an evil, although they may be pointed to as a *symptom* of an evil that is difficult to identify in specific ways. But if, when all the machines are running properly, and being attended to conscientiously, the end-result is found to be an "air-conditioned nightmare," then how do you formulate your objection except as a full-scale attack on manipulation?

It must be acknowledged that thinking that one is caught in an air-conditioned nightmare is a subjective response to experience. Not everyone reacts in this way. As Mr. Kean says, people live in different worlds. The students he is talking about—along with many others—make a flowing, intuitive response to the life around them. They feel "global responsibility," and are looking for a "subjective base" and knowledge of "relationships." They don't find any of these matters dealt with in the formal courses at the University and they don't see knowledge of them reflected in the manipulative perfections of the technological society.

Yet it seems aimless to attack machines or to derogate technique. We all use machines and need technique of some sort. What is wanted is machines and technique that do not displace, outlaw, and make people forget, humanistic values.

The argument for the supremacy of machines and technique is that by further development of these means to abundance it will be possible to create a world in which everybody has enough and thus will be happy. So, as Richard Kean says,

"Crucial to the dilemma facing the university is a question concerning the nature of man."

The question is as old as Plato, and doubtless older. It is the issue, not of the utility, but of the *supremacy*, of manipulative knowledge and skill. You don't have to be a Luddite, an angry enemy of all machines, in order to question the transcendent importance assigned to manipulative technique. The argument is not about means, but about ends. The use and administration of technology in a manner consistent with the values declared by the students is surely possible. But this use will depend upon subtle subjective balances, not upon rigid technical requirements and quantitative projections. The trouble is that any strong subjective factor is likely to contradict some provisions of a carefully-drawn-up manipulative program. Another sort of planning is obviously required for the free play of subjective values in relation to the systematic requirements of technology and machines.

The chief reason why this kind of planning is not widely advocated or frequently attempted is the general assumption that "ethical" needs are best satisfied by greater production of goods and services for all. With this end in view, technology demands a free hand. The utilitarian principle is invoked. But what if the monopoly on human energies required by this principle smothers the ends before they can be realized? This is a question believers in unlimited technological progress do not want to hear and try to ridicule when it is asked.

As effectually supplying justification for the manipulative enterprises of Western man, this assumption goes back to Francis Bacon. It was not explicitly stated by Bacon, but it lay behind his ardor for scientific inquiry. As Robert E. Cushman observes in *Therapeia* (Chapel Hill, 1958):

When it came, therefore, to recognizing his own presuppositions, Bacon's acuteness was blunted. He did not, for example, take note at all of the foundational preference upon which he formulated

his *novum organum*. Nevertheless, it was his first principle. It was the value-judgment that material utility is the privileged and well-nigh solitary criterion of significance. Consequently he defined truth and utility as one and the same thing. The revolutionary character of Bacon's decision is visible in his unhesitating intention to identify wisdom with the knowledge that supplies power to man for the manipulation of his environment. With Bacon, wisdom and science were incautiously equated, and that equation was to become a prime assumption of modern man. "Sapience" consists in knowing what is serviceable to material interests—"whosoever knoweth any form (law) knoweth the utmost possibility of super-inducing that nature upon any variety of matter. . . ." And many have shared with Bacon the assumption that there is no greater desideratum. Under such conditions, nothing is supplied credentials of truth unless it is brought forth by the one useful and sovereign method.

Dr. Cushman gives Plato's contrary view:

Against Bacon's *novum organum* Plato would probably have nothing to say in so far as it claimed to be a method for investigating physical nature. But there is a feature of Bacon's thought against which he would have strenuously cautioned. Plato would have refused assent to the hidden premise upon which Bacon made sweeping claims for the sufficiency of the experimental method. The premise is comprised of a value-judgment which Plato would have regarded as entirely defective. *He would have contended that there is no warrant for claiming for the novum organum the sole prerogative of defining the criterion of truth, unless one antecedently agrees with Bacon that the only truth worth having is that which affords man power over nature. Only on the ground of such a partialized conception of the Good can the sufficiency of truth derived from the experiment method be conceded at all.* Bacon's identification of truth with utility would have been for Plato the sign of fundamental distortion in axiological preference that called for a revolution of *ethos*.

What Plato thought of "empirical certainties" or modern positivist conceptions of causation is revealed in the analogy of the Cave, where he speaks of the "experts" among the prisoners as those who were honored for being "quickest to make out the shadows as they pass and best able to remember their customary precedences, sequences and co-existences, and so are most

successful at guessing at what was to come." As Cushman says:

Knowledge of this sort is justified by its mundane utility; but, for Plato, that sort of utility is a distinctly subordinate aspect of the real Good. Consequently a *method* conceived in order to implement the preference for utility cannot, for Plato possibly represent the norm of verity. *Truth is no higher in honor than the value-judgment by which its discernment is implemented.*

Obviously, what is called into question here is the assumption that the vital truths which educational institutions should transmit are the truths which maintain and increase the productive efficiency of the technological society. Manipulative power over nature and other human beings is not the highest good. Larger quantities of goods, the result of more effective manipulation, meet only the deficiency-needs of human beings; they do not meet *being*-needs. Nor, when these goods are distributed according to the advertised scheme of acquisitive goals and competitive status, do they meet even deficiency-needs equitably or well. For a great many people, the scarcity economy has been replaced by the abundance economy only in theory, not in fact. And a scarcity psychology still prevails because even those who are wealthy by comparison to the average family of one or two generations ago have heard about the new principle of "plenty for all" and do not feel that they are getting enough. When "affluence" is the measure of success, and competition is both the means of reaching it and the test of character, how do you define "enough"? Meanwhile, theories of political reform are also manipulative, having sprung from the same parent culture. They seek to make "plenty for all" a legislative fiat, thus adding full moral justification to the power-based Baconian assumption about truth and the good.

But these theories, for all their consistency in relation to assumed values, take little account of subjective qualities and needs. They ignore the fact that, for the wholeness and maturity of human beings, economic circumstances are *comparatively*

unimportant. They ignore the fact that excessive preoccupation with material benefits exchanges qualitative for quantitative objectives in human life. It puts external measure in the place of aspiration and ennobling purpose. It creates social pressure in behalf of acquisitive achievement. And the effect of these tendencies is to add immeasurable weight to all the arguments that support manipulation as a way of life. Finally, it makes resistance to the prevailing *ethos* seem juvenile, irresponsible, immature, and irrationally rebellious.

The students for whom Richard Kean speaks believe that education ought not to be thought of as a service station for the exercise of power according to Baconian precepts. Education ought not to be a plant that supplies bits of "value-free" information to expert manipulators who operate outside the educational system. Education ought not to proceed without examining its own assumptions. In view of the psychological troubles which are common among the comfortable and well-to-do, it ought to look more critically at a world which is "permeated by the assumption that human troubles derive from an inhibition of impulses or from a shortage of gratifications." Not the implementation of power but the discovery of what is good is the business of education.

In short, for education the virtues are more than skillful habits or well-armed disciplines for action. These qualities are all very well for the craftsman or mechanic who need not inquire into why he does what he does, but gives attention only to doing it well. An admiration for technical ability need not convert us to the purposes for which it is used. One can, as Richard Kean says, "find the techniques strikingly irrelevant to the needs they feel in the life they see around them." It is this *feeling*—which needs to become more than just a feeling—which may lead education back to the Platonic view of education as a dialogue about justice and meaning. Stringfellow

Barr puts this view well in his discussion of the *Republic*:

. . . since, both in the individual soul and in organized society, a just ordering of the organic parts will all hang on the quality of wisdom that directs them, we are back again at that Socratic point that virtue depends in a special way on wisdom, a wisdom capable of transcending mere opinion and achieving knowledge. We cannot learn to be brave or temperate or just without this higher wisdom, for it is this wisdom that tells us which of our physical desires to follow and which we may not follow; it is this that brings to our souls the internal ordering in which Socrates saw justice. In short, all genuine moral choices are guided by the high wisdom that knows principles, as well as by prudence about cases. That is why a brave act is wisdom acting with respect to danger; and a temperate act is wisdom acting again, this time with respect to pleasure; and a just act is wisdom acting with respect to the rights of other men around us. If this be true, then it is necessary to see why Socrates in so many of the dialogues seems to suspect that all virtues are really species of theoretical wisdom as much as of prudence. Or, more baldly, that virtue is knowledge.

From this point of view, education is an inquiry into the principles to which we are accountable as human beings. No one pretends that this is easy to find out. It is certainly not as easy as learning how to manipulate power. Technique is not haunted by moral uncertainty. It abstracts away from moral issues and puts off the accounting until the patterns of technique have hardened into processes which resemble the laws of nature in their fixity. It is this which makes men suppose it is impossible to change them.

So it is natural that many of the youth who want to pursue a life informed by educational dialogue are looking about for "primitive" situations where the patterns made by advanced manipulative technique are not yet in control. They want to find out what is right and they want to be free to do what is right after they have made their decisions.

Is it, after all, unreasonable or unnatural to look for reality situations which do not shut out

moral principles, instead of submitting to reality situations created by technological necessity?

The old scarcity economy, from which we obtained very nearly all our "philosophy of life," declared Nature to be the reality principle. In the struggle for existence, it was Nature which brought man up short and instructed him in what he would have to do in order to survive. This was impersonal necessity, it was not moralistic, and people had to conform or go under.

This ruthless conception of reality seems about to be replaced. Whether it ought to be replaced by the utilitarian ethic, armed by Baconian science, or by innate moral obligation, sought out by study of the nature of man, is the most important social question of the time.

REVIEW

THE CRISIS IN RELIGION

IN a paper which considers the kind of education that ought to be given to those preparing for the ministry of the liberal church, Harold Taylor asked these questions:

Is it not true that the spiritual problem of Western man is the problem of meaninglessness, of the individual lost in a welter of conflicting ideas, swept along by a torrent of political, technological, cultural and social forces over which he is unable to assume control, anxious to commit himself to actions and ideas which can stop the rush of events toward an unknown but menacing future, yet unable to find the place and the way in which this can be done? Is it not true that the American uneasiness of spirit is due to our possessing military, economic, social and intellectual power of a gigantic kind, yet not knowing how to use it for the security and fulfillment of mankind? Is it not true that the American mind is troubled by the moral failures it finds within the American community, the clash of affluence with poverty, ignorance with politics, racial hate with moral ideals?

The main capital of the liberal church, Dr. Taylor points out, is the disenchantment of the educated with "conventional theology." He adds, however: "But a church for the disenchanted is not one which has within it the strength and vitality to build a new future."

Shortly after World War II, a West Coast liberal minister told his congregation: "I am not much interested in a man's theology; I want to know about his *sociology*." The implication, here, is that social conceptions and planning now embody the significant element of liberal religion. This means that what is vital in religion, today, is what has been added since the eighteenth century—since the time of the great social revolutions—and not the original inspiration, which was addressed directly to individuals. Plans can be used only by organized groups. Dr. Taylor comments on one of the effects of this trend:

The easy church is one which is eclectic, where everyone tolerates everyone. But the real question is Pilate's, What is truth?, and the new liberal church

should be one which confronts the future universe of religious discourse with everything of its own which it can muster. As I look at the sermons and the publications of the liberal church I find little of original thinking, no grand conceptions. One can detect the primary and secondary sources on which the preachers and writers have relied. There is no white hot flame burning. There is only a smoldering of branches with an occasional spurt of fire. This . . . is mainly due to the refusal of the movement to face directly the ambiguities of its own position. In a movement where everything is allowed, too little is asserted with passion.

How do people generate the conviction which "is asserted with passion"? Not in answer, but in clarification of this question, it might be said that the past fifty years of Western religious history has seen the systematic suppression of the mysterious quality in religion, in behalf of the simple ethical declarations of religious founders. And the latter have been taken over by the social planners for moral justification of their contentions. The tacit assumption has been that what is not socially relevant is not relevant at all. This is at least one of the causes for the impoverishment of which Dr. Taylor speaks. And the emptiness of modern life, of which he also speaks, may be sufficient reason for asking if it has not been a serious mistake to drop out of liberal religion ideas which, because of their subtlety and ambiguity, have seemed of little value to men bent upon social action.

While a well-ordered, just society is a natural objective of human beings, is this the same as reaching what is spoken of as "self-knowledge" and spiritual fulfillment? Or are these themes contrapuntally related, but not the same? One more question: Is it conceivable that clues relating to such transcendent ends of human development can be found within human nature itself—in the cipher, so to speak, of dream experience and even, sometimes, in the traumas of mental illness?

Thresholds of Initiation, by Joseph L. Henderson (Wesleyan University, 1967, \$7.95), is an inquiry which bears on these questions. In Dr. Henderson's view, "initiation" is a term properly

applied to the process by which a youth graduates from childhood to manhood, but it also means the transition from socially acceptable manhood to the maturity of "individuation." As this language indicates, Dr. Henderson has a Jungian background. Following Jung's lead, he has discerned in the lore of Greek myth and the practices of tribal societies a general scheme of successive initiations. Again, with Jung, he finds a parallel between the psychological self-searchings of the individual of today and the rites of religion which in past times marked the "growing up" of members of society. Dr. Henderson says:

The sense of such rites always has been expressed as the need to outgrow old, regressive childhood patterns and to become adapted to the social group. Later on, especially for people who have already made a satisfactory social adaptation, initiation appears as a wish to withdraw in order to discover some secret knowledge, perhaps to participate in a mystery. At still another stage a re-entry into the social group seems to provide initiation with a goal, not (like the first adaptation) an undifferentiated, blind participation, but a conscious process of relating to the group while maintaining individual identity. The completion of this process, again through the archetype of initiation, appears to be synonymous with the psychological concept of individuation.

Dr. Henderson is well aware of the "artificiality of the analytical situation" and points out that in psychoanalysis "the cure itself requires a cure." This cure the individual must find for himself; meanwhile, he says, it is possible to learn from sick or disturbed individuals because their trouble comes from encounter with these transitions.

The material in this book is of two sorts—concerned with the myth and the dream. The myth can be thought of as a kind of "public" dream, typifying the crucial experiences of both individual and society in terms of common cultural symbols, while the dream is a man's private access to the significance of his experience by means of a language made from his own subjective vocabulary. Both religious tradition and myth

contain communications at various levels, and this is a part of their "mystery." The levels are illustrated by the "archetypal journey," which has both a gross and a subtle phase. Dr. Henderson recalls W. H. Auden's observation in his preface to Goethe's *Italian Journey*:

One reason we enjoy reading travel books is that a journey is one of the archetypal symbols. It is impossible to take a train or an aeroplane without having a fantasy of oneself as a Quest Hero setting off in search of a princess or the Waters of Life. And then some journeys—Goethe's was one—really are quests.

Dr. Henderson comments:

But we should not delude ourselves into thinking that because we understand the obvious archetypal journey as a Hero Quest, we therefore understand its meaning as initiation. This distinction is complicated by the fact that the unconscious does not itself distinguish between the gross phase and the subtle phase of initiation. It is questionable to regard the archetypal journey purely as a hero's journey, a pattern of conquest over the regressive forces which would hold a young man back from achieving a sense of his identity. On the other hand, we can see it as a journey of individuation undertaken at the zenith of life in order to allow a mature person to come into possession of that psychic wholeness by which the claims of the ego are subordinated to the claims of the Self. The latter journey leads to maturity as self-integration, whereas the former leads to the ego's conquest of worldly prestige. This symbolism in terms of myth is universal; but for an actual individual's experience, universality is not enough. The experience of the symbolism must also be specific in defining the position of his personal development.

How can anyone else *know* about an individual's "personal development"? He can't, which is what keeps studies of this sort from supplying doctrine for a new kind of religion. Genuine self-discoveries belong to the individual alone. "He can count only on his own intrinsic human worth and is of necessity his own teacher." What insight is gained "is not to be shared with the group."

Yet there is a general value in such investigations. If there are deposits of symbolic

instruction laid away in the inner nature of every man, and if these may be drawn upon by one who seeks within himself, then to speak of these possibilities may contribute to a kind of community resource, preserved from misuse because no one attempts to tell another just what instruction he as an individual may expect to receive. Involved is a kind of mythicizing, a resacralizing, of the experiences of daily life. And one may listen to ancestral meanings without submitting to any "outside" interpretation of them. This way of looking at man's inner life, for Dr. Henderson, is in positive contradiction to the Existentialist claim that man is entirely alone and helpless "in the midst of an alien universe." The initiatory process suggests that we carry a network of wide interrelations within ourselves:

At the critical turning points of individual development, man is alone with himself and can fall back on absolutely no preconceived, prelearned patterns. Yet the psyche is not without content; far from being alone in his self-confrontation, he may feel more richly companioned than he has ever been in belonging to a religious group.

Conceivably, then, the neglected aspect of the great religions of the past has to do with the inner discoveries of which Dr. Henderson speaks. The social vision is not an end in itself, but needs for balance and perspective the vision of "some ultimate or penultimate goal of spiritual perfection." This, at any rate, seems the import of Dr. Henderson's reading of both ancient symbolic systems and the imagery of man's psychic life.

COMMENTARY **CRITICISM AND LIFE**

CRITICAL analysis is something like pain. When you feel pain all your attention is on the fact that something has gone wrong. Health, you could say, is a condition which never calls attention to itself. It is a generalized well-being, while ills are specific. A man afflicted with many ills often falls into the habit of thinking of health as a "thing" which lies at the end of a campaign to vanquish particular ills.

The healthiest people probably never think about health. They are not concerned with defining it, or any sort of to-do about it. For them, that would be unhealthy. The healthy man is busy with other things. To speak of his "health" is to reify the wonderful coincidence that he is able to pursue his human ends without distraction.

Reasoning of this sort must apply in some way to the fact that human life, for all the things we find wrong with it, is a going concern. Even when descriptive analysis pictures the most depressing troubles, these are seen against an unnoticed background of continuous vital processes. The abstractions of criticism cannot reflect this flow of being. They are only "still" pictures, while the reality they abstract from has many other dimensions. This is like saying that to hear one note you have to *not* hear all the others. Only silence allows us to consider the full gamut of sound.

Yet it would be foolish to think that abstractions are "bad things." While they do not have any "life" in them, we could not live as human beings without them. We seem to need to see things separately to know what they are. Could there be a way of using abstractions so that while they isolate what we want to look at, they also remind us insistently of the rich presence of what we are not looking at? Would this be confusing, or could such an ability be turned to recognizing all the wonderful instructions in ambiguity?

We are speaking, we suppose, of art. We might think of art as secular philosophy—the simultaneous discernment of the one and the many in the field of sense perception. The paradox is our only familiar intellectual device for guarding against the deceptions of abstract knowledge. It warns that abstractions leave something behind.

Could criticism be at the same time a hymn to life? Would this *have* to blur the fine precision of scientific accuracy? Those who practice criticism need to ask themselves such questions.

CHILDREN ... and Ourselves

THE PRINCIPLE OF REFORM

READING an old book on juvenile delinquency can be a source of qualms about the present. Standards of the "good" behavior of children seem to have gone down. Social expectations have been eroded by the greater freedom allotted to the young. Reference to patterns of socializing conformity can hardly produce the same effect when "conformity" is itself looked upon with suspicion.

August Aichorn's *Wayward Youth* (Meridian paperback) was first published in Vienna in 1925, with a translation into English issued by Viking in 1935. The book is an account of the use of psychoanalysis in helping the children under his care at the Institute for Delinquents at Hollabrunn. Prof. Aichorn's success, it becomes plain, grew out of his determination to *understand* the deviant behavior of children. Neither punishment nor moral lectures, he shows, accomplish much of anything.

The usual explanation of delinquency is "bad company." No doubt this plays a part, but as Prof. Aichorn points out, "thousands of other children grow up under the same unfavorable conditions and still are not delinquent." Heredity does not account for such tendencies, nor are the provocations of environment alone responsible. This writer says:

. . . the neurotic has a reality of his own. Why should the delinquent not have a special brand of reality, too? This brings new light on the subject of delinquency, renders it accessible to the psychoanalytic method of investigation, and allows us to employ psychoanalytic terms. We can now speak of the overt bad behavior as "manifest" delinquency. When the same state exists but has not yet expressed itself, we speak of "latent" delinquency. . . . When we realize that the provocation to delinquency is confused with its cause, that symptoms are mistaken for the disease, we understand why there are so many false conceptions of what should be done with the

delinquent child and we wonder no longer that treatment often fails. Without the discovery of the deep underlying causes of delinquency, any cure is accidental.

While the psychoanalytical categories supply the language of this discussion of wayward youth, the shining reality of the book is the author's patient probing until he sees why the child behaved as he did; and when the child realizes that he has been understood, there can be another kind of communication. The child who is ready to change his idea of "reality" for a better one hangs in the balance between the old way and the new way. He is at last open with someone he trusts, but he is also exceedingly vulnerable. To illustrate this Prof. Aichorn tells about a warm reconciliation effected between father and son, made possible by an explanation to the father of the confused and desperate reasoning behind the boy's misbehavior. Learning how he had failed to understand the seventeen-year-old in his own home, the father wept, and seemed reunited in feeling with his son. But on the way home, the father broke the bond.. He described what happened:

"We went away entirely reconciled. On the way I gave him a good talking-to, to the effect that he must keep on being good now since I had forgiven him. He listened and said nothing, so that I had to keep myself in hand not to get angry again. I didn't give his employer any explanation because he thinks the boy is sick. Instead of beginning work in the afternoon as he should have, he went bumming around until late that night."

The father had cast his son in the role of the "ungrateful prodigal," and all this could achieve was an encouragement to relapse. As Prof. Aichorn says:

Such critical situations are usually misunderstood by parents and often by educators. Since the real situation is seldom properly recognized, we find ourselves on the wrong track, and endanger the success of all our pedagogical efforts. . . . I now saw that the father because of his emotional situation could not be counted on as a therapeutic helper and that I must work without him.

Most difficult to help are narcissistic individuals who may externally adapt to institutional requirements but isolate themselves from any therapeutic influence. In the case of a successful boy-gambler, Prof. Aichorn made it easy for him to run away. The boy needed the contrasting experience of life "on the run," and he did not come back until ten days later. He might not have come back at all. Therapy creates growth-situations, which always allow choice, not police and confinement situations, and there is always risk when there is room to grow.

In the case of present-day delinquents who form city gangs, the "gang" idea of the way a youth proves himself may result in an elaborate code of anti-social behavior. Delinquency now has the sanction of the gang society and is no longer seen *as* delinquency. One of Prof. Aichorn's cases illustrates this kind of problem:

His delinquent act is not possible until it has been disguised in this way. This symptom differs from the usual neurotic symptom in that it does not have the quality of discomfort and unpleasantness which characterizes the neurotic symptom. It is this pain which makes the neurotic aware of his illness and ready for treatment. The fact that the delinquent does not suffer discomfort from his symptoms constitutes one of the chief difficulties in the analytic treatment of delinquents.

One of the proofs of successful therapy, according to Prof. Aichorn, is the capacity to hold a job and to perform the duties which society expects of all its members. This ideal has obvious limitations in the present. Socially imposed ideals no longer enjoy the kind of consensus approval they obtained forty years ago. Respect for these ideals has been worn away in various ways—one of these being what happens to the young at school. A *Time* (Sept. 1) preview of John Holt's new book, *How Children Learn*, has this to say:

Holt considers much of present schooling a degrading experience for both teachers and students. Children are compelled to work for "petty and contemptible rewards—gold stars, or papers marked 100, or A's on report cards—for the ignoble satisfaction of feeling they are better than someone

else." . . . The whole system, insists Holt, convinces most students that "school is mainly a place where you follow meaningless procedures to get meaningless answers to meaningless questions."

It follows that positive alternatives to delinquency are by no means so clear as they were for past generations. The "social" good is more difficult to connect with human good, and the standards of achievement appear to some to be no more than forms of individual surrender.

The real antidote to delinquency may turn out to be the intensive cultivation of ideals of organic human relationships, instead of conformity to artificial social rules and conventional objectives. The impact of one's conduct on *people*, and not the violation of acceptable social morality, may be the important thing to consider. Some present-day therapists are already thinking in these terms. "We should be encouraging students to cheat," Dr. Glasser said recently, "if cheating means helping each other during tests." He added: "A test that demands facts isn't worth anything, anyway."

It seems evident that the educator with questions is more likely to help the present-day delinquent than the moralist with answers. The society of our time does not know many right answers, and the ones it does know have small importance for the young. Meanwhile, Prof. Aichorn's principle of seeking understanding is surely the first principle for reforming both delinquents and society.

FRONTIERS

The Cloud of Certainties

ANIMALS don't need either science or religion. They have unambiguous instinct to guide them. Man is different. "It is the specific glory of man," as Ortega says, "to know that he doesn't know—this makes him the divine beast weighted with problems."

People with problems naturally hunger for certainty, and the organizers of society do what they can to meet this longing. "No human being or society," Laurens van der Post wrote in *The Dark Eye in Africa*, "however self-sufficient and rational it may appear, can live without institutions that deal with those aspects of life which cannot be explained rationally." And so it is that, at any given time, there is a body of belief to which men subscribe which helps them to feel that they are keeping the Unknown at a safe distance.

Historians sometimes speak of this body of belief as a "climate of opinion." It is subject to change, but only at a slow pace. The ushering in of the age of science, for example, involved the substitution of one class of certainties for another, and there were heroes and martyrs made in the process. First-hand knowledge about the certainties of an age is exceedingly rare, and usually takes the form of quiet statements that they are not certainties at all. "The gods exist," said Epicurus, "but they are *not* what the rabble suppose them to be." Something like this might be said about atoms, today, with the same disdain for popular opinion.

The revealed truths of religion were long regarded as a hard rock of certainty brought in from another world to settle the doubts that men could not settle for themselves. The difficulty with a certainty obtained in this way is that men cannot sustain their belief in it except from outside pressure, and so there are terrible breakdowns of faith when the outside pressure works against instead of on the side of common belief. The great idea behind scientific knowledge, which for the past three hundred years has been replacing the authority of religion, was to bring the sources of certainty within the reach of

human beings themselves. The fact is, however, that for the great majority, scientific truth has become a great cloud of belief which in some respects resembles the older belief in religion. The present is a time when men are beginning to find this out.

There have always been scientists, of course, who opposed this popular will to believe. They knew that they were abstracting from total experience in order to obtain the kind of certainties which mathematics provides, in the hope of developing a more complete *theoretical* picture of the universe. They knew there was a great difference between this kind of knowledge and the solutions to the philosophical questions that men have been asking since the beginning of time. But the leaders who sought to use the new scientific knowledge in their political campaigns, and who promised scientific answers to *moral* questions, were far more confident. These promoters of science saw nothing wrong in blurring the distinction between the ideal of the search for truth and the limited findings of research which succeeded because it defined its problems and projects in physical and finite terms. If man himself should suffer reduction as a result—if his touch with the infinite had to be denied to make his salvation a scientific possibility—well, that was a price they were willing to pay.

The Relevance of Physics, by Stanley L. Jaki (University of Chicago Press, 1966) is devoted to showing the limits of the contribution of the basic science of physics. It is a work of extraordinary scholarship; the author seems to have read very nearly everything said on the subject, and his contentions are embodied almost entirely in quotation from the writings of scientists themselves. For some readers, the book may be discouraging. But it will not be discouraging to those who believe that far too much certainty has been expected of physical inquiry. In an age when certainties which have been promised cannot be delivered, the man who returns human thought to its foundations in honest uncertainty is a benefactor.

It would be a mistake, however, to regard this book as an "attack" on physics. It is filled with expressions of awe at the complex wonder of the natural world, and the impressiveness of scientific

discovery is not reduced by putting the conclusions of physics into historical and philosophical perspective. One sees, with George Sarton, that "Science is nothing but the reflection of nature in a human mirror," and that the practice of science "will always be, for good or evil, irremediably human."

The first section of *The Relevance of Physics* reviews the chief world models of physics, starting with the Greek idea of the world as an enormous organism. Next comes the Newtonian World Machine, which in turn is replaced by the present physical conception of the world as a "pattern of numbers." These changes of assumption among physicists are illustrated with numerous quotations, so that the reader is left in no doubt about the controlling effect of the metaphysical assumptions which always lie behind scientific views about the nature of things.

The hope of finality from mathematical physics was finally put to rest when physicists recognized the full import of Gödel's historic paper, first published in 1930. Mathematics, Gödel showed, must obtain premises outside its own system: "Each set of rules points beyond itself for its proof of consistency." The result, for physical theory:

It seems on the strength of Gödel's theorem that the ultimate foundations of the bold symbolic constructions of mathematical physics will remain embedded forever in that deeper level of thinking characterized both by the wisdom and by the haziness of analogies and intuitions. For the speculative physicist this implies that there are limits to the precision of certainty, that even in the pure thinking of theoretical physics there is a boundary present, as in all other fields of speculations. An integral part of this boundary is the scientist himself, as a thinker, with the ever-changing patterns of his various states of mind.

In his closing chapter—"The Place of Physics in Human Culture"—the author makes this measured judgment:

Cocksure optimism no longer seems to square with the facts of physics. On the contrary, the course of scientific history has brought out forcefully to what a surprising degree finality is absent in physical research. Physics in all of its main types—organismic, mechanistic, mathematical—has failed to

find the definitive key to the complete intelligibility of the physical world. Again, physics appears to be caught up in an endless process in its search to find the final pattern for the material universe either on the cosmic or the atomic scale. And neither is finality the exclusive benefit that physics can derive from using its most characteristic tool, the relentless quest for greater precision that is no less effective in creating new problems than it is in settling old ones. Physics, as has been amply illustrated, is not the source of final answers for other branches of learning and nowhere does it find itself more drastically hampered than in a scientism that takes a specific phase and type of physics as absolutely final and definitive. All this seems to bear out the view that physics will be properly understood and appraised by those alone who remain aware of the fact that physics is a paradoxical mixture of carefully established results, which work marvelously, and of a chain of never-ending puzzles.

Simply on grounds of common sense, one might think that some day a "properly understood" physics will include organismic, mechanistic, and neo-Pythagorean number patterns, all interrelated and supplementing one another in giving a full account of the practical working of the objective universe. But this will in no sense replace the fundamental philosophical inquiry of human beings in their search for knowledge about themselves; it is more likely that what finality is possible for physics will come as a result of a more profound knowledge of man.

The errors in physics, it seems plain from this book, come from an eagerness to jump to final conclusions, and from the desire to make physics settle questions on which it is not competent to rule. This may be the fate of every effort to solve human problems by means which gain their authority outside man himself. If the main mysteries of physics are in the physicist, then acknowledging this may be the only way to bring this science to an appropriate maturity.