THE PLATONIC PROJECT

THE reader of current books, articles, and criticism has the heavy responsibility of measuring, not only the reasoning ability of the writer whose work is before him, but also the impartiality of the supporting facts. He may decide, in a particular case, that the argument is cogent, its premises more than adequate, only to encounter, a day or so later, the even more impressive conclusions of a writer of opposite persuasion. Actually, there seems no end to this sort of thing in the adversary proceedings of intellectual dispute. You know only that the writers are all very clever fellows, and that the project of deciding who is "right" can be brought to an end only by fatigue or partisan simplification. It becomes apparent that almost any man who uses language with a little skill and dedication is bound to be right in some way or other, and to be able to tell just where he goes wrong requires the reader to pursue an arduous personal investigation that no one has time for. Indeed, making such decisions about the merits of all the "important" issues that are publicly argued, nowadays, is plainly impossible.

So the reader, doing the best he can, usually resigns himself to submitting to the judgment of experts in all or most of these matters, and then finds his uneasiness in falling into this pattern confirmed: the generalist writers whom he admires most declare that this delegation of decision to "authorities" is the worst of all the self-defeating habits of modern civilization. The specialists cannot really solve our problems, but only return them to us, like bread cast upon the waters, comprehensively defined, packaged in neat abstraction, and raised to a higher power.

Reason is obviously a great thing, and we can't live without it, but you'd think that, by this time, we'd know more about why men with impressive reasoning powers are not more often in agreement with one another. No doubt there are trained specialists in the universities who would gladly explain to us why men of reason fail to agree, but, somehow or other, their clarity in the matter doesn't help. The world, that is, shows little interest in their explanations. Conceivably, this may be understood by recognizing that knowing why bright men disagree will not help anyone to reach to a position of *power*; and since power is commonly regarded as the highest good in our society, spreading around a comprehension of the shortcomings or natural limits of reason has little hope of becoming a popular activity. It would, we suspect, lead to a deep and abiding suspicion of all men who use reason as a device, a technique, a mere means for gaining their objectives. Reason is protected from losing its way only when the goal of its use is noësis-an which power-seekers cannot end possibly comprehend.

We may have here some part of an explanation of the common man's instinctive distrust of "intellectuals." If you pay too much attention to reason, a common man will say, you'll just become captive to some over-educated talker's plausibilities. The common man is not of course consistent in defending himself against the beguilements of reason; he willingly adopts a rough and ready brand of argument made by somebody he *likes*—which is why he is a common man, and not an uncommon one—but in this he seems no better and no worse than the professional exploiters of reason; or, perhaps he is a bit better because he remains unaware of the opportunism which colors his thinking.

Something like this general problem is faced by James S. Kunen in the *Atlantic* for February. Mr. Kunen, it may be recalled, is the Columbia undergraduate whose (October) *Atlantic* article "explaining" the campus uprising in April, 1968, was quoted in MANAS for last Nov. 6. His present discussion is titled "Notes from the Journal of a Gentle Revolutionary" (a portion of a book to be published this month by Random House). In it he tells about his encounters with various Clear Reasoners who are certain of their righteousness. After a prolonged exchange with a militant New Left thinker, the conversation took this turn:

Then we talked about gun-control laws. He, like all the real radicals, was against gun-control legislation. He pointed out, correctly, that with the new laws, 80 per cent of blacks would not be able to get guns. Also leftists couldn't get them, whereas all the flaming Birchers and suburban reactionaries would be armed to the teeth. He said the Constitution guaranteed the right to bear arms in order to counterpose an armed populace to the armed state. And he said real gun control isn't That's true. possible until you disarm the police. I agree, but the police aren't about to be disarmed, certainly not while other people have guns. He said the real point of the legislation is to prevent the blacks from defending themselves against the cops who shoot them every day. I wonder, if that's true, why Southern senators are against gun control? Anyway, if the blacks get armed, the police will just use it as an excuse for more shooting, and in shoot-outs the state always wins. They'll bomb out blocks in Harlem if they want to.

I just don't like guns. I don't want anybody to have them. People who talk about this or that group being better armed than another are talking as if they were playing some sort of game where you move gun pieces around to best advantage. They couldn't realize that in real life you don't draw a card that says "dead," you feel bullets tearing into you and breaking your bones and leaving holes that all your blood runs out of as you lie in the gutter dying. I don't want that to happen to any person, including persons who for good or bad or no reason are cops. There must be better ways to fight guns than with guns, and if there aren't we ought to think up some. If we get guns we re just like them and have no right or reason to fight them and everybody would be better off without us.

Well, that's a show of reason, too—a good one. But why do these two young men reason so differently, or get to such different conclusions? In answer we could say that they have different coefficients of *interest* affecting their reasoning. The militant wants to make a righteous revolution and Mr. Kunen counts the cost-not the cost of just one particular revolution but of any general program of killing people to make possible what you want or think is right. What determines the plane of interest where a man's reasoning takes place? The simple answer is that what or whom the man loves determines it. Love is a better word, here, than interest. Love, or eros, was Plato's word, and he maintained that the whole project of the reasoned life consists in refining the love we feel into the very best love-since everything that men do, everything that they decide, everything they want and strive for, is determined by the kind of love that animates their lives. There is no life at all without love.

That is why, in the Platonic dialogues, Socrates is more interested in getting people to recognize what it is that they really love, instead of trying to prove things to them by logic. Is what you love worthy of a good man's affection? was the question he kept on asking.

But reason, we have been told, must get rid of emotion in order to be without partisanship or bias. That's the meaning of science. Well, it may be the meaning of the science we know about, but the power of interest or love always gets smuggled into the use of our scientific knowledge. And we can see, now, that if science devoid of emotion is the only reliable kind of science to get knowledge with, there is absolutely no guarantee that uninstructed emotion won't seize the products of loveless science and destroy the world with it.

So the original and controlling fact is that there isn't any reasoning or science without the energy of feeling, or some kind of love. There isn't any *unmotivated* reasoning. You reason in a certain direction, to reach a certain end, because you *want* to. Plato knew this. So did William Blake. Plato said a man had to grow wings to reason well. Blake called growing wings "fourfold vision." We are, alas, imperfect men, more or less wingless lovers, all of us, and prone to the imperfect use of reason as a result. So that a man absolutely sure he is Right is probably in much worse trouble than the man who, on principle and out of regard for the common human condition, harbors a few doubts about his reasoning. According to Mr. Kunen, a great deal of the trouble in the streets, these days, comes from people certain that they are Right. They have reasoned it all out, and so, being Right, they think they have a right to try to make everybody else be Right in the same way. This is apparently true of the righteous members of both the Left and the Right.

Because nearly everybody on the righteous Right is wearing a flag, these days, and New York police squad cars all have American flag decals on their windows, Mr. Kunen has a simple plan for cancelling out at least some of the trouble-making righteousness at the symbolic level:

So what I would suggest—and this is the only concrete suggestion in the Book—is that all the leftists put flags on their cars too, to defactionalize the flag, thus depriving the right of one symbol, and also assert our potential for patriotism, our desire to have a country to be patriotic about.

When a speaker at a radical rally exhorted, "Open the jails, let everybody out, and then put the pigs in jail," Gentle Revolutionary Kunen reflected:

I figure there are, no doubt, many pigs who should be in jail, but not all of them. I hate to hear anybody talk about all or anybody that way. Perhaps if every pig precinct had a different color uniform pink, pastel, blue, white—then people wouldn't lump them all together in the same pen. I'm no cop lover, but saying pigs are all this or pigs are all that reminds me of sentiments like "The only good Indian is a dead Indian," a phrase which produced far too many "good Indians." . . .

Hatred isn't all right with me, but I've seen things such that a little ranting against pigs and Biggees doesn't upset me too much. As a matter of principle, though, I don't think we should return hatred for hatred—people have been doing that too long. I think we should shower the pigs and the candidates and the Biggees with gifts. We should love them for hating us; we should thank them for caring.

Mr. Kunen's Book will probably be a very good book. As the *Atlantic* editors say, introducing their extract from it: "These passages from his journal show him to be more humanist than revolutionary, more democrat than anarchist, a hint to despairing elders that our world may be in better hands than they think." Well, he may be gentle, but he isn't soft-headed.

The real problem runs deeper than just not killing people. Why do so many of us worry so much about being Right, even to the point of feeling free to hate people who show signs of wanting to disagree? Somewhere in our history, we began to think that if a question can't be decided in actionable terms of Right and Wrong, it isn't even worth thinking about. Why should anyone think that? Well, when you know what's right, you have to act upon it, and if it's really right you have to really act, whether this means saving democracy throughout the world, or preserving the one true religion from a fate even worse than remaining harmless and good-natured from one day to the next.

Being Right, in short, creates a long list of things you *have* to do, and this kind of doing always means doing them to other people, because Righteousness has no real meaning for Men of Action unless it can be *enforced*. Since power is the only reality and the highest good, Righteousness cannot be anything but the result of a Righteous man's or Righteous nation's use of righteous power. A righteous man can prove his righteousness only by making his power felt.

Now anyone who has even a nodding acquaintance with how authentic human good comes into being knows that applying righteous power is the precise opposite of the way to produce it. The high quality of a good man is intrinsically uncoerced and uncoercible. Every good man knows this. The good man or the good society always strives to set power at a discount. Neither the quality of mercy nor the flow of creativity can be strained. If your social order is any good you won't need to compel them to come in; if it's a true social order you won't try; and if it's beautiful it will long ago have outgrown all such barbarous temptations.

The man who links righteousness with power looks out of fearful eyes through suspicion-tinted spectacles. He is a convinced pessimist; he has already given up the hope which Dante said would have to be abandoned only when you enter Hell. If hell has a "society," it is surely ruled by the paranoid Righteous whose sole punishment is the possession of inalienable power.

Hell, in short, is entirely a human creation. The rational production plan for hell on earth is the argument of righteous men who, hating evil, declare that it must be anticipated everywhere and be better then scotched. Tolstoy knew how this argument goes:

He asked me how I explained my strange principle of nonresistance to evil by violence, and as usual he brought forward the argument, which seems to everyone irrefutable, of the brigand who kills or violates a child. I told him that I recognize nonresistance to evil by violence because, having lived seventy-five years, I have never, except in discussions, encountered that fantastic brigand, who, before my eyes desired to kill or violate a child, but that perpetually I did and do see not one but millions of brigands using violence towards children and women and men and old people and all the laborers in the name of the recognized right of violence over one's fellows. . . . No one has seen the fantastic brigand, but the world, groaning under violence, lies before everyone's eyes.

But what, someone is sure to ask, if a society gets so bad that the brigands are really *all around?* Perhaps the only "logical" answer to that question is that the forces of evil have conquered, and if you want to survive you have to join up. Tolstoy and Gandhi would disagree. They would argue that in this case survival is not a human good. Plato's answer—not really an "answer," some would say—is given in his seventh epistle: I who had at first been full of eagerness to take part in public life, when I saw all this happening and everything going to pieces, fell at last into bewilderment. I did not cease to think in what way all these things might be amended, and especially the whole organization of the State; but I was all the while waiting for the right opportunity for action.

At last I saw that the constitution of all existing States is bad and their institutions all but past remedy, without a combination of radical measures and fortunate circumstance. I was driven to affirm, in praise of true philosophy, that only from the standpoint of such philosophy could one take a true view of public and private right; and that, accordingly, the race of man would never see the end of trouble until the genuine lovers of wisdom should come to hold political power, or the holders of political power should, by some divine appointment, become genuine lovers of wisdom.

So Plato opted out of the world of power plays. He devoted himself to the difficult question of how to produce more "genuine lovers of wisdom." One of the results of this effort was the design of an educational or therapeutic community known as the *Republic*, in which, not power, but an understanding of the Good, was made the chief objective. The only man that can be trusted with power, Plato believed, is a man morally incapable of misusing it. So with his eye on that far-off day in the Greek kalends when there would be an "end of trouble," he wrote the *Republic*, of which Werner Jaeger says:

... the subordination of all individuals to [the Idea of the Good, to which the "Ideal State" of the *Republic* is devoted], the reconversion of emancipated persons into true "citizens," is, after all, only another way of expressing the historical fact that morality had finally separated itself from politics and from the laws and customs of the historical state; and that henceforth the independent conscience of the individual is the supreme court even for public questions....

Plato's demand that philosophers shall be kings, which he maintained unabated right to the end, means that the state is to be rendered ethical through and through. It shows that the persons who stood highest in the intellectual scale had already abandoned the actual ship of state, for a state like Plato's could not have come alive in his own time, and perhaps in any time.

If this is indeed what Plato meant, and why he wrote the *Republic*, he made a decision which separates the men from the boys. For it proposes that men of the highest determination will never accept power until the state is "rendered ethical through and through." He saw no possible of social in the improvement prospects organization until men themselves became better. And what develops in the dialogues, as the means of making men better, is a training of the reason, not so much for reaching logical conclusions as for discovering the kind of love that animates a man's life, governing his reasoning and everything else. The term Plato uses in the seventh epistle is "affinity":

In one word, neither receptivity nor memory will ever produce knowledge in him who has no affinity with the object, since it does not germinate to start with in alien states of mind consequently neither those who have no natural connexion or affinity with things just, and all else that is fair, although they are both receptive and retentive in various ways of other things nor yet those who possess such affinity but are unreceptive and unretentive—none, I say, of these will ever learn to the utmost possible extent the truth of virtue nor yet of vice. For in learning these objects it is necessary to learn at the same time both what is false and what is true of the whole of Existence.

It is Plato's conviction that every man has the potentiality of longing for Truth, for knowledge of the highest good, but that this aspiration is inhibited, the vision clouded by lesser affinities. The Dialectic is not a process designed to lead the inquirer, step by logical step, to "the truth" as Plato would have him see it, but a method of exposing himself to himself. Yet the inquirer must long for the consummation. He cannot be "persuaded." As Robert Cushman says in *Therapeia:*

In dialectical inquiry, a man is not spoken to; he speaks, and he himself supplies both the answer and the demonstration. Dialectic is the true rhetorical and persuasive art, because it permits a man to convict himself of error and, on the other hand, to confirm himself in the truth. He is self-persuaded. For this reason, Socrates admonishes Alcibiades not to hesitate but to make answer if he wishes to be persuaded: "and if you do not hear your own self say that the just is expedient put not trust in the words of anyone again."

In some respects, this counsel was Plato's own deepest wisdom. For him, the soul was "pregnant" with true opinions but it became articulate only when plied and probed by *elenchos* [Socratic inquiry or cross-examination]....

[Yet] the truly persuasive art counts upon a certain right-mindedness which, under propitious circumstances, may reaffirm itself. Men do not willingly err; therefore, they may be persuaded. By this, perhaps, Plato means to suggest that in the course of dialectical examination man's native and irrepressible love of truth and reality, the divine ergs. may slip its bonds, gather its strength, and reorient its intelligence toward reality. . . . There comes a cumulative vision to those who consent to examine and cross-examine, one after another, the import of Dialectic secures selftheir own admissions. convincement, and in so doing it proves itself to be the irenic art. It is never a way of enforcing conviction, but always a way of leading men to adopt the truth for themselves.

This method, however long, does seem to be the only defense we have against those invisible coefficients of reason which direct the line of an argument. not according to our own understanding, but by someone else's partisan intentions. Even if the line of argument leads to some objectively "true" idea, if we do not link it in its origins with some kind of feeling or love of our own, it is not really "known" to us. And then, as Ortega remarks, it exerts only a "mechanical pressure" on our thought.

Plato, it must be acknowledged, wrote out of his own conviction of transcendent reality. He believed in archetypal excellences of being in which human beings have opportunity to participate. He believed in immortality and he regarded earthly existence as a kind of imprisonment of the soul. But he sought consideration for such ideas, rather than belief, and to prevent their easy acceptance he cloaked them in myth. The Platonic object is always selfdiscovery.

REVIEW THREE REVIEW-ESSAYS

THE essay on the books of John Steinbeck by Peter Shaw (an editor of *Commentary*) in the Feb. 8 *Saturday Review* has an excellence which recalls other comprehensive studies of the entirety of a writer's work—reviews which, once read, are often returned to for renewal of insight. We think in particular of two—Thoreau's appreciation of Carlyle, and George Woodcock's evaluation of George Orwell as a "nineteenth-century liberal" (printed by Dwight Macdonald in *Politics* for December, 1946). Today, with Orwell's collected works becoming available, Woodcock's essay seems especially valuable.

It should be added, of course, that Thoreau's discussion of Carlyle is in a class by itself, being much more than "criticism." Thoreau writes independently about things that Carlyle spurs him to consider, somewhat as Ortega, in his *Meditations on Quixote*, moves around freely in the regions of thought generated by Cervantes, finding it unnecessary to say a great deal about *Don Quixote*. In the matter, for example, of Carlyle's devotion to the hero, Thoreau writes:

No doubt Carlyle has a propensity to *exaggerate* the heroic in history, that is, he creates you an ideal history rather than another thing. . . . Yet what were history if he did not exaggerate it? How comes it that history never has to wait for facts, but for a man to write it? The ages may go on forgetting the facts never so long, he can remember two for every one forgotten. The musty records of history, like the catacombs, contain the perishable remains, but only in the breast of genius are embalmed the souls of heroes. There is very little of what is called criticism here, it is love and reverence, rather, which deal with qualities not relatively, but absolutely great; for whatever is admirable in a man is something infinite, to which we cannot set bounds. . . .

Exaggeration! was ever any virtue attributed to a man without exaggeration? was ever any vice, without infinite exaggeration? Do we not exaggerate ourselves to ourselves, or do we recognize ourselves for the actual men that we are? Are we not all great men? Yet what are we actually to speak of? We live by exaggeration. What else is it to anticipate more than we en joy? The lightning is an exaggeration of the light. Exaggerated history is poetry, and truth referred to a new standard. To a small man every greater is an exaggeration. He who cannot exaggerate is not qualified to utter truth. No truth, we think, was ever expressed but with this sort of emphasis, so that for the time there seemed to be no other. Moreover you must speak loud to those who are hard of hearing.

Obviously, Thoreau has hold of something important here. He speaks of a rhetorical necessity which, if clearly understood, might put an end to much wordy argument. (The essay on Carlyle appears in the Harvest House (Montreal] paperback, *Anti-Slavery and Reform Papers*, which also includes "Civil Disobedience" and "Life without Principle.")

Woodcock's discussion of Orwell may help the reader to understand a certain uneasiness which attends his enjoyment of Orwell's blunt moral intensities and castigations.

Orwell is a very advanced sort of Good Guy whose personal honesty drives him into unperceived inconsistencies:

His attitude toward the State is typical. In a recent symposium in Horizon on the economic condition of the writer, he said, "If we are to have full Socialism, then clearly the writer must be Statesupported, and ought to be placed among the betterpaid groups. But so long as we have an economy like the present one, in which there is a great deal of State enterprise but also large areas of private capitalism, then the less truck a writer has with the State, or any other organized body, the better for him and his work. There are invariably strings tied to any kind of official patronage." The inconsistencies are obvious. If, when the State is only partially in control, it is a bad thing to be patronized by it, it must be worse when it is wholly in control. And "if there are invariably strings tied to any kind of official patronage," then the artist will certainly be well and truly strangled when he accepts the patronage of the total state, Socialist or otherwise. Incidentally, this passage is a good example of the obscurity into which Orwell sometimes falls when talking of political ideas. From the first clause one would imagine him an advocate of a total State, whether we call it Socialist or otherwise, but in reality he advocates no

such thing. From conversations with him, I gather that he conceives, again very vaguely, something more like a syndicalist federation than a real State in the traditional socialist model....

Indeed, it is one of Orwell's main faults that he does not seem to recognize general principles of social conduct. He has ideas of fair play and honesty; concentration camps, propaganda lies and so forth are to be condemned. But in a more general sense his attitude is essentially opportunist. For instance, he contends seriously that we must have conscription during the war, but that once the war has ended we must resist it as an infringement of civil liberties. During the war we must jail "fascists," but afterwards we must let them carry on their propaganda at will. In other words, we can have freedom when it is convenient, but at moments of crisis freedom is to be stored away for the return of better days.

While *Animal Farm* was in print at the time Woodcock wrote this, *Nineteen-Eighty-Four* had not been published. Yet the value of Woodcock's criticism does not seem diminished:

Orwell is essentially the iconoclast. The fact that his blows sometimes hit wide of the mark is not important. The great thing about Orwell is that when he exposes a lie he is usually substantially *right*, and that he will always pursue his attacks without fear or favor. His exposures of the myth of Socialist Russia, culminating in *Animal Farm*, were a work of political stable-cleansing which contributed vastly to the cause of true social understanding, and it is for such achievements that we can be grateful to Orwell, and readily forgive the inconsistencies that accompany them.

These extracts are weighted on the side of criticism. Woodcock's further account of Orwell's rugged virtues as a writer and a man recalls Lionel Trilling's unexaggerating praise (in *The Opposing Self*) and brings understanding of Orwell's attraction for a large audience of serious readers.

There are loose parallels between Orwell and Steinbeck, or parallels between Woodcock on Orwell and Shaw on Steinbeck. Both novelists do their best work when they stay within the radius of their moral understanding. That the urgencies of the times drove them into areas they could not handle well is something that could be said of a great many of us. Mr. Shaw finds Steinbeck guilty of "an ambivalence toward the life of the mind that has been all too familiar among American writers." It is an ambivalence "in which ideas are at one moment violently despised and the next abjectly venerated," and this "hurt him just as it did the others." Among his earlier works, Mr. Shaw singles out In *Dubious Battle* as "the best strike novel of a decade." As readers of this engrossing story will remember, Steinbeck does not take sides. The book's impact grows from the fact that Steinbeck treats the strike "entirely in human terms." Yet as Mr. Shaw says:

Steinbeck's commitment lay in his very choice of a subject: as long as he chose to write about bindle stiffs, migrant workers, and the Okies, he was by definition a partisan writer. And his advantage over his contemporaries lay in the rare objectivity with which his distancing technique permitted him to view his subject.

Steinbeck was able to make the human meaning of social cataclysm come alive for his readers. The power of *Grapes of Wrath*, Mr. Shaw shows, came from—

Steinbeck's ability to suggest the enormity of tearing people out of their environment [---an ability which] depended upon his being so convincing about the details of their lives that one felt overwhelmingly just what had been taken from them. This was the right book at the right time for Steinbeck. It called not only on his first-hand knowledge of the migrant workers' lives, but also on his genius for observing the broad sweep of events. Furthermore, there was something essentially tragic and grand in his subject itself: the migration of a whole people across thousands of miles. The combination of Steinbeck's feeling for the land, his intimate knowledge of the day-to-day lives of his people, and the scope and import of his subject made the Grapes of Wrath a great work.

Mr. Shaw's essay on Steinbeck is the kind of study that a reader is likely to tear out of the magazine and put away, hoping to find it when he wants to think some more about Steinbeck's art or reread some of his books.

COMMENTARY THE CLIMAX OF EDUCATION

THERE is a parallel between a paragraph by Arthur Morgan in this week's "Children . . . and Ourselves" and the main point of the lead article. It is difficult to see an important difference between Plato's conception of education and the following:

College is a place where we should come to realize the origins of our convictions, our desires, our aims and hopes, and where we examine and appraise them, and bring them more and more into harmony with the nature of things and with the possibilities of life.

Education should spur a youth to recognize his own first principles, and the sort of "love" which directs his decisions; while, at the same time, he studies "the nature of things" and "the possibilities of life."

These latter, of course, are *ultimate* questions, yet only by pondering them can a man evaluate his desires and aims. As Plato said, "For in learning these objects it is necessary to learn at the same time both what is false and what is true of the whole of Existence." This involves the Dialectic, or, as Dr. Morgan puts it, "alternately thinking for oneself, and following the course of other men's minds as recorded in literature, art, and other forms of human expression."

Another paragraph by Dr. Morgan contains the root of every "controversial" issue in education:

Habits and even beliefs may be shaped or regimented by compulsion, and sometimes by compulsion one may be brought under influences that may infect him with new desires, yet the direct and controlling cause of personal growth is inner desire, and not outward compulsion.

The paradox, here, might be repeated by asking: What sort of conditioning best fits a man to free himself of past "conditionings"? No useful discussion of education can ignore or slide past this question. Mr. Cushman's perceptive account of the Dialectic makes one resolution of the paradox:

Plato means to suggest that in the course of dialectical examination man's native and irrepressible love of truth and reality, the divine ergs, may slip its bonds, gather its strength and reorient its intelligence toward reality.

Education which does not seek its climax in these moments of reorientation is only a technological device—one more "machine for living." The difficulty—not a difficulty, really, but the nature of things—is that there is no way to predict when or how "the divine eros may slip its bonds, gather its strength, and reorient its intelligence toward reality." Teachers can do no more than invite such moments and bide their time.

CHILDREN ... and Ourselves

MORE BY ARTHUR E. MORGAN

[These paragraphs are further selections from the material in the section "On Education" in Arthur Morgan's book *Observations*, published by the Antioch Press, Yellow Springs, Ohio.]

THE implicit assumption, so unconsciously common in education and in life in general, that our interests are fixed and given, and that our course lies in following and in satisfying those we have, rather than in also exploring for those we might have, inhibits the growth of range and quality of life. One of the major aims of education should be to help students discover the possible range of interests.

The conscience is an inward urge to right living. But conscience is of the heart, not of the brain. It is not sufficient unto itself. It must be educated, disciplined and encouraged, just as other faculties.

It is the business of the university not only to analyze and appraise. It must stimulate a creative desire for increase of significance.

Students come to college with provincial and immature impressions of what development is worthwhile. If the college cannot help to correct that outlook, to furnish the student with more normal and better proportioned interests, a very large part of its possible usefulness is unrealized.

Youth, if greatly led, is ready to break with the thought patterns of the past, and commit itself to great adventure. It cannot be greatly led by those whose thought patterns are so fixed in the world in which they grew up that they can know no other.

In teaching, a spirit of scholarly thoroughness and a determination for mastery are more important than any methods. All that methods can do is to free the spirit of scholarly thoroughness so it can express itself, and provide controls so that purpose and expectation can carry their contagion. Method may give these qualities their opportunity, but it cannot create them.

College is a place where we should come to realize the origins of our convictions, our desires, our aims and hopes, and where we examine and appraise them, and bring them more and more into harmony with the nature of things and with the possibilities of life.

Nearly every great event in history is born in the discovery that the present state of things is not inevitable. So prone are men to see that as things are, so they must be, that this great discovery is always as fresh and new as though it had never been made before. Education today is waiting for the discovery that beauty and poise and richness of personality are not denied by the gods, but by their own lack of great desire.

Stress and intensive effort can make great contributions to life, and so can deliberateness and leisure. Design in education should include both.

Habits and even beliefs may be shaped or regimented by compulsion, and sometimes by compulsion one may be brought under influences that may infect him with new desires; yet the direct and controlling cause of personal growth is inner desire, and not outward compulsion.

Intelligence is the rudder of life which directs us which way to go. Emotional commitment, which leads us to give everything we have to the undertaking is the power plant which drives the ship of life. Education sometimes has assumed that we need only give attention to the rudder.

Proposals to extend the school year should come to the attention of the Society for the Prevention of Cruelty to Children. Where normal life for children is feasible, the reduction of the school week to four days might be highly desirable. If present trends continue, there will soon be no possibility for any Huckleberry Finn to have an adventure. The truant officer will see to that. That a man can educate and recreate his interests is one of the most encouraging facts about being human.

Higher education is not a minor affair, but a most significant experience of life—the last orderly effort to integrate life. Everything that affects or concerns men and women is its concern.

The old university was a vocational school. It trained for the calling of the scholar, the priest, the physician. Its training was not for a balanced life, but for a calling . . . The American college has a different function. Its business is to raise life for all men to a higher plane, to discover and to develop all innate powers.

Education should be a training of the whole man, of habit as well as of thought. All good education is self-education with competent guidance, so the discipline of habit should be selfdiscipline with the help of guidance. Essential discipline is not tyranny.

Neither moral purpose nor economic independence can be depended upon to serve a useful end, except as they are disciplined and enforced by a trained mind. The trained mind is one that has greatly increased its status, range, power, and accuracy by taking advantage of the suggestion, inspiration, and discipline which comes from alternately thinking for one's self, and following the course of other men's minds as recorded in literature, art, and other forms of human expression; while at the same time it has made itself master of the data which furnish the foundation for ideas. This mastery of data takes the form either of memory of facts, the ability to classify facts as they appear, or the ability to find them as needed.

The separation of church and state in America has had a result which builders of our constitution did not foresee. The condition provided for was one in which the church would care for the spiritual needs of men, and would present the fundamental purpose and meaning of life. The state, through such schools as should be developed, might look after the practical and material considerations. The school would prepare youth to "render unto Caesar the things that are Caesar's," but the churches would control "the things that are God's." But now we have a great and unexpected development. The school becomes our dominant national institution and the church relatively fades away. The practical methods of life are comparatively well cared for, but the fundamental purpose and meaning are neglected.

Any problem which youth must solve in order to live to the best purpose, and which it is not being helped otherwise to solve, is a proper interest for the college. To the college youth of today the church, in fact, is obsolete, the home is inadequate, wise personal friends have not time to listen. He has no place else, so far as he knows, to go for direction.

There has been much futile argument over contrasted "scientific" "cultural" as with education. Cultural education has often been taken to mean the traditional and conventional polish and leisure-time intellectual interests of the "upper classes." In the minds of "people of culture," familiarity with 17th century dramatists, or ability to distinguish Ionic from Doric architecture would be culture. An understanding of the second law of thermodynamics would not. Any study which broadens one's outlook, sharpens his discrimination, informs him of the nature of the world and of life, acquaints him with the treasures of wisdom, aspiration and judgment of the race, and breeds in him justice, and kindliness—that is cultural.

FRONTIERS Sources of Social Theory

THE saturation of modern thought by scientific forms of analysis and ideas of reality has led to a general usage of the conceptual language of mathematics and the physical sciences. Even when this language can by no means be applied to other areas of experience with the same exactitude, its terms lend an air of "discipline" and concrete grasp, causing the reader to feel that serious additions to knowledge are being made.

Take for example the idea of a "closed system," obviously derived from mathematical thinking, which becomes a powerful organizing analogy in social thinking. Even though no human society could ever be *really* closed, the resistance to change of authoritarian institutions is identified as a virtually objective "trait" when it is said that, taken together, such institutions tend to establish a closed system of society. Having devised by the use of analogy this model of what a human society ought not to be, the theorist may then go on to suggest means of keeping social organization open to growth or change. Other analogues, taken perhaps from biology, may be useful, since living characteristically systems are open, as distinguished from simple physical systems. Or he might propose a corrective application of the implications of Godel's Theorem, along the lines recently suggested by J. Bronowski (see American Scholar, Spring, 1966). For dramatic illustration of the use of the analogy of the closed system in social criticism, one could turn to Roderick Seidenberg's Post-Historic Man, a book whose title shows the anti-human character of social systems which close out individual decision by progressive external rationalization of behavior according to all-pervasive technological necessity. Where there are no human decisions there can be no history.

Another analogy, taken from modern physics, is that of the "chain reaction," now almost a cliché of behavioral analysis. The phenomena to which this idea may be applied are widely diverse, to be found wherever the accelerating spread of a selfrepeating tendency in the units of a system occurs. Usually people speak of a "chain reaction" when the tendency is of a sort that may be expected to go out of control. Unless a "chain reaction" is arrested at an early stage, its momentum becomes irreversible. Then the idea of control over these wild, escalating forces is indeed unthinkable. The parallel is of course with atomic or nuclear fission.

The "closed system" idea has an antidote in the conception of "organism," or in Bronowski's suggestion of a return to "self-reference," but until recently we have made little use of corresponding resources in analogy for control or regulation of "chain reactions." If one of *those* gets going, all we can hope to do is get out of the way while there is still time.

Logically enough, an Indian scholar, Vikram Sarabhai, has found a "control" analogue in the technique employed to derive atomic energy (for peaceful applications) from the fission of uranium. In a recent address at the Indian Institute of Technology, in Madras, Dr. Sarabhai set the problem by calling attention to the enormous acceleration in technological development in recent years, comparable to a "chain reaction." The normal constraints exercised by the ecological balances of nature have no access to the processes superimposed on human life by technology. He illustrates this problem in various ways, as for example with the following question:

How shall we preserve democratic States where the media of mass communications provide means of instantly reaching downwards from centers of authority, but, short of public agitation, there is no authorized channel for the reverse feedback for controlling the political system between elections? What should be the goals of education in a world of obsolescence?

To develop the analogy of control as suggested by regulation of atomic fission, he describes what happens:

As is well known, when an atom of the 235 isotope of uranium is hit by neutrons, it has a

tendency to split into two lighter atoms, the combined weight of the splinters being less than the weight of the original atom. In the process of fission, not only is the difference of mass liberated as energy, but additional neutrons are released. When these neutrons hit other fissile atoms, a chain reaction occurs and the process can continue like the divergent spread of gossip. We require a critical mass of uranium before the chain can be self-sustaining and indeed when there is no other control device, the mass suddenly explodes through sudden liberation of a large amount of energy on reaching criticality. This is what constitutes an atom bomb based on fission.

But control is nonetheless possible:

When we wish to extract useful power out of the self-sustaining chain reaction of fission, we have to prevent the divergent release of neutrons, and of energy in the mass of the system. This needs the establishment of a large number of control loops which constantly and simultaneously sample the level of the reaction at various points of the reacting volume and sensitively adjust the position of neutron absorbers, strategically placed at various positions in the core of the reactor. Divergent trends are almost instantly compensated. An operator can shut down the reactor by pushing neutron absorbers into the core. But no reactor can be maintained in a steady state of self-sustained activity, necessary for providing useful energy, on the basis of gross controls operated with imperfect feedback loops. Indeed, the control of potentially divergent systems relies on sensitive information loops which operate quickly in response to minute changes of activity.

Now comes the application to social issues:

What can we learn from this analogue in the social context? That control of the divergent human function cannot be maintained through the macro system of a super government. We need a system which permits an infinite number of micro control loops spread through the fabric of society. An authoritative regime can inhibit the divergent human function, but only at the cost of inhibiting development itself.

Ironically, free societies are the ones which are most prone to the social impact of runaway divergencies. It is in such free societies that the power of the super State, the super authority in education and for developmental tasks, is most difficult to sustain. I am intrigued by how close this line of thinking brings us to Vinoba Bhave's and Jayaprakash Narayan's ideas on social and political organization. . . . We have, I believe, to create a social system and a pattern of development which is based not on monolithic organization operating impersonally at an all-India level or even at the level of the States, but in units, where the feedback loop has high fidelity communication and a quick response.

The analogy also applies to education:

I am convinced for instance, that our education system would immeasurably benefit if it were liberated from the monopolistic privileges under which universities take hold of all educational matters at a certain level in allotted territories. There is no way in which a University Grants Commission or an affiliating university can ensure educational standards. In the ultimate analysis, it is only the teacher in the classroom that can do anything in the matter. He has to be provided the freedom to innovate in education in a changing world and, for this innovation, he has to receive the trust of those who back him up. I would suggest that the most effective development of education can take place only when the teacher, the student, his parents and the outside environment can interact with one another, in a series of feedback loops, free from regimentation and irrelevant theories and principles preached from the top.

Well, the analogy is not the process; the theory of feedback is not the reform. Yet the principle of a truly self-regulated society is clearly illustrated in this technique of the control for use of atomic energy. And the analogy adds a "natural law" dimension or confirmation to the Gandhian idea of a peaceful and self-reliant social order. (Dr. Sarabhai's address was printed in the Hindustan *Times* for Jan. 19.)