THE DISCOURAGEMENTS OF HISTORY

TO what extent are modern conceptions of health and goodness shaped by the logic of reaction to the findings of certain great pathologists—the men who have attracted world attention by monumental studies of disorders productive of pain? Marx and Freud are examples.

This question comes as a corollary of the present criticism of the destructive side-effects of applications of scientific method, since it already appears that the new problems which continually arise are due, in fact, to the over-all orientation of the technical approach. Does, for example, the technical approach have a fatally limiting effect on the definition of objectives?

It seems entirely reasonable to argue that technicism in method is the inevitable consequence of hedonism in philosophy. You live your life the way you want to (freedom, a basic ideal, encourages this), and when you encounter obstacles you use technology to eliminate them; and when pain is experienced, you employ science to find the cause and devise a remedy.

If the obstacles are complex and many, overcoming them soon becomes an elaborate program, and it is not long before the explanations and justifications of this program produce an intellectual efflorescence dignified as Philosophy. Journalistic interpreters and popularizers call it a Way of Life, and educators celebrate it in the Putting down obstacles becomes the schools. positive achievement of Conquering Nature, and when this is done scientifically there is the added glory of contributing to the sum total of Truth. Now it is obvious that people who do things like this are good people, so that when bewildering new problems arise there is still a lot of support for thinking that all we can do about them is to tighten our belts, count our blessings, and improve our techniques.

The technical approach is common to all the competing ideologies of the time, which may explain why societies which claim to be based on radically opposed political principles are often said to resemble each other closely, so far as problems and goals are concerned. It is not difficult to recognize the socialist program as a special case of the technicist approach. The good society, in other words, was defined as a society free from the pain of class oppression and exploitation. A classless society was then conceived as the remedy for major social evils, their elimination being assured by relationships to property which would give no scope to self-serving economic activity. What problem-solving logic could be clearer?

But we now know, or are beginning to suspect, that the elimination of human pain, whether physical, psychological, or social, is far from being as simple as technical diagnoses have led us to believe. Even a very complete knowledge of symptomatology, experience shows, is not the same as knowledge of health. Nor is the good life simply a life from which the sources of pain have been scientifically removed. Satiety may be the technical opposite of deprivation, but it has not proved to be good in itself, even though deprivation seems to be unequivocally evil.

All this would probably be clear and admitted by everyone, save for the fact that evil, in the problem-solving context, makes us indignant, so that its elimination becomes a passionately pursued moral objective, shutting out all other considerations. Add to this the fact that our intellectual life is very largely absorbed in understanding and elaborating on what seem brilliant and conclusive diagnoses, and we see how "natural" it has been to decide that there is no point in talking about goodness until more has been done to get rid of the evil we see all about. We live, in short, under the psychological dominion of the great pathologists. We return to them again and again, or to one of their successors. The idea is to find a really authentic expert in the elimination of pain.

There can be no doubt about the reality of this obsessive preoccupation, which is far from limited to great theorists like Marx and Freud, since we know from everyday experience that people with very little talent have no difficulty in collecting large audiences if they concentrate on identifying scapegoats. The techniques of popular journalism similarly reflect the attractive power of external evils, and while the sensationalism of the mass media proceeds at a very different level from social scholarly studies of disorder or revolutionary analyses of the misuse of power, there is nonetheless in all these approaches a common concentration on the isolation and definition of evil, or of ills to be remedied or fixed.

Many years ago, in an article in Fellowship, Arthur Morgan distinguished between people whom he called "trigger men" and the very different individuals who qualify as the "builders" of human society. The builders are men who exert and nourish positive energies in behalf of social growth. They create durable infra-structure in community relationships. They tend, except in extreme situations, to work with existing social structures, having discovered that the external forms of human relationships are of far less importance than the use made of them. They are likely to see social systems and inherited customs as more or less historical accidents, capable, no doubt, of improvement, yet by no means the decisive element in the affairs of men. As builders, they seek out and foster the invisible elements of strength of character, since the quality of a civilization can never exceed the quality of the human beings who make it up. They do not have the technicist approach, although they put into practice an order of certainties that they have tested in experience, and are by no means indifferent to the laws of nature. The trigger men, on the other hand, are the spenders of the social

wealth accumulated by the builders. They are manipulators of popular emotions, purveyors of formulas and denouncers of public enemies. They can undo in a day what it may have taken the builders many years to accomplish. An expanding catalog of evils is almost invariably their stock in trade.

It is very difficult, in an age such as ours, to persuade people of the importance of the builder function. The fruits of building are often long in becoming noticeable. Health cannot compete with pain or disease as an attention-getter. The formation of character is a silent, undramatic process, made up of small, almost imperceptible increments of growth, and the resulting strength is an endowment which often leads to loneliness and isolation in an age of triumphant trigger men. There is a further consideration which adds an element of mystery: Back of the building activity are profound and sometimes untaught conceptions of the high meaning of human life. Men of this sort seem almost always gifted with a rare individuality of mind. Their knowledge can never be put into simple, objective terms. In fact, some sort of independent philosophic vision is probably essential to the constancy of purpose that building requires. Perhaps the increasing use of words like "transcendental" and "self" in the new psychological literature of the present indicates widespread yearning for this vision natural to builders, although these terms must now make their way across an intellectual terrain fashioned by values totally alien to subjectivity and conceptions of inward growth.

What chance is there for the emergence of autonomous conceptions of health and goodness—for doctrines and models of human growth which are better than mere reactions, more than formulas for the escape from pain? This is equivalent to asking about the possibilities of an open break with the assumptions of doctrinaire materialism. On the side of optimism, perhaps, is the fact that most of the "materialism" of the present-day young is hardly more than habit, by no means the same thing as the tough-minded skepticism of men who chose to be unbelievers against the grain of majority opinion during the nineteenth century. The "unbelief" of today is merely something that is in the air, as subject to easy exchange as any other casually acquired opinion.

While the demise of disciplined materialism may be regarded as a "good thing," the vacuum left by its passing is not something to look forward to. The scientists of the past, although frequently materialist in philosophy, were at least men of principle and conviction. Their beliefs were the result of hard-won intellectual independence, and knowledge, for them, meant the application of discipline. Today, the weakening of scientific skepticism seems to mean for a great many people little more than freedom from disciplined thought, so that a careless or too easy use of words like "transcendence" and "selfknowledge" could lead to pretentious posturing and even to comfortable sectarian conceits similar to those of our religious past.

There is nothing easy, in short, about transcendence, and if men like Plato and Plotinus are to be taken seriously, finding the truth "within" is probably the most difficult undertaking in human life. Plato had respect for scientific studies; they formed, he thought, a good preparation for the explorations of philosophy, since science, while concerned with the nature of the physical world, required training in the use of abstractions-the scientist learns to recognize the reality of truths or laws not obvious to the senses. And mathematics, now the chief tool of science, was a prerequisite for entering the school of We may note in passing that Pythagoras. Gottfried Leibniz, one of the greatest of the European philosophers, was also an eminent mathematician, and that the rigorous abstractions of this mother of all the sciences has been responsible for the chief advances and most liberating conceptions of modern thought.

Already the pioneers of the new humanistic psychology are warning against the assumption that self-knowledge is to be obtained merely by opening oneself up to "subjective experience" or by responding freely to impulse because it seems "natural." In one section of his new book, *Love* and Will (published this month by W. W. Norton), in the shortened version which appears in *Psychology Today* for August, Rollo May gives some idea of the problems which self-discovery and self-mastery involve:

Inner voices are notoriously untrustworthy. Many people hear voices, but there are few Joans of Arc. Among the besetting bedlam of voices, how does one know that he is really hearing his daimon? How about our schizophrenic patients who are instructed by their voices to bomb New York?

It is all very well for Socrates to proclaim that his daimon tells him to be a gadfly to the state, and then to defy the court. This may indeed be integrity and honesty. But for many other not unworthy citizens of Athens, it must have seemed very different. The good citizens, experiencing Socrates as the destroyer of their peace, speak out of their own daimonic tendencies, just as he speaks from his daimon in defying them. This seems to result in anarchy.... To be guided by your daimon requires a fundamental humility. Your own convictions will always have some blindness and self-distortion; the ultimate illusion is the conceit that you are free from illusion.

Freud's concepts of resistance and repression describe the profound difficulty of knowing thyself. Jean Paul Sartre's concept of bad faith and good faith also illustrates the dilemma. The man who thinks he is in good faith is in bad faith, and the only way to be in good faith is to know that you are in bad faith; i.e., to know that there is distortion and illusion in your perception. Convictions can be more dominating and destructive than pragmatic positions. The moral problem is the relentless endeavor to find one's convictions and at the same time to admit that there will always be in them an element of selfaggrandizement and distortion. Socrates' principle of humility is essential....

What a contradictory sort of self-reliance is required by Rollo May's account of the way to self-knowledge! One must have faith in oneself, yet remain skeptical of the impartiality of one's

have been a

judgment. No externally based belief or orthodox doctrine could be of assistance in sustaining this consistently ambiguous point of view. The faith that is needed is not faith in any one theory of the inner life, but faith in the human capacity to correct for error, while expecting that there will always be further errors to watch out for. With such a view of transcendence, final confidence can hardly be placed in any set of familiar rules, but must rest on the idea of an unlimited capacity for growth. And this would apply in all judgments concerning the promise and potentiality of other human beings.

How enviously we look back upon the uncomplicated obligations of the Age of Faith! Both this world and the next were structured according to unequivocal teachings, and righteousness had a simple, melodic theme. The old religions often seem like beautiful stories, showing how the principle of immanent justice rules the world. To be a modern man is not to enjoy immunity to longings for secure belief, but only to suffer consciously an inability to substitute hearsay for knowledge in relation to the meaning and purpose of our lives.

It is a curious vindication of the great religions of the East that one can find in them clear anticipations of this agonizing development in human beings; provision is made for the natural doubt which comes over a man when he begins to suspect that he can depend upon nothing outside himself for his salvation. A passage in the Bhagavad-Gita, for example, tells of a stage reached by the aspirant where he can feel only indifference "to those doctrines which are already taught or which are yet to be taught." On what shall a man depend when he can no longer rely upon time-honored doctrines? He must learn to depend upon himself, and he has to begin seeking this inner security in a self harassed by alienation and sorely tempted by longings for some haven of comforting belief. The falling away of external reassurance is predicted or at least hinted at in the high religions of the past, and while the language varies there seems to have been a common insight into this most severe of ordeals. What we refer to as the supposedly unique situation of modern man was for these religious teachers a well-established phase in the testing of the disciple, a trial of inner strength for the hero, a crucial initiation of the sage into resources of which scriptures may speak but cannot in the nature of things reveal.

The dilemma of the truth-seeker seems exceedingly well put by Rollo May: "Convictions can be more dominating and destructive than pragmatic positions." What does this mean? It means that there is no authority so tyrannical and no righteousness so blindly self-justifying as the egotism which parades in the apparel of religious certainty. A man supported by this conviction imagines that he can do no wrong, and it turns out that, in the end, he does practically nothing else.

The ugly fruits of this delusion are illustrated again and again in the bloodiest pages of history. It is no wonder that, looking for simple safety as well as a reasonable regard for honest differences of opinion, Western man came to insist upon the "pragmatic position." In the matter of "truth," we learned to demand tests and demonstrations each step of the way. It became approved intellectual manners to ridicule all flights of the religious imagination and to interrupt impatiently anyone even suspected of metaphysical speculation.

But after some time had passed, it grew evident that projects requiring visionary elevation would never get off the ground from the pragmatic position, and that education was into routine shriveling manipulation and indoctrination. We began to see that what had been wrong with the men of religion was not their works of imagination but their total lack of imagination, for which they had substituted dull conformities of language echoing dving collectivist beliefs. What else had happened? The organizers of reactive energies, the compilers of external certainties, the propagandists of the pragmatically sure thing had turned the mass society into an enterprise for systematic selfdefeat, excusing its failures by the claim that not everyone can be made to understand the laws of nature—that it takes time to instruct the lagging public in the necessities of sophisticated technology.

So, when the sterility of the pragmatic position alone can no longer be ignored, a sweeping sense of the need for new beginnings dawns upon men in whom the builder quality is a major factor or presence. And these new beginnings, they sense, must be undertaken by individuals. There is just no way-least of all at the outset-to codify the fruits of the individual imagination for easy mass acceptance. The element of risk, the gap of uncertainty, is also the sole portal to self-knowledge. Similarly, there is no way in which canons of careful skepticism, rules for self-questioning, and pragmatic controls can be turned into plainly objective guides or signposts at critical junctures of the quest. This would be the politicalization of the search for truth and it cannot be made to work. The cruelest regimes and the most hideous crimes of history have come from attempts to make it work.

And yet, despite all these very real objections to doctrines or beliefs, we also see what happens when ideas of the meaning of human experience are left to be shaped by impulse and guess. Without some teaching of high commitment, without conceptions of ennobling purpose and self-refining destiny, we resort to theories of health and wholeness following the doctrines of the great pathologists. The good remains a threadbare generality, a merely hypothetical opposite of what we are against.

Inevitably, then, we seek the help of teachers of religion. We investigate and ponder the palingenesis taught by Upanishadic philosophers, and wonder how the extraordinary confidence of Socrates should be related to his self-proclaimed "ignorance." We read with fresh eyes the sermons taken down from the lips of the Buddha, and are moved simply as men, not as church-goers or believers, by the power of the Gospels to reach us with their verity after nearly two thousand years of very confusing and largely discouraging history. What, we ask ourselves, would be a balanced view of this history? Scriptures have undeniable power, sometimes ringing truth, but the portents of history seem unmistakably on the side of the pathologists.

Actually, this doleful effect of studying history requires close critical attention. There is paralysis and blindness in it for the individual if he reads history as the sole resource concerning the potentialities of man. If history is taken as the measure of collectivist destiny, instead of an account of the various settings of self-discovery, the pathologists will inevitably dominate our thinking and lead us, finally, to a very low opinion of the human race. So it is that hope may lie mainly in conceptions of a reality in man which is beyond history. A man, after all, does not live "history." He lives a life, and enriches history if he lives it well. But history is not that man's measure, nor is it ours. History is but the theater where great dramas have been played, and why should we now, from an overwhelming excess of information about production details, turn to its darkened houses for light on the meaning of life?

REVIEW NEW BUT HARDLY BRAVE WORLD

Two magazine articles—one by John Fischer in the September *Harper's*, the other by Holmes Welch in the Unitarian-Universalist *Now* (for last April)—press a question which probably can't be answered satisfactorily, yet which certainly ought to be asked. Writing for *Harper's* "Easy Chair," Mr. Fischer makes a proposal for higher education which seems to declare that the liberal-arts program of present-day colleges and universities is a total failure and ought to be abandoned. Mr. Welch, a scholar engaged in historical studies of Chinese Buddhism, argues from analogies in Buddhist experience that efforts by the Western clergy to "keep up" with the day-to-day march of civilization cannot possibly succeed.

The question, then, is this: Should either philosophy or religion even attempt to provide order and integration for the runaway energies and chaotic tendencies of the scientific and technological society?

Mr. Fischer makes his position plain in his title: "Survival U: Prospectus for a really relevant University." He thinks that the old idea of education as the source of harmonizing purpose for varied activities must be replaced with the theme of sheer Survival. After summing the failures of traditional education, he quotes Richard Falk of Princeton on the ominous threat of "irreversible catastrophe" and "the inadequacy of the sovereign states to manage the affairs of mankind in the twentieth century." Then he adds:

Similar warnings could be quoted from a long list of other social scientists, biologists, and physicists, among them such distinguished thinkers as René Dubos, Buckminster Fuller, Loren Eiseley, George Wald, and Barry Commoner. They are not hopeless. Most of them believe that we still have a chance to bring our weapons, our population growth, and the destruction of our environment under control before it is too late. But the time is short, and so far there is no evidence that enough people are taking them seriously. That would be the prime purpose of the experimental university I'm suggesting here: to look seriously at the interlinking threats to human existence, and to learn what we can do to fight them off.

This is Mr. Fischer's way of saying that the Philosophers have failed us miserably (he does not explore the possibility that we have ignored the philosophers), and that now we must create an exclusively View-with-Alarm curriculum, elevating anxious ecologists to the top rank in the university. In time, one supposes, this education would amount to something like a four-year exposure to Nader's Raiders, with systematic attention to the bad things we are doing.

Somebody like Savonarola ought to be put in charge of all this. For example, "a list of public enemies" will be prepared by the scholars of Survival U:

At the top will stand the politicians, scientists, and military men—of whatever country—who make and deploy atomic weapons; for if these are ever used, even in so-called defensive systems like the ABM, the atmosphere will be so contaminated with strontium 90 and other radioactive isotopes that human survival seems most unlikely. Also on the list will be anybody who makes or tests chemical and biological weapons—or who even attempts to get rid of obsolete nerve gas, as our Army recently proposed, by dumping the stuff in the sea.

Well, this is only the beginning of the catalog of things that have gone or are going wrong. Obviously, the people at Survival U will be frantically busy drawing up indictments and compiling cases, making it fortunate that Mr. Fischer has something in mind for maintaining emotional balance in the presence of all this error. Two proverbs will serve as daily reminders:

From Jesus: "Let him who is without sin among you cast the first stone." From Pogo: "We have met the enemy and he is us."

Survival U's appeal is plainly modelled on Old Testament vigor, but its threats are of punishment *here*, which is a big advantage over religious-type warnings. So it may, in the long run, prove fully as effective as our frighten-the-communists-intobehaving policy has been. Finally, it is squarely based on the law of self-preservation, which everybody knows is the only motive people really respond to. Who needs philosophers?

Holmes Welch's article has a much less confident mood, although his conclusion as to the failure of religion-which probably should be "organized" religion—parallels termed Mr. liberal-arts Fischer's gloomy estimate of education. Having recently completed a volume largely concerned with the efforts of Chinese Buddhists to "compete" with Western methods (see Review for Aug. 13), Mr. Welch finds in the weaknesses of this attempt an object-lesson for contemporary Christians. He tells of the labors of a monk named T'ai-hsu, begun in 1918, to turn the entire Chinese monastic establishment-which was enormous—"into an instrument for education. academic research, and social welfare." Bv adaptation to the "modern," he hoped, Buddhism would earn renewed respect in China. He wanted Buddhism to seem "relevant." But the program, although pursued with much fervor, didn't really work:

It was not that the Buddhist canon—any less than the Christian canon—failed to provide justification for social welfare by the clergy and for the many other new activities in which T'ai-hsu wanted his fellow monks to engage. It was simply that secular-oriented activism was the antithesis of the very special role that they had played in the past.

Mr. Welch anticipates a similar failure for Western religious institutions, if they persist in extreme attempts to be "with it" in an epoch of rapid cultural change. He writes:

The role of the clergyman is increasingly subordinate. Fewer and fewer people accept his authority, care what he thinks, or listen to what he says. Even when he tries to be interesting, he is ignored. (The death of God has barely created a stir outside theological circles.) So, like T'ai-hsu many a clergyman is trying to be "relevant." He is seeking out popular causes that can be given a Christian content. This is generally not a conscious stratagem. How could anyone say to himself, "I am taking part in the civil rights movement in order to win back my position of leadership"? But we live in a suspicious world. People note the empty churches and they see the eagerness—almost the desperation—with which the clergy want to be where the action is....

The attempt to place Buddhism at the center of life in modern China, when everyone knew that it was not, made T'ai-hsu look ridiculous. Something similar, I am afraid, makes many professional Christians look ridiculous too. It would-probably be wiser for them to pursue precisely the opposite course. That is, rather than trying to hoist Christianity onto the bandwagon of modernity, they should join with their conservative brethren in improving residual function. Rather then claiming that it is in the vanguard of science and social action, they should admit that it is old-fashioned and peripheral....

We interrupt Mr. Welch to give attention to a growing puzzle or contradiction. His article seems mainly a sermon to the clergy, and may be of some use in that way, although it is difficult to imagine any good man resigning himself to remain "old-fashioned and peripheral" because, alas, his institution makes him so! But what, on the other hand, about people with little concern with the doings of any clergy, yet who find matters of intense interest in, say, the Diamond Sutra or some other old scripture? It is the strange contemporaneity of such works that attracts, in contrast to anachronistic religious sects which may claim possession of them. Why shouldn't we, just as a matter of course, free the religiophilosophical ideas of the past from any sort of organized proprietorship? Surely their "relevance" lies in their capacity to illuminate the timeless questions that humanists investigate, not in sectarian efforts at special pleading.

To turn our argument around, it is nonetheless possible to find in Buddhist practice, just as Mr. Welch suggests, the kind of relevance which is free from anxiety about institutional prestige or participation in "progress." In an account of nineteenth-century Buddhism in Burma, the English administrator and magistrate, Fielding Hall, made this report:

. . . the monks never interfered with village affairs. As they abstained from state government, so

they did from local government. You never could imagine a Buddhist monk being a magistrate for his village, taking any part at all in municipal affairs.... Their influence is by example and precept ... a general influence, not a particular one. If anyone came to a monk for counsel, the monk would only repeat to him the sacred teaching, and leave him to apply it....

With us, we are accustomed to ecclesiastics trying to manage affairs of state, or attempting to grasp secular power. It is in accordance with our ideals that they should do so. . . . But in Buddhism every man is free—free, subject to the inevitable laws of righteousness. There is no hierarchy in Buddhism: it is a religion of absolute freedom. No one can damn you except yourself; no one can save you except yourself. Governments cannot do it, and therefore it would be useless to try and capture the reins of government, even if you did not destroy your own soul in so doing. Buddhism does not believe that you can save a man by force.

It would seem quite consistent with this view to say that Buddhists cannot save Buddhism by trying to make its practice as prestigious as, say, the activities of Methodist missionaries, and this, we think, is precisely Mr. Welch's point. Attempting relevance to what is indeed irrelevant to the meaning of high religion exhibits only religious decay. The practice of the Burmese monks described by Mr. Hall in The Soul of a People (Macmillan, 1898) may have been oldfashioned, but it was peripheral only in relation to secular concerns. Of course, if an entire civilization increasingly celebrates only the peripheral aspects of life, then there are deep dilemmas for us all, and these, it seems to us, are the difficulties with which Mr. Welch, with some natural uncertainty, is attempting to deal.

COMMENTARY A HOAX OF GOVERNMENT

IN Czeslaw Milosz' *The Captive Mind* (Knopf, 1953), probably still the best available analysis of Stalinist intellectuality, there is a brief account of the logic of the Party's endorsement of Lysenko's biological theories and recommendations for Soviet agriculture (see Frontiers). Milosz is a Polish poet and writer who became a voluntary exile from his native land after experiencing several years of communist rule. In this passage he shows how the Method of dialectical materialism was made to reject classical genetics:

Announcing Mendelian genetics to be wrong, the Center [the Moscow authority] used roughly three groups of arguments: (1) It contradicts the dialectical interpretation of Darwin's theory of the natural selection of species because it stresses those elements of his theory which are the reflection of the social circumstances of Darwin's day, namely, the pitiless struggle for existence in a capitalist society. (In place of the struggle for existence within a given species, one must substitute cooperation within a given species.) (2) It does not yield satisfactory practical results in agriculture. (3) It can serve as the basis for racist theories, since an individual is "better" or "worse" according to his genes.

The Method, Milosz explains, announces the concepts to be followed—in art, in science, in everything—and then, if contradictions ensue, declares the contradictions to be in the material under observation, never in the principles of the Method. Thus, after Stalin's "Bravo" for the claims of Lysenko, the latter's dictatorship in biology lasted for almost thirty years and cost dissenting geneticists their lives.

An underground of independent opinion nonetheless persisted among Soviet scientists and intellectuals, and, writing before Stalin's death when they could not speak out, Milosz asked:

Yet what will happen if Mendelian genetics proves to be consistent with scientific observation? No matter how loudly he applauds the speakers who annihilate Western genetics, the Eastern intellectual suspects he is the dupe of an enormous hoax similar to the hoaxes of German scholars who scientifically proved whatever was necessary to the Nazis at a particular moment.

In his *Science* review, Dr. Dobzhansky speaks of the immeasurable damage done by this hoax through miseducation of "a generation of agricultural and biological specialists." So, in an age when governments seem to find hoaxing a political necessity, the least we can do is to keep the facilities for it down to a minimum.

CHILDREN ... and Ourselves KINDS OF IRRATIONALITY

THESE are times when everybody is worried about everybody else, with what often seems ample reason. In the Spring of 1969, the Menninger Foundation, of Topeka, Kansas, held a symposium on The Irrational in Human A£fairs, and the Summer *Menninger Quarterly* reprints three of the papers presented. One of the contributors, Marvin Ack, begins with statistics. Initially, the emphasis is on the behavior of the young. Dr. Ack asks:

Do you know that one out of every six teenagers becomes pregnant out of wedlock? And that onethird to one-half of all teenage marriages, are prefaced by an illegitimate pregnancy? Or that the number of unwed mothers under eighteen has doubled since 1940? Do you know that one teenage marriage in every two ends in a divorce within five years, and that 40% of all the women who walk down the aisle today are between the ages of 15 and 18?

A trend of this sort has its disturbing aspects, but it probably reflects the response of the young to a world that gives very little encouragement to orderly decision, and it might even be added that taking care of a baby is sometimes an excellent way for a young woman to learn certain lessons indispensable to maturity. Having one, at any rate, is not nearly so dreadful an activity as indulging in a war which takes the lives of many mothers and babes. However, as Dr. Ack says:

It does not stop here. Three youngsters in every hundred between 10 and 17 will be adjudged delinquent this year. Nearly half a million children are hailed into juvenile court every year. There is a tremendous increase in the use of drugs amphetamines, barbiturates, LSD, and marijuana. Some people estimate that up to 50% of the kids on college campuses are experimenting or have experimented with drugs. According to the FBI and their crime clock in Washington, a serious crime is committed at the rate of seven a minute—with a murder every 43 minutes, robbery every two and a half minutes, larceny every two seconds, and so forth. The recital of symptoms of irrationality goes on and on, eventually including all age-groups:

None of these statistics speak to the number of people incapacitated by alcoholism, accidents, adjustment problems at work, and just general unhappiness. If these things were to be considered symptoms, then mental illness no longer strikes just the one in twelve as published in our daily papers, but more likely, one out of every two. I would suggest that these ills are not the result of ignorance or lack of education. Evaluation and investigation of the riots in our cities have determined that many of them are led by people who had a relatively good education. Certainly, the riots on our college campuses are not the work of the uneducated. Many of these people feel disassociated, disenfranchised, irrelevant, and part only of a huge complex machine which they perceive as governing our world.

Any culture capable of harnessing and developing atomic energy, of defying the laws of gravity, of providing the abundance we now possess, could easily prevent this human misery if intellect and reason were all that was needed.

It is Dr. Ack's contention that remedies for many of these problems exist, but that their use is blocked by "unconscious" factors. Yet he has given a somewhat selective account of the incidence of irrational behavior. For one thing, he does not mention-save remotely by the abstractions of "disassociated, disenfranchised, irrelevant"-the problems which the young find so disturbing, such as the conventionally sanctioned irrationality of dominant institutions. When one speaks of a culture that has discovered atomic energy, defied gravity, and created abundance, it is necessary to add that this is also the culture which insists on a "balance of terror" as the best means to peace, which spends billions of dollars on space exploits while many millions of people remain hungry, and claims that its prosperity requires continuous application of marketing techniques that monopolize and vulgarize every avenue of mass communication. These are not really "unconscious" contributions to the irrational behavior of the times.

Another of the speakers at the Menninger symposium, Dr. Edwin Levy, related the story of a disturbed high-school boy:

He had recently been picked up for the fourteenth time for car theft. Interestingly, it was not the school that asked me to see him, but the police, who had the feeling that there was something, shall we say "psychiatric," about this series of thefts. I learned that he lived alone with his mother. That he was her only son. That she had been four times divorced, was quite promiscuous, and her promiscuity was a source of tremendous distress to him. During the previous year or so each time the boy had seen a strange car parked in front of their house, he had stolen another car, driven it around, and parked it in front of a house nearby. We could say that he was sending up a distress signal regarding the pain that her actions were causing him-"Somebody help"and this was one meaning of what he did that we were able to talk about with considerable benefit. A deeper meaning, of course, was the almost transparent wish that it would be his car that was parked in front of their house.

Apparently, we are ready and able to trace to contributing causes in older people some of the weaknesses of the young. But what about the "non-sexual" offenses of the generation more or less in charge? It had a pretty good education, too. For example, in the September issue of Win, published by the War Resisters League (330 Lafayette St., New York, N.Y. 10012, \$5 a year), and edited mainly by young people, there is quotation from a report by sixty-three leading marine biologists, revealing that DDT is rapidly rendering the seas of the earth useless as a source of food supply in the future. Already certain edible fish contain residues of DDT "approaching five parts per million, the maximum level considered safe for human consumption under Food and Drug Regulations." And even if use of DDT is stopped immediately, the report says, "the concentrations of it in marine life probably will increase for the next twenty years."

Matching such broadly based destructiveness with the figures on juvenile delinquency will solve no problems, but it might point to the kind of blindness that is more responsible for our troubles than anything in anybody's "unconscious." Many of the young recognize this adult sort of irrationality quite clearly and on a few occasions gain opportunity to be heard. For example, in Laguna Beach (California) recently, a youth chosen by the local newspaper as "Teen of the Week" offered to write his own article instead of being "interviewed," in order to avoid, as he said, the customary superficialities. This is what Kurt Jensen wrote for the Laguna *News-Post* for Aug. 14:

... there is a problem in our society (putting aside for one moment concern about pollution, poverty and other areas which deserve my attention) that deeply concerns me: the military. Not just the military in itself, but its hold over American business and its influence over the minds of individuals who make up the society.

Because of the acceptance of the military by our society the few who recognize the amorality of the military are placed in the position of martyrs and are then subject to the persecution of members of society and the military establishment.

This problem is not as current as some would believe, Tolstoy wrote against the military and advised young men to face a prison sentence or death in lieu of military service. Using the teachings of Christ he simplified the problem to this: A man possessing an individual identity and a conscience must refuse any service in any part of the military because as a part of the military he would be forced to lose his identity and become subject to military morality.

This involves committing indiscriminate murder when ordered to fire. He is ordered to kill, but the bullet he sends into the body of another man is his bullet. As Tolstoy himself further stated, "All just people must refuse to become soldiers."

I, like so many others, am soon to be presented with a choice: renounce my feelings of humanity and love and become part of an organization that exists for violence and legalized murder or I can refuse service because as a man it is contrary to my nature to kill. I choose the latter....

FRONTIERS Separation of Science and State?

As long ago as 1885, proposals were being made for a Department of Science in the Government of the United States. In those days, men of science were troubled by the thought of military dominance in scientific enterprises, just as they are today, and it was not until 1946 that the idea of a Department of Science was revived by Clare Booth Luce, then a Representative from Connecticut. Since then, as scientific activity has proliferated throughout government affairs, such proposals have been made with growing frequency. In Science for July 4, Herbert Roback recites the recent history of these efforts and gives his reasons for a Department of Science and Technology in which the National Science Foundation would be a component. Supporters claim that such a department would increase administrative efficiency and be of greater usefulness in advising the President, while its opponents "see a bureaucratic monstrosity in which politics prevail over scientific objectivity."

What sort of interest should one take in this debate? Is there, for example, any reason to call for a separation between science and government similar to the traditional separation of Church and State? Science, defenders of a Department of Science could say, is already employed by government in diverse ways, and its concern is with established facts, not the biases of sectarian groups. Yet critics might point to the undeniable services of the Bulletin of the Atomic Scientists in questioning sometimes and challenging supposedly impartial scientific testimony by government experts. Again and again in recent years we have heard the anguished voices of eminent individual researchers raised in protest against some claim of "Establishment" science. Wouldn't an official Department of Science, complete with Cabinet member, only increase this tendency to sanctify objectionable political decisions with the seal of scientific approval?

A few centuries ago, when general morality was supposed to be based on Divine Authority, all sorts of privileges in brigandage and even rapine were allowed to Defenders of the Faith. It was to put an end to all this pious criminality that the men of the eighteenth century resolved to establish secular states. And if religion could be kept out of the decisions of government, they said, "there would be no more theological wars: there would no longer be soldiers of religion, that terrible kind of soldier."

Today, however, morality is almost entirely pragmatic. The final justification of an action is that it will serve "the. greatest good of the greatest number." And in the matter of pragmatic demonstrations, science is the highest authority. It follows that in a great many areas of decision science now has an authority similar to that once exercised by religion.

Why wouldn't a politics rigorously guided by scientific authority be better than what we have now? The answer to this question must wait until we have developed a reliable science of Man. So far, the only persistent attempt at scientific politics is that of the Soviet Union, which claims to practice scientific socialism. But what actually happened in Russia, under Communist Party rule, was that all science seeming to have ideological implications was subjected to close political control. The evidence of this is now a matter of public record.

A book published this year by Columbia University Press, *The Rise and Fall of T. D. Lysenko*, by Zhores A. Medvedev of the Institute of Medical Radiology in Obninsk, near Moscow, tells the story of the political degradation of science in the Soviet Union. Symbolic of this pattern of ideological servitude was the death in prison, in January, 1943, of Nikolai I. Vavilov, the eminent Russian geneticist, who had been driven from his administrative posts, eventually accused of spying for England and the sabotage of agriculture, found guilty, and condemned to die. While the death sentence was commuted, Vavilov soon after succumbed to pneumonia (according to the death certificate).

What had Vavilov done? He had dared to dissent from the Michurinist biological doctrines popularized by T. D. Lysenko and endorsed by Stalin. In his review of Medvedev's book, in Science for June 27, Theodosius Dobzhansky does not explain the errors of the Michurinists, save to suggest that they rejected the classical genetics of Gregor Mendel and to remark that Lysenko's "dramatic" innovations were based on "methods which sould only lead to failure." All this is admitted now, even in Russia, although somewhat quietly, but for some thirty years, during Lysenko's supremacy, Soviet geneticists had to keep their real opinions to themselves because Communist politics, being "scientific," was the arbiter of all significant decisions. Medvedev gives the names of six other geneticists who lost their lives for daring to join Vavilov in dissent.

Lysenko's rise to fame and power is briefly summarized by Dr. Dobzhansky:

Stalin's exclamation: "Bravo, comrade Lysenko, bravo!" uttered in 1935 after Lysenko's speech at a Congress of Collective Farmers, made Lysenko a VIP. But it was only a beginning. The punch line of Lysenko's peroration at the 1948 "discussion" was the announcement that he had received a prior approval of the Politburo, hence of Stalin personally. And in Stalin's obituary in *Pravda* on 8 March 1953, Lysenko wrote that Stalin "personally edited the draft of the report 'On the situation in biological science,' explained to me in detail his corrections, and gave me instructions on delivery." Incredible as it may seem, Stalin was interested in and regarded himself as competent in genetics.

Khrushchev, a sincere admirer of Lysenko, insisted as late as 1964 that for good crops Lysenko's methods should be followed, and Lysenko's loyal follower, Nuzhdin, would even in that year have been elected to the Soviet Academy of Sciences had not the physicist, Andrei Sakharov (later the author of the Sakharov Manifesto), denounced those responsible for "the infamous pages in the development of Soviet science, which fortunately are now coming to an end." Khrushchev was furious at the rejection of Nuzhdin and was planning to dissolve the Academy's power when he fell from power himself. This was the end for Lysenko, who lost all status, and then, Dr. Dobzhansky relates, Soviet publishers had to begin the long and difficult task of weeding Lysenko's pseudobiology out of all college and high school texts. New editions were required. Dobzhansky adds:

This reviewer is persuaded that the greatest damage that Lysenko inflicted on his country is precisely the miseducation of a generation of agricultural and biological specialists, which cannot fail to obstruct the economic development.

Well, there are no Stalins in Washington, but at least two or three scientific publications regularly print energetic and morally aroused criticisms of the claims of scientists now in the employ of the government. Some kind of principled separation between Science and State might be a good thing.