coercion of any sort, our range of free choice is extended beyond a single, exclusive pattern. American voluntarism, whatever its sources, becomes the background for commitment.

"How is your wife?" asked a man. "As compared to what?" answered the other. Compared to the available legal studies, *Religious Perspectives in American Culture* is but average, both opinionated and expensive. It is opinionated—as compared to such studies as *Religion in America* (Meridian Press), the paperback featuring a multi-author, many-points-of-view approach at its very best. It is expensive vis-à-vis the four pamphlets of the Center for the Study of Democratic Institutions which combine balanced, fresh presentations with the unbeatable allure of free copies. This is not to say that the essays in the book under review are inferior to those in other publications; they are not. The trouble is that the editors stand their case on one foot only. With such subjective presentation of true problems, the impact of the materials is lessened and "parts" fail to add to an objective "whole." It is this error in judgment that at times makes one feel that we are sadly impaled on a steer's horns of a dilemma with lots of bull in between.

EPHRAIM MARGOLIN[†]

THE PROMISED LAND OF SCIENCE

TOWARD A REASONABLE SOCIETY: THE VALUES OF INDUSTRIAL CIVILIZA-TION. By C. E. Ayres.¹ Austin: University of Texas Press, 1961. Pp. 301. \$4.75.

APATHY and lack of purpose deeply trouble mid-century Americans. Life constantly gets "better," but seemingly ever less satisfying. Today's youth, despairing of finding meaningful careers, talk of seeking in marriage, in leisure activities, and in their personal lives a sense of purpose which society does not provide. In the glittering world that science has built, they have somehow lost the way.

In *Toward A Reasonable Society*, C. E. Ayres attempts to set us on the path once more. Mr. Ayres, a distinguished economist, contends that values and purpose can indeed be found in an industrial-technological civilization, and that values so derived are far more meaningful than the much mourned lost faiths of prior ages. His book provides an important opportunity to assess the promise of the scientific way of life.

True values, Mr. Ayres begins, derive from (and only from) the "life process of mankind." In the activity of knowing-and-doing we learn what is best for us, whether the question is which mushrooms can be eaten, or what kind of government we need for the next fifty years. Values are operational

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in nature. It is a great mistake, Mr. Ayres says, to accept the common belief that science is "value-free." By telling us what works, science and technology are in fact the source of all values.

Mr. Ayres recognizes that most people, including most scientists, believe that values and ideas of right and wrong can only derive from "higher" sources—from religion, from the spirit, or from an ethos handed down through the culture. But after an elaborate discussion he discounts such sources as frequently mere superstition, fantasy, and unreason. Nor does he consider feelings a more reliable source of values. Since feelings are conditioned, they are derivative and particular feelings are not inevitable. People would be better off without some of their "bogus" fears and ecstasies, so that they might find more "genuine" emotions in circumstances justified by reason.

Today's moral agnosticism, Mr. Ayres argues, is in part due to the persistence of unreason with respect to values. We have stubbornly refused to recognize scientific truth as the source of values, and, in consequence, have dissociated truth and value. This he calls the moral crisis of our times.

The major values of industrial civilization, Mr. Ayres says, are those things that demonstrably contribute most to human life: freedom, equality, security, abundance, and excellence. Freedom, for example, "is a *sine qua non* of the further development of science and technology and so of all the values that flow from them." Abundance of food promotes health and well-being, and abundance of art and music enhances our faculties. Real values, he says, are all interdependent, and, because they arise out of human experience, are universal goals toward which all of mankind, in every society, has been striving.

Mr. Ayres believes that industrial civilization makes possible the highest realization of the true, universal values. Such a civilization provides the greatest freedom in choosing one's work, in deciding what to buy, in movement, communication, and opportunity for intellectual development. Such a society, he says, offers both abundance and excellence; it promises the best life that man has ever known.

Man can find purpose, Mr. Ayres concludes, in dedicating himself to advancement of the true values. In working for abundance, security or excellence, he is working for a cause beyond himself—the cause of the life process of mankind. He need not look to the irrational—to the "fancies of our ancestors" —to find faith. In selfless dedication to a way of life that offers progress toward the real values, Mr. Ayres says, men can know both purpose and hope.

The thesis just described is set forth in a book that is not, perhaps, great literature. It proceeds resolutely toward its goal with none of the graceful and unforgettable embellishments of a Walton Hamilton or the penetratingly ironic asides of a Veblen. It leans to absolutes; it speaks over and over again of truth and falsity, insisting that we distinguish "true knowledge" from "false knowledge," "true values" from "false values," and "error" from "the good." Sometimes it valiantly battles straw men, or trounces overdrawn dichotomies, and sometimes it celebrates its victories in platitudes. Occasionally its unrelenting optimism is wearing. But despite these literary shortcomings, the book is important. It sets forth explicitly the prospectus of a scientific civilization, and focuses attention upon far-reaching questions concerning the role of science in society.

To understand the significance of Mr. Ayres' book, some perspective is needed. Mr. Ayres belongs to a tradition of economists who were in revolt against laissez-faire, the philosophy of economic individualism, and individual morality. These economists were radicals who fought for a rational, planned society, and helped to bring about the great reforms of the New Deal. This book is in some ways an outgrowth of that battle.

But although the debate between the free enterprisers and the scientific planners goes on, Mr. Ayres' tradition is "radical" no longer; it is really today's mainstream, or it will be soon. Meanwhile we hear the beginnings of a new debate. In this debate, both sides accept the notion that values derive from human experience, and both sides accept the general idea of a society rationally organized on the basis of this experience. The debate concerns two major issues. First, can the political and economic machinery necessary to operate a scientific society really be made to work? Second, are the goals which thus far have been set by science really responsive to the basic needs of man? It is because of its contribution to this new debate that *Toward a Reasonable Society* is most significant.

Mr. Ayres has no doubts that a scientific society can work. He finds ample proof even in those instances of modern life that are most criticized. Gadgets are not deplorable, but the means of living in comfort without being waited on by servants. They promote equality, a prime value. Television comedians may be vulgar, he says, but they are not necessarily killing the habit of reading; those who watch them probably never used to read anything more taxing than baseball scores, and children, of course, never used to read anything. Mass produced goods are more excellent than the hand-made goods of previous generations: "The probability is strong that most craftsmen were bunglers whose pride in their work, if any, was indeed fatuous." If the industrial worker lacks a sense of achievement, it is simply because he fails to appreciate the significance of his part in the total effort, but "alert managers" are becoming more aware than ever before of the emotional needs of their employees, and Mr. Ayres believes that "the operation of large-scale assemblies does not of itself inhibit natural human feelings. . . ." "Even the hazard of war," he says, "is being progressively reduced by the same sort of efficient organization that has been the decisive factor in reducing the hazard of disease."

Nor has Mr. Ayres any doubts concerning the means by which progress is to be continued. He is in favor of "organized intelligence"; of social and political planning and regulation which firmly undertakes to define and advance the public interest.

It would be a mistake to view Mr. Ayres as a mere Babbitt of the

planned economy. As he recognizes, there is much that is wrong with modern society. He believes, however, that current complaints could be answered by more thoughtful, wiser planning. Present inadequacies do not by themselves prove a case against the rational society.

But the inadequacies unaccountably seem to persist and even increase. "Modern" organization breeds a strangling growth of forms, procedure and bureaucracy which would have been familiar to Gogol. "Rational" agencies are observed to favor special interests or to use their power for illegitimate purposes. "Science" ordains that a new school in Maryland be planned without windows to avoid distracting the children from their studies, because nobody was able to calculate the value of clouds and sun and sky. Can it be that bureaucracy gets ever more rigid and incapable of responding to changing information and needs? Is centralized power a natural haven for private interests and an irresistable temptation to misuse? Are the massive, complex organizations that technological planning requires just too cumbersome, too monolithic, to manage the tentativity and the delicate adaptation to new scientific findings that successful planning requires? Is defining the "public good" really a task within the realm of the possible or is it an infinitely complicated, perhaps superhuman undertaking?

Mr. Ayres never comes to grips with the underlying problem of whether and how—a rational society, so appealing in theory, can be operated successfully by human beings. He spends all of his time on the theoretical desirability of such a society, almost none on how it is to be achieved. And he seems painfully naive about the tremendous practical difficulties. He vastly underestimates the problem of translating ever incomplete scientific knowledge into appropriate social action, and he vastly overestimates the capabilities and highmindedness of the politicians, timeservers, corruptionists, and selfseekers who may well run the rational state.

The limitations of Mr. Ayres' analysis are illustrated by his discussion of the likelihood of war. Dismissing the fact that science has made the destruction of mankind easy enough to be accomplished by an overexcited lieutenant colonel (after all, he says, "It is also possible that the earth might encounter an asteroid with results even more disastrous. . . ."), Mr. Ayres contends that the danger is decreasing. This is because the causes of antagonism are declining. Super-national organization is growing, governments are concerned more and more with facts and less and less with power and glory, life is getting more rational, and the world understands more fully than ever before "that war is incompatible with the industrial way of life."

Unhappily, there is reason to fear that the very "effective organization" upon which Mr. Ayres counts so heavily may be the cause of ultimate destruction. If anything stands out in recent history, it is the increasing *inability* of American industrial and political organization to adapt to new world forces, to let in new ideas, to evolve new modes of thinking. On the contrary, the scientific-military-industrial organization is so insulated from outside influences, so powered by its own momentum, so bent on self-perpetuation and aggrandizement, that it seems to be hurtling toward pointless war.

Much of Mr. Ayres' book, then, consists of generalities that are not adequate to cope with the grim problems that beset us, nor calculated to give much practical guidance to those who have lost the way. Even if we accept his philosophy, his book is, in this respect, only a preface.

But the core of Mr. Ayres' book is values. And therefore it raises a question more profound than the workability of a scientific civilization: even if we could make it work, can we accept its goals?

Mr. Ayres lists the goals of an industrial society as freedom, equality, security, abundance, and excellence. Life is meant to be a great feast of these values: Mr. Ayres offers "abundance" and "the progressive multiplication of all good things," and he describes the ultimate good as "bringing home the bacon." But if this is indeed what life is all about, why do some of his guests look green and sated?

Is it possible that the feast promised by industrial civilization—a feast of goods, of travel, of art, of intellectual development, of leisure—can yet leave an aching emptiness within? Is it conceivable that this "universal goal of man-kind" is not the way to contentment?

The banquet, moreover, is not without its price. For although one of the listed values is "freedom," it is not precisely the kind of freedom which the founders of this country cherished.

Mr. Ayres rejects as "primitive" the notion of freedom as simply the absence of coercion. Nor is it, he says, an aspect of individualism. Freedom is positive, not negative, and it exists only as part of a social process. The more goods society produces, the greater man's "freedom" to buy them; the more roads and automobiles, the greater his "freedom" to move, the more occupations, the greater his "freedom" to choose his vocation. Freedom is "virtually synonymous with the fullness of life"; "In a very real sense the freedom we have achieved is in direct proportion to our wealth." "Freedom is not an ultimate, or a primary assumption. It is an aspect and a condition of technological process."

Mr. Ayres is perfectly right when he says that the ready availability of goods, services, books, and knowledge is a necessary condition if men are to be free with respect to these things. The illiterate serf is not free to read, nor the poverty-stricken worker free to move. But there is great difficulty, which Mr. Ayres does not discuss, in giving effect both to this affirmative type of freedom and to the older tradition of freedom as well.

In the reasonable, planned society men must learn to live within a giant cage of regulation. This is implicit in all that Mr. Ayres says, and it does not trouble him. Traffic officers may multiply, but they are merely to move traffic "with maximum expeditiousness." Income tax regulations may be onerous, but they are a fair, equal device "to organize the assessment of taxes on the basis of the facts." The government makes health regulations, but people do not submit because they are forced to do so. "To an amazing extent the whole community cooperates voluntarily . . . ," he says (perhaps Mr. Ayres is not aware of the Baltimore householder who protested all the way to the Supreme Court against the authority of health inspectors to enter a house without a warrant, or the New York tattoo artists who were summarily deprived of their livelihood by a Board of Health order prohibiting tattooing). Even sex must be regulated so that it does not "interrupt, confuse, and nullify all the other organized activities by which we live."

In short, it seems clear that there is in the concept of a reasonable society some notion of the "common good" or "public interest" which people must accept because it is "true." Room for experiment and disagreement are to be preserved, but only because some of science's findings may turn out to be in error, and dissident opinion right. But to declare, with John Stuart Mill, that even if we could know that the dissident opinion is mistaken its suppression would still be evil is, in Ayres' word, "nonsense." We *know* what is good for us, Mr. Ayres says. The scientific civilization, however kindly it may regard dissent, is apparently seeking "truth" in an absolute, universal sense. At bottom it seems to rest upon orthodoxy, not skepticism, and this orthodoxy must to some extent be enforced upon those whose beliefs are deemed to be mistaken. If tattooing is found to be dangerous to health, it may, according to current views, be prohibited. People are not free to disregard what science finds is good for them. That is the price of a reasonable society.

Before we decide to pay this price, it might be well to ask whether science really does know what is good for us. It can plan great modern apartment buildings, but does it really know what settings are "best" for people to live within? It can build safe turnpikes, but does it really know what is lost when motorists exchange the variety of the countryside for endless miles of aseptic monotony? It knows on the basis of college admissions tests which young men have high reading comprehension, but does it know anything about who we need to lead us?

Today we live in a world which, if it is not quite Mr. Ayres' reasonable society, nevertheless does in truth take more and more of its values from the information science supplies. If the findings of scientists are to be given so much weight in deciding how society operates, scientists surely have a responsibility to see how their findings are interpreted, understood, and used. To release facts and take no responsibility for what happens as a consequence is a strange morality, one which no doctor or lawyer would follow—especially in the many cases where only scientists are qualified to interpret the facts. Even more important, it is plainly the responsibility of science to recognize its own limitations; to remind us all of how little it knows; to oppose action that is taken on the basis of incomplete data and insufficient understanding; to reject any orthodoxy established in the name of science.

Science knows least of all about the sources of human happiness. Because of this, science should be the first to warn against the uncritical drive toward a scientific civilization—a society with values based wholly on what is scientifically known or knowable. For the basic questions concerning the proper goals of civilization simply do not yet have answers. Do we really want an abundance of everything, or is the search better than the finding? Do we really want to *possess* knowledge, or would it be better for men always to follow it "like a sinking star?" Do we really want a "reasonable society" if, as it seems, we must forego all that has the power to touch drab life with magic—a magic which reason can never know?

Mr. Ayres has, in his own words, taken us to "the threshold of a new civilization"—a world that lives only by reason and science. And Mr. Ayres does not want us to hesitate: "the task is now what it has always been throughout the ages: that of pressing on." How shall one explain to him, and to the countless followers of science who march with him, that there are some who would not choose to dwell in the promised land?

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