

The need for long-range goals

THE PROMETHEUS PROJECT. By Gerald Feinberg. 215 pp. Doubleday, New York, 1968. \$4.95

by LEWIS BRANSCOMB

Gerald Feinberg wants the human race to determine rational goals for itself. He wants it done now, before the power of modern science to change man is misapplied, within our present goal structure, to deny forever man's ability to see himself in his natural, primitive condition.

Many thinkers before Feinberg have engaged in defining goals for the human race. Some (such as Jesus, Genghis Khan and others, whom Feinberg fully acknowledges) have successfully altered the course of mankind, at least for a time. But Feinberg proposes to transcend the narrow bounds of ideology based on faith or arms. Remaining outside, and unhampered by, the political bounds of conventional loyalties, many millions of the earth's population would be galvanized into a kind of global town meeting to guide us to our future.

Why now? Feinberg sees mankind in transit through an interface of history. Following many centuries during which man's activities have been a relatively small perturbation on his environment and his own genetic constitution, the rapid development of technology has rather suddenly made all societies increasingly interdependent and may soon permit irreversible changes in man through genetic and environmental manipulation. After a few more decades, Feinberg fears, human life may have been so altered that man will no longer look upon himself with that objective detachment Feinberg implicitly ascribes to our present primitive state.

He is convinced that the present moment in history is unique in two respects. Human beings are now capable of providing an objective ethical and moral structure for dealing with artificial intelligence, genetic manipulation, greatly increased life span and the like. But they will not be able to deal with such possibilities in an acceptable manner after their

realization. At the same time "we have reached the stage in our scientific understanding of the world when we can be confident that our choice of goals will not suffer seriously from a lack of . . . understanding [about the natural world]."

Both propositions are surely open to serious question. (I believe both are false.) But no one will deny that there is a great need for better understanding of what men are doing to themselves and to one another in the light of what each individual professes to want for himself and his children.

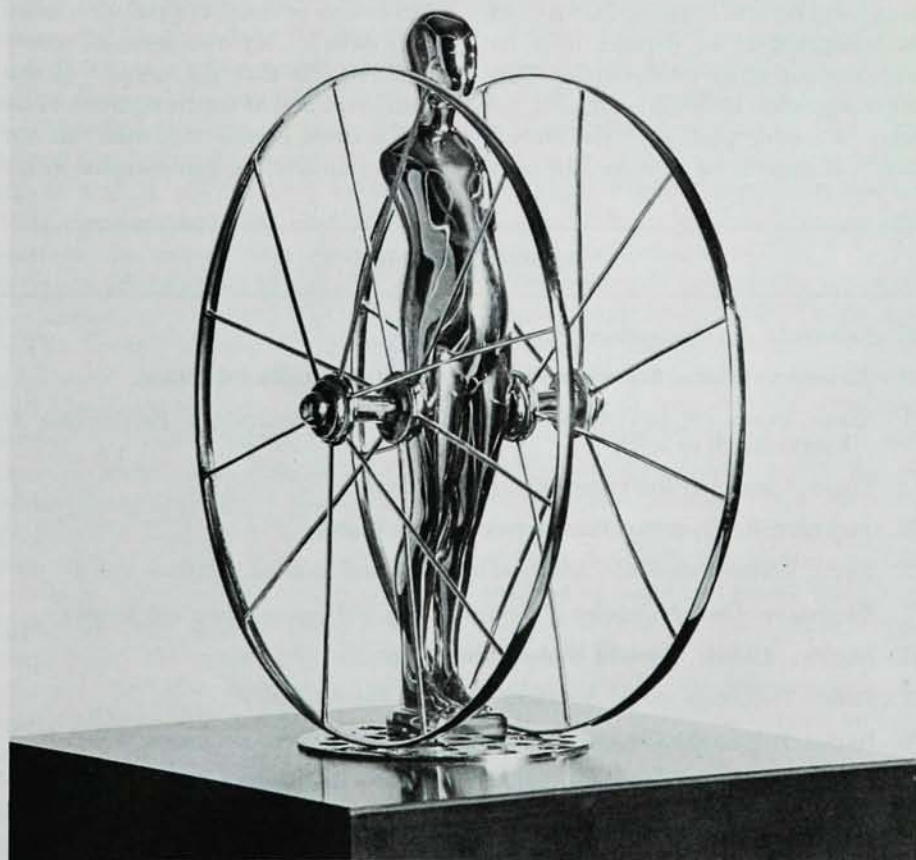
Feinberg defines a long-range goal as "some desired future state of affairs whose realization would require an effort lasting over many generations." Implied is the notion that such a goal could be shown to have a reasonable possibility of retaining its validity for

such an extended period of time.

Although many readers might suspect, when picking up this little book, that the author's proposed "Prometheus Project" is a literary device, they will quickly discover that Feinberg is really serious. Indeed he has even envisioned an initial institutional mechanism (with a suitably bureaucratic set of initials—PCA for "Prometheus Coordinating Agency") for "involving perhaps hundreds of millions of people" in the goal-setting effort. Even though Feinberg has no illusion that the job can be done overnight, he is convinced of its urgency and hopes that some kind of international convention could be called in the next two years to start the project off.

I am sympathetic to Feinberg's purposes, which are meant to be altruistic. I am impressed by his evident familiar-

SCULPTURE BY ERNEST TROVA, 1964. FALLING MAN SERIES (PACE GALLERY)



"... MANKIND IN TRANSIT through an interface of history."

ity with the work of earlier philosophers and religious leaders. But I hope he will not feel that I am insensitive to the threatened condition of the human race if I, and sizable numbers of others, demonstrate rampant apathy (as Tom Lehrer would say) toward the Prometheus Project.

Some will be unable to get past page 23, where the author acknowledges that "it is understandably difficult for many people to become concerned about distant goals when people are starving and the survival of humanity is at stake." But he defends his own concern with more remote problems by concluding that "most of our immediate problems will be solved in a relatively short time by the march of technology and the worldwide spread of those aspects of Western culture that are responsible for our high living standards." The impending world population crisis, for example, is "relatively short term," because "some form of birth control seems likely to remove that contingency." As I was a reviewer, I forced myself to keep going.

Second, many may question Feinberg's understanding of politics, that is, people acting collectively. He rejects dependence on governments for his scheme (despite their implied spectacular performance in the next few decades); he wisely notes that it is at least impractical to depend only on scientists and other intellectuals. Participation must be worldwide and involve "a sizable portion of the human race." I suggest he examine the suc-

cess of Moral Rearmament in the Soviet Union and China as a reasonable test of the prospects.

Third, Feinberg gives relatively little attention to the problem of implementation of policies derived from goals. There is considerable evidence in our own land that this is a more important problem than the setting of goals. (Every American raised in the Judeo-Christian tradition would vote for elimination of ignorance and poverty as a goal, and we certainly have the wealth and knowledge to do so.) Perhaps it is in this respect that the religious prophet has more promise of effectiveness than the Prometheus Coordinating Agency.

Fourth, I get the impression that Feinberg has not successfully resolved an important conflict within himself. His last page states the premise on which the book is based: "The search for goals described in this book is my expression of ultimate belief in the existence and power of human rationality." Indeed so must we all be, if the future of homo sapiens is to be determined by the votes of Feinberg's Prometheans (from the Greek meaning "foresight") in the last third of the 20th century AD. But back on page 50 we see the agony of the intellectual leading to Promethean (bound) temptation to seek "radical changes in human beings in order to produce a more ideal state." "My own feeling," writes Feinberg, "is that the despair of the conscious mind at the recognition of its own finitude is such that man can not achieve an abiding contentment in his

present form or anything like it. Therefore I believe that a transformation of man into something very different from what he is now is called for. But I do not know to what extent my fellow man will agree with me here."

Well, here's one fellow man ready to answer. "Not one bit," I say. My faith in the ultimate rationality of man is not so strong that I would trust myself—or any other mortal—to undertake this Frankensteinian project. It is man's rationality that separates him from animals—the limited nature of that rationality that separates him from God.

So I plead for one goal for man's long-range future: Keep his options open, and keep variety in the gene pool. As a short-range goal, I suggest humility. It may not provide intellectually satisfying solutions to man's dissatisfaction with his nature, but it's very good for keeping the vultures away from his liver.

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Formerly director of the Joint Institute for Laboratory Astrophysics at Boulder, Colo., Lewis Branscomb was recently named head of the National Bureau of Standards.

Math and physical insight

Elektrodynamika kwantowa (Quantum electrodynamics). By Iwo Bialynicki-Birula i Zofia Bialynicka-Birula. 394 pp. Państwowe wydawnictwo naukowe, Warszawa (Poland), 1969. Zl 69.00

by OLEXA M. BILANIUK

As an experimentalist, I have for some time looked for a book on quantum electrodynamics in which I could read up on the subject without losing interest too soon. I have found such a book. In it the mathematical formalism is infused with physical insight throughout; tedium has been successfully banished from this comprehensive, up-to-date text. I am glad Polish is no handicap for me, because that is the language of the book—it has been written by a husband and wife team of eminent Polish physicists at the Institute of Theoretical Physics in Warsaw, Poland. Those who do not read Polish will have to wait for a translation.

The first part of the book could be profitably studied these days by a theoretically-inclined college senior, be-

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