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The Social Impact of Science and Technology, and the Growth of Anti-Science

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Over the past few years many professional societies have shown concern for the social impact of their members' work. Some have even formalized their concern by establishing appropriate divisions, as, e.g., the American Society of Mechanical Engineers' Technology and Society Division. The first chairman of the division's executive committee is my friend and colleague Victor Paschkis, emeritus professor of Columbia University.

At the Annual Winter Meeting of the ASME (Detroit, November 13-15, 1973), Dr. Paschkis will chair a series of discussions on society and technology. Among the topics to be examined are: ethics in engineering, technology assessment, discrimination in engineering, and zero-growth technology vs. zerogrowth economy.¹

Society's view of science and technology is and should be an object of concern. The subject is frequently explored in articles in both the scientific and lay press. Digests of such articles appear fairly regularly in the ISI ® Press Digest which follows these weekly editorials in Current Contents ®.

Although science ranks above the Supreme Court and the Congress in enjoyment of public confidence in the U.S., as recently reported from a Harris poll,² the level of confidence is nonetheless low. In the words of Dixy Lee Ray, the general public has long been divided "into two parts: those who think science can do anything, and those who are afraid it will."³

"What are you scientists trying to

do for us, and what are you trying to do to us?" was a question from the floor at a Symposium on the Impact of Science on Society held in Brussels in 1971.4 This schism in the public attitude towards science is surely nothing new. It reflects a probably inherent human reaction to any powerful force about which one doesn't have full knowledge. There is, however, something new about the public attitude among those who "think science can do anything." Such people may ask what scientists "are trying to do for us," but many of them now exhibit a pronounced skepticism that what science can do for us may not be worth the price. To use a currently fashionable term, it may be "irrelevant" to achievement of social good.

Such skepticism about the relevance of science should be doubly worrisome to scientists and technologists because anti-science "is already articulated in the minds of a substantial portion of the youthful population. It is not to be dismissed as the view of a small and extreme minority." 5 Not only does this fact bode ill for public support of science, on which science and ultimately technology largely depend. It bodes ill in a far more serious way, because it alienates from scientific careers the young minds which science needs.

The growth of anti-science would seem at first to be paradoxical in view of the growing information-consciousness of our society. 6 We have long assumed the public ignorance of scien-

tific goals and misunderstanding of the role science plays in advancing the quality of life have been the primary causes of public distrust. And yet the public is exposed as never before to information about science and scientists. A recent review of the scientific content of eight popular magazines found an increase of 85% in the last decade.

The demand for information has parallelled the increased belief in the right to information. The emphasis on relevance and information can be seen in the nation-wide thrust among libraries to achieve relevance, to find for the library profession "a place in the social and political sun," by becoming "neighborhood information centers." Perhaps the answer to the apparent paradox presented by the simultaneous growth of anti-science and information-consciousness is that the public dislikes what it learns.

Thus, a recent C&E News piece about the public's growing hostility to science asked, "It can't be our fault, can it?"9 The editorial notes that science is blamed for things it has not explained, as well as for things it has. It is blamed also for the general anxiety produced by the social change of which science is a major cause. The public's reaction to science's failures on the one hand and its successes on the other is understandable. But then the author speaks of a source of hostility that is "external to science, the use of scientific results for nonbenevolent purposes not imagined or intended by scientists." There is nothing new in such a stance, but of all the rationalizations of hostility to science, it seems to me that this one is most damaging to science itself and certainly damaging to technology. The significance of such a "cop-out," as the young would call it. is certainly not lost on them. What better statement of a claim to socially irrelevant prerogatives can one imagine than that contained in this rationalization? Indeed, can one find even among young people condemned for their

anomie quite so forthright an expression of a basic alienation from social concerns?

In its way, this washing of the hands is a condemnation of technology. Scientists should object to it as much as technologists have the right to do. There is no need for me to reiterate here my position on the social responsibility of science. But it is a good time to applaud the efforts of men like Professor Paschkis who refuse to let technology continue as a whipping boy for the results of society's own deranged priorities. I hope that many readers of Current Contents will find it possible to join him at the ASME Annual Winter Meeting in Detroit, November 13-15.10

- Further information on the meeting can be obtained from Dr. Victor Paschkis, Fellowship Farm, RD #3, Pottstown, Pa. 19464 (phone 215-326-5045).
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- Readers will be interested to know that Dr. Paschkis was also the primary force in organization of the Society for Social Responsibility in Science, founded in 1948.