

Letters

Public Confidence in Science

I would like to briefly update the editorial by Amitai Etzioni and myself (21 Sept. 1973, p. 1123) on "Public views of scientists." The National Opinion Research Center has just released 1974 national survey results which confirm our expectations that public confidence in science is taking, and will continue to take, a turn for the better. While 37 percent of those questioned in both 1972 and 1973 had "great confidence" in science, the proportion of the public with such confidence is now 45 percent. All institutions but the federal Executive branch (in whom 29 percent had great confidence in 1973; this dropped to 14 percent in 1974) and Congress (23 percent in 1973; 17 percent in 1974) scored at least small gains, but the percentage of science's gains was surpassed only by those of education and religion.

Science persists as the institution that is most likely to elicit no response at all from the public. Ten percent "don't know" how they feel about science in 1974—four times the mean percentage of "don't know's" for all other institutional areas. Clearly the job of public education is largely yet to be done.

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Understanding Science

It is part of the "conventional wisdom" of science that communication with the public is endorsed, yet again and again in practice we speak to each other or to the small portion of the public that is already scientifically literate, curious, motivated, and active.

It is the intent of the National Science Foundation's Public Understanding of Science Program (News and Comment, 21 June, p. 1264) to attack this problem. It would be truly unfortunate if its limited resources were devoted to a process of advocacy and rhetoric or to the support of interecine debate. The overwhelming priority

in this area must be a greater perspective and broader understanding on the part of a populace whose standard media image of science appears to be that of men in white coats plotting against helpless maidens.

A substantial portion of the articulate and active public (those who write their congressmen and influence the operations of a still larger base of support) needs to understand the broad goals of science and the general mechanisms by which knowledge is generated, debated, and gradually becomes technology. This basic understanding of the role and philosophy of science is far more important at present than technology, literacy, or participation in a detailed debate.

In the past, the Public Understanding of Science Program has supported some of our efforts to attack this problem of public perspective through the mass media. Despite the fact that any such broad discussion must touch on areas of controversy, we enjoyed complete independence, and there was never evidence of any concern (much less interference) in our choice of topic or treatment.

Even our best efforts at communicating with the public are inadequate. Diverting the meager available resources into channels of advocacy would reduce the impact still further. Debate of the nuclear policy issue is needed and appropriate, but its funding in the guise of public understanding would be a travesty.

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Familiar "Analysis"

Norman G. Anderson's article "Science and management techniques" (22 Feb., p. 726) had all the virtues of a delightful spoof except one—originality. I waited to see whether any of your readers would mention this fact, but the published letters (17 May, p.

746) suggest that none of them caught it.

An "analysis" virtually identical in spirit, although not in letter, is reprinted by Ross and Van Den Haag (1), who attribute it to an anonymous memorandum circulated among employees of the British Ministry of Transport and also point out that it had previously appeared in the *Bulletin* of the American Association of University Professors (2).

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References

1. "Report of a work study engineer after a visit to a symphony concert at the Royal Festival Hall in London," in R. G. Ross and E. Van Den Haag, *The Fabric of Society* (Harcourt Brace, New York, 1957, pp. 364-365).
2. *AAUP Bull.* 41, 455 (1955).

I am indebted to Rosegger and others for pointing out to me the several instances, of which I was unaware, in which musician inefficiency has been discussed satirically, suggesting that the model has occurred to many. Interestingly, there appears to be no similar comments directed at other performing arts, such as acting, ballet, or politics, which are also characterized by intermittent activity. Some of the underlying ideas may be traced back quite far. For example, the notion that pleasurable activities, even though intellectually satisfying, may not be work can be followed back to antiquity through Erasmus' remarkable collection of 3260 proverbs (published in the *Adagiorum Chiliades* in 1508), which are a distillation of common wisdom to that time.

This however misses the central point, which is my assumption that the contemporary sacred writings on systems analysis and its application to research management and to the solution of social problems could not be questioned directly. Fortunately others have not been so timid (1). It is interesting that Webb (2), in discussing space-age management, warned explicitly against some of the applications of systems analysis now being made.

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References

1. I. R. Hoos, *Systems Analysis in Public Policy: A Critique* (Univ. of California Press, Berkeley, 1972).
2. J. E. Webb, *Space Age Management: The Large-Scale Approach* (McGraw-Hill, New York, 1969).