President's Science Adviser

When the Editor of *Science* recommends [*Science* 142, 1025 (22 Nov. 1963)] that the several staff roles of "the President's Science Adviser" be assigned to different men in order to bring about "a less arrogant mode of operation," some readers may need to be reminded that an editorial in *Science* does not represent the views of the AAAS, nor of its Council or Board, but only those of its author.

That particular editorial seems mistaken to at least one member of the AAAS Board, the undersigned, who would not (any more than the Editor) pretend to speak for anyone but himself.

The charge that the Science Adviser wields too much power and authority misunderstands the nature of the Executive Office of the President.

There is no question that the Science Adviser, wearing each of his several hats, wields influence-as adviser to the President, as chairman of PSAC, as chairman of the Federal Council, and as director of osr. But influence is neither power nor authority: the Science Adviser can do nothing of importance by virtue of power vested in him by law. On any important issue on which he advises-especially on the budget for research and development-his advice is checked for the President by the competing advice from other members of the Executive Office, such as the Budget Director and the Special Assistant for National Security Affairs. Even more important, his advice, like that of PSAC, bears on the activities entrusted by law to Cabinet members and agency heads, who also have access to the President, and have scientific advisers of their own. It would be a delusion of scientific grandeur to think that the scientists in the Executive Office have undue power in that political competition.

If scientists have begun to have a role of usefulness to the President, and of influence within the administration on problems which affect the scientific community, it is largely because they have learned that service in a confidential staff capacity does not license them to undertake independent political action.

If you should look on the several staff units and committees which the Science Adviser tries to coordinate as independent political agencies, you would be warranted in proposing to break them apart. But such a course would force

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them into the kind of jurisdictional rivalry that would destroy the usefulness of all of them to the President, especially in linking his policies with those of the departments and agencies. If the scientific community wishes to undermine its status within the Executive Office, this would be the way to go about it.

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Ethical Code for Scientists?

Lawrence Cranberg [Science 141, 1242 (1963)] makes the point that scientists have been dilatory, as compared to engineers, in doing more than merely talk about formal codes of ethics for their professions. I am not in a position to equate the efforts of the various professions in making clear the relationship of their work to society. However, I wish to point out that one group of scientists, the Society for Social Responsibility in Science, has taken its social responsibilities seriously.

Each scientist, in becoming a member of this society, agrees: "(1) to foresee, insofar as possible, the results of his professional work, (2) to assume personal moral responsibility for the consequences of this work, not delegating this responsibility to his employer, (3) to put his own efforts only into that work which he feels will be of lasting benefit to mankind, and (4) to share his scientific knowledge, and such ethical judgments as are based upon it, with government and laymen in order that they may intelligently use the tools which science provides."

This is, in effect, a code of ethics, which, as Cranberg says, is much needed today.

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However worthy the SSRS may be, its concern with a limited, special range of ethical problems and its existence apart from the main body of professional scientific organizations only emphasize the disparities which exist between scientists and other occupational groups with respect to ethical education and regulation. These disparities remain to be justified or eliminated.

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On the Rewards of Tenacity

The dedication of Polanyi to proving the validity of his theory [M. Polanyi, "The potential theory of adsorption," *Science* 141, 1010 (1963)] must have derived from a firm conviction of its validity and not, as he modestly says, from ignorance of developments which were extant at the time of his first publications. The emerging verification after a half century of frustration must indeed be a rewarding experience. The doctor must be well endowed with what might be called a philosophical tenacity to his convictions in the face of almost overwhelming opposition.

One might also conclude from this 50-year disputation that scientists, discipline notwithstanding, are still very human. We have our heroes and popularly accepted theories. The orthodoxy and dissent of which Dr. Polanyi speaks are perhaps the virtues in which the scientific community can take its greatest pride.

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Sex Attractant of the American Cockroach

In a report published in Science (1). Jacobson, Beroza, and Yamamoto claimed to have isolated and identified the sex attractant of the female American cockroach. This claim has received wide publicity in the public and scientific press (2) and has been reiterated in another, more recent paper in Science (3). Since the claim of these investigators can be supported neither by the evidence which they advance nor by our own knowledge of the behavior of the substance, we feel obliged to point out that identification of the attractant cannot be considered to be accomplished. On the contrary, it seems to us that the available evidence shows that the proposed compound could not in fact be the attractant.

Jacobson *et al.* (1) have stated that "much larger amounts of fairly pure attractant were obtained by passing air continuously over . . . virgin females in metal containers," according to Yamamoto's procedure (4), than were obtained by the paper method which we described (5).

This claim has been tested by quantitative bioassay (6) and found invalid. The attractant from two homogeneous