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The Horse's Mouth

With the impact of science on society become so immediate, there is growing pressure from both within and without the scientific community for scientists themselves to speak up on happenings outside the laboratory. The basis for the demand is clear. In matters of morality most of us are utilitarians: we hold a man responsible for the consequences of his acts irrespective of whether what happened is what he intended. For us, good will is not enough. But any attempt by scientists to assume broader responsibilities raises two hard questions—first, who is to do the talking? and second, what is to be talked about? Unfortunately, not all combinations of possible spokesmen and possible topics are equally innocent.

In the question of who is to do the talking, it is helpful to divide the possible spokesmen into two groups. In one group are individuals who claim to do no more than speak for themselves, although a viewpoint may gain weight from the fact that the person expressing it has made an important contribution to science. In the other group are voluntary associations of scientists which may speak as associations through official representatives or through committees.

In the question of what is to be talked about, it is helpful to divide the possible topics also into two groups. In the one group are topics which bear on the professional interests of scientists and which affect only indirectly the interests of the general public—for example, teaching salaries, opportunities for research, and academic freedom. In the other group are topics which bear more directly on the social consequences of new scientific findings and which may involve judgments about the adequacy of the findings as well as about public policy concerning their use—for example, tolerance limits for food additives and the level of radiation exposure to be permitted workers in atomic facilities.

The two groups of possible spokesmen and two groups of possible topics combine in several ways without raising any problem unique to the impact of science on society. Thus, it is fair for an individual scientist to express his views on the social consequences of a particular finding, since this is but a special case of any citizen's right to express his views on matters of general concern. And, it is fair for an association to seek to advance the professional interests of its members, since this does no violence to practices generally accepted as proper to associations. But difficulties do arise when a scientific association speaks out on the social consequences of new findings. Although any association suffers the embarrassment of how to handle a minority voice, this last combination faces a special danger.

The danger lies in the possible introduction of an authoritarian note into the competition of scientific ideas. Of course, there is such a thing as informed opinion. Every informed person knows that Aristotle's physics and biology have been superseded by the physics of Newton and the biology of Darwin, which in turn have given place in various ways to newer ideas. But in the forefront of research, which is the area that bears most immediately on public issues, diversity of opinion rather than unity is what often characterizes the scientific enterprise. If there is such a thing as the party in power, then there is also the loyal opposition—loyal in its adherence to the principle that the way to settle differences of opinion is by the study of nature, and opposed in its interpretation of the present data.—J.T.