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Academy Forum: Science and Its Critics

On 18 and 19 February, the National Academy of Sciences convened an Academy Forum on Experiments and Research with Humans: Values in Conflict. Few conclusions were reached at the forum, which was not surprising. What was surprising was the adversarial tone of the forum and the level of the discussion. More may be learned from these than was learned at the conference itself.

The social benefits of science in general, and medical science in particular, are well known. But it is also a matter of record that scientifically useful but morally unacceptable experimentation has occurred. Both statements should be beyond debate, but sadly the dialogue at the forum consisted largely of their reiteration. Distinguished scientists emphasized the value of medical progress as if concern with possible abuses was an overreaction by a few malcontents. Critics of science, on the other hand, often seemed nostalgic for a past that never existed, ignorant of the harsh conditions of suffering and disease in prescientific society, and insensitive to the fact that progress typically involves risk and pain. Wanting were a sense of shared humility and a willingness to confront the facts honestly. Solutions to problems concerning the essential elements of the human conditions are never perfect but always involve compromise, resulting in frustration and heartbreak for some.

Scientists are naturally defensive before critics who seem indifferent to the grandeur of the scientific achievement. But critics of science can be expected to be hostile toward those who seem to believe that science is a self-vindicating enterprise, not accountable to the public. Science survives at the pleasure of the public, which supports it, and if it is coming under even closer public scrutiny, this is as much a result of its success as of its failings. It is the tremendous new potential of biological technology—the fact that medicine has moved from its old role of providing care and comfort and has become the savior, extender, and modifier of human life and the human condition—that has captured the public's attention and aroused its fears.

To question what science should do and how science should do it is not to be against science. Such questioning is at the heart of scientific methodology. When it is simplistic and rhetorical, however, it serves neither science nor the public.

There is no turning back from science and technology. Man is driven by his nature to modify the conditions of his existence. He will not return by choice to early death and unnecessary suffering. But if science is to flourish, it must enjoy public understanding. It must make its case to those who are unconvinced, either because they are not aware of the issues or because they are not yet satisfied with the arguments they have heard. The attitude of paternalism which is characteristic of the doctor-patient relationship may be acceptable or even inevitable in a clinical setting, but it is wholly inappropriate in institutional settings and statements about scientific research.

Scientists and their critics must not merely state their positions, they must come to understand each other's point of view. At the Academy Forum, it might have been better to hear from lawyers and legislators concerned about the possible ill effects of overregulating science, while members of the scientific community discussed the abuses that might result from unregulated scientific activity.—WILLARD GAYLIN, *President of the Institute of Society, Ethics and the Life Sciences, Hastings-on-Hudson, New York 10706*, and SAMUEL GOROVITZ, *Department of Philosophy, University of Maryland, College Park 20742*