tories and time sheets. The costs of research in relation to accomplishment will certainly not be reduced by the introduction of more rigid fiscal control of basic research grants. It is inevitable, however, that if the universities and colleges hold fast to the view that they must be reimbursed completely for research costs, government agencies will be forced to ask for an equally strict accounting to demonstrate that they are not being asked to pay more than actual costs.

It does not seem necessary to force the research grant out of existence, or to constrain basic research activities in this way. Congress has already recognized one need in a very direct way by providing funds with which to help the universities and colleges build new research laboratories. Support for the maintenance or development of more adequate faculties might be provided in a similarly direct way. The National Institutes of Health have taken steps in this direction with the establishment of Research Career Awards. Accomplishment of the objective may seem more simply reached by again making use of the research grant, but I think we have too much to lose by taking advantage of this apparent simplicity. The universities do not need more help for faculty salaries because the government has asked them to do more research. They need help because government research grant money has made it possible for them to do more of the research they would like to do, and because they are aware of how much more they could do in teaching and research. Why not face the issue, then and ask for help for faculty positions on the basis of a demonstrable need rather than trying to add still another burden which the research grant was never intended to bear?

Finally, there are two practical considerations which should be looked at, both related to the fact that funds for basic research are limited. The first is that the added burden of faculty salaries will considerably reduce the amount of money available for research. If a substantial portion of faculty salaries is transferred to research grants, universities have funds freed for other purposes, but the net investment in the research for which grant money is provided will be reduced correspondingly.

The second consideration is that the result will narrow rather than broaden the base of research support, as Congress and most of the academic community would prefer. Consider the case of an institution which now typically gets a lion's share of federal grant funds. The faculty may spend an average of 20 percent of its time for effort on activities other than research and it will be a rare instance that less than 80 percent can be justified as devoted to "sponsored" research of some kind. The stature of the faculty will generally be such that there will be no question about providing grant support as near the level requested as possible. In general, grants for these institutions can be expected to be funded with maximum support for faculty salaries and without much reduction in other research support. However, for the individual who is a more a nearly average but competent investigator, most of the cream has been skimmed off the milk which the grants programs have to offer. It may be that there are insufficient funds to support his research at all, or that the support given is so limited that charging any substantial portion of his salary to the grant would leave a quite inadequate amount with which to prosecute the research.

The favored institution will now be in an even more favorable position to compete for other outstanding scientists who are consequently also effective competitors for grant funds. I am sure that universities and colleges would not want a change in the present policy by which they determine what salary they will pay their faculty. If, however, they can expect to recover some 80 percent of this salary from grants, they are going to be relatively free to adjust their salaries to whatever competition develops. There is already a rather lively competition of this type, and it seems inevitable that it would become much more severe under the proposed faculty salary arrangement and that the burden of the competition would be increasingly transferred to the research grant and federal funds. Even with the financial benefits which would accrue to a substantial number of faculty members, I'm not sure that most of them would like to see it happen in this way, and I'm certain that many administrators in educational institutions would find some of the consequences unpleasant.

One university administrator with whom I have been associated used to say that there were many times when you had to know how to cut a straight line on the bias. This is one case, however, where we should cut the straight line in the most direct way. The research grant should be preserved with all that is implied in a grant-in-aid, and other needs should be recognized and met on their own merit.

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Code of Ethics

Lawrence Cranberg states [*Science* **141**, 1242 (1963)] that, in contrast to engineers, psychologists, and members of other professions, scientists have no code of ethics, probably because of their remoteness from the marketplace or their slowness to adapt to the great changes which have taken place in recent years. He suggests that we devote our thoughtful attention to this matter.

Very strong in my own scientific upbringing was the principle of "scientific honesty" and the complete realization that this is the very essence of science. I have also seen one or two instances of how rapidly and completely even outstanding scientists disappeared from the scientific community when caught in an overt violation of this ethic. It certainly never occurred to me that this was a matter on which we should vote! I wonder if adopting it formally would make it more effective.

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Cranberg, in his discussion of an ethical code for scientists, seems surprised that no action has been taken in this area. Could it be that the scientific community as a whole feels that such a code is unnecessary? My guess would be "yes"!

From certain points of view a code of ethics is implicit in the word *scientist*. The game of science is played under certain rules—uncodified, yes, but nevertheless present and adhered to by most scientists. Cranberg's examples of codes in certain professions are not applicable to scientists. By and large, the medical profession, lawyers, engineers, psychologists, and so on have codes set up primarily for legal purposes, not for moral purposes.

The mere thought of setting up a code of ethics for scientists is insulting!

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