

function of a scientific society. In point of fact, most of the undersigned voted with the majority on that issue.

ARNOLD MOORE, RICHARD S. CRANDALL, MURRAY A. LAMPERT, MAURICE GLICKSMA, HARRY L. LIND, JONATHAN GITTLEMAN, BENJAMIN ABELES, A. AMITH, BARRY TAYLOR, W. RONALD ROACH, MARTIN RAYL, STUART B. BURGER, ARTHUR MILLER, ALLEN ROTHWART, LIONEL FRIEDMAN, HERBERT A. WEAKLIEM.

RCA Laboratories, Princeton

... a group of physicists at Los Alamos signed a petition to William W. Havens Jr. ... that "... the Society not hold meetings in Chicago until there are definite indications that respect for people and fairness govern the actions of the officials of Chicago. ..."

LEON HELLER

Los Alamos, N. M.

... I urge the American Physical Society to join with other professional organizations in a convention boycott ...

I. RICHARD LAPIDUS

Stevens Institute of Technology

Enclosed is a petition that many of us at the University of Maryland have signed and circulated. We feel it might be of interest to your readers who might like to circulate a similar petition at their institutions:

"... we urge that the APS and AAPT move the 1970 Annual Meeting to another city and refrain from scheduling future meetings in Chicago until that city can guarantee that the rights and dignity of its visitors will be respected."

MICHAEL P. GREENE

VICTOR KORENMAN

University of Maryland

A warning as alternative

I have just received a copy of a letter to you by Edward Gerjuoy of this university suggesting that no further American Physical Society meetings be held in Chicago until the safety of attendants can be assured. I would like to suggest as an alternative that any time an APS meeting is held in Chicago, the following warning should be inserted in the *Bulletin*:

"Attendants are cautioned not to violate city ordinances, throw rocks and bottles at policemen and spend

more than a few minutes insulting a policeman with filthy language because if they do *all* of these things, they may be struck a few times and have to spend a few hours in jail. In addition, attendants should not assume that our meeting has a right to choose the President of the United States since we are only a few thousand, and 200 million other people are entitled to have a say in the matter."

The reason that I present this alternative to Gerjuoy's suggestion is not to defend the actions of the Chicago police—they should certainly be willing to stand up to a little personal abuse as I'm sure all of us would—but because I feel that there are a few differences between the actions of the Chicago police and those of dictatorships with which they are compared. Most victims of dictatorships commit somewhat lesser crimes—being born a Jew, a Pole or a Russian is perhaps somewhat less of a transgression than even verbally attacking a policeman—and the punishments they typically inflicted were somewhat more severe as evidenced by the fact that the average life of the victims was a few months—if existing in a concentration camp can be called "life"—whereas none of the victims of the Chicago police was killed or seriously injured, and none was even detained involuntarily more than a few hours. In addition, it is difficult to see the threat of national dictatorship in locally controlled police forces; there are thousands of police forces in this country each controlled by men of different political leanings.

BERNARD L. COHEN

University of Pittsburgh

Overmanagement a danger

Recently (PHYSICS TODAY, June), both your editorial and Rep. Craig Hosmer called for more systematic management and coordination in scientific research.

In industry, these procedures have been successful in solving specific problems such as cutting the production costs or maintaining better inventory controls. Certainly, systematic management in scientific research can produce beautiful laboratories and acquire impressive computers, but this is neither a necessary nor sufficient condition for brilliant scientific work. We have seen Nobel Prizes coming from the glorified tinker toys of Francis Crick and James Watson, the phonograph turntable of Rudolf Möss-

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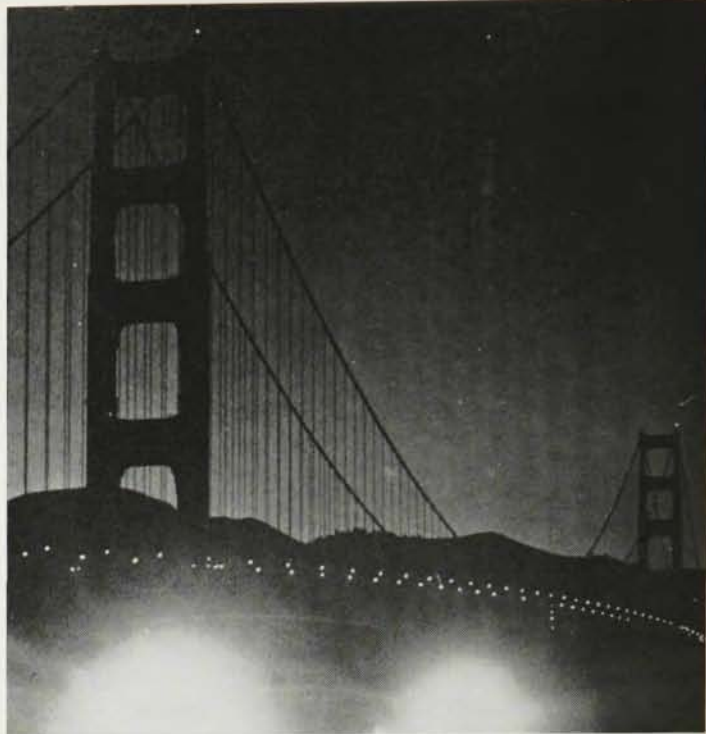
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bauer, the beer bottles of Donald Glaser, the moldy little glass dishes of Alexander Fleming, etc. In his earlier (and more productive) years, Albert Einstein carried out his relativity research on his kitchen table. Despite its great success and its specified goal and program toward nuclear energy, wartime Los Alamos is not necessarily an ideal model; few places can match the combined talents of Hans Bethe, Richard Feynman, J. Robert Oppenheimer, Edward Teller, et al.

I am not suggesting anarchy for scientific research, but there is a real danger of overcoordination and overly systematic management. It is already too easy, for example, to put an already well understood problem on a larger computer for a slightly more accurate solution, whereas more interesting problems (for example, why some of the very early and crude models of Peter Debye, Linus Pauling and John Van Vleck agree better with experiments than the later and supposedly more refined calculations) remain untouched.

The danger of overmanagement is even more acute in the days of shrinking research budgets. It can be very demoralizing to a scientist who, after surviving years of publish-or-perish pressure, suddenly finds himself out-ranked by an administrator or coordinator with little scientific achievement.

TUNG TSANG

National Bureau of Standards

Federal cuts may help

I believe that most aspects of the cuts in federal funding are good for the development of physics. The cuts are certainly not immediately good for the total number of physicists or their average standard of living—but these are different matters.

Federal support of university physics, through an agency of the Department of Defense or the Atomic Energy Commission, is invariably justified on the basis of an ultimate spin-off. Such a basis for financing has and must result in the success of the salesman-physicist, or the physicist with an applied bent. In these days of beginning cosmology and unraveling particle hierarchies, physicists should be seekers of truth unadulterated by subliminal engineering

pressure. Physicists who support the confusion of physics and engineering not only cloud the military development of their country, but soon find themselves to be engineers (a man is according to what he does).

The other side of the federal funding coin concerns the government's mission-oriented laboratories. The military problems of the day are engineering problems: how to combat enemy submarines and missiles, how to enable radar to penetrate high-altitude nuclear explosions (to detect missiles coming in behind an explosion) and how to protect urban civilian populations from bomb damage. The laboratories in question support fundamental research from a prestige as well as a spin-off point of view. The prestige argument should not hold up, as success in the problem areas is where the prestige with sense should come from. As for the spin-off approach, having worked in a mission-oriented laboratory, I have concluded that the money would be better spent by raising engineering salaries. The mission-oriented laboratories need PhD engineers, not PhD physicists. Should an atomic-bomb type of development problem arise again and the only people with pertinent engineering background be physicists, then I would suggest that our physicists line up outside the government laboratory employment offices. There isn't any cause for this at the present as I believe that the existing military-engineering problems chiefly concern sophistication of existing concepts and equipment.

There is a pertinent source of money other than the federal government. That source is associated with the universities. Universities small and big should be made to understand that continued research is an integral part of a professor's life and must be supported. The cost and understanding must be passed on by the university to its own sources of income. Foundations, federal and state educational departments and direct as well as indirect sources of tuition all must be sold on the support of research as part of the cost of education. The overflow of good physicists into the poorer and smaller universities, where research is now the exception rather than the rule, will be of lasting value to physics, education, and the conscience of man.

PAUL HARRIS

Saint Mary's University,
Halifax, N. S. □



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