

not to enter defense laboratories. At the University of Maryland, physics department chairman Howard J. Laster noted "a much more emotional resistance to the defense effort" recently and said that "a large portion of the physics community is opposed to Vietnam."

On the other hand, some scientists minimize the importance of Vietnam as a determinant of a lessened desire to do defense research. George B. Kistiakowsky, Harvard chemistry professor and former science adviser to President Eisenhower, said that any decline

in interest antedates the Vietnam war. Kistiakowsky emphasizes the relaxation of Cold War pressures and the large growth in the number of scientists in military facilities as factors which have let the university community give its time more freely to academic pursuits. Along with other scientists, Kistiakowsky points out the difference in the experience of the generations on defense matters: "I belong to the generation that put 5 or 10 years into military work in the World War II period. That generation is getting pretty old. The younger

people didn't have that incentive to get involved in military problems."

The contrasting experience of different age groups is, no doubt, important in understanding the current situation. Many senior scientists still seem quite willing to advise on defense problems on which they are knowledgeable. The White House science office reports no difficulty in finding distinguished scientists to act as consultants on defense questions. Many younger scientists, however, received their education in an era when defense needs were not felt to be pressing and do not show a similar interest.

At a number of universities, there seems to have been a growing concern recently about the wisdom of accepting research money from non-civilian government agencies. The Vietnam war, the Defense Department's Project Themis and Project Hindsight, and the well-publicized disclosures of CIA funding to various groups, have tended to make some scientists worry a little more about the sources of their money. One physicist reports that his colleagues resolve the heightened tension about DOD grants by saying, "I'll take the money, but I'll be sure that there are no strings attached." The struggle over the number of Federal "strings" will probably become more intense.

#### No Single Explanation

It seems that there is now less desire, especially among topflight academic scientists, to work on defense problems than was the case a few years ago. It would probably be a mistake, however, to attribute this development to any one factor—whether it be Vietnam, Cold War détente, boredom with military matters, or greater attractiveness of the civilian sector. And, of course, many scientists are still devoting themselves to military problems. One university administrator called the falloff in interest "small but significant." Obviously such a decline is important if it is an indicator of the future pattern of the intellectual concerns of top-quality scientists. Despite the demands of the Vietnam war, "Defense work is now only a small piece of the opportunity," in the words of a scientist at the Johns Hopkins University. If the national defense need does not become more urgent, scientists will continue to pursue their opportunities in nonmilitary research without feeling pangs of patriotic guilt.

—BRYCE NELSON

### Funding Project Themis: A Clarification

In a communication to *Science*, an official of the Pentagon's Directorate of Defense Research and Engineering (DDR&E) has pointed out that one of the technical objections to Project Themis raised by the AAUP chapter at the University of Montana in an internal memorandum and cited in *Science* (7 April 1967) is based on a misunderstanding. The AAUP memorandum interpreted the Pentagon's description of the method of financing Themis projects to mean that the Department of Defense would support projects on a decreasing basis, paying 100 percent the first year, 67 percent the second year, and 33 percent the third year. The memorandum assumed that each university accepting an award would supply the balance during the subsequent years, and raised the question, "How long before all University research funds are committed to defense-related projects?"

While a reading of the Pentagon's Themis brochure makes it easy to see how the confusion arose, the actual funding mechanism is different and considerably more complex. But it does call for the Pentagon to provide a guaranteed—and constant—level of support for Themis projects for as long as the Pentagon and the recipient are in mutual agreement that the research should continue.

In his letter to *Science*, DDR&E Deputy Assistant Director Robert Uhrig says:

Let us assume that the University of X has been awarded a contract to carry out basic research under Project THEMIS at a level of \$180,000 per year, starting 1 July 1967. On that date DOD would commit \$360,000 to the U of X allocated in the following manner: \$180,000 for the first year (FY 1968), \$120,000 for the second year (FY 1969), and \$60,000 for the third year (FY 1970). If the DOD decides to continue this program, then an additional \$180,000 will be committed to the University of X on 1 July 1968, allocated as follows: \$60,000 for the second year (FY 1969, bringing it up to the \$180,000 per year level), \$60,000 for the third year (FY 1970, bringing it up to the \$120,000 per year level), and \$60,000 for the fourth year (FY 1971). On 1 July 1969 another \$180,000 would be committed to the University of X, to be allocated equally—\$60,000 to each of the following three years. This pattern could continue indefinitely into the future as long as the research was carried out in a mutually satisfactory manner. Such an arrangement allows the university to make commitments, particularly to new staff members and graduate students without waiting until the contract is renewed.

If the DOD or the University wishes to discontinue the research program at any time, the \$120,000 allocated for the next fiscal year and the \$60,000 allocated for the following year after that would be available to the University of X to phase out the program, to give time to relocate or reassign personnel, and to wind up the research in an orderly manner over a two-year period.

Uhrig also pointed out that this method of funding "differs significantly from the standard procedure used by DOD and most other Federal agencies."—E.L.