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SCIENCE, which is now combined with THE SCIENTIFIC MONTHLY, is published each Friday by the American Association for the Advancement of Science at National Publishing Company, Washington, D.C. The joint journal is published in the SCIENCE format. SCIENCE is indexed in the *Reader's Guide to Periodical Literature*.

**Editorial and personnel-placement correspondence** should be addressed to SCIENCE, 1515 Massachusetts Ave., NW, Washington 5, D.C. Manuscripts should be typed with double spacing and submitted in duplicate. The AAAS assumes no responsibility for the safety of manuscripts or for the opinions expressed by contributors. For detailed suggestions on the preparation of manuscripts and illustrations, see *Science* 125, 16 (4 Jan. 1957).

**Display-advertising correspondence** should be addressed to SCIENCE, Room 740, 11 West 42 St., New York 36, N.Y.

**Change of address notification** should be sent to 1515 Massachusetts Ave., NW, Washington 5, D.C., 4 weeks in advance. If possible, furnish an address label from a recent issue. Give both old and new addresses, including zone numbers, if any.

**Annual subscriptions:** \$8.50; foreign postage, \$1.50; Canadian postage, 75¢. Single copies, 35¢. Cable address: Advancesci, Washington.

## Scholars in Spite of Ourselves

There is fear these days that Soviet foreign policy is now the determining force in American educational practice, and that the East-West struggle is compelling us more and more to emphasize science at the expense of the humanities. Admittedly, science and technology are becoming increasingly important in international relations, not only as the underpinning of military and economic strength, but also as symbols of power in their own right. The fear is, however, that our efforts to provide an educational basis for our national need will turn us into a country whose citizens will possess no more vision than the machines they soon will all be operating.

At the risk of seeming to find good in everything, may one say in reply that a kick from behind can propel you ahead? The fact is that if we are being pushed by Soviet action, then at least some parts of our educational system are being pushed in the right direction. If we consider the issue of the proper curriculum not as one of science versus the humanities, but as one of fundamentals versus applications, of gaining understanding versus memorizing rules, then we are presented with a happy paradox. In the present efforts at redesigning high-school science and mathematics programs, the more a course is revised to meet the Soviet scientific and technological challenge, the more it becomes a course appropriate to a liberal arts education.

One of the first and most publicized efforts at reclaiming high-school science teaching, for example, is that of the Physical Science Study Group, based at the Massachusetts Institute of Technology. The group has received considerable support from the federal government, as well as from private foundations, but the physics course it is producing puts more emphasis than is generally found on those concepts like wave motion that are necessary for understanding modern physics, and plays down inquiry into such matters as how a refrigerator works. In its third year of classroom use, the course is now being taught in 600 schools and next year will be made generally available. Other efforts at reform are being developed for courses in other sciences, and the realization is growing that the distinction between teaching underlying concepts and teaching applications applies even to such subjects as arithmetic in elementary school. As Max Beberman of the University of Illinois School Mathematics Project points out in his introduction to a pamphlet issued recently by the Council for Basic Education, children are as interested to learn that the sum of each two odd numbers is an even number as they are to learn that you can cut a yard of ribbon into so many pieces of such and such length.

To study science and mathematics even in the deepest fashion, of course, is not to study the humanities. And if we are happy about the support now available for redesigning science courses, we should be ecstatic if equally large sums were forthcoming for reworking some of the humanities courses. But there is hope that emphasis on science will aid the humanities, if only indirectly, by helping eliminate another kind of specialization. Increased emphasis on science may mean less stress on what the headmistress of a school in a recent novel by Vladimir Nabokov called the four D's—Dramatics, Dance, Debating, and Dating.—J.T.