Letters

March of "Progress"

Those seeking an explanation for the disaffection of the young for science and technology need look no further than Thimann's editorial (30 May, p. 1013). To compare the localized air pollution of the Midlands or Pittsburgh, or the prevalence of pathogens in local water supplies with our present conditions of global pollution of the environment, and to conclude that civilization has gained, borders on sophistry. In an age when pesticide residues are present in the tissues of animals from pole to pole and entire species of birds are on the verge of extinction due to disruption of their calcium metabolism by these residues, it is small wonder that there is skepticism about the net benefits of technology. The misuse of our technology has enabled us to totally destroy the ecological balance of bodies of water the size of Lake Erie and Lake Baikal and foul every major river system in North America. Undoubtedly this accomplishment weighs against our triumph over dysentery in the minds of the impressionable young.

To speak of the anticipated elimination of pockets of poor nutrition on the eve of impending world famine seems complacent optimism. At present only about ten of the world's nations produce as much food as they consume, while only three or four are able to export a surplus. The increasing global population pressures which lie at the root of the great majority of society's ills have been hastened by the very technological benefits Thimann cites. Science and technology have proven extremely effective at death control, for the ethos of our culture was already geared for the use of advances in the saving and prolonging of human life. Our culture has not evolved to the point where we can effectively take advantage of already developed technology in birth control.

At a time when the stork has passed the plow and our societies are still harnessed to preindustrial values, ethics, and institutions, the message for teachers to bring to the idealistic young is that the power for good or evil lies not in the tool, nor in the hands of the smith who fashions it, but rather in the wisdom of its user.

STEVEN C. ANDERSON
1336 Emerson, Palo Alto, California

. . . Some people may worry about the minimal level of malnutrition in southern states; I worry about the gross malnutrition and actual starvation in literally millions of children and adults in Biafra, India, and South America. Can anyone truthfully say there is less malnutrition in the world today than there was 50 years ago?

The work of the International Rice Research Institute is truly remarkable, but has it actually "changed the whole nutritional future of Asia"? Increasing the rice yield by even ten times can have little lasting benefit as long as the rate of population growth continues unchecked. Nutrition is only one aspect of the tremendously complex population problem. . . .

Science and technology can obliterate the "residual blemishes and pockets," as Thimann suggests, but they are doing so by burying them under worldwide problems of an entirely new dimension.

NYVEN J. MARCHETTE
George Williams Hooper Foundation, University of California Medical Center, San Francisco 94122

Malnutrition Research

Although hunger and malnutrition in the United States have received much publicity in recent months, almost no public attention has been given to the medical considerations such as precise diagnosis, research needs, and preventive medicine. These are serious matters which should be of major concern to the scientific community. Malnutrition is a *health* problem even though the expanded feeding programs now being considered by Congress are essential.

Preliminary information from the National Nutrition Survey being conducted under Arnold E. Schaefer (director of the nutrition program of HEW) indicates that serious malnutrition exists in some areas. A subsequent investigation of some of the findings, such as the significance of unacceptably low vitamin concentrations, the pathogenesis of anemia, and so forth, is essential.

To ensure an optimum nutritional state for the people, one must involve the entire health and scientific communities, in addition to welfare agencies, the Department of Agriculture, and the food industry. Research in clinical nutrition should be a basic part of this task. For example, despite frequent mention of the evil nutritional effects of parasites, very little is actually known. Almost nothing is understood of the causes and ill effects of eating clay and starch. Yet preliminary findings in the National Nutrition Survey indicate that up to 20 percent of persons questioned in some areas may practice geophagia. The effects and the pathogenesis of deficiency of some trace elements should be studied by the clinician working in conjunction with the basic scientist. It is undoubtedly true, and enormously important, that malnutrition can impair mental development, yet a precise knowledge of the mechanisms is meager.

These few examples of the need for well-coordinated and adequately supported research in clinical nutrition should serve to indicate that prevention of malnutrition in this country is unlikely to occur if the major focus is limited to providing enough money to feed people. In industry sound management practice dictates that a substantial portion of the budget be devoted to research and development. Shouldn't this also be true of a budget allocated to solutions for such a complex and serious problem as malnutrition which is occurring in the most affluent country in the world?

JAMES A. HALSTED
Veterans Administration Hospital, Washington, D.C. 20422

Pleas of Temporary Insanity

While watching a nationwide telecast of an interview with Sirhan Sirhan, I was struck by his hazy recollection of the events leading up to and immediately following the assassination of Robert Kennedy. Assuming his report was not deliberately fabricated, one received