ly it would be dangerous folly to depreciate the crucial role of increased scientific knowledge and research. But the available knowledge on how to demolish the civilized world by hydrogen bombs, and how to destroy mankind by use of the "right" pathogens should at once bury the illusion that the benefits of increased scientific knowledge and research are automatic. Would that it were that simple! The means for the productive use of knowledge must also be on hand.

Actually, the very success of medical research, as compared with research in the relevant social disciplines, diminishes—though by no means eliminates—the *relative* need for further research in this area. At present, the "basic means" for further advances in medical practice lie at least as much in the sciences of society as in the sciences of medicine.

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Modifying the Ph.D. Program for Foreign Students

Most foreign predoctoral students in the United States come from developing countries. After earning a Ph.D. in science, each can be expected to return to his homeland wanting to contribute to its development and advance himself professionally. There he often encounters problems: the research he wants to do does not match local or national goals or resources; his research and teaching equipment is often damaged on arrival or soon needs repairs for which facilities are not readily available; and he lacks competence in the techniques of program justification, procurement, and survival in an environment where technical literature is relatively scarce.

The student himself, his homeland, and the host country clearly share the responsibility for training him and then using him wisely. In view of this, the Ph.D. program in the U.S. needs to be modified. The foreign predoctoral student must be trained so that he can cope with the problems and emergencies that await him in his homeland. Though the research training should be of no lower quality than that required of the American student, the program should be augmented to include training in certain skills which he will urgently need. I recommend the following

additions to the predoctoral program for foreign students:

1) Instruction in learning how to identify research areas which have local relevance and which can be pursued with the available resources, including a minimum of expensive equipment.

2) Acquisition of sufficient skill in laboratory maintenance and the correct use of hand tools so the predoctoral student can train technicians in these skills. He should be able to do simple glassblowing and make simple repairs on electronic equipment.

3) Training in the rudiments of science administration, including program and budget development, procurement, and staffing. While he is still in the U.S., the student should establish the basis for continuing correspondence with appropriate scientific specialists, commercial suppliers, and information services.

To add this training to the existing predoctoral programs without lengthening them may require that research supervisors and students work harder or more efficiently. However, increased attention to the special problems of this group of graduate students should reduce their later frustrations and the brain drain problems of their homelands.

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Grecian Winds

Hertzler's communication (15 Nov., p. 813) calls attention to an ancient Greek belief but in too limited a fashion. Fertilization of plants, animals, and people by wind is frequently mentioned in Greek myths. The Greeks proved the fertilizing power of air by noting that mares turned their backs to strong winds (ignoring the fact that stallions did also). In the *Iliad*, Achilles' horses were born to their mother Podarge, who was impregnated by the wind, Zephyros. Sudden gusts of wind were supposed to enter women's wombs and thereby produce children; babies born without known fathers were called "wind-children." [See my "The Pneuma Concept of the Soul," *J. Hist. Behav. Sci.* **1**, 314 (1965)].

Is it possible that the phrase "gone with the wind" has hidden meanings that our Victorian morals have kept us from recognizing?

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