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## *In My Opinion*

### **BRIDGING THE GAP**

When I compare the topics under consideration at major scientific meetings with the topics being explored in secondary and undergraduate science courses, I am shocked and discouraged. At the recent American Association for the Advancement of Science meetings in Philadelphia some of the topics were the following:

Science without conscience  
The energy crisis: some implications and alternatives  
The use of scientific information in policy-making  
Workers and the environment  
Environmental noise and its control  
How valuable is human health?  
The role of mathematics in the development of science  
Can we develop an index for quality in life?  
Living systems: synthesis, assembly, origins  
Population control in social and economic perspectives  
Biologic and cultural bases of sex role differentiation  
The role of aggression in human adaptation  
Social control of science and technology  
Science and the humanities  
Science-writing as literature

Although it was impossible for me to attend all of these sessions, those I did attend brought the science-and-society issue closer to reality.

Compare this array of topics with those presently under consideration in the introductory-science courses where you teach, and then attempt to answer the following questions: Why are students leaving the sciences for the humanities and the social sciences? Is there any connection between (i) the biology and chemistry of herbicides and (ii) the ecology and culture of southeastern Asia and the war in Vietnam? Can we, in our biology classes, relate statistical data about smoking and cancer to cultural habits and commercial advertising? Are there relationships among mitosis, meiosis, chromosome-splitting, and LSD?

One means of bridging the gap between scientists and humanists (if scientists are not humanists) currently being tested in a number of high schools and colleges is by offering interdisciplinary courses. Why can't 10th-grade biology and literature be offered, experimentally, as interdisciplinary courses for an interested group of students? Are we so rigid that this kind of experimentation is impossible? I can think of no better way to teach the relationships between art and science and the limitations of both disciplines than through a joint study of a mountain stream or an alluvial deciduous forest.

Are we so certain we have selected the single best approach to learning in our science classes that we dare not try another answer to the question of the purposes of education? It might be beneficial and interesting for science students and teachers to learn something about the effects of the discoveries of Galileo, Kepler, and Darwin on the poetry and religion of their times. Perhaps it could tell us something about the times in which we live.

*The Editor*