

An Overture

Impact of a Curriculum Study

In his reference to the science curriculum reform movement, in a challenging article in *The American Biology Teacher*, John A. Moore (1979) observed that “much in those efforts has proved transitory and ineffectual,” and he cites three prior studies sponsored by the National Science Foundation to support that view.

Few are unaware of the environmental toll that industrialization has visited upon America. For many, many decades we have observed the alarming destruction of our woodlands, the erosion of our grasslands, the fouling of our waters, and the pollution of our atmosphere. Some groups, such as the Audubon Society, and the Nature Conservancy, have made valiant efforts to ameliorate the decimation of our environment; but, regardless of specific local successes, they have had little impact on national policy.

Almost suddenly, in the late 1960s and early 1970s, there developed in America a general recognition of the environmental dangers resulting from industrialization. The period saw federal laws controlling automobile emission products, the creation of a federal agency devoted to protection of the environment, federal restrictions on the harvesting of whales, federal protection of dolphins, and federal restrictions on disposal of hazardous wastes—among other efforts reflective of national concerns about the environment. Did Ehrlich and Hardin and Commoner make the difference? Perhaps they helped; but prior to this time of change in national thinking, there had been other thoughtful and persuasive authors such as Osborn (1948), Carr (1955), and Carson (1962).

In the early 1960s, the three versions of the Biological Sciences Curriculum Study were being distributed. By the middle of the decade, about a million students a year were studying from the texts. Each textbook contained a lucid and graphic account of ecological principles not found in the widely used high school biology books of prior years. Study of those ecological lessons presumably led many high school students, their parents, and their teachers to a new awareness of the environmental problems facing America.

I am suggesting that the rise of our national concern about the environment, stimulated largely by young people during the protest movements of the late 1960s and early 1970s, had a significant part of its origin in the new curriculum study materials in biology that had come into widespread use during the decade.

If this suggestion mirrors the causal relationship between a curriculum study and a national concern, then it is fair to observe that not all effects of the science curriculum reform movement were transitory and ineffectual. I do, of course, recognize that a sequential relationship does not necessarily prove a causal relationship. I also suggest that the impact of a curriculum study cannot be estimated solely by pre-tests and post-tests.

If the suggestion of the connection between the curriculum study in biology and subsequent national concern about environmental deterioration identifies an actual relationship, as I believe it does, then John Moore, a major contributor to that curriculum study, must be regarded as one of the key architects of the environmental awareness that has swept America.

Arnold B. Grobman
University of Missouri
St. Louis

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