

student about the nature of science than a scientist using a quotation from Shakespeare informs him about the nature of literature, the structure of a Shakespeare play, or even the literary meaning of that particular quotation. Still further, the authors fail to even refer to the values of literature or its multiple structures and omit entirely any distinctions between types of literature: expository (essays), narrative (short stories, novels), dramatic (plays, dialogues).

As well-intentioned as they are, the authors produce only a pretense at integration. The ways in which to integrate literature and science are undoubtedly diverse; but it does not seem unreasonable to suggest that both literature and science be studied each for its own sake, its own values, its own methodologies before one imposes such levels of integration as extracted passages, the probing of literature as an accumulation of facts, the reduction of chapters and their complex conflicts to chemical properties.

Frank L. Ryan
Department of English
Stonehill College
North Easton, Mass. 02356

Dolores Silva comments:

I enthusiastically endorse Ryan's suggestion that literature and science each be studied for its own sake. Our article supports the teaching of propositional knowledge where the focus is on hypothesis formation as a means of advancing investigation into selected areas of study. However, if the "study of illusions," the "nature of literary studies," the "distinction between types of literature," a "dictionary of familiar quotations," and the "study of multiple structures of literary studies," are appropriate content for high schoolers, I am alarmed. I doubt that piecemeal analysis and linguistic clarifications are applauded by adolescents. Our orientation is problem-solving, problem-posing, and problem-solving not taxonomies or methodologies based on the great unanswered question of schooling: the origin and ground of values.

"If," wrote Suzanne Langer, "we want to have new knowledge, we need a whole host of new questions." Ryan simply does not understand that the hardest part of research is finding the right questions to ask. In the broadest sense, Ryan's problem is an educational one—or, more precisely, one of re-education.

STUDENT ATTITUDES

In his editorial on the value of scientific inquiry entitled "Science→Disruption→Change" (*ABT* 36[4]: 194) outgoing editor Carter appropriately reminds us that as science teachers we have an opportunity to develop scientific attitudes in our students. The way we conduct our classes can contribute to the evolution of a society that is not afraid of change.

It occurs to me that science teachers are not alone in this regard. Teachers of other subjects are also able to stress the same ideas involving (i) an open minded approach; (ii) a desire to gather all relevant data; (iii) a readiness to consider another point of view; and (iv) a willingness to change one's mind. English teachers can find ample examples in literature to delve into human experiences; social studies teachers can analyze all sides of an issue, especially a controversial one; teachers who direct student activities can emphasize that the simple skill of communication includes not only talking but also listening and thinking about what someone else has said.

In short, a key objective of education is to think clearly. Science teaching—indeed all teaching—can and should contribute to the realization of these goals. However, while it is true that it can be caught [sic], I believe it must also be consciously taught.

Maurice Bleifeld
Martin Van Buren High School
Queens Village, N.Y. 11427

THE LACEY ACT

I was disturbed to see the speech of Nathaniel Reed (*ABT* 36[4]:212) in this journal. NABT has rightly opposed the ban on living animals in high-school biology, and yet Reed is a major spokesman for the groups that support such bans. Under the new laws he proposes, any teacher who has ever kept a boa in the classroom could never get another one. He proposes to use the Lacey Act, originally intended to protect the environment from certain undesirable species, as a weapon for the antizoo people to keep out practically all mammals, birds, reptiles, and amphibians from overseas.

Granted that there are abuses in handling animals in the pet trade, the importers are the first ones to welcome government aid that would truly counter such inhumane treatment. After all, an animal that is sick, dead, or dying on arrival is money out of the pocket of the importer. If Mr. Reed was truly interested in humane treatment of animals, he would work with the importers for specific regulations that would benefit all. Instead, Mr. Reed pursues a course of half-truths and falsehoods to support his total ban. The *ABT* introduction says he is an amateur ichthyologist. As a trained ichthyologist, I would have to say he is a rank amateur from the statements he makes about fish in his speech. (i) Moray eels of the 1-3 foot size imported to this country are not really dangerous to humans. They can bite, but their bite is no worse than that of the garter snake. Moreover, after a brief period in captivity they become quite tame and will take food from the owner's fingers, without biting the hand that feeds them! (ii) The lionfish imported here must always be handled with care, and all tropical fish dealers I know of warn customers that their dorsal spines can sting. Each spine can deliver a sting equal to that of a honey bee; but we do not ban observation hives or honey