

# Letters to the Editor

## To the Editor,

Joseph D. McInerney, in his excellent article, "Biology Textbooks—Whose Business?" (*ABT*, 48(7):396, October 1986), comments on the poor quality of biology textbooks as a significant factor in the mediocre state of science education in the United States. McInerney's thesis is far from novel but he discusses it from an interesting perspective.

McInerney calls on various participants in our educational system—teachers, colleges, administrators, curriculum developers, parents and publishers—to take urgent steps to improve the textbooks. While his objective is admirable, McInerney's tone is entirely hortatory. He has no suggestions as to what, specifically, the various concerned parties can do to achieve the desired objective. The National Center for Science Education (NCSE) does have a concrete program for reaching McInerney's goal.

NCSE sponsors local Committees of Correspondence (C/Cs). Starting in 1980 with C/Cs in two states, NCSE now has Committees in all fifty states and in five Canadian provinces. The original focus of C/C activity was opposition to the teaching of creationism in the public schools. Many organizations shared our concern with this issue, but the C/Cs' strategy was unique. We concentrated our efforts on local communities, which we saw as the creationists' greatest reservoir of support. Henry M. Morris, in his 1984 *History of Modern Creationism*, testifies to the efficacy of the C/C strategy in blocking creationist initiatives.

Two years ago it became clear to the NCSE leadership that simply bashing the creationists was not enough. In the public policy arena, if you temporarily defeat your opponent, the conflict can still go on interminably. To reach a final resolution, people's minds must be changed. The creation-evolution controversy is generations old. It will be resolved only when general popular understanding develops as to why one approach is part of science and the other is not.

In other words, we need educational programs, both among students and in the general public, that promote basic scientific literacy. NCSE has recently received generous foundation grants to initiate several such programs. One program, of particular

interest to McInerney and *ABT* readers, is a nationwide effort to evaluate and improve science textbooks.

NCSE and its C/Cs have experience in this area. Four years ago the New York Committee of Correspondence helped New York City Board of Education officials in deciding to reject three biology textbooks for inadequate treatment of evolution—a move which shook the textbook industry. Two years ago the Texas C/C worked with People for the American Way and other groups in obtaining substantial improvements in biology textbooks adopted by the State of Texas, including removing long-standing restrictions on the teaching of evolution. (Parenthetically, the textbook battle also led ultimately to the removal of the Commissioner and the State Board of Education.)

This year the Bay Area C/C has worked with the California Department of Education and with publishers in achieving the rejection, because of their poor quality, of 35 texts submitted in a junior high school science adoption. The books that were finally selected showed some modest improvements. The Texas Committee had another more substantial success in this year's earth science adoption.

Thus the Committees of Correspondence can claim both expertise and a degree of success in improving science textbooks. Space does not permit full discussion here of the strategies and tactics used. But William J. Bennetta provides helpful accounts in *Crusade of the Credulous*, California Academy of Science Press, 1986, and in *Creation/Evolution Newsletter*, 6(3), May/June 1986, and 6(4), July/August 1986. We propose to use similar methods on the national stage.

The C/C network arose through serendipity. The founders of the movement approached various organizations, including NABT, with proposals to deal with creationism through grassroots activity. When nobody showed interest in such a bizarre notion, the first C/Cs were formed, purely by default, in Iowa and New York, whereupon the NABT Board voted specifically not to support the embryonic grassroots movement. It is cheering to note that NABT seems to have undergone a change of heart, since this year they elected the undersigned to Honorary Membership in

recognition of work with the C/Cs.

NCSE does not seek exclusivity in the task of improving our dreary textbooks. Organizations we have worked with include People for the American Way and the ACLU. We invite the cooperation of others, either as organizations or as individuals, in the nationwide textbook improvement project now under way. Dr. Gerald Skoog of Texas Tech University heads the relevant Task Force. Two former NABT presidents, who are also former directors of BSCS, have joined Skoog's group. Other persons, whatever their basic affiliations, may volunteer by writing Robert J. Schadewald, NCSE Task Force Recruitment Chairman, 2100 East Cliff Road, Burneville, MN 55337. Committees of Correspondence in the several states will also provide information and contacts.

Stan Weinberg  
Past President, NCSE

## Dear Dr. Moore:

The following is in response to Tina Santopoalo's criticisms of my letter about the ethics of dissection in the September 1986 issue of the *ABT*.

Ms. Santopoalo agrees with me that it is possible to dissect animals without pain or discomfort and then goes to great length to explain how desensitization occurs when dissection is not practiced in that way. It is important here to emphasize that Ms. Santopoalo and I do not disagree about our goals. We are both interested in developing more sensitivity toward animals and in stopping painful and discomfoting treatment of them. We, however, differ in our views of what is happening in classrooms.

Because this issue deserves lengthier treatment, I will devote my next lab column in *ABT* to animal rights; however, I would like to address Ms. Santopoalo's criticisms here. How often is dissection carried out in classrooms without pain or discomfort? . . . most of the time. The majority of animals that are used are either preserved or anesthetized and painlessly killed. Science fair situations, where surgery, deleterious agents and painful conditioning are used, are not typical classroom activities. I would agree that these kinds of experiments should not be practiced, except under

special circumstances, and should not be recommended as good science fair projects.

Insightful understanding of most things comes from experience with them. The nature of cells, tissues and organs are best understood by having real experience with them. Admittedly, the use of models and AV materials can help develop understanding, but at some point, actual experience is necessary to appreciate the unique properties of living materials. The amount of experience, of course, depends on how involved one will be with living materials. Since we are living organisms ourselves, some experience is necessary for self understanding. I would be the first to add, however, that human experimentation is very much underutilized in teaching.

The needle example was used, not to insult the nursing profession, but to try and illustrate a simple point: if you don't understand what you are doing or do not take time to think about it, you can inadvertently cause unnecessary pain, i.e. be insensitive. Nurses do not intentionally push down on needles when withdrawing them, they hold down the cotton ball as they remove the needle, not realizing they are pushing the needle against the blood vessel as it is removed. This practice may be followed because some people are upset at the sight of blood and this may prevent external bleeding. Why not just remove the needle and then put a cotton ball on the wound? More experience with living materials might make everyone more comfortable in this situation. These circumstances are analogous to the use of dissection. Since needle insertion and withdrawal can be accomplished with little or no pain, it is neutral. The problem is with poor and insensitive practice.

As we become more sensitive to animals, we will not want their lives to be wasted. I think it is terrible that humane societies must destroy so many animals by lethal injection. The fact that these animals cannot be used for physiological study, no more painful than lethal injection, however, is also a horrible waste. Inhumane and unjustified use of animals needs to be curtailed, but with understanding and sensitivity, not by wholesale actions, which are equally insensitive and unfair both to animals and man.

Sincerely,  
Don Igelsrud

Letters to the Editor reflect the opinions of the authors and not necessarily of NABT.

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The tests are confidential and may be purchased and used only by active biology teachers and school officials. Every order for test materials **MUST** be accompanied by a purchase order as well as by the name, signature and position title of the person placing the order. The examination will be mailed only to school addresses.

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I am a member of NABT: \_\_\_\_\_ yes \_\_\_\_\_ no