

**Dear Editor:**

In the NABT Position Statement on "The Use of Animals in Biology Education," recently published in *News & Views*, NABT's Board has chosen poorly, for it has chosen to state opinion and misrepresentation in the guise of fact. In so doing the Board has denied the existence of hundreds of its members who do NOT share the view that NABT, as an organization composed partly of those members, supports dissection, or that "no alternative can substitute for the actual experience of dissection," or that teachers should only "CONSIDER alternatives" for students who conscientiously object to this mode of pedagogy. I have spoken to these hundreds at NABT conventions, at the state level, and at regional and local forums, many of them recipients of the Outstanding Biology Teacher Award. It is a fact that many respected biology educators feel that dissection actually hurts kids in the short and long run, and that the responsibility to teach a reverence for life calls for abandoning dissection as a means of teaching animal anatomy. It is a fact that dissection HAS been given up by many biology educators, that students HAVE been forced to dissect against their wills, that students who have had the intestinal fortitude to press for their right to opt out of this activity have won that right in every case regardless of what kind of course they were enrolled in, that students have won the right to access to courses in spite of the dissections they may object to in those courses, and that the teacher has not been found to have the right to insist that students "be vegetarian, not wear leather, or be against animal experimentation" in order to be excused from dissecting. And it is a fact that for some students, courts and state legislatures have asserted that the teacher is NOT the best person to "make the determination [on dissection] for their students"; the student should have the choice.

The decision of the Board (on a 5-to-3 vote which I witnessed) to take the position evidenced in the statement is empty, counter-productive, futile, divisive posturing, aimed at appeasing NABT's large biomedical and supplier sponsors, to the exclusion of its responsibility to the diversity of opinion among its experienced, dedicated members. The untold story in *News & Views* is that shortly after the May vote, a Board member had a change of heart and, like three others, asserted a desire to maintain the language of the 1989 statement on this

issue. This was why the membership heard nothing on this issue until now, after the November vote. To have this tiny group of people, the NABT Board, subsequently issue such a statement as the new document as a representation of pertinent fact and the substantive views of its members is folly. The honest and prudent action would have been to issue a statement that there is a great deal of diversity of opinion on this issue. Instead, the Board would rather alienate members. As a result of this attempt at deception, and the attempt to turn a blind eye to the existence of long-dedicated biology education professionals, I am refusing to renew my membership in NABT, which expires in April. The organization no longer represents me. I encourage other NABT members to cancel or nonrenew their memberships as well, as a means of protesting the Board's action.

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**More on Animal Rights. . .**

**Dear Editor:**

Anyone who has read Walter Howard's book, *Animal Rights Versus Nature*, will be familiar with the arguments he makes for the continued exploitation of animals by humans (ABT, April 1994). As a fellow ecologist, I could not disagree more with his views.

In a nutshell, Howard's thesis is this: Because nature with her "death ethic" is so cruel, anything we human animals do to nonhuman animals is better for them. This includes shooting them for amusement, trapping them for fur, poisoning them as "pests," and confining them in factory farms.

Howard's ethic of viewing every creature on Earth as a resource for human gain should be passé by now. Sadly, it isn't. Witness the persistence of such moral atrocities as whaling, wolf bounties, leg hold traps, castration without anesthesia, rattlesnake roundups, and the veal crate. Each is the product of the sort of pseudo-conservationist philosophy Howard espouses.

Howard tries to convince us that wild animals welcome death by bullet or arrow over that which nature has in store for them. He simplifies the fate of all creatures into two possible scenarios: death by human intervention or death by nature. As if by not killing

them ourselves each animal is consigned immediately to a horrible death! What about the third scenario: living to see another day? Following Howard's sophistry to its absurd conclusion, we should all be out there, killing away, so that as few animals as possible have to die naturally.

Howard even has the audacity to suggest that animals in laboratories and factory farms live better quality lives than they would in the natural world. In his view, a hen in a battery cage is cause for celebration, for she is safe from natural predators. Never mind that she has no opportunity for the most basic behaviors such as scratching, running, exploring her surroundings and catching insects. By analogy, we humans would be better off locking ourselves up in crowded, automated, bullet-proof cells, so we can live a long life safe from car-jackers and lightning bolts.

Humanity does indeed have the capacity for acts of the highest compassion, but we also have an unrivaled ability to be despicably cruel and self-centered. A brighter future awaits us all if we cast off our superiority complex and learn to live with, rather than on top of, the Earth and its creatures. Walter Howard's thinking leads us the other way.

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**Dear Editor:**

The article, "An Ecologist's View of Animal Rights" (ABT, April 1994) contained many factual errors that need correction. I will select just two.

First, the author, W.E. Howard, inaccurately states: "[the public] should recognize that animal rights organizations never fund research to find non-animal alternatives for biomedical research, animal testing, or the development of more humane ways of handling . . . animals." The opposite is true: It was antivivisectionists who first initiated programs to fund alternatives. Furthermore, it is largely due to the pressures brought by animal rights activists that other sources of funding have now been established. I have documented this history in my recent book, *In the Name of Science: Issues in Responsible Animal Experimentation* (Orlans 1993). This chronological listing of funding sources for alternatives provides not only historical information, but also tells teachers and

scientists how to apply for funding to pursue projects involving the three R's of refinement, replacement and reduction of animal use.

Such funding first started in 1961 and came from three cooperating antivivisection groups in England. Soon, several other anti-vivisection and animal rights groups in other countries followed suit. It was animal rights activist Henry Spira who first pressured cosmetic companies such as Revlon to fund alternatives; it was Revlon money that first established the Johns Hopkins Center for Alternatives to Animal Testing in 1981, now an important grant-giving agency for alternatives. Other cosmetic and pharmaceutical companies have now established their own funding programs, due largely to public pressure to reduce animal use and animal suffering. By now also, several governments provide such funding, including the United States government through a grant program started in 1987 and administered by the National Institutes of Health.

The development of alternatives and their success has only been possible because of a joint endeavor between some animal activists and some scientists. Whereas the funding has largely been due to initiatives of the animal protection movement, the original concept of the three R's was worked out by two scientists (W.M.S. Russell and R.L. Burch), and many other scientists are to be credited with doing the bench work to make alternatives a reality. It is this combination of people with vision from both the animal protection movement and the scientific community that has made possible the tremendous progress toward a more humane approach to using laboratory animals that we now are seeing.

Second, Howard states: "The animal rights movement has drained the financial resources of animal welfare organizations." As a result, he says, the "legitimate" nurturing and adoption programs of animal welfare organizations have suffered. Quite the contrary. There has been a general increase in support for all types of animal protection groups due to the increased public awareness of the need to protect not only laboratory animals but also marine mammals, endangered species, farm animals, and so on. Humane societies, animal rights groups, and animal protection organizations have all grown. Certainly animal rights groups such as PETA have grown significantly from a membership of 100 in 1980 to approximately

400,000 in 1994. Also traditional humane organizations have benefited: For instance, in 1980 The Humane Society of the U.S. had 48,000 constituents (defined as individuals who contributed money); it rose to 1,900,000 in 1993. In 1980 their budget was 2.5 million dollars; it rose to over 20 million dollars in 1993—substantial increases indeed. As another example, in 1983 the Massachusetts SPCA, another traditional humane organization, had a membership of approximately 2,500 and an income of 8.4 million dollars; in 1993 their membership had jumped to 45,000 and their income increased to 19.5 million dollars. There's no erosion there.

These inaccuracies, and many others, diminish the persuasiveness of Howard's point of view.

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## Reference

Orlans, F.B. *In the Name of Science: Issues in Responsible Animal Experimentation*. Oxford University Press: New York, 1993, Appendix B, Funding Sources for Targeted Programs to Promote Alternatives, pp. 251-255, and pp. 77-79. Based on this information, an expanded directory of over 60 funding sources for alternatives will be issued later this year: contact: Amelia Tarzi, Director, Lasker Center for Alternatives, American SPCA, 424 East 92nd St., New York, NY 10128.

## Dandelion Natural Selection Misconceptions

### Dear Editor:

The purported demonstration of dandelion natural selection by Hillbish and Goodwin (1994) does not really demonstrate natural selection because it is based on too many unwarranted assumptions (i.e. untested hypotheses), and its methods are flawed. It assumed that the shoot-to-root ratio (S/R) differed among dandelion clones although this hypothesis was not tested by growing seedlings from different clones and measuring their S/Rs. There is no logical reason to expect that every dandelion clone will have a unique S/R. Hillbish and Goodwin (1994) cited Solbrig & Simpson (1974), who noted that dandelion is vegetatively very plastic, and clones

are difficult to separate morphologically.

It was also assumed that in a mowed environment, a dandelion clone with a low S/R would have a competitive advantage over a clone with a high S/R. Again, this hypothesis was not tested. One could argue that mowing pressure would select for a lower S/R so fewer leaves would be lost to mowing. However, it could also be argued that a higher S/R would be advantageous so more shoot biomass would be left after mowing. A dandelion growing in a frequently mowed environment has a low profile with horizontal rather than upright leaves. Thus, the S/R may not even be an important factor in adaptation to frequent mowing. Also, just because a difference in the S/R is found between seedlings from mowed and unmowed plots does not mean that adult plants will differ in S/R. Nor does it mean there is a cause and effect relationship between mowing pressure and S/R. A higher S/R in mowed plots might be the result of selection caused by greater competition for water or mineral nutrients.

The S/R often varies widely within a clone depending on the chronological

### Society for Neuroscience Short Course for Pre-College Science Teachers

The Society for Neuroscience is offering a unique opportunity for pre-college science teachers to attend the Annual Meeting of the Society (November 13-18, 1994 in Miami Beach) and a special workshop for teachers. Teachers will interact with scientists who will serve as mentors to guide teachers to interesting symposia and presentations on current research areas in neuroscience (for example, brain development, effects of drugs on the nervous system, learning and memory, Alzheimer's Disease, etc). Special lectures and discussions for the mentors and teachers will take place on Sunday, November 13 and Thursday, November 17. The Society will pay for the workshop and meeting registration, but teachers must obtain their own support for travel, lodging and meals. For additional information and application forms, contact Elise Perram at the Society for Neuroscience, 11 Dupont Circle N.W., Suite 500, Washington, D.C. 20036 (202-462-6688). Application Deadline: September 16 or until the workshop is filled.