Another Point of View

Response to "Environmental Education: Promise and Performance"

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Michael Sanera's article, "Environmental Education: Promise and Performance," has the feel of an olive branch extended to the environmental education community following the controversy that has surrounded his and Jane Shaw's *Facts Not Fear: A Parents Guide to Teaching Children about the Environment* (1996). Sanera makes it clear that his intention in that volume was not to discount the importance of environmental education but to stimulate a closing of the gap between what he believes are the legitimate aims of the field and what actually passes for environmental education in most classrooms. His primary concern stems from his belief that teacher performance and available texts fail to provide unbiased information about environmental topics such as global warming, ozone depletion, deforestation, and species extinction and serve more to indoctrinate children than to help them become thoughtful participants in public discourse about these issues. In many respects, Sanera's assertion that educators must strive to present children with more than one perspective about controversial topics represents my understanding of what all teachers should attempt to accomplish in their classrooms. What is problematic for me in his analysis are the standards of expertise to which he holds teachers who explore these issues and his (and perhaps the field's) limited and limiting vision of environmental education, itself.

With regard to Sanera's expectations about teacher performance, he states that responsibly teaching environmental education requires the expertise of a scientist, a psychologist, a political scientist, and an economist. Furthermore, to be successful, such teachers ". . . must keep up with the rapidly changing research by reading peer reviewed scientific journals in all of these academic fields." Few, if any, elementary, middle, or high school teachers in other disciplines are held to such rigorous standards, nor are their work lives constructed in such a way that they could meet these standards

even if they wished to. In the case of high school teachers, teaching 150-180 students a day, preparing classes, and grading their assignments does not allow for the kinds of scholarship that are expected of university professors. Sanera is thus presenting a definition of responsible and successful environmental education that is beyond attainment given current institutional arrangements. Does this mean that any attempt by teachers to consider environmental issues must therefore be irresponsible and unsuccessful? Do we say that this is the case in classrooms where teachers and students attempt to inform themselves about other controversial topics such as racism, abortion rights, or disarmament—equally complicated issues with extensive bodies of scholarly research to master?

Sanera's position is reminiscent of public hearings where the testimony of average citizens is counterpoised against that of experts who have devoted their professional careers to the issue under review. Should the testimony of such citizens be disregarded? The long and continuing struggle against the nuclear power and weapons industry, as well as its sponsoring governmental agencies, was waged by people who called into question the findings of research widely accepted by the scientific community. Thirty years ago these citizen activists were viewed as ill-informed or misguided by studies that represented a minority viewpoint among the experts; they now represent the consensus viewpoint among both scientists and policy makers. If such voices had been ignored, health and environmental hazards associated with this industry would be much more widespread than they currently are. At issue may not so much be the possession of the expertise expected by Sanera, but the ability to ask the right questions and evaluate the quality of available answers.

Sanera, himself, would most likely agree with this assertion. Missing in his article, however, is any consideration of ways that teachers and their students could accomplish this end. All Sanera calls for is the inclusion of contrasting studies, points of view, and interpretations. He does not touch on how these points of view could be assessed. I observed a class at the Petrolia High School in northern California a few years ago that demonstrated to me how this could be accomplished (Smith, 1995). The course, developed in part with a grant from the Environmental Protection Agency, explored a number of environmental issues that were currently being debated in Humboldt County. Among them were forest practices

and the continued logging of redwoods. After learning about forest ecology and the interplay of natural cycles that affect soil fertility and forest health, students read pamphlets written by groups who represented the spectrum of positions from conservationists to the timber industry. Their task was to evaluate these documents in light of the ecological principles they had learned. Rather than concentrating primarily on the inclusion of alternative points of view—as important as this is—the field of environmental education might be better served if Sanera were to investigate the degree to which the principles of ecology are being conveyed to students and used as a vehicle for analyzing environmental problems. This, rather than knowing that the "manufacture of paper cups requires more chemicals and electricity and produces more air pollution and waste water than polystyrene cups" and other similar discrete facts—would help students become more thoughtful about the significance of the facts to which they are exposed. With regard to this "fact" about polystyrene cups, for example, what is left out is any information about the energy required to recycle polystyrene and its long-term impact on the solid waste stream. Students should be prepared to ask about both production and disposal or recycling.

It remains an open question to me, however, whether even the ability to assess different points of view and research studies will help us and our students truly address the factors that have led to our society's deepening concern about the impact of human beings on our surroundings. In my own case, as an Oregonian, that concern has been stimulated by witnessing the impact of modern industrial, logging, and agricultural practices on a region that has been settled by Euro-Americans for only 150 years. The 50 years of my life represent one-third of the time that people of my ancestry have been in the place I call home. During these years, the health of the forests, range land, and rivers has been so compromised that the signature species of the Pacific Northwest, salmon, has been brought almost to the point of extinction. Over and beyond this indicator of environmental health, it is risky to eat fish from Oregon's major rivers, and the water for our cities is being compromised not only by industrial pollution and agricultural run-off but by silt released by clear-cut logging. On many summer and fall days when there is no rain to clear the air of automobile-caused pollutants, the Cascade Range to the east is virtually obscured. These are the indicators to me that something is amiss. I need no scientific studies to

confirm the witness of my own senses and the daily warnings about environmental deterioration of our region reported in Portland's major paper, *The Oregonian.*

Despite that witness, development continues apace with few signs that we, as a species, have grasped the implications of our current behaviors for ourselves or, especially, our descendants. At issue is what appears to be a peculiar blind spot that prevents us from understanding our fundamental connectedness to the world. For a variety of reasons, our society projects the view that human beings stand apart from that world and have the capacity to extricate themselves from it. Either because of Plato's assumption that the ideal forms were superior to the particulars of daily existence, or the Christian belief that life after death was preferable to life here and now, or the Cartesian assertion that mind is different from and superior to embodied consciousness, we have come to see ourselves as divided from the source of our own lives.

If the purpose of environmental education is to in some way respond to the degradation of the landscapes in which we live, then I would assert that teachers must do more than ". . . increase knowledge and awareness about the environment and associated challenges, develop the necessary skills and expertise to address these challenges, and foster attitudes, motivations, and commitments to make informed decisions and take responsible action" (National Environmental Education Advisory Council, 1996, p. 1). The foregoing goals are necessary but insufficient if they are not accompanied by the willingness to care. And that caring is only likely to emerge if we are provided with experiences that affirm our connectedness and that counter the ubiquitous cultural messages that say otherwise. For this reason, I agree with Sanera and other authors he cites about the importance of not frightening children away from the environment. David Sobel (1995) has perhaps expressed this position best in his essay, "Ecophobia." In early childhood, the primary task of parents and teachers concerned about the environment must be to make sure that children are provided with a variety of experiences aimed at helping them feel at home in the world. A number of commentators have suggested that by doing so, biophilia—a fundamental love for nature and other beings that appears to be part of our own psyche—is more likely to emerge (Orr, 1994; Wilson, 1992). Although the concept of biophilia remains a topic of debate, the experience of affiliation is more likely

to arise when children are provided with many opportunities to bond with the natural world. Gary Nabhan and Stephen Trimble (1994) in their book, *The Geography of Childhood,* describe how they as parents have sought to support the development of this sense of connection. Robert Michael Pyle (1993), however, speaks to the growing difficulty parents and educators living in urban areas will have in trying to accomplish this end. Pyle warns us about the possibility of the "extinction of experience" as undeveloped wild spaces become filled with roads, parking lots, and buildings. This will make field experiences provided to children as part of their formal education that much more important.

Also important and not addressed by Sanera will be the development among young people of a sense of their own capacity to effect positive change in their immediate environment. One of the weaknesses in the textbooks critiqued by Sanera—and in his critique itself—is the degree to which the value of local experience is disregarded. Project Wild speaks primarily of environmental phenomena in a general or global manner. But the environment is best studied through the vehicle of our own senses and responded to in the same way. Rather than turning children's attention to global environmental problems over which they can have little impact, environment educators could alert students to their own schoolyards, neighborhoods, communities, and regions. Elementary school children in my sons' school have designed and planted a greenspace adjacent to the playground, worked with a local arborist to restore a piece of property adjacent to the Tualatin River recently donated to the city, and pulled invasive Scotch broom in a small wilderness area within walking distance of their classroom. Students at a Portland's Environmental Middle School regularly participate in "ivy pulls" in Forest Park and replace non-natives with indigenous plants in the Johnson Creek corridor. In Clatsop County on the Oregon Coast, high school students in Cannon Beach developed a proposal for a new park, designed it, and successfully walked their plans through the appropriate planning agencies. Such experiences teach children that by acting as environmental stewards, they can contribute to the health of their communities.

Students can also become advocates for the environment, investigating local issues and taking steps to prevent behaviors that endanger public health or the integrity of local ecosystems. Barbara Lewis (1991) in her book, the *Kids' Guide to Social Action*, describes

how a fourth-grade class in Utah initiated the writing of a bill aimed at regulating toxic waste storage and disposal following their study of a vacant lot that harbored a collection of leaking barrels. The teacher in this instance did not counsel neutrality when the children learned that the barrels indeed contained toxic wastes and the property-owner had no intention of cleaning them up. She instead supported them in their effort to affect the legislative process. Such units seem to be a completely legitimate expression of environmental education—both responsible and successful, although I suspect that property owners and businesses may now chafe under regulations that curb behaviors which in the past were ungoverned by the community. It is of interest to me that publications by the Center for the New West, the Colorado-based think tank that provides the monetary support for Sanera's Environmental Education Research Institute, strongly oppose the way in which environmental education has been linked to the development of such activism (Center for the New West, 1997).

Yet it will be on the basis of citizen activism that the excesses of market forces will be contained. Driven by the demand for higher and higher levels of profitability, corporate leaders are often forced to compromise the integrity of natural systems in an effort to remain attractive to investors. This is our current economic reality. If communities do not act to protect themselves, that protection is unlikely to come from anywhere else, especially now that the World Trade Organization has the power to override national legislation aimed at protecting both labor and the land (Korten, 1996). The Center for the New West would prefer that environmental educators focus only on hard science and the development of less damaging and more environmentally benign technologies. Without question, the pursuit of such knowledge and technologies is imperative, as David Orr's current work in the field of ecological design demonstrates. But this is only a piece of what needs to be accomplished. As Orr (1996) has stated, when a person has a heart attack, technological intervention is often a necessity if the victim's condition is to be stabilized. But stabilization is not the same as a cure. That cure will only come when fundamental elements of the victim's lifestyle are changed. The same is true of our culture. Although more fuel efficient automobiles could help diminish the build-up of atmospheric carbon and slow the process of global warming, what we really need to alter are our diets, our consumption habits, our un-

reasonable faith in a growth economy, and most importantly, our belief that we are the lords of creation capable of standing above and outside the consequences of our careless actions toward the great geo-bio-chemical cycles that support our very existence.

In addition to becoming familiar with available research, educators must also find ways to instill in the young the ability to perceive their connection with the Earth and the willingness to protect it. In the end, environmental education cannot be a neutral activity. The task now is not to discount the mounting evidence that human beings are affecting planetary systems in unpredictable ways (Vitousek, Mooney, Harold, Lubchenco, & Melillo, 1997), but to begin the arduous tasks of reshaping our beliefs and cultures in directions that will match more closely the requirements of the natural systems of which we are one part. In a forthcoming edited volume, Dilafruz Williams and I argue that we need to imagine a form of ecological education that focuses on our connections to the planet and to one another. The acquisition of scientific knowledge and understandings will play an important role in such an educational process, but even more important will be the development of a new, but in fact ancient, way of perceiving the world and our relationship to it. As Dr. Sanera argues, environmental educators need to be careful about avoiding bias and strive to present multiple points of view. This, however, is only part of the job.

Note on Contributor

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