

Louise Chawla

Childhood sources of adult environmentalism

Significant life experiences: present uses of the past

In the 1970s, people in the industrialized world awakened to a new consciousness of environmental limits. Images of dead fish in polluted rivers, murky city air, and the delicate cloud-blue sphere of the earth balanced alone in the blackness of space filled popular media. With this new sense of the fragility of the biosphere came an urgent sense of the need to conserve energy and resources, and correspondingly, a need to understand the conditions under which people will recycle, carpool, or vote for political candidates with a green agenda. There is now extensive research on these subjects, which shows that people who are likely to support environmental causes and take responsible environmental actions tend to have knowledge about issues and action strategies, an individual sense of responsibility, an internal locus of control or sense of self-efficacy, and strongly held principles (Axelrod & Lehman, 1993, Hines, Hungerford, & Tomera 1986/87).

Most of this research has involved college and university students and other adults, and single issues, and most has been correlational. It has identified conditions under which people do or do not conserve electricity, recycle, or vote for an environmental measure; but it has yielded less insight into people's reasons for doing what they do. How do people themselves explain their motives for taking care of the environment? In particular, parents and teachers will want to know whether some of these motives go back to childhood. Were there critical childhood experiences which influenced environmental attitudes and behaviors?

In 1980, this more qualitative, subjective area of research was initiated by a professor of environmental studies, Tom Tanner, in an article titled "Significant Life Experiences: A New Research Area in Environmental Education." Tanner reasoned that if the goal of environmental education is "the maintenance of a varied, beautiful, and resource-rich planet for future generations," then educators need to commit themselves to "the creation of an informed citizenry which will work actively toward this ultimate goal" (p. 20). Therefore environmental education research must seek to understand "the kinds of learning experiences which produce such persons." One approach, he suggested, "is to examine retrospectively the lives of citizens who have demonstrated amply their informed and responsible activism." Following Tanner's lead, a body of questionnaires, open-ended surveys, and interview studies of this kind has accumulated.

Like all retrospective research, this work must be interpreted with caution. It is descriptive, not causal, and therefore it is not possible to claim that a sense of care and responsibility for the environment is directly caused by any one of the experiences that people recall. When all of the research on sources of responsible environmental behavior is reviewed, it suggests a complex interaction of factors, including attitudes, knowledge, action skills, and personality variables (Hungerford & Volk 1990). People's own memories reinforce this conclusion: Palmer (1993) found that few people are able to identify one single influence, or even to rank influences in order of importance. On average, people identify four to five different types of formative experiences (Chawla 1995, Palmer & Suggate, 1996).

It also cannot be assumed that the memories that people report are an objective record of the past. This apparent weakness, however, can be seen as a strength, because what is important here is not the past as it was, but the past as it continues to live in the present. This present/past is constituted by people's subjective interpretations and uses of memory.

A more serious limitation of this research is that most studies have focused entirely on people who have shown pro-environmental attitudes and behavior, without comparison groups in the form of people who have shown destructive behavior, or apathy. Without comparison groups, it cannot be assumed that the stories that people tell distinguish them from the population at large. A few questionnaires, however, have incorporated items from interviews--such as whether people hiked or camped or spent time outdoors alone as children, read nature books, or had good family or teacher role models (Sia, Hungerford, &

Tomera 1985/86, Sivek & Hungerford 1989/90, McKnight 1990). The results of these surveys show that people who report more of these experiences also report more environmental concern and action. Although more in-depth comparisons are needed, these results suggest that factors which people understand to have formed their environmental consciousness are indeed distinguishing factors.

This paper will briefly summarize the results of this body of research, and then focus on the responses of a sample of 56 Norwegian and United States environmentalists when they were asked the question: "How would you explain the sources of your commitment to environmental protection? What personal experiences have turned you in this direction and inspired you to pursue it?" It will conclude by considering the implications of this field of research for parents, teachers, and community leaders.

The formation of environmental sensitivity

Autobiographical antecedents of environmental concern and action have been classified as the foundation of a general "environmental sensitivity." In an important paper that presented a model of factors that influence responsible environmental citizenship, environmental sensitivity was identified as the major "entry-level variable" (Hungerford & Volk 1990). This sensitivity originates in personal experiences that predispose someone to have an interest in learning about the environment, to feel concern, and to make decisions to protect the environment.

In an influential declaration issued by the UNESCO-sponsored Intergovernmental Conference on Environmental Education that was held in Tbilisi in 1978, sensitivity was related to awareness, one of the five major objectives of environmental education, and educators were urged to foster "environmental sensitivity to the learner's own community in early years" (UNESCO 1980:71). Whereas the importance of environmental sensitivity has continued to be reiterated (Roth 1992), an operational definition has been more difficult to achieve. It has been defined as "an empathetic perspective toward the environment"--without it being acknowledged that empathy can be defined in two contradictory ways (Chawla 1996). According to the most common definition, empathy is "the vicarious experiencing of the feelings, thoughts, and attitudes of another": a feeling *with* something else. Occasionally, however, it is used to refer to "the imaginative ascribing to an object of feelings or attitudes present in

oneself": an imposition of one's own feelings *on* another. These definitions conform to two contradictory views of the environment: that it is a living whole with intrinsic consciousness and feeling, or a mechanism with no consciousness of its own. Correspondingly, these different definitions imply very different processes of development and person-place relationships.

In practice, researchers have avoided this difficulty by simply seeking to identify personal experiences which appear to be associated with positive environmental attitudes and behaviors. Two primary groups have been sampled: environmental educators, and staff and members of conservation groups. In addition, McKnight (1990) compared the backgrounds of college seniors in environmental studies, engineering, and business.

When 12 relevant interview, survey, and questionnaire studies are compared, two significant experiences are mentioned more often than any others: experiences of natural areas, and the advice and example of family members (Chawla 1995). These experiences also stand out as being primarily associated with childhood. The importance of teachers and school activities varies widely, being mentioned by just over 10 % of respondents in some studies to more than 50 % in others. Other frequently mentioned influences are witnessing the destruction of a valued habitat, books, and participation in an environmental organization.

Because most of these studies' samples have been involved in environmental education or wilderness or wildlife conservation, their results cannot be generalized to a broader spectrum of environmental activists. The environmental movement is multifaceted, and as Tanner (1980:23) recommended in his original paper, research needs to reflect this scope by exploring "the origins of those who are active in other kinds of environmental issues, such as urban environmental problems or alternative energy sources." Most studies have also paid more attention to what people mention as influences, rather than to when events occurred. Therefore this paper will focus on the results of an interview study by this author which sampled a broad range of different types of activists in the United States and Norway, with equal attention to the *when* of formative influences as well as the *what*.

Being and affirming

Through semi-structured interviews that usually lasted between one to two hours, 30 environmentalists from Kentucky and 26 from Norway (a total of 35 men and 21 women) answered questions about when and where they grew up and went to school, their parents' occupations, their own vocations and environmental activities, the sources of their commitment to environmental protection, and the wisdom that they had gained regarding how to work most effectively. In both countries, people worked on a range of issues: recycling and waste management; pollution and radiation; transportation; land use planning; habitat and wildlife preservation; environmental education. In addition, several Norwegians worked to promote sustainable lifestyles and Third World equity, and several Kentuckians worked to regulate strip mining. The majority of activists in both countries were between the ages of 30 to 49, and had college or university degrees.

Interviews were taped, transcribed, and content analyzed, with attention to the sequence of significant events, and whether they were attributed to childhood, college/university years, or adulthood. Selected transcripts were coded by two independent judges, with an interjudge agreement score of 85 %. The concerns and experiences that were most frequently said to motivate environmental commitments, and the years when they occurred, are summarized in Table 1. (See next page.)

As in previous retrospective studies, two experiences dominated all others: contact with the natural world in childhood, and the teaching and example of family members. Family examples were mentioned by 80 % of Kentuckians and 73 % of Norwegians (and parents in particular by 67 % and 61 %). 87 % of Kentuckians and 65 % of Norwegians described experiences of the natural world, almost always in childhood; and this percentage would be higher, except that several Norwegians insisted that their childhood experience of nature was nothing special that distinguished them from other people, because *all* Norwegians share this background. In contrast, the next most frequently mentioned influence, involvement with environmental organizations, was mentioned by just over half of the sample (55 %), and it was associated with each period of life. All other influences were mentioned by less than half of the sample--including teachers and formal education, which was mentioned by 38 %.

Table 1. Sources of Environmental Commitment at Different Ages*
Ranked by order of mention at each age

Childhood**	University Years	Adulthood
<p>FAMILY</p> <p>EXPERIENCE OF NATURAL AREAS</p> <p>Organizations</p> <p>Education</p> <p>Habitat loss</p> <p>Social justice</p>	<p>Education</p> <p>Friends</p> <p>Organizations</p>	<p>Organizations</p> <p>Vocation</p> <p>Friends</p> <p>Pollution</p> <p>Principles/ religion</p>

* All items were mentioned by at least 15% of the sample at one study site. Bold-faced items were mentioned by at least 25%, bold-faced and capitalized items by at least 50%.

** Childhood is defined here as under 18.

Given the salience of childhood experiences of nature and family, in this and in preceding studies, it is worth looking closely at what happens during these encounters. To summarize what is occurring in two words, what children appear to learn during these experiences are ways of *being* in nature and *affirming* its value. These ways of being and affirming can be illustrated through the following examples.

The experiences of nature that people describe are never brief or unusual events: never a one-time vacation, school field trip, or sightseeing view. Rather, they are extended experiences in the garden or neighborhood around the childhood home, or repeated vacation visits to parks, family cabins, or grandparents' homes. They are part of the regular environment and rhythm of growing up.

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Hans Kvisle, for example, who as an adult decided to address one of the causes of tree cutting by starting a factory that introduced 100 % recycled paper to Norway, grew up with the forest outside his door.

I grew up very close to the forest. All I had to do was to put my skis on my feet and ski directly into the forest, or in the summertime take my bicycle and go off there. So in my youth I used the forest very much, and it was natural for people to do that.

As he grew, he saw the forest diminished by housing developments and logging, until children who grow up in his old neighborhood now have to travel three kilometers to reach the forest's edge. Other people also spoke of being motivated by the feeling that the open space and freedom that they enjoyed as a child should be everyone's birthright.

Norwegians repeatedly described a common cluster of childhood activities: hiking, fishing, skiing, berry picking, Sunday walks with parents, vacations on the coast or in the mountains. United States activists mentioned family camping in state parks, Scouting trips, exploring the surrounding landscape, or hunting and fishing if they were boys. For some children, the general sense of aliveness in the outdoors gave a needed sense of companionship. Hanne Wilhjelm, who became an architect and planner with oversight of Norway's planning act provisions for children, described this feeling.

With two brothers who were older than I was, and who had very busy lives of their own, I was a rather lonesome child at home. So nature became my friend. The garden around the house was a very very friendly arena for me. As a child, you can make your own world outdoors, in a way that you can't do indoors; so I made a world of friendly places and things, and that was very important for me.

Kåre Olerud, now public information officer for the Norwegian Society for the Conservation of Nature, believes that through this kind of intimate childhood relationship, a person's "roots start growing into nature so to speak." "When you get a relationship like that to the environment, then you develop strong feelings, and you hate the idea of having it destroyed or stained in some way. It means that you act more spontaneously when you see that nature is under threat."

For 11 activists, this closeness to nature was learned as a farm child. Tor Traasdal, director of The Future in Our Hands in Norway, who grew up on a small farm in the northern province of Troms, observed that it is easier for farm children to understand the material basis of life and the need to protect the resources on which human life depends.

By itself, however, childhood exposure to nature is probably not a sufficient source of adult environmentalism. Although the frequent mention of childhood experiences of woods, fields, farms, and the ocean coast suggests that it is important to have time to just *be* in nature, the equally frequent mention of family teaching and examples suggests that it is also necessary to have the value of these experiences affirmed by trusted role models. This combination of experiences was emphasized by Oscar Gerald, a lawyer who took a lead in saving the Red River of Kentucky from damming and in having it designated a national Wild and Scenic River. After reminiscing about how his father used to take him fishing in the creek and on walks around his grandparents' farm, show him details of plant forms, or take him out on the porch to watch thunderclouds race overhead, he concluded that all the hours that he spent exploring the farm and woods and swimming and fishing in the creek made him an environmentalist. When it was pointed out to him that, given Kentucky's rural character, some of his keenest opponents in the fight over the dam doubtless also grew up roaming woods and fields and swimming and fishing in creeks, Gerald reflected for a minute, and then proposed: "Maybe a lot has to do with who you go fishing with. Or who you're talking to when you're walking."

Similarly, other people spoke about not merely hunting, fishing, hiking, or farming as children, but about learning to do it in an attentive and appreciative way. For example, Karen Armstrong-Cummings, who grew up on a family farm in the foothills of the Appalachian Mountains in North Carolina, and who later became a leader in the sustainable community movement, could choose to either go to church with her mother on Sunday mornings or on a walk with her father. She usually chose to go along with her father as he surveyed the condition of the farm's crops, soil, trees, and creek banks. "Take care of the land," was his sermon. "The Lord isn't making any more land." People who were taken hunting and fishing by fathers and uncles also stressed that they were taught to do it in the right way, with attention to fair limits.

The common element that runs through all these accounts is the quality of attention that parents and other relatives teach by example. Kari Andersen, who

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helped organize demonstrations against hydroelectric dams at Alta and other river valleys, stressed this attentiveness when she tried to distinguish her own experience from that of other Norwegians.

We always were out. I grew up in the 50s in Norway, and everyone was out in the 50s in Norway. Hiking, picking berries, fishing, and everything. So I don't think that is something special. But my mother knew the names of the plants more than other mothers did. So we talked more deeply about things. We didn't only fetch berries and fish, but talked about it.

In this example and many others, adult role models did not explicitly say, "Protect other living things and wild places" or "Don't pollute." They simply showed by example that other living things deserve attention and respect.

For some activists, the strongest legacy from their parents was a sense of social justice. These people associated themselves with the environmental justice movement in the United States, which observes that pollution and land degradation are primarily inflicted on the poor and weak, and with the Third World equity and solidarity movement in Norway.

The lessons of memory

This U.S.-Norway study and preceding studies of the formation of environmental sensitivity reaffirm the insight of the marine ecologist Rachel Carson (1965): that to learn respect for the natural world, children need exposure to it, and an adult who will caringly share it. This research also shows, however, that this combination of advantages does not in itself form an activist. People also need to learn about ecosystems and issues through formal education and books, and they need to learn strategically effective action through friends, work, and organizations. As they grow older, they become more deliberate and articulate about the philosophical or religious principles behind their work. But given how frequently people say that they draw upon memories of formative childhood places and people, these memories seem to form a core of deep motivation. If a life path is compared to a tree, this childhood foundation may be thought of as the trunk, which later branches off into adult opportunities for learning and practice.

The dilemma that these results present for environmental education is that these memories are primarily about life apart from formal education. They are about informal learning in the home, neighborhood, and on vacations. They involve the out-of-school conditions of children's lives.

For parents, grandparents, and other family members, the moral of these memories is clear: if they themselves cultivate attention and respect for the natural world, and create opportunities for their children to know nature on these terms, they will pass on a legacy of care. For schools and nature centers, there are two implications. One is that one effective way to lay a foundation for environmental concern is to strengthen conditions for environmental learning within the family. The second strategy is to attempt to duplicate some of the remembered conditions of informal learning within more formal settings.

Both children's spontaneous discovery and shared family experiences can be encouraged by ensuring that natural areas are accessible to all residential neighborhoods: creating small "wild lands" when necessary, and preserving those that already exist. These areas should not be carefully managed, but places where children can create worlds of their own in long grass and tree thickets, behind boulders and beside brooks. In big cities where parents may be afraid to let young children out along, the value of this play can be demonstrated by providing staffed play periods and special events to celebrate the changing seasons in parks and neighborhood green corners. Families who live in areas with little open space may need to be provided transportation, such as "green buses," for regular visits to forests and fjords.

Preserving or reweaving natural elements into the fabric of the local community will serve formal as well as out-of-school programs of education. If schools have forests or fields at their doorstep, or if they replant some paved or grassed areas to create environmental yards, they can incorporate play and learning in the natural world into the everyday rhythm of school life. Just the action of protecting, planting, and using natural areas is a memorable lesson in environmental care in itself. Teachers will also find it easier to serve as positive role models by incorporating attention to nature into the daily curriculum. Through a combination of these programs, children can be guaranteed opportunities to be in nature, and to have its value affirmed.

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