# ENVIRONMENTALLY RESPONSIBLE BEHAVIOR

## Does it Really Matter What We Believe?

by Maria Lane

What makes people behave in environmentally responsible ways? Is it pride, civic duty, or something else? In this article Maria Lane takes a brief and inquisitive look at the motivating factors and opens up discussion on what the real questions might be for the future.

Throughout American history, "environmentalism" has taken many forms and borne numerous names. In any form, however, environmentalism has always advocated the adoption of ideas and policies that lead to environmentally responsible behavior. This core intention produces an interesting question: Given the end goal of producing environmentally responsible behavior, is it more important for the environmental movement to change ideas, or should it focus instead on changing policies? The following analysis explores this question through the lens of personal behavior change. Although environmentalism targets environmentally responsible behavior at many levels - personal, corporate, governmental - it seems appropriate to focus on personal change, which is arguably the fundamental basis for any institutional change or widespread societal change.

### BACKGROUND

Beginning in the late 1960s, radical economic thinkers began to formulate theoretical responses to the growing environmental crisis in the United States and elsewhere. Scrutinizing industrial production systems with a critical eye, many concluded that the infinite economic growth assumed by most models was ecologically impossible. Boulding compared the earth to a spaceship, "without unlimited reservoirs of anything, either for extraction or for pollution, and in which, therefore, man must find his place in a cyclical ecological system which is capable of continuous reproduction of material form even though it cannot escape having inputs of energy." (1966, p. 303) Given these material and entropic limits to ultimate consumption, Daly pioneered the concept of a steady-state economy in which the physical flows of production and consumption would be minimized, not maximized, subject to desirable population levels and standards of living. (1968) Daly reasoned that limits to both the possibility and desirability of growth constituted a stringent economic limit to growth.

Coupled with ever-growing manifestations of ecological destruction, these economic arguments spurred serious thinking about a new ethic of production. Daly's steady-state economy valued quality and development over quantity and growth, a significant departure from industrial norms. Boulding had also concluded that success should be measured not by production and consumption, but rather by "the nature, extent, quality and complexity of the total capital stock, including in this the state of the human bodies and minds included in the system." (1966, p. 304) The less consumption a state's economy could be maintained with, the better, he argued.

This new ethic rippled into mainstream environmental thought and matured into a new environmental paradigm that recognized limits to growth and acknowledged the importance of nature's balance. Introduction of this new paradigm marked

a one-hundred-eighty-degree shift from the paradigm governing the first Americans' relationship to nature and the environment. To the frontier settlers, nature had represented a constant challenge to survival, a condition to be overcome. Only with the closing of the frontier and the elimination of wilderness did this threat diminish. These early attitudes eventually gave way to Enlightenment reverence for nature's order and a realization that nature and wilderness had become an important part of the national identity. (Nash 1967) The ensuing nationalistic pride in wilderness allowed many Americans to embrace Thoreau's transcendentalist musings and Muir's rapturous exultations about the beauty and importance of wild nature. These same sentiments guided public support for the early conservation movement and Leopold's land ethic (1949) as a model for the human-nature relationship. By the time Carson published *Silent Spring* (1962), Americans had already changed their relationship with nature significantly.

### ACHIEVING THE PARADIGM SHIFT

The new environmental paradigm, based on Daly's economic rethinking of production and consumption, required that Americans shift their thinking even further, rejecting traditional values and beliefs. In general, Americans have been sympathetic to the new paradigm, despite a lingering desire to hold traditional values at the same time. This translates into a range of personal behavioral responses, from limited participation in relatively passive activities such as curbside recycling to immersion in activist opposition to perceived local or global environmental threats. Social scientists have been tracing these attitudes, concerns and behaviors since the 1970s, chronicling the spread of environmental thinking into mainstream American society. As scholars explored the implications of the new thinking on personal behavior, many claimed that traditional American values and beliefs actively prevented the development of pro-ecological thinking and action. Dunlap and Van Liere tested this claim (1984), finding support for the hypothesis that commitment to the Dominant Social Paradigm (DSP) leads to lower levels of concern for environmental protection. (See Figure 1.) They found that the most significant elements of the DSP that negatively influenced environmental concern were 1) faith in material abundance and 2) support for private property rights, economic growth, and laissez-faire government. These findings seem obvious in light of Dunlap and Van Liere's earlier work to identify and measure the elements of an environmentally sensitive paradigm. Codifying economic and environmental currents, the researchers identified a New Environmental Paradigm (NEP) and developed a reliable scale for measuring its acceptance. (1978, see Figure 2.) Key elements of the paradigm include 1) the balance of nature, 2) the steady-state economy, 3) basic harmony between humans and nature, and 4) limits to growth. Clearly, the DSP's faith in material abundance and support for economic growth directly conflict with the NEP's lim-

Figure 1. Dominant Social Paradigm Elements

1. Support for laissez-faire government.
2. Support for the status quo.
3. Support for private property rights.
4. Faith in science and technology.
5. Support for individual rights.
6. Support for economic growth.
7. Faith in material abundance.
8. Faith in future prosperity.

*Dunlap and Van Liere (1984)*

Figure 2. New Environmental Paradigm Scale Items*

1. We are approaching the limit of the number of people the earth can support.
2. The balance of nature is very delicate and easily upset.
3. Humans have the right to modify the natural environment to suit their needs.
4. Mankind was created to rule over the rest of nature.
5. When humans interfere with nature it often produces disastrous consequences.
6. Plants and animals exist primarily to be used by humans.
7. To maintain a healthy economy we will have to develop a "steady-state" economy where industrial growth is controlled.
8. Humans must live in harmony with nature in order to survive.
9. The earth is like a spaceship with only limited room and resources.
10. Humans need not adapt to the natural environment because they can remake it to suit their needs.
11. There are limits to growth beyond which our industrialized society cannot expand.
12. Mankind is severely abusing the environment.

* Possible responses are Strongly Agree, Mildly Agree, Mildly Disagree, and Strongly Disagree. Agreement at some level with all items except 3,4,6, and 10 represents acceptance of the NEP. *Dunlap and Van Liere (1978)*

its to growth and steady-state economy. It is not surprising that Americans who operate under the DSP express lower levels of environmental concern. The good news for environmentalists in 1978 was that Dunlap and Van Liere's study to test the NEP measurement scale found remarkable acceptance of the NEP among the general public as well as members of environmental organizations. Relatively new ideas about the human relationship to nature had obviously spread quickly.

This study represented a welcome confirmation of success for many environmentalists who had identified the achievement of a paradigm shift as their critical mission. They continued to hammer away at traditional beliefs, working to gain acceptance for the new paradigm. Recent studies verify that these efforts have been hugely successful. In 1993, Derksen and Gartrell reported that as many as 90% of respondents in the latest surveys fell in the highest environmental "concern" category. In a 1994 survey using the NEP scale, Scott and Willits found that between 77% and 90% of Pennsylvanians agreed that people must live in harmony with nature, that humans are severely abusing the environment, that when people interfere with nature it often produces disastrous results, and that the balance of nature is delicate and easily upset. More than 70% agreed that the earth is like a spaceship with only limited room and resources. (Scott and Willits 1994) Clearly, environmentalists had communicated the new paradigm successfully enough by the early 1990s that its reflection could be seen throughout the American public.

## THE PARADIGM - BEHAVIOR INCONSISTENCY

The critical question for the environmental movement now is whether achieving a widespread paradigm shift is enough to create the desired personal behavior changes. Anecdotal evidence indicates that changing the way we think hasn't made much of a difference. Americans are notoriously wasteful and the United States continues to be more consumer-oriented than ever. Resource depletion and degradation are rapid, and Americans engage in dozens of environmentally damaging behaviors every day. Even simple "one-shot" actions like retrofitting a home for energy and water conservation are unlikely behaviors for most Americans, and repeated behaviors such as reducing driving or composting are even less likely. Curbside recycling appears to be the only common environmentally responsible behavior. Americans may have accepted the New Environmental Paradigm and changed the way they think, but behavior change seems to have lagged behind. In response to the earliest surveys of environmental concerns and beliefs, Maloney and Ward (1973) called the ecological crisis a "crisis of maladaptive behavior,"(p. 583) based on evidence that personal actions seemed to be inconsistent with personal beliefs. They found that most people have a relatively high degree of verbal commitment to and emotional involvement in environmental issues, but relatively low levels of actual commitment and knowledge.

One possible explanation for this inconsistency is that Americans have not really changed the way they think, but have merely adopted the vocabulary of the environmental movement. In fact, Van Liere and Dunlap (1983) found that many Americans profess to hold conflicting beliefs from the DSP and NEP, refusing or failing to deal with their incompatibility. The existence of conflict between belief systems, however, does not invalidate rigorous findings that most Americans say they truly accept and believe in NEP concepts.

Scott and Willits (1994) offer several additional hypotheses to explain why increasing subscription to the NEP has not resulted in congruous environmental behavior at the personal level. They suggest that increased government attention to environmental issues might create a sense that the problem is being solved. Alternately, the absence of strong, motivating leadership may diminish the urgency of making individual lifestyle changes. At the same time, however, many people may blame environmental problems on government and corporate institutions, failing to see any role for individual behavior change. The lack of sufficient information about how to act in environmentally responsible ways may also hamper individual action. Finally, Scott and Willits suggest that many Americans are willing to make some changes in response to environmental beliefs, like separating recyclable items from their trash, but simply are not willing to make others that disrupt their lives, like carpooling, using public transit or protesting environmentally unsafe practices.

Despite the plausibility of these explanations, many researchers have continued to look for connections between behavior and core beliefs such as those expressed in the NEP. Although statistically irrefutable evidence has not been found, a number of studies have verified that environmental concern, attitudes and beliefs are moderately correlated with environmentally responsible behavior such as recycling and environmentally sensitive purchasing. (Heberlein and Black 1976; Weigel and Weigel 1978; Dunlap and Van Liere 1978; Borden and Schettino 1979; Van Liere and Dunlap 1981; Van Liere and Dunlap 1983) As scholars have developed this correlation further, the specificity of beliefs and attitudes measured has emerged as

a focal point of the research. Current consensus is that beliefs and attitudes about specific environmental behavior ("Do you believe it is important for residents in your neighborhood to recycle using the city's curbside recycling program?"), rather than general environmental concern ("Do you believe recycling is important?"), correlate much more strongly with environmentally responsible behavior. (Heberlein and Black 1976; Weigel 1983; Mainieri et al. 1997; Ebreo et al. 1999)

## WHAT MOTIVATES ENVIRONMENTALLY RESPONSIBLE BEHAVIOR?

The research discussed above challenges suspicions raised earlier here that changing Americans' beliefs will not change their environmental behavior because the studies show that environmental beliefs are directly statistically related to environmental behaviors in some small measure. At the same time, however, it implies that the continued environmental degradation and consumerism in the United States does not necessarily stem from personal paradigms, given that many Americans' actions may only be loosely tied to beliefs. Moderate correlations between beliefs and behavior are not necessarily convincing in the quest to determine the best course of action for American environmentalism. If Americans' beliefs aren't the primary motivators of environmental stewardship behavior, what is? Social scientists express general consternation in response to this question. The literature is marked by dissensus regarding whether sociodemographic variables have any significant effect on environmentally responsible behavior, with some scholars finding that age and education have slight correlations (Lansana 1992), others finding that education is the only sociodemographic determinant (Weigel 1977; Ostman and Parker 1987; Balderjahn 1988), and still others finding that age is correlated negatively or not at all.(Schultz et al. 1995; Hines et al. 1986) Several psychosocial variables such as personal responsibility (Schultz et al. 1995) and locus of control (Grob 1995) are significant, although unexpectedly independent of most socio-demographic variables. Most importantly, environmental knowledge (Borden and Schettino 1979; Vining and Ebreo 1990; Oskamp et al. 1991; Schultz et al. 1995) and awareness of the impact of specific environmental behaviors (Vining and Ebreo 1990; Lansana 1993) show significant correlations with environmentally responsible behavior.

Derksen and Gartrell (1993) argue persuasively that social context is much more important than either sociodemographic variables or individual beliefs in motivating personal environmentally responsible behavior. Their study found that people with access to a structured recycling program exhibit much higher levels of recycling than people lacking such access, regardless of environmental beliefs. Individual attitudes toward the environment affected recycling behavior only in communities with access to a structured recycling program, increasing the participation of those reporting high concern for the environment. These findings suggest that individual concern about the environment enhances the effect of a recycling program but does not overcome the barriers presented by lack of access. In other words, social context encourages or disallows behavior that reflects strongly held beliefs based on an environmental paradigm. This conclusion is supported by other studies confirming that the convenience of recycling programs was a significant determinant of participation (Vining et al. 1992; Lansana 1993)

## DISCUSSION

As discussed above, survey research does not reject the hypothesis that environmental beliefs and acceptance of the New Environmental Paradigm motivate personal behavior that is environmentally responsible. Study after study, however, shows that the correlation between beliefs and behavior is not statistically strong, although significant. The evidence seems to support environmental awareness, environmental knowledge and social context as the primary motivators of environmentally responsible behaviors such as recycling, conserving energy and buying products with environmentally friendly packaging. The social context hypothesis claims that the environmental paradigm and its associated beliefs are unimportant compared to logistical, programmatic issues. Individuals thus have no responsibility for the environment, because they do not control access to the resources and tools necessary for allowing environmentally responsible action. Although it could be argued that some of these tools (such as environmental knowledge) ultimately inform beliefs, which then influence behaviors, Derksen and Gartrell are convincing in their findings that the critical intervention point is policy-oriented, rather than paradigm-oriented.

These findings, of course, are contrary to intuition, which is probably why the "beliefs factor" has been tested so many times in so many different ways. It's hard to believe that whether Americans recycle ultimately comes down to whether their municipalities deliver a blue bin and promise to collect its contents once a week. Perhaps it is significant that a great majority of the behavior-beliefs correlation studies focus on curbside recycling as an indicator of environmentally responsible behavior. Although this behavior is one of the easiest to observe, it has also achieved such mainstream prominence that beliefs are hardly required to motivate such socially acceptable behavior. In this light, it is not surprising that social context has emerged as the dominant predictor of recycling behavior.

The question remains, however: how can other environmentally responsible behaviors achieve the same mainstream prominence? How will vegetarianism become socially acceptable and desirable, for instance? The current literature does not address the moment of change: the moment when a certain action transforms from one with unknown or questionable environmental benefits to one commonly accepted as a method among many of behaving responsibly with respect to the environment. Once this change has occurred, social context certainly could begin to play the leading role in determining how and why people participate in the behavior. Research must continue to study perceptions and beliefs as potential motivators of the initial acceptance of environmentally responsible behaviors as acceptable actions. Otherwise, those working to help their communities become environmentally responsible run the risk of over-estimating the importance of social context and policy "fixes" for environmental problems.

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