

BOOK REVIEW

THE BIOPHILIA HYPOTHESIS, edited by Stephen R. Kellert and Edward O. Wilson. Washington, DC: Island Press, 1993, 484 pp., bibliographies, index.

This book marks an important juncture in recent intellectual history. It examines a long taboo topic and relates this topic to an applied issue of enormous importance. The issue of whether, as Wilson originally suggested, humans innately have special feelings toward other animals, is a fascinating one. Furthermore, its potential use fostering the preservation of biodiversity is a creative linkage well worth examining. There is thus ample basis for welcoming a volume devoted to exploring the validity of this approach.

That said, it must be acknowledged that the first impression one gets is not a hopeful one. As one reads this many-authored effort, one experiences a growing discomfort. Part of the difficulty is created by the uneven editing and the fact that some chapters are only tenuously relevant to the topic. But perhaps even more disturbing is the fact that, although the vast majority of the chapters are written in support of the biophilia hypothesis, those chapters that are either questioning or even negative on this issue tend to be the strongest. Notable among these are the anthropological studies by Nelson and by Diamond, the ethical perspective put forward by Orr, and the fascinating chapter by Katcher and Willans (who are dubious about the biophilia hypothesis, despite their successful use of animals in enhancing the effectiveness of child psychiatry).

It is hard to shake the feeling that more wishful thinking is going on than is healthy in competent scholars confronting a difficult problem. It is not only a case of earnest attempts to prove a point despite data that are not as clearly supportive of the hypothesis as the authors would like. There is a failure of adequate and thorough analysis as well.

The problem of analysis is reflected in the all-out effort on the part of many of the authors to demonstrate that human beings have special feelings about their fellow creatures. As it turns out, there does appear to be evidence for such special feelings. However, some are negative rather than positive, and there are many creatures about which people seem to have no particular feelings one way or the other. Given the evidence presented, it is possible

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that the distribution of special feelings across the animal kingdom is relatively normal; in other words, some species are greatly appreciated, many are ignored, and some are disliked. If this is indeed the case, the hope for responsible behavior based on biophilia alone would seem to be rather dim.

The difficulties are not, however, restricted to the tenuousness of the evidence. There is also a lack of a program, a plan. What if the biophilia hypothesis had been strongly supported? What would the appropriate response be? Would there be an announcement to the effect that people have this previously undiscovered but precious inclination? It seems most unlikely that this would produce the desired result. Alternatively, a program could be based on Wilson's quite reasonable suggestion that biophilia expresses itself as an inclination to learn. One could, in other words, teach people about the natural world.

Unfortunately, for this proposed solution, we are already doing this, with at best mixed results. Nature centers, zoos, and school-based education programs, among others, are deeply committed to educational programs of this kind. Although the results are undoubtedly beneficial, these efforts have been in place long enough to raise questions as to whether they are in themselves effective enough to turn the tide.

Thus one is placed in a rather frustrating situation. The goal of preserving biodiversity is without question worthy. The evidence given here for biophilia is, however, spotty and uneven at best, and the mandate for taking advantage of whatever biophilia does exist is murky. Must one, then, put aside this exciting and hopeful idea?

Not necessarily. There is, in fact, a resonance to the natural world that holds considerable promise and that has been largely overlooked. Furthermore, there is at least the suggestion that this resonance has a relatively direct bearing on appropriate and responsible behavior.

In the early 1970s, we were asked by the Forest Service to do research on a wilderness program in Michigan's Upper Peninsula. At the time, we had no idea that this assignment was to last for 10 years. The effect of the experience on the participants was far more powerful and far-reaching than we had anticipated. One of the benefits particularly valued by the participants was a feeling of "wholeness" or "oneness." They experienced less conflict between what they wanted to do and what had to be done; their tasks seemed neither arbitrary nor irrelevant.

Having such a feeling of wholeness is an exhilarating experience. It provides a sense of well-being, of being renewed, of being restored. . . . The role of the natural environment is inherent to these experiences. Not only did participants notice more aspects of that environment, but they came to realize that they lived differently and felt differently during their immersion in this setting. The coexistence with other creatures and growing things gave

them a new perspective on themselves. The existence of the wilderness became a comforting thought. (Kaplan & Kaplan, 1989, pp. 145-146)

Not surprisingly, at the conclusion of the experience, participants were often worried about whether they would be able to recapture those feelings and whether they would have access to the kind of environment that evoked them. Although there is no direct evidence that they would actively support preservation of biodiversity, indirect support comes from another study. Thompson and Barton (1994) have found that taking action to help protect the environment does not follow from a concern for nature in terms of such utilitarian benefits as preserving resources and health. Rather, they indicate that for those more likely to take such action, "nature is a spiritual dimension and intrinsic value that is reflected in their experiences in nature and their feelings about natural settings" (p. 5).

It thus may be the case that certain kinds of natural environment experiences lead to a valuing of and a commitment to natural environments that extends to the willingness to take an active role in protecting them. It must be emphasized that the support for this line of reasoning is at this time by no means robust. On the other hand, it offers a purchase on the problem that is consistent with current psychological knowledge and eminently researchable. It can be considered a variant on the biophilia hypothesis that is less dependent on tenuous assumptions and is considerably more specific in its proposed mode of operation.

Clearly, much research needs to be done. Not only is it necessary to confirm the findings of these preliminary studies, it is also essential to determine what kinds of nature experience produce these transforming results. This issue is particularly critical because a model already exists for bringing nature experiences to large groups of people. Schools often have field trips to natural areas. Not infrequently, students on such trips are called upon to stand still and pay attention—in settings where one of the great attractions is that one need not stand still and one need not make an effort to attend. There is, in other words, a real danger that such events will be made "educational," and in the process the very qualities that can make these experiences so powerful will be destroyed.

Perhaps some day the publication of *The Biophilia Hypothesis* will be seen as a turning point, not so much for its specific content as for its contribution in initiating the search for a link between the human evolutionary heritage and the constructive action to preserve biodiversity that is so urgently needed.

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