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## Reply

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**J. Baird Callicott**  
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To have my book, *In Defense of the Land Ethic*, so thoroughly and perceptively reviewed by so eminent a philosopher as Kristin Shrader-Frechette flatters me. Before I say another word, I want to thank her for her comments, both critical and complimentary, and especially for defending my environmental philosophy against Tom Regan's importunate charge that it is tantamount to "environmental fascism." I also thank *Between the Species* for giving me the opportunity to append a reply to Shrader-Frechette's review. Generally put, here it is: All of the complimentary things she says about the book are true and all the critical things false. No...seriously...Shrader-Frechette has for the most part accurately summarized my theory of environmental ethics and then turned her formidable powers of critical argument against views that I do not hold (as she tacitly acknowledges: "Callicott and others" is the tip-off phrase). She has, in short, come to this forum to praise my philosophy and to bury that of others under a headstone on which she has carved only my name.

There is one exception to this general tack that I take in my rejoinder. As much as I would like to accept credit for "poetic brilliance," I must adjure the compliment. Holmes Rolston, whose words have recently graced the pages of this journal, is, as every one knows, the poet laureate of environmental philosophy. "Poetic" suggests the associative ambiguity and concrete imagery that characterize his luxuriant prose. I strive for just the opposite effect, for univocal and precise abstract expression (although, ancillary to that, I will confess to striving also for a lively and readable style). Praising my work as poetic foreshadows Shrader-Frechette's inclination in the latter half of her review to attack the arguments as if they were mine.

In the limited space at my disposal, let me take up Shrader-Frechette's principal critical points in turn and set the record straight.

Shrader-Frechette agrees with me that "the community concept is essential to the notion of moral obligation," but—because biotic communities are ill-defined, overlap, and change—she insists that "there is no biologically coherent notion of 'community' robust

enough...to ground environmental ethics." The concept of a human community, however, is no *more* coherent and robust. By "community" one may refer equally well to a group of people united by proximity (neighbors), by ethnicity (Hmong refugees), or by religion (the community of faith); to a group of businesses (the banking community); or to a group of countries (the European Economic Community). And communities change. The EC, for example, is growing while COMECON is shrinking. Sociologists describe and theoretically relate ill-defined, overlapping, and changing human communities. Ecologists likewise identify biotic communities of various types and sizes (ponds, marshes, forests, savannahs, tundras, and so on). And there is a new and powerful body of theory—hierarchy theory—in ecology devoted to their complex, many-tiered interrelationships and interactions. So, if the concept of a human community is coherent and robust enough to support anthropocentric moral obligations, as Shrader-Frechette conceded, then the concept of a biotic community—since no less coherent and robust—is coherent and robust enough to support ecocentric moral obligations.

Nowhere do I attempt to "safeguard the interests of biological communities" as Shrader-Frechette suggests that I do. I do not think that biological communities have "interests" or, for that matter, that interest-safeguarding is the be-all and end-all of ethics. Rather, I argue that biotic communities *per se* are "morally considerable," but not by appeal either to a static "balance of nature" or to "the diversity-stability hypothesis," as Shrader-Frechette also alleges. Aldo Leopold, whose seminal land ethic I elaborate and defend in my book, specifically rejected the "balance of nature" metaphor in favor of Charles Elton's trophic pyramid ecological paradigm. He was, furthermore, for his time, remarkably cautious and circumspect about the dependence of stability on diversity. And I am keenly aware that a quarter century after Leopold's death the diversity-stability hypothesis became a theoretical pariah in ecology.



## DISCUSSION

This time, I suspect, it is Bryan Norton with whom I am being confused. Norton has recklessly entered the scientific debate about the diversity-stability hypothesis and defends a version of it in his effort to provide moral support for the preservation of species. But I try assiduously to avoid holding my environmental ethics hostage to *any* particular ecological claim. Rather, I argue that ecology is transforming our world view. Whatever the scientific status of this or that ecological hypothesis, ecology focuses on the relationships between organisms and their environments. Attention to relationships engenders a systemic, holistic conception of nature which appeals, I argue further, to our innate moral sensibilities. Actually, I proceed exactly as Shrader-Frechette concludes that we environmental philosophers should. I rest my ethical case on a scientifically informed metaphysics, not on specific scientific hypotheses. (In fact, one of my essays in the very book under review is entitled "The Metaphysical Implications of Ecology.")

Shrader-Frechette's critique of my evolutionary construction of ethics is hard for me to understand, let alone rebut. That is because she saddles me with an ethical permutation of "evolutionary epistemology"—something with which I am wholly unacquainted and certainly upon which I do not model my evolutionary account of ethics. Her most fundamental misrepresentation of my evolutionary account of ethics is her assumption that I treat ethics (just as the evolutionary epistemologists treat knowledge, I guess) as *analogous* to evolution ("the ethics : evolution analogy"). But I nowhere suggest that ethics and evolution are analogous. Rather I endorse Darwin's simple and straightforward evolutionary argument that we current editions of *Homo sapiens* inherit tender and refined but *indeterminate* "moral sentiments" (as, following Hume and Smith, he called them) because the inclusive fitness of our protohuman ancestors was enhanced by social integration, which mutual moral restraint enabled them to achieve. The moral sentiments however are not blind, unerring instincts; they are open-ended feelings like sympathy, good will, beneficence, and so on. I argue, accordingly, that nature (evolution) outfits us with a plastic capacity for ethics but that to *whom* we owe *what* is shaped by nurture (culture). I quite agree, nay, I would indeed be the first to insist that our altruistic feelings must be informed by "hypotheses about the facts" and by "cognitive and evaluative aims" to be both actual and properly ethical. After all, what I am basically

arguing is that ecology *represents* plants and animals, soils and waters as our fellow-members of biotic communities. Thus we ought to feel sympathy for and good will toward them and toward the community *per se* (however narrowly or broadly bounded).

Shrader-Frechette claims that my theory of environmental ethics is not normative. She is right, if by "normative" one means rationally coercive. If one thinks of normative ethics as Kant did—as (good) reason preventing people from doing what their (bad) feelings incline them to do—then my environmental ethic will certainly appear to be more descriptive than normative. But the environmental ethic that I defend in *In Defense* is "normative" in another sense. "98.6 degrees Fahrenheit" both *describes* the usual temperature of healthy human bodies and provides a *norm* against which we measure deviations—fever and hypothermia. In my view (and here I intend to draw an analogy), moral norms are to human psychology as medical norms are to human anatomy and physiology—with one important difference: they are open to cognitive information, as I just explained.

Ecology has not so far provided objective norms of ecosystemic health analogous to the objective norms of organic health provided by modern medicine. Shrader-Frechette is right about that. Absent such norms, environmentalists have measured ecologic perturbations against a gross and static historical criterion, "wilderness," the state of nature prior to the evolution or arrival of the subspecies *Homo sapiens europi*. And Shrader-Frechette is also right to point out that this is incoherent, because change is a natural condition of ecosystems. I might also add that human beings are natural creatures, an equally pertinent fact that Shrader-Frechette (pointedly?) omits to mention. We are merely one species—though to be sure, one very precocious species—among millions of others. Anthropogenic change is therefore as natural as any other. But because ecology does not provide us with objective dynamic norms of ecosystemic health, must we abandon all hope of an ecology-based environmental ethic? I think not; and I submit that in arguing to the contrary Shrader-Frechette commits the fallacy of *Argumentum ad Ignorantiam*. Because nineteenth-century medicine was unable to provide norms of organic health, should we have abandoned all hope of a science-based medicine and settled for, say, the healing power of prayer? Twentieth-century ecology is as immature as nineteenth-century medicine. One of the

most fruitful and important research opportunities for twenty-first century ecology is the development of objective norms for the health of dynamic ecosystems.

Once formulated, such norms might tentatively govern our environmental behavior. Ecology will never be a science more exact than medicine. So we should always be prepared to change our notions of what is good for nature, just as we are prepared to change our notions of what is good for our bodies. But again, environmental *philosophy* should not concern itself with formulating and reformulating specific norms of environmental health and integrity. That is a job for ecologists. We philosophers should busy ourselves, rather, with connecting ecological "facts" (i.e., ecological hypotheses and theories) with values, and with trying to show, as I do in my book, that it is no less incumbent upon us to be solicitous of the health and integrity (however tentatively defined) of (changing, evolving) biotic communities than of the health and integrity of (changing, aging) human persons and of (changing, developing) human societies.



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## Biology and Ethics: Callicott Reconsidered

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**Kristin Schrader-Frechette**  
University of South Florida

Professor Callicott's reply to my analysis of his claims reminds me of my favorite philosophical exchange, a conversation penned by Lewis Carroll. "When I use a word," Humpty Dumpty said to Alice, "it means just what I choose it to mean—neither more nor less." But, as Alice reminded him, "The question is...whether you *can* make words mean so many different things."<sup>1</sup> This is precisely my question to Professor Callicott. Can you make words—like "evolution," "community," and "norm,"—mean so many different things, claiming one meaning in one argument, and an incompatible meaning in another?

In his "Reply," Professor Callicott states: "I nowhere suggest that ethics and evolution are analogous." Yet, as I quoted in my review, Callicott claims: The "conceptual and logical foundations of the land ethic" are a "Darwinian protosociobiological natural history of ethics, Darwinian ties of kinship among all forms of life on earth.... Its logic is that natural selection has endowed human beings with an affective moral response to perceived bonds of kinship and community membership and identity."<sup>2</sup> Value "in the philosophical sense," says Callicott, "is a newly discovered proper object of a specially evolved "publick affection" or "moral sense" which all psychologically normal human beings have inherited from a long line of primates."<sup>3</sup> It is logically inconsistent for Callicott to claim that evolution and natural selection provide the foundations of the land ethic, then, once someone points out the problematic logical consequences of this position, to deny espousing evolutionary ethics.



**DISCUSSION**