THE PASSION, PRESCIENCE, AND POLITICS OF THE END OF NATURE

Introduction to the Symposium on The End of Nature

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Bill McKibben is one of the most influential environmental writers of our time. He has published six books and is a regular contributor to *The New York Review of Books*, *The New York Times*, *Orion Natural History*, *The New Republic*, and other publications. This symposium revisits and celebrates the publication of McKibben's first and, to date, most influential book, *The End of Nature* (1989). The book achieved best-seller status in the United States and has been hailed as "the *Silent Spring* of the 1990s" (Smith, 2004). McKibben's influence crosses conventional boundaries between popular and academic writing. An indication of his academic influence is given by the 673 citations to his work recorded in the Social Science Citation Index (as of January 2005), including 203 to *The End of Nature*. Even a cursory glance at these citations reveals an impact that spans several disciplines, including ethics, ecology, management, theology, and sociology.

The End of Nature (McKibben, 1989) is widely hailed as the book that brought popular attention to the issue of climate change at a time when discussion of the phenomenon and its link to emissions of greenhouse gases was rarely heard outside of science and policy circles. The focus on climate change serves as a vehicle to make a larger, more profound argument about the changing relationship between humankind and nature—an argument that lends the book its compelling emotional power, its passion and sadness. For McKibben, the emerging evidence of the global scope and irreversible impact of human activity on the planet's climate demonstrates that:

For the first time human beings had become so large that they had altered everything around us. That we had ended nature as an independent force, that our appetites and habits and desires could now be read in every cubic meter of air, in every increment on the thermometer. (McKibben, 1989, p. xix)

Other environmental concerns, although serious, are more local and more easily addressed and allow us at least to imagine, if not visit, vast swathes of the planet in a pristine state, untouched by human civilization. For McKibben, our measurable impact on the climate represents a momentous transition, a singularity: "By changing the weather, we make every spot on earth man-made and artificial. We have deprived nature of its independence, and that is fatal to its meaning. Nature's independence *is* its meaning" (McKibben, 1989, p. 58).

McKibben's (1989) lament is not just for the deleterious environmental impacts of climate change but for the passing of "a certain set of human ideas about the world and our place in it" (p. 8). In passionate and even poetic prose, McKibben

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waxes nostalgic for a concept of nature as "a world apart from man . . . another separate, timeless, wild sphere" (1989, p. 47). His insights into the implications of this shifting relationship between humankind and nature resonate, disturb, and provoke us. McKibben expresses consternation at the loss of "our comforting sense of the permanence of our natural world, our confidence that it will change gradually and imperceptibly, if at all" (1989, p. 7). This loss of security has a deeply spiritual dimension for McKibben, as he senses that in overwhelming nature, humans have desecrated the sacred and usurped the divine. In grappling with this loss, *The End* of Nature conveys an emotional tapestry of trepidation, loneliness, and sadness. We have displaced the predictability and protection of god-in-nature and replaced it with our own "brutish, cloddish power" (McKibben, 1989, p. 84), a power "able to destroy creation" (McKibben, 1989, p. 78). We now have to face the future knowing that "there's no such thing as nature anymore—and there is nothing except us alone" (McKibben, 1989, p. 89).

McKibben's (1989) work is provocative for scholars of organizations and the natural environment on several counts. It presents a fundamental challenge to society's faith in the trinity of the secular gods of industrial capitalism: markets, science, and bureaucracy. These institutions of modernity, which held such promise of progress and plenty, are now threatening to undermine the very basis of life. He underscores the hubris and irresponsibility of our power over nature by pointing to suggestions for managing the climate with planetary engineering. Some of these would be risible if their advocates were not deadly serious: One idea is to inject massive quantities of reflective particulates into the atmosphere, and another is to cover the oceans with white styrofoam chips (McKibben, 1989, p. 69). Yet our dreams of power and control are delusions; despite our technological sophistication and vast resources, our economic and political institutions are almost paralyzed in dealing with such environmental threats (McKibben, 1989, p. xvi). For McKibben, the problem is "a product of our habits, our economies, our ways of life" (1989, p. 47) combined with our sheer numbers. Scant attention is paid here to the political economy of environmental destruction, although the introduction to the second edition (McKibben, 1999) notes the influence of industry on public debate—a topic that has been examined in much more detail by Ross Gelbspan (1997, 2004), a contributor to this symposium. McKibben himself has addressed the culture of advertising-driven consumption in his book The Age of Missing Information (1992) in which he compares the vacuity of watching the entire output of a cable TV system in 1 day (more than 2,400 hours) to the experience and wisdom gained from a short camping trip in the Adirondacks.

Although the influence of the fossil fuel industry is undeniable, critical scholars might consider exploring other avenues in pursuit of explaining the inadequacy of our societal response in the face of environmental threats. Some have focused attention on the logic of capitalist accumulation itself, premised upon the treadmill of production (and consumption) and the externalization of costs (see Gould, Pellow, & Schnaiberg, 2004; Schnaiberg & Gould, 1994). Others have examined the difficulties large organizations face when engaged with complex technologies presenting low-probability but potentially catastrophic risks. Sociological analyses of the Challenger explosion (Vaughan, 1996) and the nearly disastrous nuclear meltdown at Three Mile Island (Perrow, 1989) provide vivid examples of how organizational processes and routines, combined with hierarchical power structures and petty politics, can lead to organizational inertia, distorted cognition, the neglect of warning signals, and poor decisions (see Jermier, 2004). In these cases,

the failures occurred in organizations directly responsible for the risks incurred. Climate change is a problem of the failure of a socio-technical system that is vastly greater in scale and scope but perhaps not so different in terms of underlying processes. We are witnessing, in slow motion, the meltdown—literal and metaphoric—of a complex, dynamic system comprising firms, states, and other organizations—a system with economic, political, technological, and ideological dimensions. Despite our illusions of control, the system pursues its own path guided by powerful feedback mechanisms.

McKibben's (1989) understanding of the interface between *nature* and *human* challenges some basic assumptions of critical scholars. A common denominator of critical perspectives-from Marxism to feminism, from the Frankfurt School to Foucault—is the attempt to denaturalize the current social and economic order, point to the arbitrariness of what might appear to be the natural order of things, and suggest how the world might be otherwise. If critical scholars are concerned about the natural environment, it is usually because of linkages to issues of domination and injustice in the social and economic realm. But McKibben employs a different calculus to assess our predicament, one more connected with a deep ecology perspective in which human well-being is not the primary rationality. McKibben locates the sacred in nature and views human intrusion as a desecration. If "the earth is a museum of divine intent," then human impact on the weather becomes a distortion of "what nature intended" (McKibben, 1989, p. 72). This invocation of divine intention and natural order to sanctify the status quo is likely to cause considerable discomfort, as such arguments are frequently extended by conservatives to legitimize hierarchical relations of power in patriarchy and capitalism.

For McKibben (1989), there is a hierarchy, and nature comes first; he calls for a humbler world in which "human happiness would be of secondary importance" (p. 191). His yearning for wilderness as a space "unpolluted even by the knowledge that someone had been there before" (McKibben, 1989, p. 53) betrays a sense that human presence itself violates the sanctity of nature. McKibben's concept of nature encompasses asteroids that caused mass extinctions of species and the multiplication of bacteria that generated atmospheric oxygen but poisoned earlier forms of life in the process (1989, p. 63). Presumably, the next ice age, already overdue and expected to play havoc with our civilization any century, is also part of nature. What sets humans apart from nature, according to McKibben, are our agency, consciousness, and ability to choose; the weight of responsibility and blame is therefore on our shoulders. In places, his language is almost biblical, as if we have been cursed by the original sin of eating the fruit of knowledge of good and evil and are now cast out from the Eden of nature.

McKibben's (1989) view of nature might resonate with many readers, but it is a particular rather than a universal perspective, one embedded in his religious outlook and the American frontier myth. For Europeans, there has been no frontier for many centuries and hence less romanticization of the pristine. Personally, my experiences of nature were gained while walking in Hampstead Heath, a large city park in London, England, or looking out of a train window at passing farms and cows in rural England. For many people in developing countries, not to mention Florida in the United States, nature still brings more threat than comfort and stability in the form of floods, hurricanes, and drought. Our understanding of nature is clearly informed by a particular location in time and space. Our sense of a steady macroclimate is an artifact of our serendipitous sojourn on the earth during an unusually stable and prolonged interglacial warm period of nearly 12 millennia.

Indeed, new scientific research is likely to change our perception of the humannature relationship. For example, we now know that the earth can shift climatic states in a matter of decades, not centuries or millennia. We also know that humans are not the only species with language, culture, or a sense of humor.

These concerns with McKibben's (1989) conception of nature do not detract from the central power of the book in arousing indignation and sadness that human activity is causing inexorable, irreversible, and potentially calamitous shifts in the global climatic system. This emotional power is a central theme of the four authors and scholars who have written insightful commentaries on McKibben's End of Nature for this symposium. Bill McKibben, in his deeply personal reflections on the book 15 years after its initial publication, recounts the process leading to the flash of insight that inspired him to research and write the book in a very short time frame. This insight also gave the book its emotional charge: that global warming was fundamentally changing our relationship with the natural environment. McKibben also addresses concerns expressed by some academics that *The End of* Nature neglects the extent to which humans have always influenced nature indeed, are a part of nature. McKibben responds that what is new and urgent is the scale and suddenness of human impacts: "We have, in short, grown very, very large . . . our large numbers, yes, but even more so the size of our appetites and the shadow cast by our looming technologies." Ross Gelbspan, a well-known journalist and author of two books on climate change, uses poetic language to describe how the passion, courage, and foreboding that permeate The End of Nature motivated his own writing and activism. At the same time, Gelbspan questions whether the nostalgia for a benign nature is not somewhat misplaced and whether nature is really so passive and frail in the face of human efforts to subjugate it. Drawing from his own work, he argues forcefully that any account of climate change must include the powerful political role of the fossil fuel industry in distorting the public debate and influencing politicians, and he issues a call for political action.

These themes are echoed and developed by the symposium's three academic commentators. Robyn Eckersley, a professor of environmental politics and political theory, elucidates the three senses in which human impacts represent the end of nature: "as a human experience of the wild; as an independent, creative force and identity-fixing force; and as a reasonably predictable and reassuring force." She suggests that the shifting relationship between humans and the environment raise two fundamental questions. "The first is existential/ontological: Who are we? The second is epistemological and moral: Who do we think we are?" Trying to draw a more optimistic note on the resilience of nature, she also proffers that perhaps McKibben (1989) has "mistaken decline for death." Timothy Luke, a scholar of environmental studies, social theory, and political economy, acknowledges the power of the book but questions the collective we invoked by McKibben to account for inaction in the face of mounting environmental destruction. He argues that we do not all have "an equal ability, inclination, opportunity, or willingness to make this change, and this vital difference brings us to the domain of power politics." Luke suggests that a major barrier to change is the way that our dependence on fossil fuels has become embedded in our technological and economic systems and thus has been relegated to the subpolitical—a realm governed by professional and technical experts rather than the formal political process. Steven Yearley, a professor of the sociology of science, technology, and environmentalism, points to the broader social meaning of McKibben's representation of global warming as the end of a particular human notion of nature. Yearley argues that our concerns for the

environment frequently reflect our worries about the fragility of our own society more than concern for nature as an external object: "Where we feared nature or the gods who controlled it, we now worry about the dependability of organizations and regulatory systems."

The End of Nature (McKibben, 1989) represents an example of critical journalistic writing at its best, a work that brings scientific and social questions to the forefront of popular discourse, inspires people, and provokes deep questioning of the current order. In his latest book, McKibben (2003) turns his attention to emerging technologies such as genetic engineering and nanotechnology that threaten to end nature in an even more fundamental way. Life on earth has adapted to a shifting climate and atmosphere, and human beings, if not civilization, can survive the next ice age as we did the last. Genetic manipulation of bacteria, crops, humans, and animals represents a new frontier in the quest to control and manage nature and undermines the basis of organic reproduction and evolution itself. If we have to accept that humankind has already left an indelible mark on the climate, we can allow ourselves to hope that McKibben's passion will inspire political action that questions and halts our impetuous and arrogant rush to subjugate nature.

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