Changing Human Relationships With Nature: Making and Remaking Wilderness Science

Jill M. Belsky

Abstract—The paper identifies and discusses two major themes in wilderness social science. First, that wilderness studies (and its advocates) have been limited by an ontological tension between those who mainly approach the relationship between humans and nature on the basis of material factors and constraints and those who approach it through an examination of shifting concepts and ideas. Rather than pitting these against each other, I argue that a dialogue between how nature and humans relation to it has been culturally constructed and physically altered is critically needed. Second, while I commend wilderness and protected-area management strategies for responding to shifting ideas and diverse material conditions by incorporating participatory or community-based approaches, I argue that how and when a community-based approach is workable needs to be answered in the context of particular places, peoples, issues and ecosystems. In general, wilderness social science needs to move beyond simplistic dualistic thinking and binary categories, and continually be willing to address the politics behind how "nature" and what is considered "natural" are defined and deployed on behalf of particular human interests. The paper concludes with a brief discussion of efforts across the globe that seek to utilize multiple conceptual and practical management approaches tailored to particular social contexts and histories.

In this paper I discuss two themes that I, as an environmental sociologist, view as pivotal with regard to changing ideas of nature and wilderness (social) science, and their implications for the practice of conserving and managing large ecosystems.

The first theme centers around to what extent wilderness studies has been limited by an ontological tension between those who approach the relationship between humans and nature on the basis of material factors and constraints, or through concepts and ideas. There is a dialectical tension that manifested itself in tension and polarization in the talks of Baird Callicott, Dave Forman and most strongly with Gary Snyder. Callicott emphasized how our ideas of nature and wilderness have changed over time (i.e., a social constructionist or "idealist" approach) whereas Forman spoke about the physical threats to wild nature and wilderness conservation (i.e., the materialist or "realist" approach to nature). Rather than pitting these ontological approaches and their related social science orientations against each other, I argue that each taps into an important dimension of wilderness studies. A dialogue between how nature has been culturally constructed and physically disturbed and/or preserved is critically needed.

A subtheme of this first point is that the study of nature and wilderness is deeply political. Wilderness scientists, like scientists everywhere, have downplayed the politics behind how "nature" and what is considered "natural" are defined and deployed on behalf of particular human interests.

My second major theme is that while important concepts and strategies for protecting ideals of "wilderness" have changed there has been a tendency to substitute old sets of "received wisdoms" or "discourses" with new ones. I discuss how wilderness science has shifted between two ideal concepts and management strategies. That is, as a "pristine," delicately balanced ecosystem, devoid of people and managed for solitude, recreation and re-creation, to wilderness as "humanized" landscapes, manipulated ecosystems, especially by native and rural peoples marginalized by development and coerced by violent protected-area management policies and practices. In the latter view, wilderness protection brings people in, especially via community-based approaches to conservation. I argue that neither position is inherently true or preferable. Whether a protectionist or community-based approach is desirable and workable is an empirical question that must be examined in the context of particular places, peoples, issues and ecosystems.

In this paper, I hope to illuminate the above themes and suggest instances where I see glimmers of hope that efforts are underway across the globe that utilize multiple approaches and adaptive management strategies tailored to particular social contexts and histories. In the conclusion I provide a brief mention of such efforts.

Positioning Myself in the Debate

Like everyone else, I have specific filters through which I make meaning of these topics. These include my formal education as an environmental sociologist to honor both materialist and idealist orientations. I have also become sensitive to cross-cultural and transnational perspectives having spent most of my professional career studying social and environmental interactions in remote tropical places. My research has also been highly applied and geared toward seeking practical solutions and policies for bridging conflicts between development and conservation, park protection and resident peoples' cultural and economic survival. No easy task.

I am also learning how hard it is to achieve the often mentioned goal of becoming interdisciplinary. Whether teaching, researching or collaborating on a project, I am usually working side by side with physical scientists and officials,

In: Cole, David N.; McCool, Stephen F.; Freimund, Wayne A.; O'Loughlin, Jennifer, comps. 2000. Wilderness science in a time of change conference—Volume 1: Changing perspectives and future directions; 1999 May 23–27; Missoula, MT. Proceedings RMRS-P-15-VOL-1. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

Jill M. Belsky is Associate Professor, Department of Sociology, and Adjunct Associate Professor, School of Forestry, The University of Montana, Missoula, MT 59812-5184 U.S.A.

often from different nations and cultures. I am constantly explaining and defending why attention to social forces and social organization are relevant to ecological change and park management. I am still learning how to effectively communicate and get along with people who are vastly different than myself, in terms of language, disciplinary methods, technical terms, perceptions and objectives—among others. And like everyone in this room, a personal connection to nature underlies why and how I do my job. I am an avid backpacker, biker, sea kayaker and "nature" lover.

All of us are comprised of multiple, overlapping identities and interests that affect how we understand human-nature interactions. I hope the ones I've shared with you confuse and complicate your ability to pin a theoretical or ideological label on me, or my thinking.

Materialist and Idealist Approaches to Nature and Wilderness Studies

Throughout the conference, the ideal of wilderness, and why we should discredit or support this idea, has been reemerging and making a lot of people squirm in their seats. It keeps popping up because social scientists in the 1980s and 1990s have been rekindling attention to ideas, culture, moral values and social experience in their studies of society, and not surprisingly, they are applying this approach to their examinations of environmental change. Established and accepted terms of discourse are being critically examined and their ideological origins and purposes exposed. While we've heard the term "social construction of nature" and "discourse" bandied around at this conference, I don't think anyone has defined them for us nor provided a more balanced sense of their applications, advantages and disadvantages.

"Social construction" refers to the idea that how people "see" or understand nature or landscapes is very important and depends in large part on our own social context and perspective on social life (Greider and Garkovich 1994). This often occurs unconsciously and unwittingly when we think we are being completely objective. As our perspective changes across time and place, history and culture, the meanings we confer on nature change along with it. Social constructionists would say this is a universal, human condition. Both laypeople and scientists "see" the world through socially influenced filters. As with where and how we grew up, and the values taught to us and the stories told to us, our academic disciplines provide a filter to how we see and understand the world. Indeed, the very mission of science is to explicitly teach us how to see and represent the world, appropriate to the assumptions and methods of our respective disciplines. Thus, our view of nature and what we see as natural is partially a product of our culture and its influence on the "construction" of what nature is perceived to be.

The social constructionist approach, according to Michael Bell, author of *An Invitation to Environmental Sociology* (1998), alerts us to the highly political and partial way we conceive of nature. This is because our understanding of nature depends on *social selection* and *social reflection*. We all tend to select particular features of nature to focus on, ignoring those that do not suit our interests and world views. Over 30 years ago in *The Structure of Scientific Revolutions* (1966), Thomas Kuhn described how scientific theories, methods and research topics are closely linked to the paradigms (as well as funding biases) of the existing scientific establishment, which changes reluctantly at a turtle pace, and only when contradictions and new questions expose the limitations of existing paradigms. Because of social selection and social reflection, "nature" (as well as science) are inescapably social–and political—phenomena.

This view suggests that all of our ideas about nature and environmental change are partial. That is, any one of us only sees part of the phenomenon, and that meaning is only complete when understood within the context and agenda of a community of like-minded thinkers. Despite assertions of objectivity, scientists obscure some portion of reality when they narrate the history and results of their studies. The narrative succeeds to the extent that it can hide the discontinuities and contradictory experiences that would undermine the intended meaning of the "story." Science is political because inevitably some aspects of what scientists see, hear and record are sanctioned while others are denigrated or silenced.

For example, we are all aware of how attention has been redirected in the forestry sector over the past decade to how different publics make meaning of forests: as a source of living, connection to spiritual heritage, place for recreation, hunting or for aesthetic appreciation. Though not without extreme controversy, even Congress has made these variable meanings a legitimate consideration of forest policy on public lands. While we may argue over the sense of holding each view equal or as relative "truths," the point is we all have forest images in our minds, and these images affect how we each think forests should be managed. We see conflict, therefore, not only over the prioritization of what values the forest should be managed for, but also over what the forest is and how it should be understood.

Let me suggest a more subtle example, and one with far-reaching implications for how we understand nature and ecological processes (Bell 1998). It has often been told that Karl Marx wanted to dedicate his famous work on capitalism to Darwin. He wanted to do this to recognize Darwin's observation of competition in nature and how it influenced Marx's view of class conflict and struggle. For decades, this anecdote symbolized the debt social scientists feel to ecologists. We often use biological metaphors. For example, an early and highly influential approach in sociology is "human ecology;" and there is cultural ecology, social ecology and, most recently, political ecology. For many years, an intellectual dependence on the biological sciences also denoted an acceptance of the superiority of the physical over social or interpretive sciences.

But times change and so does our narration of them. The influence of Darwin on Marx is being reframed to emphasize instead how social forces and contexts influenced Darwin himself. A review of Darwin's biography and personal letters describe how he hit upon the theory of natural selection. In 1838, he "happened to read for amusement Malthus on Population, shortly after returning from his voyage around South America on board the HMS Beagle (Darwin 1858: 42-43 cited in Hubbard 1982:24)." In his letters, Darwin acknowledged an intellectual debt to, as well as the phrase "survival of the fittest" from, the writings of Herbert Spencer, a mid-19th century social theorist (Hubbard 1982).

When Karl Marx and his longtime friend and collaborator Friedrich Engels read Darwin's book on natural selection [*On the Origin of Species* in 1859], their correspondence about it noted its close resemblance to the economic theories of free-market capitalism that were so fundamentally altering the character of English society and, increasingly, world society at the time. Marx noted to Engels in a private letter in 1862, "It is remarkable how Darwin recognizes among beasts and plants his English society with its division of labor, competition, opening of new markets, inventions, and the Malthusian struggle for existence" (Meek 1971).

The latter refers to Thomas Malthus' theory that population growth grows faster than our ability to produce food. I might also add that Darwin's Malthusian image persists today with the tendency—especially among ecologists—to view population dynamics deterministically and monolithically as *the* cause of ecological change. Population growth is highlighted even when evidence suggests that other processes such as consumer demand, treadmill of capitalist production, and maldistribution of resources also set the wheels of environmental change and degradation in motion (e.g., Ehrlich 1968).

The point here is that the two scientists who first hit upon the theory of natural selection—Darwin and his lesser known contemporary Alfred Russel Wallace—were living in the midst of the world's first truly capitalist industrial society: 1840s and 1850s England. How might they have "seen" nature and ecological processes if they were living in a more communitarian, cooperative and socially homogenous society? It is clear that their most influential work, their view of what nature is and how natural systems operate, reflect not only scientific observation but also the social and political milieu in which those observations and subsequent theoretical explanations were made.

Moreover, Marx and Engels were bothered by the way Darwin's work enables science to be used as source of political legitimization. Their concern is with a process that some refer to as "naturalization"—the claim that if something is natural, it can be no other way, it is inevitable. If capitalism resembled so closely the laws of nature, the argument could and was being made that it also is inevitable. Bell (1998) points out that we routinely talk about the economic "forces" of capitalism, such as innovation and competition, as if they were pseudonatural processes, implying that any other arrangement would be somehow unnatural. We also talk about the marketplace as a "jungle" in which you have to "struggle to survive."

Others have gone on to prove their concern that "naturalization" arguments could and would be used and misused. Many so-called laws of "human nature" by self-labeled "Social Darwinians" and others (including the Nazis) have been justified on the basis of "human nature." Arguments attempting to prove inherent differences in the capabilities of different human "races" have been used to justify social programs, brutal racism and the annihilation of people (i.e., defended as "ethnic cleansing"). At different times, "survival of the fittest" has been used as a rationale to defend the transfer of wealth from one group of people to another, often under conditions where the social structure of opportunity is highly unequal. Naturalization arguments disguise underlying political and economic interests, conflicts and competitions.

Furthermore, an emphasis on seeing certain human actions and nature as "natural," and hence innate, essential, eternal, nonnegotiable and off-limits to critical questioning and scrutiny, also flows from the appeal to nature as a stable external source of nonhuman values against which human actions can be judged without ambiguity. This is very compelling. However, this becomes far more problematic when you consider that scholarship across many fields has demonstrated that our views of nature—human and in the natural world – are far more dynamic, malleable and enmeshed with human history than popular beliefs about some "balance of nature" have assumed (Botkin 1990). Many studies call into question the validity of appealing to nonhuman nature as an objective measure of ourselves and our relationships with nature.

The stance of viewing human nature and various other aspects of our world as "natural" is, in fact, a centuries long dispute entailing "r*ealists"* versus *"constructionists."* The tension was in full evidence in the papers written by Callicott and Foreman (in this volume) and in the reading by Gary Snyder. Realists, characterized by Forman, focus their attention on material processes and factors such as consumption, economy, technology, development, population and especially how biophysical processes shape our environmental situation. They stress that environmental problems cannot be understood apart from "real" material processes and believe that scientists can ill afford to ignore the material "truth" of environmental problems and the material processes that underlay them. Realists tend to view nature and what is natural as a self-evident truth that we should open ourselves to see and appreciate. Constructionists do not necessarily disagree, but they emphasize the influence of social forces and ideas in how we conceptualize those "threats" or the lack of those "threats." Constructionist approaches, illustrated in the talk by Callicott emphasize the ideological origins of environmental problems, including what becomes defined and accepted as problems (or as nonproblems). Though strongly criticizing constructionists, Gary Snyder, nonetheless, illustrated how social construction in the form of the human imagination and poetry serve major roles in our relationships with nature. He reminded us that a map is not a territory, or a menu the meal but rather symbolic representations of the real, material phenomena.

Beyond Dualism

Each of the above approaches defines and seeks to understand a dimension of nature, wilderness and the threats to wild places and processes. Therefore each position taps a partial reality; each has certain strengths and certain weaknesses. A major benefit I see of the materialist position is its grounding in particular people and places, and on particular ecological processes and consequences. In contrast, a benefit of the social constructionist approach is its recognition that what we understand as nature, natural or as problems are also based on a long and complicated human cultural and political economic history. I think it is an important insight to recognize that while nature, indeed, has a physical reality, how we apprehend that reality never occurs outside a social context. The meanings and measures people assign to nature cannot help but reflect that context.

But what are the limitations of each approach? When social constructionists do not seriously and dynamically draw material processes and ecological consequences into their analysis, I think they are flawed. The result is an untenable relativist position. For example, while a clearcut may appear innocuous and even beautiful to a resident of Forks, WA (whose interest is served by seeing it as a temporal, if not "natural" part of his or her landscape), it does have physical effects on the ground: on soils, vegetation, wildlife, etc. These material consequences need to be incorporated into management decisions. But when materialists do not consider how social selection, reflection and self-interest affect their visions, and that their vision is one of many others, their position is also flawed and limited. I think there is much to be learned by examining the charge that wilderness advocates created a movement based on a partial view of nature and set of meanings, which have become what Callicott referred to as the "received wisdom" of wilderness. Attention to this critique can and already has opened up space for broadening areas of concerns and the types of places and people involved in wilderness studies. For example, in Foreman's talk he explicitly included values besides recreation as a goal of wilderness management, particularly ecological function, and he specified that wilderness lands can and should include non-pristine places across the matrix (i.e., outside core areas). Lastly, he deliberately included photos of females in wilderness (though they were just female versions of "macho" rafters/recreationists).

Again, it behooves us to define our terms. What exactly does the wilderness "received wisdom" or "discourse" entail? I prefer to talk about "discourse" because it has become part of the lexicon and methodology ("discourse analysis") in critical analysis of the making and unmaking of "the" idea of wilderness. In everyday speech, discourse is used as a "mode of talking." Yet as Maarten Hajer (1995) notes in *The Politics of Environmental Discourse*, in the social sciences, discourse analysis aims to understand why a particular understanding at some point gains dominance and is seen as authoritative, while other understandings are discredited. Discourse analysis is concerned with analyzing the ways in which certain problems are understood and represented to others, how conflicting views are dealt with, and how coalitions on specific meanings somehow emerge. Most importantly, a discourse expresses ideas, images and words that are handed down to us as self-evident truths, as natural - it just couldn't be otherwise. But of course it can. Baird Callicott provides a rich discussion of the major substance of the wilderness discourse, and the charges against it; so has Daniel Botkin (see contributions in this volume). I do not need to repeat them here. According to them the dominant wilderness discourse has been based on wilderness as balanced ecosystems, beautiful, inspirational places and devoid of people. Though others would say that wilderness is based on naturalness, remoteness and solitude.

The dimension of wilderness that I have worked most closely with is the role of people within wilderness, especially people whose livelihoods are tied to natural resources. In the wilderness discourse, human action is often pitted against the well-being of the natural environment. Wilderness, by law and practice, is a place where people can visit, recreate but not remain, and surely cannot work. "Work" versus "play" is another one of those binary juxtapositions that has historically been associated with wilderness debates, and has served to widen rather than bridge understanding and advocacy of livelihoods that are compatible with ecological processes. Richard White (1996) in "Are you an Environmentalist or Do You Work for a Living?: Work and Nature" takes on the fallacies of this duality directly. By failing to examine and claim work within nature, environmentalists have been seen as insensitive to the needs of labor, he says especially to those working-class people whose livelihoods have been tied in the past to extractive enterprises. The failure to bring work—or labor and class issues in general—into the environmental conversation has ceded valuable cultural capital to the so-called "wise-use" movement. But as White points out, the wise use movement is not importantly concerned about work and the concerns of the working class. Instead, they turn issues of real work into those of invented property rights; they pervert the legitimate concerns of rural people—maintaining ways of life and getting decent returns on their labor—into the special "right" of large property holders and corporations to hold the natural world and the public good hostage to their economic gain. Acknowledging a place for people and work in nature is about identifying and supporting practices that tie livelihoods to maintenance of ecological function. Work that does not support and sustain the integrity of large ecosystems is not fostered. Gary Snyder's charge that environmental historian Bill Cronon represents the intellectual "high end" of the wise use movement falls into this simplistic, dualistic and ultimately unproductive gulf. If Cronon can conceive of work in nature, surely he is one with the wise use movement and its earth-devouring, corporatist, invented property right arguments. But Cronon's works never make this point. Quite the contrary, his essays on nature and wilderness speak to the social and political factors that lead different peoples and corporations to conceive of and use natural resources as they do, often in highly environmentally degrading ways.

I would like to note that not only environmental philosophers and environmental historians acknowledge and critically examine the dominant wilderness discourse. Botanists Gomez-Pompa and coauthor Kaus identify and discuss a "wilderness myth" and furthermore, the need to "tame it" (Gomez-Pompa and Kaus 1992). Never once using the phrase "wilderness discourse," they nevertheless squarely capture its meaning when they suggest, "Through time and generations, certain patterns of thought and behavior have been accepted and developed into what can be termed a Western tradition of environmental thought and conservation (Gomez-Pompa and Kaus 1992)." These biologists ask whose "ideal" or "idea" is this, and who benefits or loses from it? Baird Callicott's analysis of the wilderness myth amply demonstrates that women, native peoples, and an array of different values and traditions of living with nature have been denigrated, usurped, or ignored because of the logic of the dominant wilderness discourse and its incorporation into international park planning models. These injustices have been particularly true in tropical developing countries where park planning has been based on Western protected-area models which, until recently, did not incorporate meaningful participation and vested interest of resident peoples (West and Brechin 1991).

But in the critique and refashioning of our ideas of wilderness and protected-area management, have we replaced one set of partial images and self-selected dogma with another? I turn now to my second theme.

Remaking Wilderness and Nature Protection: New Possibilities, New Risks

As academics and planners rethink ideas of wilderness and the practice of wilderness management, attention is being redirected to how peoples and communities with interests in these areas (or living within or next to "buffer zones") can be involved in their comanagement (West and Brechin 1991; Western and Wright 1994). Attention is also being directed to how to include people, communities and natural processes on "matrix" lands—places that connect "core" protected areas and move beyond islands of biodiversity to protecting, restoring and managing landscape-level ecosystems. While one can discuss the degrees to which some of these places are "self willed" or bear the hand of human. It is increasingly recognized that there is no place on the planet not subject to some impact or decision of human action. As discussed above, active ecosystem manipulation may be hidden behind a screen of naturalization arguments. Many of my social scientist colleagues (including myself) are happy to accept the view that all places are manipulated by human action because it fits with places we have studied and, more fundamentally, because it provides a revisionist view of nature that squares with our political and social justice goals. These include contesting coercive forms of conservation and helping to reclaim resident and working people's history, land rights and livelihoods.

However, biologists such as Vale (1998) warn that whether a landscape's fundamental ecological processes have been altered by human actions, significantly or not, needs to be empirically examined and not determined because of one's commitment or lack thereof to a social ideology. He sees debates regarding the prevalence of "humanized" landscapes as crystallizing into two polar opposite positions: One either sees nature as "self-willed," largely untouched by human action, and reserved for recreation, *or* one sees nature as guided by human hands, personal, subjective and a landscape of everyday living and work. But isn't it unrealistic to expect that only two categories of human-ecological interaction—nature as pristine or humanized, nature as stranger or home—are sufficient to capture the complexity and messiness of the real world? We need to be self-critical and honest about how our science is affected by our political goals and ever cautious of the seduction of binary categories.

But as a sociologist, this new debate raises questions of how resident and working peoples and rural communities have been constructed in the "old" received wisdom, and how they are being reconstructed in what may be understood as a "new" humanized wilderness discourse. By rural, I refer to the people who reside within or near to wilderness areas and/or their buffer zones. In the introduction to their 1996 book, *Creating the Countryside: The Politics of Rural and Environmental Discourse,* DuPuis and Vandergeest warn that rural peoples and communities—just like landscapes—are often portrayed in simplistic and binary terms. Specific words are chosen and deployed to communicate these dualistic meanings and to give privilege to one set of meanings over others. Rural peoples are represented as *either* destroyers of nature, "slash and burn" farmers, "addicts" to extractive industries, uneducated, irrational, backward, traditional and in need of outside "progressive" assistance, or they are represented as living closer to nature, holders of "indigenous knowledge," sacred, located in the past and the periphery, and able to sustainably manage their local environment through local customs and social institutions (the classic "ecological noble savage" image).

In both cases, the tendency is to view rural people and places generically and as having some essential characteristic, rather than to understand them within their particular historical and social contexts. In addition, I think there is a pattern for rural peoples and communities to be viewed as destroyers of nature in the United States, given their reliance on extractive industries such as mining, logging, grazing and commercial, petrochemical based-farming; and they provided political action in support of these industries. Given this history, it is not surprising that there has been a reluctance on the part of conservationists to envision how rural peoples and rural livelihoods could have played any significant role in the formation of wildlands or in any potential role they could play in the restoration and protection of large wildlands in the future. In the United States policy emphasizes *ecosystems* and *ecosystem management*. But while I understand this logic, I think it underestimates the importance of rural places, peoples and livelihoods in the management of large wildlands. I'll return to this point in the conclusion.

In contrast, in the tropics, the tendency is to highlight the role of rural peoples, livelihoods and communities in altering landscapes, and to place a lionshare of hope for tropical conservation in them. This has led to an emphasis on *agroecosystems* and *agroecosystem management*. In the 1980s, attention to the critiques of coercive conservation based on the wilderness discourse led to a reframing of environmental protection as compatible with economic development. Operating under the rubric of "sustainable development," projects have been funded around the world to "integrate" local livelihoods with environmental management (Wells and Brandon 1992). The idea of sustainable development legitimates "green" production, capitalist expansion and accumulation that tread lightly on the earth. We can have our cake and eat it too. The positioning of development and environmental protection in the 1980s as compatible rather than as in conflict (as was the case during the 1960s and early 1970s) is one of the most important and shrewd shifts in human-nature thinking during my time. Many suggest it remains a contradiction in terms (Redclift 1987).

A modification of integrating economic development with environmental protection, especially to meet goals of "local participation," is focusing attention on "community" as the social management unit for implementing sustainable development. "Community-based conservation" or "community-based natural resource management" has become a shining light of conservation efforts in the tropics (Getz and others 1999; Western and Wright 1994). Community and citizen-led conservation efforts are also sprouting up across this country. The Sonoran Institute, for example, emphasizes "community stewardship" as its approach to integrating environmental protection and community economic development.

Support for emphasizing community in conservation stems from a variety of factors, including recognition of the role of rural communities—largely in the tropics—in developing sophisticated common-managed property and resource management customs which, until the intrusion of the modern state, market, and demographic pressures, were able to sustain both livelihoods and fundamental ecological processes. Advocates of community-based conservation argue that resident or rural peoples have a greater vested interest in the long-term condition of local environments than absentee corporate managers, have intimate local knowledge that can be applied and are less bureaucratic and hence more efficient at implementing conservation and development efforts. In any event, they point out that it is worth paying attention to the man or woman with the shovel. They, not the erudite social theorist or biologist sitting in our offices, will ultimately decide the fate of the forest—as the saying goes. I find it very interesting that many of the people utilizing a variation of this approach in the United States (e.g. Greater Yellowstone Coalition, Y2Y and Sonoran Institute) have considerable prior experience working in the tropics, many in Latin America.

Sociologist Arun Agrawal (1997) also suggests our enchantment with community in conservation—across the globe—builds on our current dissatisfaction with theories of progress and centrally-planned development and conservation. As Callicott and others have described, the designation of parks and implementation of protected-area management policies have often displaced resident peoples, "coerced" conservation and sanctioned violence, especially in ex-colonies and places where indigenous peoples do not have economic or political voice (West and Brechin 1992; Peluso 1993). Community conservation has rekindled hope around the world that concerns for place, devolution of power, and revival if not initiation of new democratic institutions based on civic activism, can and will take a place in environmental management.

While strongly supporting the rationale for community based conservation and the value of local, place-based conservation efforts, I offer the suggestion that we need to be careful not to replace one monolithic understanding of rural peoples, communities and dynamics of ecological change and development with another. More specifically, I think we cannot presume the existence of "ecological noble communities" nor universally position them as the cornerstone of every conservation effort—whether in the tropics or elsewhere. Let me give you three reasons why I think so.

First, not all marine or forest-dwelling communities have the local governing bodies, educational skills, technologies, social customs or conflict resolution skills (or the social capacity or social capital) to sustainably manage their environments and natural resources. Some have. Some haven't. Some had at one time. Some never had. In some instances there may be other local institutions or governing bodies (that is besides "the community") that should be considered in the local or comanagement of natural resources.

Second, the celebration of community in conservation has taken the limelight off of more powerful actors and global trends, such as the actions of transnational corporations, international monetary lending institutions, multilateral trading treaties (such as NAFTA, GATT) and organizations (WTO) which exert tremendous influence on the way "nature" is converted, commodified and compromised. IMF debt-restructuring policies are creating environmental and socioeconomic structures that compel if not determine choices and actions in the rural hinterlands.

A fatal implication of the social constructionists' ascendancy is lack of attention to how political and economic institutions and relations operating at the global or "nonplace based level" affect social and ecological interactions at multiple scales. Even where community-based efforts may be able to mitigate local impacts of global threats to sustainable living, they merely treat symptoms and do not necessarily resolve underlying causal mechanisms (or contradictions) operating at broader levels. The products of such contradictions are merely transported or felt elsewhere.

Third, those in control of conservation policy and practice do not often have an accurate understanding of communities and ecological processes, or of the supra-community political and financial constraints under which they operate. I do not think all images are equal. Thus, even in the good name of community (or the discourse of sustainable development, I should add), many social and ecological disasters have been produced. For example, in the Amazon, the insistence on "seeing" the tropical rain forest as exuberantly fertile negates the reality of infertile tropical soils and the disasters of large-scale grazing and colonization schemes. Slater (1996) suggests that we are fascinated with rain forests and rain forest peoples because they represent an "Edenic Narrative" or new Garden of Eden stories, complete with tales of natives living in complete harmony with nature and divine creatures, dramatic falls from grace and subsequent nostalgia for paradise. But based on her research, she contests these images as skewed and static. Furthermore, modern construction of these images is increasingly controlled and manipulated by corporate interests, such as travel agencies, fertilizer companies, media networks, etc.

Having lived the past 15 years off and on in rural communities in Southeast Asian tropical environments, and more recently this last spring in a remote rainforest community in Central Sulawesi, I am acutely aware of how careful we need be about imposing static categories and strategies on people in the name of conservation and development, or thinking nature is merely an abstract idea. In this village, residents are responding in diverse ways to the political and economic changes occurring in Indonesia. While some cling tenaciously to strategies to maximize food production and security, others are rapidly transforming traditional agroforestry systems to sun-grown cacao monocrops, a commodity trading high on the global market and a cultivation method like sun-grown coffee aimed at maximizing quick returns. Some are embracing political opportunities to be citizens in "New" Indonesia, others resist "reformasi" as just more of the same.

This is also a community with few traditional forest management customs and social institutions. How to build on community values and practices while working to maintain rain forest ecological processes is a dilemma facing myself and my physical scientist/colleague/husband in our collaboration with The Nature Conservancy and Indonesian Park and Forestry officials to develop strategies that integrate conservation and development. There was no presumption or image to uphold, however, for my 10 year old son who directly lived the "edenic" experience. Not expecting the

people to act one way or another toward nature, he was very disturbed during our stay when village kids shot colorful songbirds with their slingshots, or tied their legs to sticks as toys. He disliked immensely using the river for human waste disposal, bathing and drinking. But he was most alarmed at his dad's near-fatal illness, caused by a virulent strain of new biodiversity—chloraquine resistant-cerebral malaria. We were indeed living closer to nature, but not the kind he could romanticize.

So what is my point? The tendency to see rain forest peoples as either in the state of original innocence and harmony with nature *or* after the fall misses the messy reality of the diversity of peoples, desires, experiences and (changing) relationships with (changing) nature. Our view needs to remain wide enough to contemplate broader political and corporate forces affecting local peoples and local environments. Generic understandings do not capture the dynamic, often chaotic and complex nature of social forces and their interactions with nature (or how people interact with changed or "second" nature). And generalizations do not alert us to the disasters created when policies are based on imaginary communities and imaginary people-nature relationships.

A paper I recently completed details the problems I observed in an acclaimed community-based wildlife conservation effort in Belize (Belsky 1999). Conceived by a group of very well-intentioned wildlife biologists, the project was based on generalizations of some essentialized, traditional, Creole community and how "links" could be formed between ecotourism and community support for hunting regulations and conservation. The planners paid no attention to local history, politics, social change or the ties between this local community and the broader political economy. Lacking the social institutions and material resources to support the mental picture the planners carried in their head (and successfully communicated to funders), the project exacerbated intra-community rivalries and incited a backlash to the very conservation values it had hoped to foster. Dominant groups in Belize and elsewhere have been able to exercise control not only over land, labor and other productive resources, but also over the production of meaning. Sometimes these dominant groups are classes and states; in other contexts, they include environmental organizations, scientists or well-meaning social and ecological activists, perhaps like ourselves. We are often able to impose modern (or postmodern) categories on the landscape and the people who live there; and draw strict, if not inaccurate boundaries between multiple, fluid categories of people and space. And they have been able to justify such partial and self-interested actions by claiming that they are "natural." When backed by power and capital, dominant groups are able to control the meanings which bolster policy and practice, even when a larger less powerful majority thinks otherwise.

What then are the policy implications for the ways we think and rethink humans' relationships with nature? I consider this question as we turn to my last theme of wilderness policy.

Conclusion: Implications for Wilderness Management and Policy

In this paper I have emphasized the interplay between material factors and ideas in the development of wilderness studies, science and policy, and why neither a focus solely on ideas, ideologies and cultural constructions, nor a focus solely on material processes and physical threats to environmental protection, is sufficient. Attention to their interaction is critical, as is how such interaction occurs at multiple scales (that is across space and over time). Serious discussion and dialogue, not just casting aspersions on opposing positions and their advocates, is necessary. However, doing so as Foreman and others point out, is a political act in itself and undermines the authority of some standpoints.

My second point applied critical attention to the opportunities and dangers in replacing the "received wisdom" on wilderness and strategies to protect wilderness and ecological processes, with a new set of assumptions and policy prescriptions. I suggested there are both potentials and pitfalls with uncritical acceptance of thinking of all landscapes as either "self-willed" or altered by human action. Similarly, we cannot know without examination of a particular social context if local participation can be accomplished through community institutions or some other local institutions, or how viable is a particular approach to integrating conservation and local development (for example, developing rural ecotourism, nontimber forest products, or value added enterprises). The emergent discourse on the benefits of collaboration over confrontational politics and litigation is another "received wisdom" that may also depend on context and the particular dispute. In all of these cases, I suggest analyses need to embrace the interplay between materialist and idealist approaches.

From the social constructionists,' I applied the insight that we all operate out of partial understandings based on our own processes of social selection, social reflection and self interest, as well as the suggestion that the labels we use and the stories we tell about nature and social relationships to it are more than just mental constructs or images. They form the institutional basis for conservation missions, policies and interventions. We need to pay attention to them. For these reasons, while not sufficient to make a movement, it does matter what you call the movement. The idea and term "wilderness," regardless of its biases and problems in practice, has mobilized a global movement. And I think it will continue to motivate people to seriously consider the movement, moreso I suspect, than if we replace the term "wilderness" with "biodiversity reserves," as suggested by Callicott. Despite the fact that reserves were created as a response to privatized hunting reserves, there is still something disturbing to me about "reserving nature." The term begs the difficult question: reserved for what and for whom? The term is also limiting because it suggests ecological and other values should guide action in only designated "reserves" rather than across the landscape. I like Foreman's imagery of rivers and blended

currents. It conjures the ecological dialogue and integration of approaches I also support. However, a colleague reminded me that rivers are also full of turbulence and the possibility of getting swamped.

Our discussion of ideas and words is not just an academic enterprise. When particular viewpoints are backed by political power and funding, they move out of our heads and into the realm of action. They have important consequences for people and habitats (Zerner 1996). I'd like to be very specific with what I see as policy consequences resulting from the different discourses I've raised in this paper. I should also emphasize that the discourses I'm talking about are also imagined models. They are not static. They have been influenced by these debates. Below, I summarize some of the ways our thinking about humans relations to nature have shifted, and their policy implications. To the extent I am aware of particular efforts that incorporate these insights, I briefly acknowledge them.

1. *The concept of "wilderness" has multiple meanings. We need to make visible or less "mystified" how human actions and social processes affect both the concept as well as the actual places we label as "wilderness."*

I think this point creates much confusion, anger and backlash. It is also the most subtle, but perhaps most powerful. For the many reasons discussed above, we need to be cautious in seeing certain human actions and places as "natural," inevitable, inherent and hence off-limits to critical questioning and scrutiny. A failure to examine and reveal the history of particular peoples and places, including the history of our ideas of them, enables naturalization arguments to exist and persist. We also need to acknowledge that different understandings serve different interests, and hence that wilderness science involves political choices.

2. *Because of past conceptions of wilderness, places without people have received considerably less attention in wilderness science. However, as conceptions of wilderness expand, including their role in protecting and restoring ecological processes across broad landscapes and ecosystems, places within and beyond "core" areas are being incorporated into wilderness science.*

We see this above shift in the Wildlands project and efforts such as Yellowstone to Yukon ("Y2Y"). These projects are trying to pay attention to regions outside of "core" protected areas and reserves. This includes lowlands that provide critical habitats and biological corridors between core areas. They are also trying to find ways to incorporate attention to the people and economic processes that have direct bearing on these ecosystems. For example, the Sonoran Institute highlights building community stewardship and sustainable livelihoods as integral to its environmental protection efforts. I have been personally involved in a project aimed at transnational and trans-community approach to protected-area management in the Maya Forests across Belize, Guatemala and Mexico. But so far this latter project has been quite limited in space and scope. Another example, The Northern Rockies Ecosystem Protection Act ("NREPA"), seeking to develop legislation and venues to implement conservation across broad landscapes, has yet to significantly link ecological and economical policies across its targeted area. Notably, its plans include measures that include private working ranches in biological corridors. However, NREPA was planned without direct involvement of private landowners who reside in the various proposed corridors, nor has it developed its policies around the proprietary and other concerns of these private landowners (Wilson and Belsky 1999).

3. *The new wisdom is critical of the view that casts working rural people and development as enemies of environmental conservation.*

We need to maintain a healthy skepticism about what livelihoods and which economic practices are compatible with (particular) ecological processes. Long term social and ecological monitoring is critical. How to build collaboration between rural peoples and scientists, as well as with corporate private landowners, remains a fertile area for experimentation and adaptive management. Mandating collaboration between historical adversaries is not the answer.

4. *Much sensitivity has been developed over proposing universal wilderness protection following a "hands off" policy. Such a policy will be unsustainable under particular demographic, economic and customary property rights.*

Until recently, the largest conservation organization in the world, the International Union for the Conservation of Nature, (IUCN) provided the conceptualization and and blueprint for protected-area management. IUCN's schema divides space in terms of a set of categories and prescribed behaviors: core areas, buffer, production and use zones. Some now may include biological corridors. These models are still universally applied without specific understanding of particular rural peoples' colonial, ethnic, customary property rights, local knowledge, and involvement in the global political economy, or without sufficient rigorous ecological assessment.

5. *As the concerns of wilderness science expands, the tool box of techniques for studying, managing and protecting large wildlands and ecological processes must also be broadened.*

Merely mapping, zoning and restricting human use are not sufficient for managing wilderness and large ecosystems. Even where designations are made, any one place may not be able to honor every wilderness value. Nor can any management tool or strategy be assumed to be inherently appropriate. In some instances management may best entail individual (landowner) strategies such as placing conservation easements on particular properties, or they may entail community-based solutions built on viable community institutions, such as employing planning boards to develop zoning schemes. In other cases, the lawyers may have to be brought back in. We need to be careful not to pick a favorite strategy and become the kid with the new hammer—everything we see needs to be hammered!

In conclusion, we need to recognize and move beyond simplistic and narrowly paradigmatic (or singularly disciplinary) ways of conceptualizing problems and imagining solutions. In particular we need to transcend thinking in binary, opposing categories and be wary of the seduction of universalist solutions and models. These are not easy tasks. Discussions on the relationship between humans and nature favor extreme positions, sound bites, and avoidance of self-criticism. It is hard for most of us to know how to analyze complex linkages and multi-scaled phenomena such as environmental change whose causal mechanisms are not place- or disciplinary-bound. Most of us can gain only a partial understanding of these phenomena. Rather then become

humble in the face of such an awesome undertaking, we take sides. We make enemies of other viewpoints or positions. We encounter opposing perspectives not to understand them, but to discredit them. To avoid controversy, we learn instead to be cautious and to mute critical inquiry that stirs up challenging or difficult ways of framing discussions; or reveals our own limitations. We don't permit self-criticism for fear that we will threaten our cause. And we create the impression that you're either for the environment or against it. But there are many dangers when we refuse to critically assess our own assumptions, methods and recognize our own dogmas. As Cronon (1996) warns,

> At a time when threats to the environment may never been greater, it may be tempting to believe that people need to be mounting the barricades rather than asking abstract questions about the human place in nature. Yet without confronting such questions, it will be hard to know which barricades to mount, and harder still to persuade large numbers of people to mount them with us.

I hope this paper has raised some of those difficult and abstract questions, and more importantly, suggested some ways of beginning to shape responses to them.

References

Agrawal, Arun. 1997. Community in Conservation: Beyond Enchantment and Disenchantment. Conservation and Development Forum Discussion Paper, Gainesville, FL.

Bell, Michael Mayerfeld. 1998. *An Invitation to Environmental Sociology*. Thousand Oaks, London, New Delhi: Pine Forge Press.

Belsky, J.M. 1999. Misrepresenting Communities: The Politics of Community-Based Rural Ecotourism in Gales Point Manatee, Belize. Rural Sociology. 64(4): 641-666.

Botkin, D. 1990. Discordant Harmonies: *A New Ecology for the Twenty-First Century*. NY, Oxford: Oxford University Press.

Cronon, William (ed.) 1996. *Uncommon Ground: Rethinking the Human Place in Nature*. New York, London: W.W. Norton.

Cronon, William. 1996. The trouble with wilderness; or, getting back to the wrong nature. In Cronon, William (ed.) 1996. *Uncommon Ground: Rethinking the Human Place in Nature*. New York, London: W.W. Norton. Pp. 69-90.

DuPuis, E. Melanie and Peter Vandergeest. 1996. *Creating the Countryside: The Politics of Rural and Environmental Discourse*. Philadelphia: Temple University Press.

Getz, W.M., L. Fortmann, D. Cumming, J. duToit, J. Hilty, R. Martin, M. Murphree, N. Owen-Smith, A.M. Starfield, and M.I. Westphal. 1999. "Sustaining Natural And Human Capital: Villagers And Scientists." Science. 283: 1855-1856.

Greider, T. and L. Garkovich, 1994. Landscapes: The Social Construction of Nature and the Environment. Rural Sociology 59(1):1-24.

Gomez-Pompa, A. and A. Kaus. 1992. Taming the wilderness myth: environmental policy and education are currently based on Western beliefs about nature rather than on reality. BioScience 42 (4): 271-279.

Guha, R. 1989. Radical environmentalism and wilderness preservation: a third world critique. Environmental Ethics 11:71-83.

Hajer, Maarten A. 1995. *The Politics of Environmental Discourse*. Oxford, New York: Oxford University Press.

Haydon, R. 1997. A look at how we look at what is "natural." Natural Areas News 2(1):2-5.

Hubbard, R. 1982. Have Only Men Evolved?" in Biological Women: The Convenient Myth, edited by R. Hubbard, M.S. Henifin and B. Fried. Cambridge, MA: Schenkman.

Kuhn, T. 1962. *The Structure of Scientific Revolution*. Chicago: University of Chicago Press.

Meek, R.L., 1971. *Marx and Engels on the Population Bomb*. Berkeley: Ramparts.

Peluso, N. 1993. Coercing conservation: the politics of state resource control. Global Environmental Change 3(2): 199-217.

Redclift, M. 1987. *Sustainable Development: Exploring the Contradictions*. London and New York: Methuen Press.

Slater, C. 1996. Amazonia as Edenic Narrative. Pp 114-131. In Cronon, William (ed.). 1996. *Uncommon Ground: Rethinking the Human Place in Nature*. NY: Norton & Company.

Vale, T.R. 1998. The myth of the humanized landscape: an example from Yosemite National park. Natural Areas Journal 18 (3): 231-236.

Wells, M. and K. Brandon. 1992. People and Parks: Linking Protected Areas with Local Communities. Washington, D.C.: World Bank.

West, P. and S.R. Brechin (eds). 1991. *Resident Peoples and National Parks*. Tucson: The University of Arizona Press.

Western, D. and R.M. Wright. 1994. *Natural Connections: Perspectives in Community-Based Conservation*. Washington and California: Island Press.

White, R. 1996. Are you an Environmentalist or Do You Work for a Living?: Work and Nature. In Cronon, William (ed.) 1996. *Uncommon Ground: Rethinking the Human Place in Nature*. New York, London: W.W. Norton.

Wilson, Seth and Jill M. Belsky. 1999. Voices from a Working Landscape: A Critical Assessment of an Approach to Biological Corridors on Private Lands in Montana. Unpub. Manuscript. The University of Montana, Missoula. Mt.

Zerner, Charles. 1996. Telling stories about biological diversity. In S. Brush and D. Stabinksky (eds.) *Valuing Local Knowledge: Indigenous People and Intellectual Property Rights*. Washington, D.C.: Island Press. Pp. 68-101.