Thinking as Natural: Another Look at Human Exemptionalism

Jerry Williams

Department of Sociology
Stephen F. Austin State University
Nacogdoches, Texas[1]

Abstract

In this analysis a largely unrecognized contradiction in environmental sociology is explored; on one hand as environmental sociologists we wish to see humans and their social systems as deeply connected to nature, but on the other hand we think of human consciousness as unique and somehow altogether different than the phenomena of the natural world. It is argued this contradiction comes from an uneven rejection of Enlightenment metanarrative. While we have been quite willing to reject the human exemptionalist vision of society as independent from nature, we have nevertheless been largely unwilling to reject the exemptionalist version of consciousness that comes to us from the Cartesian metaphor of the mind. A nonexemptionalist version of human consciousness is presented that places human thinking squarely within natural constraints.

Keywords: exemptionalism, dualism, Enlightenment metanarrative, phenomenology

Introduction

One of the truly important contributions made by environmental sociology has been its critique of human exemptionalism, the dominant mode of thinking in the social sciences that places human societies outside of natural limits (Catton and Dunlap 1978). By insisting that human societies are not exempt from natural limits, that there are constraints upon our ability to transform and exploit nature, environmental sociology has helped us to see the human world is part of the natural world. The social world is a natural world. In what follows I argue that the critique of human exemptionalism offered by environmental sociology often carries an uncomfortable contradiction. While as environmental sociologists we wish to see human societies as part of natural systems, when we discuss social responses to environmental problems, we generally rely on a model of human consciousness that is exemptionalistic. We believe humans to be rational creatures of ideas able to examine evidence and to take corrective courses of action unfettered by the darkness of natural existence.

The thesis examined here is a speculative one—because human societies are bound by nature is it not likely that human consciousness is also? It is argued that three evolutionary principles constrain or bind our consciousness. First, as a product of evolution human consciousness is pragmatic. We are designed by nature to care more about what works than why it works; we are more interested in the concrete than the abstract (Williams 2003). Second, human consciousness is bounded by an evolutionary dialectical. Not only does consciousness allow us to think about the world, it also causes us a great deal of insecurity and anomie. This is so because unlike the predefined, instinctual world of other animals, most matters in the human world are potentially open to choice. Arnold Gehlen refers to this feature of the human experience as "world openness" (Berger and Luckmann 1966; Gehlen 1988). To limit this insecurity humans build a social world that helps them take the world for granted and as a consequence limits their agency and the possibility that they might solve environmental problems (Williams and Parkman 2003). Third, human consciousness is a local phenomenon. All species evolve in response to local conditions and the human mind is no exception. This means that we are much more concerned with immediate and tangible environmental concerns such as water contamination, than abstract and distant ones such as global warming. Caution should be taken here. The intent of this essay is to suggest the possibility that consciousness is constrained by natural limits. The constraints mentioned are to be suggestive of the possibility that this could be true. This is an unfamiliar way of thinking. It is much more common to think of consciousness in an exemptionalist fashion.

Human Exemptionalism

The critique of human exemptionalism stands as one of the framing discourses of environmental sociology (Dunlap and Catton 1994). The tendency to place the human world outside of the natural world is a hallmark of Post-Enlighten-

ment thinking. On one hand, we wish to see humans and their social systems as deeply connected to nature, but on the other hand sociologists still think of human consciousness as unique and somehow altogether different than the phenomena of the natural world. Environmental sociologists argue against human exemptionalism—the tendency to see human systems as exempt from the constraints of nature yet when we address solutions to environmental problems we often resort to an exemptionalist perspective about human consciousness.

Sociologists are quite right in thinking, for example, that the use of fossil fuel has global climatic consequences. Humans and their activities are deeply connected to the environment. Referring to the tendency of sociology to disregard nature in its theorizing Murphy (1995, 30) writes:

sociology as if nature did not matter is theory in a vacuum, interactive and interpretive work have nothing to work with, on, or against. It is the sociological theory of Disneyworld: a synthetic world inhabited by artificial creatures, including humans, constructed by humans.

However, as much sense as this critique makes, when as sociologists we address environmental problems, we often naively assume that we have the ability to stand above the natural world and from an unrestricted view to rationally identify and manage the problems created by human societies. In this way, sociologists often place human consciousness outside of nature and its biological and evolutionary foundations; we fail to see that human consciousness is potentially bounded by very real constraints, constraints that may or may not be overcome, but that for certain must be recognized if we are to make progress toward solving environmental problems.

Dunlap (2001, 43), tracing the history of environmental sociology summarizes human exemptionalism in the following way:

... consequently, we claimed that our discipline (sociology) had come to assume that the exemptional features of homo sapiens—language, technology, science and culture more generally—made industrialized societies 'exempt' from the constraints of nature.

The author goes on to persuasively argue for a "new ecological paradigm," a way of thinking in which human societies are seen as part of and constrained by natural limits. This passage, however, demonstrates the uneven way in which many environmental sociologists have rejected human exemptionalism. We often reject the idea that human systems are exempt from nature, but accept (at least implicitly) that consciousness and its products are exempt.

Here, Dunlap (2001, 43) makes this point clear. He suggests that sociology came to see society as exempt from nature because human beings indeed do have exemptional features—"language, technology, science and culture." This way of thinking corresponds to "common knowledge" about what it means to be human. That many sociologists think about human consciousness as unbounded is not particularly surprising or hard to demonstrate. Foster (1999b), for example, provides a strong structural argument that capitalist production endangers the planet. Yet he goes on to argue that the capitalist mode of production must be abolished if progress is to be made. Foster (1999b, 142) writes:

Today the <u>conscious</u> and collective organization of the entire planet in the common interest of humanity and the earth has become a necessity if we are to prevent the irreparable despoliation of the earth by the forces of institutional greed.

Schnaiberg and Gould (2000) similarly suggest that human societies can make choices to bring an end to the "treadmill of production." In a chapter titled "What Can I do about Environmental Problems?" they state in regard to reader's "multiple roles" in society "the second category (of roles) relates more to your role as a political citizen. We start with your role as a politically conscious consumer, by talking about choices (and their absence) in the area of recycling and recirculation of consumer wastes." That is, the authors suggest that addressing environmental problems, at least on some level, requires us to make different choices. What we find in both of these examples is a materialist argument about the causes of environmental damage. We also find, however, the implicit idea that human consciousness and choices might one day solve these problems.

To illustrate the implicit exemptionalism present in most environmental conversations about the environment, consider the relationship other animals have with environmental problems. That is, as far as I know, few believe other animals have the capacity to substantially change the nature of their circumstances in response to environmental catastrophe. For example, when faced by overgrazing, deer commonly either die or move to "greener pastures." They do not constrain their grazing activities or rate of reproduction in order to make grassland a sustainable resource.

The absurdness of deer thinking about sustainability has no counterpart when we think about human caused environmental problems. We often confess that "social structure" creates these problems, but nevertheless also believe that one day human societies can make choices to overcome them. The reason this proposition does not seem absurd (unlike deer thinking about sustainability), is because we generally accept human consciousness as profoundly different than the

consciousness of other animals—we think of the human mind as exemptional. We may accept that humans are constrained by nature, but it is hard for us to conceive of our minds as limited. We, therefore, unevenly reject human exemptionalism.[2]

This contradiction in the way we discuss human exemptionalism comes from our uneven rejection of Enlightenment metanarrative. On one hand environmental sociologists have been quite willing to reject the human exemptionalist vision of society as independent from nature, but we have been largely unwilling to reject the exemptionalist version of consciousness that comes to us from the Cartesian metaphor of mind. Naively, we believe, as did Descartes, that the mind is an intangible entity with no physical presence and therefore is unrestricted by the restraints of natural existence. In the Cartesian scheme, the mind occupies a position outside the world of cause and effect. It is therefore not bound by natural limits. The result of this contradiction, then, is that our conversations about solutions to environmental problems are often wishful thinking. We clearly see the human causes and consequences of environmental problems yet as if to free ourselves from despair believe that we have the unbounded rational capacity to solve these problems.[3] To see why this is true we must examine the roots of exemptionalist thinking. These roots are found in the metanarrative of the Enlightenment.

Enlightenment Metanarrative

It is common to think of the Enlightenment as a break with the earlier bonds of mysticism and irrationality. This is the case because Enlightenment science has dramatically reshaped the physical world in which we live.

John Dewey (1920) points out that this break with the past was not as clean as we suppose. Consistent with Pre-Enlightenment thinking, the Post-Enlightenment world was divided into the physical world and the human, moral/spiritual worlds. After the Enlightenment, this split remained. Science became the driving force of change in the physical world but left the social world to the province of philosophers and clergy. Speaking of this division Dewey (1920, xxxi) suggests:

the adjustment which finally moderated, without completely exorcising, the earlier split between science and received institutional customs was a truce rather than anything remotely approaching integration. It consisted, in fact, of a device that was the exact opposite of integration. It operated on the basis of a hard and fast division of the interests, concerns, and purposes of human activity into two

"realms," or, by a curious use of language, into two "spheres"—not hemispheres. One was taken to the "high" and hence to possess supreme jurisdiction over the other as inherently "low." That which is high was given the name "spiritual," ideal, and was identified with the moral. The other was the "physical" as determined by the procedures of the new science of nature.

The long separation of the human world is, of course, a central aspect of human exemptionalism. It is, therefore, not accurate to label Enlightenment thinking as the origin of human exemptionalism. Nevertheless, the Enlightenment is important because science transformed the physical world and therefore the environment by allowing scientists to investigate the natural world while keeping the human world strictly off limits. As a result, according to Dewey, the social world, its institutions, and moral systems did not keep pace with the technological and physical changes spawned by science. The modern world of science could not be governed by Pre-Enlightenment modes of thought; ways of thinking that at least in part provide the foundation for exemptionlist thinking. Let us refer to these modes of thought held over into the Enlightenment as Metanarrative.

As used here Enlightenment metanarrative refers to the taken-for-granted and largely untested assumptions that underlie modern thoughts about the human condition. The Enlightenment metanarrative is a mythological story not unlike many stories of creation, a tale of moving from darkness into the light. During this period, as the story goes, humans became (or realized their potential as) creatures of ideas, thus throwing off the chains of mysticism. Myths of creation often have similar themes. For example, the Hopi believe that in ancient history their people lived underground (in darkness) and that with the help of a ladder they came to the surface to live in the light. In the biblical story of creation, Adam and Eve were thought to partake of the tree of knowledge of good and evil, that is, to come to understand the true nature of their existence. Stories of creation are important because they provide a means to understand who we are. Their importance, however, does not make them true. Such is the case with the Enlightenment. It is common to think of the Enlightenment as a turning point in human thinking, a break with the past. It is, however, more accurate to see the Enlightenment as a subtle reshuffling of two very old and recurring themes: dualism and agency.

Dualism

Dualism is the commonsense notion that one's self-conception has two aspects—the thing perceived and the thing that is doing the perceiving. Mead (1964, 142) puts it this way:

recognizing that the self cannot appear in consciousness as an 'I', that it is always an object, i.e., a 'me', I wish to suggest an answer to the question. What is involved in the self being an object? The first answer may be that an object involves a subject. Stated in other words, that a 'me' is inconceivable without an 'I'.

Dualism is important for our argument because it is the foundation of the exemptionalist vision of society and consciousness mentioned earlier. By cleaving the world into subject and object the division of the world into human and natural worlds was first enabled. The process by which this came about is outlined below.

Historically, dualism first became part of human experience as natural dualism. While humans are obviously biological organisms put together in much the same way as other animals, they are nonetheless conscious of their own being. Natural dualism arises from the human ability to be both the "thinker" and the "thing" thought about. This is so because such perceptions cause separation between the "subject" (thinker) and the "object" (thing thought about). In other words, I perceive that "I" am a physical being but I am also the "thing" that thinks about "my" physical being (Cooley 1998).

The next step in dualist thinking is individualistic dualism. Individualistic dualism carries forward the subject/object dualism just mentioned but extends it in a quite important manner; it suggests that in addition to the self that is both knower and known, the self is unique among all other selves. This is so because as the self interacts with other selves it comes to posit that others also have a self-conception. This is a logical conclusion because others generally look like me, speak like me, and have most of the same concerns. This realization we refer to as intersubjectivity.

Intersubjectivity is the taken for granted and largely untested notion that what I take for granted you do also, that I assume my experience of the world approximates your own (Schutz 1962a, 10). These intersubjective assumptions about others are necessarily incomplete however. My self knowledge (ideas, fears, emotions, etc.) are dramatically more detailed than that of my understanding of others.[4] This differential knowledge has an important consequence. It leads me to believe that my particular self is unique; "I am a person unlike anyone else." Of course, this is an assumption that may or may not be true. What is important is that individuality is an untested assumption about the nature of self-being based in incomplete knowledge of the other. Individuality grows, then, from the nature of our self-perception and the incomplete perception of other selves.

Individuality is a hallmark of modern, Western thinking. This is ironic however. As products of common social conditions, we eat the same foods, share the same ideas, worship the same gods, and yet we steadfastly assert our uniqueness. The belief in individuality is certainly a curious state of affairs unless we consider that in the face of an often indifferent world, individuality provides us with a powerful opiate. I think that because I am unique; I matter. No other self or creature will ever be me, I take comfort in this, a comfort I later extend in the next stage of dualist thinking—mystical dualism.

Mystical dualism finds as its foundation the individual dualism just mentioned. Over the course of time, humans came to see the self as not simply a physical fact but also somehow as transcending the physical, as a spirit or soul. The reasons for this involve the features of thought itself. Thought at its base is social action. To think is to plan, carry out, and meet objectives in the inner life of the mind. Thought is intangible. That is, thought is social action without location in the external, physical world. Alfred Schutz (1962b, 211) refers to thought as "performing," distinguishing it from "working" which is social action in the external, physical world. This distinction is important because it helps us to see that in everyday life the social action that is thought appears to be a reality unlike all other ordinary realities; it is something that goes on inside me, something not tangible, and something altogether different than my physical actions in the external world. It is important to note that we are speaking on the level of appearances. For our purposes, what is relevant is how thought is experienced by the individual existing in everyday life. Though very clearly a physical activity of the brain, thought appears to the thinker as an intangible phenomenon. Recent advances in the cognitive sciences that describe thought as a natural phenomenon (Dennett 1991; Pinker 2002) are irrelevant to individuals in the natural attitude because such ideas do not agree with their everyday experience. To the individual thoughts are irreducible and intangible mysteries of profound proportion. For individuals in everyday life thought is prima fascia evidence that self-being exists on more than a physical realm. For this reason, mystical dualism enters human experience not as a tenant of faith, but rather as empirical fact. A fact shared historically by all those who think. As we will see, this fact serves as the foundation for more complicated formulations of spiritual dualism expressed in religion. The self becomes a soul as a consequence of the everyday experience of thought.

Spiritual dualism enters into Enlightenment thinking from Judeo-Christian theology, as the distinction between the body and soul. Historically, Judeo-Christian theology places the individual as distinct from the natural world and the body, as somehow qualitatively different. Dualisms and dichotomies are replete in Christian theology. In addition to the body and soul, there are also the dualisms of evil and

good, Satan and God, and worldly and the divine. Important to our conversation is why such dualisms find a prominent place in the Judeo-Christian worldview. We have already argued that the intangible nature of thought plays an important role in mystical dualism. Spiritual dualism extends mystical dualism in an important way. Once I come to experience my own self as a mystical dualism, I then project my experience to the world thus positing the features of my own experience as "actual" features of the greater world. In other words, I anthropomorphize the world with the features of my own mystical experience of self. Let us examine this further.

In the realm of everyday life, the projection or anthropomorphizing of spiritual dualism upon the world at large has immense explanatory power. All creatures including human beings can quite easily divide their experiences into two general categories: those I understand and can explain and those that are not understandable and that I cannot explain. The mystical dualism of my own ineffable experience of self helps me to make sense out of this simple reality. Just as I perceive myself to be both a physical creature and something intangible, so also do I see the world and its events. I can explain the understandable world as the physical counterpart to the experience of my body just as I can explain the unexplainable occurrences of the world as the mystical counterpart of my thinking about self. We, then, make sense of the world with our own experience as the model; the world becomes a dualism just as I myself am a dualism.

For the sake of our argument it is important to point out that because spiritual dualism posits the essence of human experience as in character similar to the ineffable aspects of the world around us, we come to see humans and their activities as altogether different than those of the natural world. In fact, in the Western world, nature becomes identified with darkness and worldliness, something that must be humanized (civilized). Many have explored the connection between Judeo-Christian traditions and environmental damage (McKibben 1990; White 1967). I find no reason to argue with these analyses. However, it is important to point out that this is perhaps also true of other religions. To the extent that a religion defines a clear dualism between "humanness" and "nature," a disregard for nature is likely. Christian doctrinal assertions like earthly "stewardship" and "dominion" certainly institutionalize this division, but the motivation for these assertions is based in the essential split between the "human world" and the "natural world." For this reason, it is likely that the Judeo-Christian worldview is not the only religion to provide impetus for environmental damage. What is important however is that the human exemptionalism associated with spiritual dualism remains part of Enlightenment metanarrative in the form of a secular dualism.

The most important source of modern, secular dualist thinking is the French Philosopher Rene Descartes (Dennett 1991). Postulating that the seat of the mind was located in what is now known as the pineal gland; Descartes suggested that the mind was the ever-present organizer of experience. It was the aspect of us that makes us truly human, different from all other creatures. The mind, then, allows us to make choices, and to formulate ideas in accordance with our understanding of reality. The mind is the deciding ego, an essence that gives us the ability to be rational and to transcend the dark ages of mysticism and natural existence.

This form of dualism posits the mind as independent and altogether different than the body. This is aptly described by Gilbert Ryle (Pinker 2002, 9) as the "dogma of the ghost in the machine." According to Enlightenment metanarrative, it is this ghost that is the social agent capable of rational action. That is, if humans are rational, make choices, and are responsible for those choices there must be some agent other than our crude biological being in control of the show. Dualism, then, provides the mythological foundation for the Enlightenment conception of human beings as exemptional. It posits an enlightened and rational actor unbound by the constraints of biological determinism, an actor imbued with agency and the ability to transcend the darkness of earlier human existence.

Recently, Cartesian dualism has been criticized because it does not seem to describe the way our minds actually work. Dennett (1995, 206), for example, states "...what a mind is... not a miracle machine, but a huge semi-designed, self-redesigning amalgam of smaller machines, each with its own design history, each playing its own role in the 'economy of the soul.' Plato was right, as usual, when he saw a deep analogy between a republic and a person—but of course he had too simple a vision of what this might mean." Rejecting the dualist conception Pinker (2002) suggests that the mind is really a complicated computing device and that human experience, thought, and emotions are concrete operations of a biological machine. He states "beliefs are inscriptions in memory, desires are goal inscriptions, thinking is computation, perceptions are inscriptions triggered by sensors, trying is executing operations triggered by a goal" (Pinker 1997, 78). The mind, then, does not seem to be a "ghost in the machine." Rather, the mind is a biological outcome of physical processes.

As noted earlier, Cartesian dualism is largely responsible for the human exemptionalism of modern thinking. Cartesian dualism quite effectively separates the human from natural worlds by privileging human consciousness and the societies that it produces as unique and distinct. The critique of human exemptionalism offered by environmental sociology has effectively shown this way of thinking to be erroneous. However, to be consistent we must apply this logic not only to the natural world "out there" but also to the natural sphere of our

own minds. Rethinking our deeply held conceptions of the mind is challenging. It is hard for us to consider that human thought is not special, but rather is the outcome of biological machinery and evolutionary processes. Most troubling, however, naturalistic conceptions of mind and society also require us to rethink the second theme of Enlightenment meta-narrative—agency. If there is no mind in the Cartesian sense, what entity is left to make choices? To decide requires a decider. If this decider is not a ghost in the machine but rather an outcome of natural processes, is it possible that agency is also constrained by nature? It is this question that we now entertain.

Agency

In Post-Enlightenment times, agency has become an important part of the modern consciousness. In fact, agency has obtained a nearly mythological and unassailable location in the minds of modern people. This is also true of most sociological pursuits. For sure, structuralist perspectives in sociology do downplay the importance of agency. Marxist analyses (Foster 1999a), for example, point the finger of environmental blame toward the capitalist system. Many structural perspectives also show the ways in which structure and agency interact. However, in the end, sociological analyses often martial human choices and rationality as solutions to environmental problems. Take for example, Ulrich Beck's (1992; 1999; 2000) discussion of a "risk society." He claims that we have reached a new modernity in which social actors must evaluate risk in everyday decision-making. Research about environmental justice also often implicitly privileges the agency perspective. McCarthy and Faber (2001, 15) make this clear when they state:

> Central to this aim (environmental justice) is an analysis of the evolving structure of the U.S. environmental justice movement, with a focus on new models of democratic decision-making which can rebuild social capital and an active environmental citizenship.

The reason agency has obtained this privileged position is perhaps not so much its empirical veracity, but rather its mythological function.

In the Western Weltanschauung, choice is the hinge pin of order. To see why this is the case let us assume a perspective that imagines people do not make choices of any consequence. For the sake of this argument we will say that most people just sort of muddle around following the path of least resistance doing whatever is socially and practically expected of them. Add to this the reality that everyday life is not easy; problems, crises, and sorrow are persistent parts of the human experience. If this sense of determinism and lack of

agency were to become part of the narrative of everyday life, not only would life be a more depressing and sobering existence, but also the perceived justness and order of the world would fall apart.

In the abstract sense, our perceptions of justice and understandability are intimately bound to agency. In the Pre-Enlightenment Western world of Christianity, choice had a central role. From this perspective, the problems of this life were symptomatic of our fallen state; our salvation was assured if we made the right choices. On a day to day level, it was believed that problems in this life were caused by choices—my own or those of another. To make choice an exhaustive explanatory system adherents need only add that sometimes the will of God operates in ways that cannot be understood, or perhaps that on occasion, evil has its way. In either case, agency makes the world largely understandable and explainable.

In the previous discussion of dualism, it was noted that during the Enlightenment spiritual dualism was transformed into the Cartesians "ghost in the machine," a secular but exemptionalist version of mind. It is important to point out here that a similar transformation occurred concerning agency. Once laden with profound spiritual implications, choice was removed from the cosmic domain of souls and mystical realities during the Enlightenment. No longer a simple gift of God, wrought with otherworldly implications, choice was transformed into the secular realm of science and rationality. Importantly, however, agency continued to serve its Pre-Enlightenment order and sense making functions. Largely devoid of its spiritual connotations, agency continues to operate in a way that gives hope and makes the world understandable. For example, as modern people faced by the devastation of natural disasters such as earthquakes, we take some solace in believing that one day we might be able to predict such events and to limit losses through public discourse, scientific engineering of public buildings, and social policy—in short, through the rational exercise of mind and agency. Indeed, most problems faced by modern people are made understandable in someway by agency. Crime is thought to be a result of bad choices, affluence the result of good ones; we see our health conditions as either bad luck or perhaps as the result of our own bad choices (smoking, diet, etc.), but treatment for them as possible through the application of medical interventions and our choices to apply them. These examples illustrate how the unbounded Cartesian version of mind has become a ubiquitous part of modern consciousness.

As commonsense is the notion that humans have agency, it nevertheless is an under-examined assertion. Without question, we do have the capacity for choice. Having this capacity, however, does not mean we exercise it in the unbounded fashion we assume. The critique of human exemptionalism

offered us by environmental sociology demonstrates the natural limits by which society is bound. Human consciousness is a physical process that also likely has limits. In the following section we entertain what these limits might entail.

Natural Constraints

As we have seen, the exemptionalism associated with Enlightenment thinking about consciousness is likely a holdover from Pre-Enlightenment times. Nonetheless, exemptionalist thinking is so taken for granted that we find it difficult to place consciousness within natural limits. In this section, I postulate about such limits based on three simple evolutionary principles: consciousness as a dialectical process, consciousness as pragmatic, and consciousness as a local phenomenon.

Consciousness as a Dialectical Process

It is common to treat human consciousness as the crowning achievement of evolutionary development. However, it is also possible to see consciousness in a dialectical way, as both a positive and negative development. Take for example the human development of upright posture. Anthropologists tell us that this evolutionary "triumph" made it possible for us to use tools and therefore enhance food gathering and eventually to build human societies. On the other hand, upright posture has also necessitated narrower pelvises which led to difficult child delivery and also for a tendency for lower back problems (Williams and Parkman 2003).

Consciousness can also be thought of in this dialectical fashion. While consciousness has allowed us to turn the world into conceptual objects thus making all of the world and its resources a potential zone of manipulation (Marx 1978), it has also made a quite insecure species. As Gehlen (1988) points out, humans exist in a relative state of world openness (See also Berger and Luckmann 1966). No longer governed strictly by instinct we find ourselves in an anomic state on world openness. Such a position requires us to develop social institutions thus giving order to the world. This social world building also has profound consequences (Williams and Parkman 2003). So great is the threat of anomie that we overbuild our social worlds thus creating a sense of taken for grantedness so great that it militates against our attempts to implement social change. We come to accept the world and its problems normatively—as "just the way it is." Thus agency and our consciousness are bounded by what we take for granted as "real." It is possible, then, that environmental threats such as global warming, while potentially devastating to human societies, may remain largely unaddressed because they fall outside of what we take for granted. To embrace problems of any scale is to threaten the precarious order maintained by our collective inattention.

Consciousness as Pragmatic

The Cartesian metaphor would have us believe that because the mind is nonphenomenal our ability to think about the world is equally unbounded. For this reason, we believe that our minds can think about all things with no limits. We are, the story goes, blessed with the ability to rationally formulate abstract ideas. This way of thinking fails to consider, however, that while ideas and rationality are certainly possible they do not represent the "normal" thinking of "normal" people living in everyday life. As Alfred Schutz (1967) has pointed out, the world of everyday life is a pragmatic one; it is pretheoretical. Along these lines, Berger and Luckmann (1966, 15) point out:

> *Theoretical thoughts, "ideas," Weltanschuungen are not that important in society. Although every society contains these phenomena, they are only part of the sum of what passes for "knowledge." Only a very limited group of people in any society engages in theorizing, in the business of "ideas." To exaggerate the importance of theoretical thought in society and history is the natural failing of theorizers.*

In a similar manner, Schutz (1962a, 42) points out that "strict rationality" is:

> *a scientific construct—a "first-order model" of social reality, not a facet of everyday life. In such a simplified model of the social world, pure rational acts, rational choices from rational motives are possible because all the difficulties encumbering the real actor in the everyday life-world have been eliminated. Thus, the concept of rationality in the strict sense already defined does not refer to actions within the commonsense experience of everyday life in the social world; it is the expression for a particular type of constructs of certain specific models of the social world made by the social scientist for certain methodological purposes.*

In everyday life, then, we are not for the most part concerned with ideas, nor are we strictly rational. To put this differently, we are interested in what works and not why it works. The pragmatic nature of consciousness is quite easily reconcilable with evolutionary principles. Evolution is a pragmatic process. Those species who survive do so because they compete better for a place in the natural world. It is not surprising, then, that consciousness is also pragmatic in nature.

The implications of this for discourse about the environment are profound. In an age when many environmental risks are scientifically created, scientifically identified, and potentially only scientifically solved, average people living in everyday life have a pretheoretical consciousness not well

suited to address scientific environmental claims. These facts make theoretical appeals of science-centered environmentalism particularly ineffective. In essence, science and everyday life are contradictory and distinct "provinces of meaning" (Schutz 1962b).

Consciousness as Local

The final natural constraint limiting human consciousness has to do with its scope. Evolution is always a local process. Species evolve in response to the requirements of local ecosystems. For example, a global process like global warming may increase the mean temperature of lakes in the United States. Over time this temperature change may advantage some species and disadvantage others. What is important for our purposes is that the seemingly remote and abstract problem "global warming" does not on the eyelevel of evolution, cause selection pressure (warmer water does). Evolutionary change is always a local process. For this reason the evolutionary development of human consciousness was surely a local phenomenon; humans and their "ideas" are natural. This gives human consciousness important strictures. Humans are predisposed to be most concerned with immediate threats that have local consequences and to be less concerned with abstract and distant threats such as global warming. This is not to say we cannot conceptualize distant threats, only that it is more difficult to do so.

To date the local nature of consciousness has not been appreciated by social scientists. For example, Ulrich Beck's (1992; 2000) claim that we have reached a new modernity in which social actors must evaluate abstract and distant risks in everyday decision-making fails to consider our natural inclination to give privilege to the immediate and tangible dangers that confront us. Ironically, the local nature of our consciousness may provide societies with intractable dilemmas. A few years ago it was common to see bumper stickers in the United States that declared "think globally and act locally." In reality, the local nature of our consciousness combined with the economic forces of global capitalism requires that in practice we must reverse the order of this statement. In reality these bumper stickers should read "we act globally but think locally." That is, systems of global capitalism have caused widespread global environmental consequences yet when we think about solutions we are more likely to think in terms of local or national solutions.

Implications for Environmental Change

To suggest that consciousness has limits is to at the same time ask what impact does this understanding have upon our ability to solve very real environmental problems. The key to such an understanding is in framing environmental discourse in a fashion that considers the three constraints to consciousness previously mentioned.[5] Specifically this means:

1) Environmental change is most likely to occur if claims about environmental problems are framed within the boundaries of what is already taken for granted by people living in everyday life. For example, a claim about global warming is perhaps best articulated by connecting it to other already accepted environmental problems such as air and water pollution, not by identifying it as a new type of environmental problem. Efforts should be made, then, to broaden public knowledge of environmental problems by adding to what is already "known" and taken for granted.

2) Environmental change is more probable if claims about environmental problems are experienced by people in everyday life in terms of consequences not ideas. Scientific findings about environmental problems are of most use when framed in terms of their impact upon ordinary people. In regard to global warming, the forcing ability of methane gas (the ability of atmospheric methane to trap energy from the sun) has little relevance for most of us, but drought and hurricanes do. Environmental claims should, then, be framed in very pragmatic terms.

3) Environmental change is more likely if problems are constructed as local tangible threats and not abstract, distant dangers. While scientists understand the threat of melting polar icecaps, these distant events are not compelling for most people in daily life. To the extent possible, effort should be made to place environmental problems in the immediate reach of our daily existence.

It must be pointed out that these potential approaches to framing environmental discourse do not necessarily mean that they will be successful. It is possible that some environmental problems may not be easy to solve given the strictures of consciousness presented here.

Conclusion

Here we have addressed the contradictions presented by the way we think about the nature of humans in the environment. In the Post-Enlightenment, human societies were thought to be independent of natural constraints thus governed by a different set of rules—a human set of rules. Recently the new ecological paradigm has placed humans and their societies squarely in the natural world thus pointing to very real natural limits that we must live by. At the same time, however, environmental sociologists have been largely unwilling to explore the possibility that not only are human societies limited by nature but so too is human consciousness. Just as human societies are constrained by the availability of resources (there are some things we would like to do but just can't), it is also possible that the human mind is bounded and

fenced in by the natural processes that have created it (there are some things we would like to change that we just don't seem to be able to manage).

For the sake of this discussion we have speculated about three constraints to consciousness. Indeed there certainly may be others. What is important, however, is that we begin to consider the possibility of a bounded mind. Such thinking has at least two implications. First, it requires us to consider that when it comes to solving environmental problems we may just not have the conceptual faculties to do as we like. As depressing and dehumanizing as this seems we must nevertheless consider that it might be true. Second, this way of thinking also requires us to think in more structural and material terms about social change and the solutions to social problems. This analysis, therefore, seems compatible with Marxian and other structural analyses that question the importance of agency in human affairs. At the very least, it demonstrates the very likely possibility that agency and structure are interactive forces not bipolar opposites.

Many will no doubt criticize the arguments made here as incompatible with current thinking in the social sciences. As mentioned earlier, many sociologists are of two minds about the structure and agency debate. On one hand, they point out that the capitalist system (social structure) causes significant amounts of environmental disorder, but on the other hand they suggest choice and rationality can fix these problems (agency). This is so because as Murphy (1995) points out a strong bias exists in sociology for perspectives that give priority to agency and the power of social actors. Such a perspective is understandable in the context of the preceding discussion. Even in the largely secular thinking of sociology, agency has a mythic grasp. To question our ability to choose and to choose rationally is to question the exemptionalism of our consciousness; it is to question our humanity and the self-conception of ourselves as special and unique creatures of evolutionary history. Clearly such mythical ideas have no place in a non-exemptionalist and scientific view of social and environmental interaction.

Endnotes

1. Author to whom correspondence should be directed: E-mail: Jerry@WilliamsPage.net
2. To say that many environmental sociologists implicitly accept exemptionlist ideas perhaps creates a false dilemma (accept or reject). Many intermediate positions are also possible. It is fair to say that many sociologists at least in part see the human mind as shaped by social structure.
3. This may be true if we are speaking of our theoretical capacity for rationality. It is clear that humans can be rational. Having the capacity for rationality does not mean that we exercise or use this capacity.

4. This is not to say that I am correct about what I think I know about myself. Others may have a more realistic perspective about who I am than I do. Cooley (1998) recognized this when he concluded "we only know ourselves through the ideas others entertain of us." While, I only have indirect knowledge of myself (reflections provided by others) others have immediate and direct knowledge of me.
5. One implication of conceiving of human consciousness as limited is that we indeed may not be able to solve the problems we create.

References

Beck, U. 1992. *Risk Society: Toward a New Modernity*. London: Sage.

Beck, U. 1999. *World Risk Society*. Malden, Mass: Polity Press.

Beck, U. 2000. *What is Globalization?* Malden, MA: Polity Press.

Berger, P.L. and T. Luckmann. 1966. *The Social Construction of Reality; a Treatise in the Sociology of Knowledge*. New York: Doubleday.

Catton, W.R., Jr. and R.E. Dunlap. 1978. Environmental sociology: A new paradigm. *The American Sociologist* 13, 41-49.

Cooley, C.H. 1998. *On Self and Social Organization*. Chicago: University of Chicago Press.

Dennett, D.C. 1991. *Consciousness Explained*. Boston: Little Brown and Co.

Dennett, D.C. 1991. 1995. *Darwin's Dangerous Idea: Evolution and the Meanings of Life*. New York: Simon & Schuster.

Dewey, J. 1920. *Reconstruction in Philosophy*. Boston: Beacon Press.

Dunlap, R.E. 2001. The evolution of environmental sociology: A brief history and assessment of the American experience. In R.S. Frey (eds.), *The Environment and Society Reader*, 43-62. Boston: Allyn and Bacon.

Dunlap, R.E. and W.R. Catton, Jr. 1994. Struggling with human exemptionalism: The rise, decline and revitalization of environmental sociology. *The American Sociologist* 25, 5-30.

Foster, J.B. 1999a. Marx's theory of metabolic rift: Classical foundations for environmental sociology. *American Journal of Sociology* 105, 366-405.

Foster, J.B. 1999b. *The Vulnerable Planet: A Short Economic History of the Environment*. New York: Monthly Review Press.

Gehlen, A. 1988. *Man, His Nature and Place in the World*. New York: Columbia University Press.

Marx, K. 1978. Alienated labor. In D. McLellan (ed.), *Karl Marx: Selected Writings*, 73-112. Oxford: Oxford University Press.

McCarthy D. and D. Farber. 2001. The evolving structure of the environmental justice movement in the United States: New models for democratic decision-making. *Social Justice Research* 14, 405-421.

McKibben, B. 1990. *The End of Nature*. New York: Anchor Books.

Mead, G.H. 1964. The social self. In A.J. Reck (ed.), *Selected Writings, George Herbert Mead*, 142-140. Chicago & New York: University of Chicago Press.

Murphy, R. 1995. Sociology as if nature did not matter: An ecological critique. *The British Journal of Sociology* 46, 688-707.

Pinker, S. 1997. *How the Mind Works*. New York: Norton.

Pinker, S. 2002. *The Blank Slate: The Modern Denial of Human Nature*. New York: Viking.

Schnaiberg, Allan and Kenneth Alan Gould. 2000. *Environment and Society: The Enduring Conflict*. Caldwell, N.J.: Blackburn Press.

Schutz, A. 1962a. *Common-Sense and Scientific Interpretation of Human Action*. In M. Natanson (ed.), *Collected Papers I: The Problem of Social Reality*, 3-47. The Hague: Martinus Nijhoff.

Schutz, A. 1962b. On multiple realities. In M. Natanson (ed.), *Collected Papers I: The Problem of Social Reality*, 207-283. The Hague: Martinus Nijhoff.

Schutz, A. 1967. *The Phenomenology of the Social World*. Evanston, Ill.: Northwestern University Press.

White, L. 1967. The historical roots of our ecological crisis. *Science* 155.

Williams, J. 2003a. Natural and epistemological pragmatism: Democracy and environmental problems. *Sociological Inquiry* 73, 529-544.

Williams, J and S. Parkman. 2003b. On humans and environment: The role of consciousness in environmental problems. *Human Studies* 26, 449-460.