Ashley Wood
Econ 4999
Paper 2
4/10/2009

Abstract:

The discussion of this paper is two-fold. The first half of this essay asks the question: do we as humans get utility directly from nature, or only from stuff nature produces? It explores the "biophilia hypothesis", and the possibility of evolutionary preferences for natural landscapes. But what about our preferences for the "unnatural"? Surely this will not be left out of the discussion. The second half of this essay takes a look at the anthropocentric position economists tend to take when they place economic values on nature and compares it to the countering econcentric view held by deep ecologists. This essay is intended make the reader think critically about how we as humans ought to perceive and value the natural world. It is not expected that any conclusions be drawn on the matter, but hopefully the essay can invoke some serious thought in the reader.

Part I:

Does the human preference for natural landscape exist?

The "biophilia hypothesis" actually came from Harvard Biologist E.O. Wilson. According to Wilson humans have an evolutionary history that has, "blessed us with an innate affinity for living things. We thrive in the presence of nature and suffer in its absence" (Bloom). There is a lot of psychological evidence to support the existence of "biophilia" in humans. For example, we seem to have evolutionary preferences for

certain kinds of landscapes. "Anthropological records indicate that human beings lived in the savannas of East Africa for around 2 million years. During this time, it is believed that savanna landscape allowed for greater chances of individual and group survival. The savanna landscape was favorable because it offered bodies of water, and overlooking grasslands with views of approaching threats whether it be other animals or inclement weather (Kahn)." Ecologists Orians and Heerwagen conducted a cross-cultural study on the savanna landscape preference. The study included subjects from the U.S., Argentina, and Australia. Using a photo questionnaire they asked the three groups of subjects to rate the attractiveness of certain types of trees. The trees with dense canopies and trunks that bifurcated near the ground were chosen as the most attractive across all three groups. It just so happens that this type of tree is a prototypic savanna tree. (Orains and Heerwagen)

"If through evolution certain natural landscapes have promoted human survival and reproductive success, then it may have come to pass that such landscapes nurture the human physiology and promote a sense of emotional well being" (Kahn 13). Hundreds of studies have shown that spending time in the wilderness offers the benefit of stress reduction. Roger S. Ulrich did a study for the Journal of Environmental Psychology examining the relative effects of natural and urban settings on stress levels. In this study, 120 subjects had to watch a stressful movie followed by color or sound video tapes of one of six different natural and urban settings. Then data was taken on "self-reports of affective states and a battery of physiological measures: heart rate, muscle tension, skin conductance, and pulse transit time." The overall finding was "faster and more complete recovery when subjects were exposed to natural rather than urban environments" (Ulrich 201). E. O. Moore did a study in 1982 on the health of prisoners. He compared the

prison inmates who looked out over farmlands and forests to the inmates who looked onto the prison yard. His finding was that prisoners with windows looking out at farmlands or forests required less heath care services than the inmates whose windows looked out onto the prison yard. (Moore)

Edward Morey, my professor at the University of Colorado did a study using attitudinal data to identify latent classes that vary in their preferences for landscape preservation in the Ibleo Altopiano, "a rural and beautiful part of Sicily". In this study, "500 residents of the Ibleo Altopiano filled out pamphlets with Likert-scale questions about the importance of the Ibleo Altopiano preservation and why the respondent thinks preservation is, or is not, important. Based on their answers, the subjects were found to belong to one of four classes. Of the sample, 42.7 % of the belonged to the "Ibleo preservation class," 27% belonged to the "strong non-use preservation class" 25% belonged to the "moderate and use-value preservation class," and 5.6% belonged to the "care little, if at all class." (Morey 9) This study shows that only a small minority of residents could care less about the preservation of Ibleo Altopiano. Obviously, the "natural" aesthetic beauty and recreational benefits of the local landscape give the vast majority of the Sicilian residents enough utility to wish to preserve it.

If we really do have preferences for certain natural landscapes, and being in nature actually promotes health and reduces stress how do we explain our attraction to the "unnatural." People do have an affinity for man made artifacts. We tend to enjoy looking at cityscapes from a distance, or visiting specific building sites and we love material goods, fast-paced cars and fine jewelry. We take time to create masterpieces of our own, we learn how to play instruments, we write books, and paint. Electronics are stimulating

enough for us to devote hours of our weekly lives surfing the web, playing videogames, or watching our favorite programs on television. This complicates our understanding of our connection with nature. Can we replace this relationship with human product? "Viewed as an amenity nature may be readily replaced by some greater technological achievement. Viewed as an essential bond between humans and other living things, the natural environment has no substitutes" (Kaplan and Kaplan).

Our species has spent almost all of its existence on the African savanna " (Bloom). "Until extremely recently, even people living in cities felt a relationship to nature, and the local land surrounding the city supplied seasonal foods. However, most modern city dwellers have little relationship to nature and their food comes packaged from unknown places thousands of miles away. Many people vacation to far away places that they come to know better than the very country a few miles from their home city. Perhaps urbanization and economic prosperity have dulled our feelings for and awareness of the earth. It seems we substituted our innate relationship to nature with the belief that our well-being relies most heavily on other things such as monetary, political, and military systems and technology" (Seidel 42).

Yet still I have to wonder do people really prefer the "unnatural" or is that all they know? Could it be sheer ignorance due to a lack of exposure to the elements of natural world? Are electronic stimulants and manufactured material goods in fact blinders to our actual essence? "There is a considerable mismatch between the world in which our minds evolved and our current existence" (Bloom). I think this question over our preferences for the "unnatural" is a tough one to crack, but perhaps part of the answer lies somewhere in the biological limitations of the human brain. "We have inherited cognitive

mechanisms with data filters that were suited for the simple lifestyle and physical environment of our predecessors" (Seidel 30). Psychologists believe that our minds were not adapted to cope in a world populated by billions of people. The life of a modern city dweller, surrounded by millions of strangers, is quite different from the life of a pre historic hunter-gather. Until very recently, there was no television or computer, no fast food, prescription medication, plastic surgery, artificial lighting or fast paced cars. Instead there was nature, the four elements earth, wind, rain, and fire, and there were animals, not limited to but including us. (Seidel 36)

Today each of us observes the world from our own individual perspective that is influenced by several relative factors. Our geographical location, socio-economic status, belief systems, and other individual interests frame how we perceive the world around us. "Some people see a redwood tree as majesty, others as part of an ecological system, and others as potential dollars. Different elements of our individual lives create such differing view points on what things are considering important. Our primitive instincts, bias from past experience, personal interests, concerns, beliefs, misconceptions, prejudices, intelligence and peer pressure affect our models of perceived reality. They subconsciously influence our brain's filtering mechanism and distort data leaving us with an incomplete and false picture of reality. Our individual models of reality are based on what information we let through our filters, the form that information takes and how our minds work with the data and value placed on it. For some people baseball cards or Elvis Presley memorabilia have value, coastal wetlands do not" (Seidel 42-43). There is going to be heterogeneity with any human preference; landscape preservations preferences are no exception. "Some people prefer rural and historic landscapes resulting in a willingness

to pay for preservation that comes out positive. Others prefer progress and development to preservation; their WTP for natural landscape preservation is less than zero. The rest of the population will not care either way resulting in a WTP for preservation of zero" (Morey 2).

Part II.

How should we value nature? Economists and deep ecologists answer differently.

As with any other issue regarding human morality there is a gradient of different philosophical takes on the human relationship with nature. Since this is an economics course why not discuss the economic position and compare it to the deep ecology position on the other end of the "moral" spectrum? Economists hold an anthropocentric position whereas deep ecologists hold an ecocentric position. As we will come to find, these positions are quite different from each other in terms of how they define the human-nature relationship.

When it comes to preserving the environment economists would hold a largely anthropocentric view. In other words economists look at how effects to the environment affect human beings. . "The anthropocentric view is rooted in consequentialism, under which the human action is considered to be good if positive consequences outnumber negative consequence. Benefits of nature include material goods (food, fuel, medicines), services (recycling of nutrients, homeostatic regulation) and non-material goods such as scientific information and pleasure. Disadvantages of nature conservation are the limitations it imposes for human economics and the natural threats it poses for humans beings such as diseases or dangerous animals" (Swart 232).

According to anthropocentrism, nature does not have an intrinsic value. Instead, its

worth is determined by how much utility it gives us (humans). So economists ask questions like, "how much aesthetic or recreational enjoyment do humans get out of nature?" These kinds of questions then become deterministic in deciding how much it might be worth to protect the natural environment around us. This "worth" is determined by an individual's willingness to pay for the conservation of a natural environment. This measurement can be extremely problematic in terms of "fairness." This is because WTP does not always line up equally with preferences. Consider, for example, Morey's study on Sicilian preservation preferences. In this sample, it is true that "the class that showed the least interest in preservation through their attitudinal responses also had the lowest WTP for preservation of the Ibleo Altopiano. However, the class that expressed the highest general interest in preservation did not express the highest WTP for preservation." What is the likely cause of this mismatch? The "strong non-use preservation class" had the highest proportion of poor at (15%) of the sample" (Morey). This brings us to another moral dilemma- whose preferences count, and whose do not? Poor residents obviously won't have the same WTP for preferences as their rich counterparts, making un-weighted WTP an unfair measure.

"The economic valuation of nature ignores the notion of nature possessing an "intrinsic value;" and separates humans as being above nature" (Pearce 1). By using WTP as a measurement for preservation, anthropocentrism certainly does not consider the moral agency of plants, animals, rivers or streams. In fact, it hardly seems to consider the moral agency of poor people. Could this anthropocentric way of valuing nature be flawed or limited somehow?

Deep ecologists would say yes, explaining the current ecological crisis as, "the outcome of anthropocentric humanism that is central to the leading ideologies of modernity. In general, deep ecologists call for a shift away from anthropocentric humanism toward an ecocentrism" (Zimmerman). *Ecocentrism* contrary to anthropocentrism is a nature-based ecological political philosophy. "It contains two main aspects: (1) a psychosocial perspective that contemplates the human-being-in-nature and in which the environment is valued as an element that secures the individual's physical and psychological well- being, and (2) a strictly biospheric dimension in which the environment is valued intrinsically and that contemplates the nonhuman elements of nature" (Amerigo 98-99). 'The ecocentric view of nature does not use the instrumental value of nature as a point of reference but deliberates on human conduct itself. It is based on the principle of respecting the intrinsic value of nature and its elements (animals, species, communities or ecosystems.) This concept of intrinsic value admits that nature has value for its own sake based on human respect for the autonomy, self organization, and self-directness of nature (Swart 232)."

Indigenous peoples probably come the closest to the definition of true "deep ecologists." Records of the Koyukon people of Northern Alaska indicate ecocentrism was at the heart of their culture. "These people possessed several symbiotic relationships with animals. Not only did they have in-depth knowledge about the animals around them, they also seemed to learn from them and cooperate with them to gain a mutual advantage. These affiliations played a role in the moral and religious aspects of their society. According to the Koyukon, all animals deserved human respect and not one animal should be considered inferior or insignificant. Their living moral community is

not limited to humans, or even humans and animals, but it also includes non-sentient beings, plants, and physical matter such as the rivers, mountains, rocks, the very dirt of the earth." (Kahn)

The Koyukon certainly had a more realistic relationship with the world than our modern urban societies. Our artificial lifestyles and environments have disconnected us from food production and waste disposal and from natural sights, sounds, and smells. Our current values, and objectives have seemingly removed us from a natural world. The modern world, to me is in many ways an artificial world, a man-made illusion. "Deep ecology is "deep" in part to contrast it with "shallow" environmentalism, which seeks only to reform certain socioeconomic practices (e.g., curtailing industrial pollution) without altering modernity's anthropocentric attitude. It is also "deep," in the sense that it poses profound questions about the normative premises of modernity. Deep ecology forces us to ask ourselves whether or not life under anthropocentric modernity is truly satisfying?" (Zimmerman).

Perhaps, this is a question we should be asking ourselves along with several others… How do we perceive the world around us? Do we realize the limitations of our perceptions? What do we value as most important to us? Do we know our preferences for the natural? Who do we think should count as a moral agent of society? Do we agree with anthropocentrism? Do we agree with the WTP measurement of preservation preference? Have we given thought to any of this, or do we fall under the category "care little, if at all"? In any given conversation what would an economist say, and how would a Koyukon member respond? Who would be right? Who would be wrong? Define right and wrong? Can we? I said in the beginning this paper was intended to get the reader

thinking perhaps even a bit confused. Nowhere did I promise to draw any conclusions. Instead, perhaps all I drew in the last ten pages was a big fat question mark.

Sources:

Amerigo, Maria, Aragones Juan I., Cortez, Beatrice "The Underlying Assumptions of Ecocentric and Anthropocentric Beliefs." The Spanish Journal of Psychology. 2007 Vol 10. No 1. p97-103.

Clive L. Spash., and Nick Hanley. "Preferences, information and biodiversity preservation." Ecological Economics. Volume 12, Issue 3, March 1995, Pages 191-208

Heft, Harry. Ecological Psychology in Context: James Gibson, Roger Barker, and the Legacy of William James's Radical Empiricism (Volume in the Resources for Ecological Psychology Series). Mahwah, NJ: Lawrence Erlbaum, 2001.

H., Peter, and Jr. Kahn. The Human Relationship with Nature: Development and Culture. London: The Mit Press, 2001.

Kaplan R., and Kaplan, S. The Experience of Nature: A Psychological Perspective. Cambridge; Cambridge University Press. 1989.

Moore, E.O. "A Prison Environments Effect on Health Care Service Demands." Journal of Environmental Systems. 1982. Vol 11: p17-34.

Orians and Heerwegan. "Evolved responses to landscapes." In J.H. Barkow, L Cosmides and J. Tooby (Eds.) The adapted mind: Evolutionary Psychology and the generation of culture. New York: Oxford University Press, 1992. p555-579.

Paterson, Barbara1. "Ethics for Wildlife Conservation: Overcoming the Human-Nature Dualism." Bioscience. Feb2006, Vol. 56 Issue 2, p144-150, 7p

Pearce, David W., and R. Kerry Turner. Economics of Natural Resources and the Environment. Baltimore: The Johns Hopkins University Press, 1989.

Seidel, Peter. Invisible Walls. New York: Prometheus Books. 1998.

Swart, Jacques, Henny J. van der Windt, and Jozef Keulartz. "Valuation of Nature Conservation and Restoration." Restoration Ecology. June (2001): 230-238.

Ulrich, R.S. , Simons, R F., Losito, B.D., Fiorito, E., Miles, M.A., and Zelson, M. "Stress Recovery During Exposure to Natural and Urban Environments." Journal of Environmental Psychology. 1991. Vol .11, p201-230.

Zimmerman, Michael E.. Contesting Earth's Future: Radical Ecology and Postmodernity. Berkeley: University of California Press, 1997.