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# Ecopsychology: An Idea Whose Time Has Come

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In his 1982 book "Nature and Madness," Professor of Human Ecology at Pitzer College in Claremont, California, the late Paul Shepard, argues that there are profound and innate connections between the human mind and the natural world. His thinking starts with the idea that evolution shaped the brain to shrink complexity by categorization. To this end, our brains slot everything into small boxes. Part of this is our primate ancestry where divisions between 'us' and 'them' were critical to survival and part came about during the development of language, when the act of giving names to things required us to first put them in categories. Since those categories were based on what we saw around us, early language acted as our bridge to the natural world. We still bat our lashes, are dog tired and clutter our homes like pat rats, but in older times, the comparisons went farther. The letter "A" comes from the ancient Hebrew word "aleph" which means, among other things, oxen. Which is why, when you turn an "A" upside down, you get a pictograph of an oxen head.

In his book "The Others," Shepard explains it this way:

"Category making based on animals, linked to speech, was at the center of the evolution of the human mind and the beginning of language itself. Subsistence peoples today continue to extend and enlarge their repertoire of taxonomic groups avidly—indeed, we might speak of them as hobbyists or naturalists. Tribal peoples around the world know hundreds of plants and animals by name and natural history. The Nuba of Africa identify more than 40 names of locusts (biologists recognize only ten) and 27 varieties of sorghum which are botanically but three. 'In the two preliterate societies in which I have carried out field research,' says one anthropologist, 'knowledge of the biological world constitutes—I would claim—a greater

chunk than all of types of knowledge combined.' He calculates that primitive tribes have an average of 1000 to 1200 plants and animals in their vocabulary, and he goes on to point out that familiarity with this great diversity of organisms is not primarily because of their economic value."

Shepard was interested in the psychology of categorization and how it affected the development of human intelligence. He realized it wasn't just language that was built upon the natural world, it was everything else as well. Humans spent ninety-nine percent of their existence as hunter-gatherers, which means the entire architecture of the brain has been built atop the scaffolding of the natural world. Because of this, Shepard worried about the effects of ecological destruction on our psychic stability; specifically, he's worried about what happens when the very things that taught us how to think disappear.

Since then proof has arrived in a variety of forms. In the wake of Hurricane Katrina, according to research conducted by the Hurricane Katrina Advisory Group, the rates of mental illness doubled among those who lived in the area. On the opposite side of that coin, scientists at the University of Illinois recently discovered a twenty minute walk in the woods out-performed all the drugs currently on the market for the treatment of Attention Deficit Hyperactivity Disorder in children. It was psychologist Erich Fromm who first coined the term Biophilia—for life loves life—but Harvard sociobiologist Edward O. Wilson borrowed it to describe "the instinctive connection that human beings subconsciously seek with all nature," and, after ten years researching the topic, Richard Louv, in his 2005 *Last Child in the Woods*, agrees. He coined the phrase "nature deficit disorder" to describe why children lacking contact with the outdoors—that is, kids whose Biophilia instinct remains un nourished—have been found significantly more prone to anxiety, depression and attention disorders.

But there are two brand new studies which really seem to lend credence to this thinking. The first addresses Shepard's broader statement that the human mind evolved to live with nature. This has long been a problem for researchers. For decades, the consensus was that as young children begin reasoning about the biological world, they adopt an "anthropocentric" stance, favoring humans over non-human animals when it comes to learning about properties of animals.

But a group of Northwestern University researchers, in a study just published in the journal "Cognitive Development," now begs to differ. What these researchers really wanted to know was whether anthropocentric reasoning is influenced by children's experience with the natural world and the culture and belief systems of their communities.

To this end, the study included both city kids (Chicago) and country kids (rural Wisconsin) and—to tease it out even further and examine the influence of culture—the country kids included European-American and Native American (Menominee) participants. The results were interesting. For sure, young urban children revealed a human-centered pattern of reasoning, but the rural European-American and Native American children did not. Instead, these kids' experiences, including their day-to-day interactions with the natural world and their sensitivity to the belief systems of their communities, had a huge impact in how they think of nature.

For example, while most children are taught in school that only plants and animals are alive, the traditional Menominee notion of "alive" includes things like rocks and water. Such cultural differences provide strong evidence that the human-centered pattern displayed by young

urban children is not a universal starting point for development, rather is a cultural idea.

But even stronger proof comes out of new meta-analysis published in the journal "Environmental Science & Technology." These authors were looking at the impact contact with the natural world had on self-esteem (a fairly broad but good measure of our mind's innate connectivity to the natural world). Their results were downright startling. The study analyzed 1200 people involved in 10 separate studies done in the UK and found that a five-minute "dose" of nature was enough to improve self-esteem. The study also showed that this effect held across a variety of outdoor activities—from hiking through fishing through gardening (and even farming).

All of which seems to point to the fact that there's now enough "proof" behind the ideas of ecopsychology that it might be time to start asking much deeper questions—like what exactly does nature do for our brain? The old argument of "we evolved with nature" is fine, but how has that evolution actually played out—which brain structures are involved in these responses? Which neurochemicals are triggered by contact with the outside world? Is there a widespread cascade of neuronal activity or is it a more localized response? Isn't it time we accept proof of concept and begin examining these ecopsychological notions for what they really are: a very old and very wide window into the human brain. And one that we have explored very little.

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