

# Ecological Knowing

by John Shackelton

## Curriculum Update

**ecology** The totality or pattern of relationships between organisms and their environment.

One of the core understandings we've gleaned from research in how children learn is that our small children are not scaled-down adults. They don't have our capabilities, only smaller; they don't think like we do, only less developed.

Although the young child asks endless questions, the kinds of answers she seeks differ greatly from the kind adults usually seek. We adults want information for decision making or answers about cause-effect explanation. The small child who asks why we have snow is seeking neither meteorological information nor scientific explanation.

An answer like, "It is for children to play in," is the sort of explanation he wants. He wants to know what things are *for*.

Small children seek to make sense of their world based on what things are *for*, that is, *how things around them connect with them* and other people, particularly the people they know. This appears to be an instinctual search for connection, manifestation of a natural need for ecology (see above definition from *Miriam-Webster's Collegiate Dictionary*). It is a wonderful time in the developing human life to respond to children by providing all sorts of "connection" possibilities in their learning environment. We try to do this by honoring the children's need to find meaning in *connections*, not just adult-style explanations. At Rainbow, we see preschool and kindergarten and first-grade as particularly fertile times (though not the only) for cultivating that natural ecological consciousness through our teaching methods.

Most significant at this time in children's lives is the wide-open opportunity for experiencing their natural ecological questioning as *a way of knowing*. It should be instructive to us as adults, not to mention educators, that the often-verbalized quest for knowledge following rudimentary naming is of this kind—a search for an understanding of what a thing is *for* in the sense of how it fits into the greater scheme that makes up the whole to which we people belong. This seems to me suggestive of a healthy hierarchy of human knowledge needs. It suggests that the need to perceive some sort of purpose (dare we say *meaning*?) in terms of connection to the whole may be foundational to natural human development and, particularly, to healthy growth in knowledge.

I think that the implications of how we teach this age child extend in quiet but inalienable ripples of consequence into our collective future. The rest of this article will make that connection.

## If You Myth the Meaning

*Procrustes was a character in Greek myth whose name means "he who stretches," and he did just that as well as the reverse. He kept a house by the roadside where he offered hospitality to travelers—a meal and a night's rest in a very special bed. Procrustes liked to describe his bed as having the magical quality that its length exactly matched that of whoever lay on it.*

*The "magic" turned out to be rather crude. As soon as the guest lay down, Procrustes went to work on him, stretching him on the rack if he was too short, or chopping off a portion of his legs if he was too tall.*

*Procrustes met his fate at the hands of Theseus, the hero who, aided by the cleverness of Ariadne, slew the Minotaur. On his journey to Athens to claim his inheritance, Theseus happened to stop—guess where? Theseus adjusted Procrustes to his own bed by cutting off his head.*

## Procrustes Again

It seems that we should meet young children where they are, in their very real world. We should help them elaborate, embody, and thus make their own possession, that approach to knowledge which biology/ nature has prompted them to pursue. As the title of this article indicates, I call this “ecological knowing,” but this should not be confused with what often passes for that kind of knowledge in our schools. Let’s elaborate.

The dominant way of knowing in the western world is rational-analytical, and it is a very important way of knowing. It is the basis of scientific inquiry and of much of the sophisticated understanding we have today of how things work in terms of physical science, chemistry, biology, etc. Cultivating and honing this kind of knowledge in our schools is entirely appropriate and desirable—we would be lost without it.

*But we are also lost with it.* The problem is not with rational cognition itself but with its Procrustean prominence in the way much of the world educates its young. We have become so enamored of the rational/ analytical that other kinds of knowledge are now largely required to fit its dimensions. A pertinent example of this is what passes for ecology. Of course, logical-analytic thinking must be a piece of ecological issues in our modern age; we certainly need to solve technical problems of waste disposal, etc. But, as we could learn from the child’s approach above, ecological thinking as a distinct way of knowing is more intuitive and focuses on part-whole relations, not just on direct cause-effect.

When the cause-effect focus of logical/ analytical knowing is in control, it requires everything to fit within its limits, so we end with pollution as merely a topic of study, a matter of parts-per-million and “acceptable” levels of poisons in the water, based on statistical correlation between pollutant-to-water ratios and “acceptable” numbers of severe illnesses and early deaths.

## The Spirit of Theseus

Notice how a truly ecological issue—one a child would instantly recognize (water is for drinking; mercury is *not* for drinking)—has been reduced to *relationships among abstract numbers*, not relationships among real people, let alone people and the Earth. I and the child would insist that the operative relationship here is not to be found among those numbers. The operative relationship is between people and clean water to drink, swim in, fish from, wash with—that’s what water is FOR.

Moving now beyond the small child’s limited knowledge but keeping her ecological insights, we can add that water is also FOR washing the land, FOR carrying away infection and debris. But if that which cleans is itself polluted, how (using cause-effect logic) shall it clean?

Rivers and streams are not FOR absorption of the phenomenal volumes of chemical and other industrial waste produced by the modern world. If we had not insisted on making analytical science’s cause-effect “bed” the standard of measurement for all things and cut off what was too large for it and stretched what was too small, we might have had

the good sense to dispose of industrial effluent differently. Perhaps then ludicrous oxymorons like acceptable levels of deadly chemicals and acceptable numbers of cancer cases wouldn’t have polluted our minds.

## Finding the Proper God

But we’re not there yet. Procrustes is still the god of our educational systems, and the way we teach children ecology demonstrates this clearly. The centerpiece of most ecology lessons tells it all—we encourage kids to recycle.

As a total solution, that won’t work. Most middle-school and high-school curricula contain explanations of the greenhouse effect, an historical overview of industrialization and urbanization with relevant waste-disposal problems as cause-effect phenomena, and some “analysis” of political positions developed around the so-called “ecological” issues. But notice how logical-analytical all that is, how far removed from real people and real suffering. One does not find there *ecology as a way of knowing*, which formed in the human psyche over millions of years of felt connection with the earth and endowed us with a core survival tool we cannot manage without—no matter how much we rationalize ignoring it.

In our schools, Procrustes rules and has cut off recognition of ecology as anything but a small branch of logical-analytical science. Trusting in that kind of logico-ecology has not helped us. After decades of “ecology in the classroom,” we still talk acceptable levels of deadly air and water pollutants and still refuse to use for the good of

the planet the very technology our analytical thinking has helped us create. Instead, we apply that technology to even greater economic gain, the effect of which is—more pollution.

*Why do we do that???*

Can it be that we go on in the same old way *because we keep educating in the same old way?*

Ancient myths tell us that when a monster holds a village in servitude, the monster must be slain. Do children schooled sleeping in the bed of Procrustes generally grow up to slay the Minotaur?

Or do they, instead, grow up to make sacrifices to him and thus extend our human-made pathology across the entire planet and perpetuate it into the future?

It seems evident to me that the way we educate our children shapes the future, so if we continue serving Procrustes, the future will look like now, only worse. On the other hand, if we honor the child’s need to inquire into part-whole connections, and we respect the desire to elaborate and further develop that ecological kind of knowing, we might find years later that children allowed to so develop had become adults for whom the sort of relationship people must have with the earth is patently clear. That may be our only real promise of salvation in the face of the present ecological crisis.

The connection between humanity’s future and how we educate our children was one of the insights and conscious purposes in the minds of those who originally designed the RMCS curriculum.

I hope it is one of the reasons you again chose holistic education for your child and our collective future.

*Knowing what things are FOR—  
how they fit into the larger web  
of interdependent connections—  
is much more desirable than  
knowing how to control them.*