

The Wonders of Nature: Honoring Children's Ways of Knowing by Ruth A. Wilson, Ph.D.

Today, I miss the music, the dance, and the enchantment of childhood. "Earth song" has been replaced by the noise of traffic, and daily life feels more like a race than a dance. The enchantment of knowing the world as a song is a treasured memory – a memory that still adds joy to my life. This memory, however, also brings a touch of sadness, because I feel that over the years to adulthood, I've truly lost something special along the way. This "something special" is a way of knowing the natural world as a place of beauty and mystery. While I still maintain the belief that the world is full of mystery and wonder, my way of knowing it as such is not as direct and experiential.

The Child's Ways of Knowing

It is clear that children have a special affinity for the natural environment—an affinity that is connected to the child's development and his or her ways of knowing. Sebba (1991) refers to this way of knowing as a "unique and unrepeatable ability . . . to grasp surroundings"—an ability, she says, that for most people "recedes over time" (p. 398). Sebba (1991) describes the interaction between the child and the natural environment as "an authentic childhood experience that carries with it the original stamp of childhood and that will disappear with its passing" (p. 410).

These findings and conclusions are in line with our current understanding of how young children learn. According to Piaget and other developmental theorists, learning early in life is dependent on concrete perceptual information. For the young child, learning is experienced as sensory absorption or sensorimotor stimulation. During the early stages of cognitive development, perception conducts thought. This is in contrast to the adult's ways of knowing and experiencing the world, where perception obeys thought (Sebba, 1991). Shifting from the child's to the adult's way of knowing the world involves a deflection from sensory absorption to cognitive reasoning. According to Sebba (1991), "this deflection is accompanied by a weakening of the direct link with the physical environment, by a lessening of the importance placed on information from the senses, and by an essential change in the child's conception of the world" (p. 413).

Imagination and Knowledge

Early experiences with the natural world have been positively linked with the development of imagination. The work of Edith Cobb (1977) is perhaps the most noteworthy in this regard. Her work, based in large part on a search for the creative principle in the human personality, involved a careful analysis of a wide variety of autobiographical recollections of highly creative adults. Many of these recollections reflected an "early awareness of some primary relatedness to earth and universe" (Cobb, 1977, p. 17-18). Based on these and similar findings over her 20 years of research, Cobb concluded that childhood represents a special phase in life "during which the most actively creative learning takes place" (Cobb, 1977, p. 17).

Early experiences with the natural world have also been positively linked with the sense of wonder. Wonder, as described by Cobb (1977), is not an abstract term or a lofty ideal. It is, instead, a phenomenon concretely rooted in the child's developing perceptual capabilities and his or her ways of knowing. This way of knowing, if recognized and honored, can serve as a life-long source of joy and enrichment, as well as an impetus, or motivation, for further learning (Carson, 1956).

Separation from Nature

Sadly, the ability to experience the world as a source of wonder, tends to diminish over time. This seems to be especially true in Western cultures, where for the sake of objective understandings, children are encouraged to focus their learning on cognitive models rather than on first-hand investigations of the natural environment. Cognitive models encourage children to make a transition from reliance on sensory criteria as a way of knowing the world to cognitive criteria, and in the process, construct a more objective or scientific understanding of the natural environment.

Such a transition carries with it a heavy price, including both a physical and psychological separation from the environment. "As a result, the child goes from an adaptive and sympathetic attitude to a critical and analytical one. . . . The child no longer creates a concept of the world from experience but rather receives it from others. The child's individual, multidimensional world becomes a scientific one-identical to that of his/her friends" (Sebba, 1991, pp. 414-415).

The richness of young children's way of perceiving the world is based, in part, on their gift of primal seeing. Rather than being incorrect or inferior, primal seeing allows children to experience the "embodiment of things, their very quintessence" (Bialik, 1938/1939, p. 43). Because, for most people, primal seeing is experienced only during childhood, it would be good and right and beautiful for parents and early childhood educators to honor and celebrate this way of knowing and experiencing the natural world.

Failing to recognize and support children's ways of knowing can have serious implications on how they will relate to the natural world over the span of their lifetime. "The way we think, the mental maps that we construct to make meaning of the world. affect the way we feel about it, and the way we behave toward it" (Shaw-Jones, 1992, p. 16). By validating and reinforcing the child's ways of knowing, we will be fostering a life-long love of the natural world. By failing to do so, we could be contributing to the increasingly more complex environmental crisis, which is considered to be due, in large part, to a growing psychological detachment from and prejudice against nature (Cohen, 1984; Devall, 1984/85; Raglon, 1993). By forcing the child to work prematurely with abstract thought, we "break up the vital unity of self and world" (Pearce, 1977, p. 188).

Fostering a Love of Nature

As Nabhan (1994) says: "To counter the historic trend toward the loss of wildness where children play, it is clear that we need to find ways to let children roam beyond the pavement, to gain access to vegetation and earth that allows them to tunnel, climb, or even fall. And because formal playgrounds are the only outdoors that many children experience anymore, should we be paying more attention to planting, and less to building on them?" (p. 9).

Natural places match children's ways of knowing in that they offer varied opportunities for adventure, construction, and re-invention. The "rough ground" aspects of natural places offer the "qualities of openness, diversity, manipulation, explorability, anonymity, and wildness . . . The indeterminacy of rough ground allows it to become a play-partner, like other forms of creative partnership: actress-audience, potter-clay, photographer-subject, painter-canvas. The exploring/creating child is not making 'art' so much as using the landscape as a medium for understanding the world" (Moore, quoted in Trimble, 1994, p. 27).

While most playgrounds for young children in the United States still focus predominantly on equipment versus "a sense of place," ideas on how to transform a traditional playground into an environmental yard have been presented in the literature (Wilson, 1994b; Wilson, Kilmer, & Knauerhase, 1996). Such ideas include:

- developing a variety of gardens (e.g., herb gardens, flower gardens, rock gardens, alphabet gardens);
- providing places and materials that invite wildlife (e.g., rock piles, bird baths, bird feeders);
- providing materials that draw attention to environmental features (e.g., wind sock, thermometers, rain gauge, sun dial)
- providing materials that encourage direct interaction with the natural environment (e.g., child-size shovels and rakes; water source accessible to the children; natural materials that the children can manipulate such as rocks, shells, pine cones, and other plant materials).

Foster "Natural Play" Activities

While the value of play to child development has long been recognized (Johnson, Christie, & Yawkey, 1987), the activity we call play has changed considerably over the years. Fifty years ago, play was much more "natural" than it is today. Children at play tended to be engaged with natural materials-stones, sticks, sand, dirt, shells, clay-and the play itself was much more open-ended and child-directed. Children used the natural materials to construct their own toys and games. Sticks and pieces of bark became boats to float down the stream; leaves stirred in a bucket of water became the "soup of the day"; and burrs from burr-reed plants were shaped into stick people or animal figures.

Cross-culturally, young children-if given the opportunity-tend to create nestlike structures during their play activity (Kirkby, 1989, Sobel, 1994). This phenomenon tends to occur without any prompting from adults. An important condition for this type of play to occur, however, is that children be provided with the necessary materials, space, and time. Unfortunately, play for many young children today revolves around commercially made toys and/or computer programs, and is often relegated to indoor activities. Play is thus no longer natural, in the sense of connecting children with the natural environment.

Because natural play is much more consistent with the child's ways of knowing and is more likely to foster the imagination of the child, it should be encouraged by both parents and teachers. Natural play can be encouraged, not only by providing a variety of natural materials for children to explore and manipulate, but also by suggesting that children take on the role of other creatures. With a little encouragement and a few simple props, young children delight in pretending to be something else. While many young children take on the roles of people they know or are familiar with (e.g., parent, teacher, fire fighter, police officer), they also enjoy "becoming" animals they know or have heard about (e.g., bears, rabbits, birds). While such dramatic play should usually be left child-initiated and open-ended, adults can add richness and excitement by providing appropriate costumes and related props (e.g., "dens" and/or nesting materials for the animals' homes). At times, adults may also suggest that children act out the experience of such natural phenomena as metamorphosis, migration, or hibernation. Such natural play experiences can help children gain a deep appreciation for the wonders of the world around them.

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