

THE DENDRO-PSYCHOSES OF J.O. QUANTZ

by Robert Sommer

Abstract. J.O. Quantz was an early Canadian psychologist who published an intriguing article on the origins of human attachment to trees. Based on anthropological sources and interviews with children, the paper is a forerunner of current evolutionary theories of tree preference.

Key Words. Evolutionary theory; tree mythology; children's attitudes.

Theory development does not proceed smoothly in a single direction. Promising leads may be followed and then abandoned, only to be rediscovered a century later. So it was that I came across mention of a 19th-century article on "dendro-psychoses" by J.O. Quantz (1897). I had undertaken research on householder preference for different tree species, so the title was intriguing because *dendro* meant tree and *psychoses*—I thought I knew its meaning, but I was mistaken. In the 19th century, *psychosis* meant "state of mind." Therefore, Quantz's title would become, in modern terminology, "The Origins of Human Attachment to Trees." *Psychosis* had a second meaning from psychiatry, referring to serious mental disorder, and this meaning has today obliterated the nondisease usage.

Quantz's name and work have disappeared from the research literature. This is regrettable both in terms of historical accuracy and in the currency and comprehensiveness of his ideas. He was one of the first psychologists to use an evolutionary approach to understand human bonds to trees. I was particularly impressed with the sources cited, which included anthropological studies of indigenous peoples around the globe, interviews with children, and the writings of poets, novelists, and lyricists. The premise of Quantz's article is that the usefulness and beauty of trees are insufficient explanations for humankind's long and deep attachment, and therefore one must seek an internal (i.e., biological) explanation. At some point in evolutionary history, he proposes that the human mind was "subject to influences which left an impress that developed into more definite forms of

instinct or action" (1897, p. 449) through a process of natural selection. "Through the period of a few thousand generations during which the surest means of safety from enemies was flight into the trees, there would gradually grow in the human race an instinctive feeling for trees as natural protectors (p. 501). This is very similar to biophilia theory (Kellert and Wilson 1993), which maintains that many human preferences were shaped over millennia through interactions with features of the environment found helpful to the survival of the species in its early development. Through a process of gene-environment co-evolution, the multiple strands of environmental stimuli become part of culture. Culture allows a rapid adjustment to environmental changes through adaptations invented and transmitted without precise genetic prescription (Wilson 1998). Even when humans are removed from the stimuli originally provoking an emotional response, biophilia theory maintains that the connections remain in latent form and find expression as preferences and aversions.

I will not use this article to discuss the validity of evolutionary theories of landscape preference, which has been a major concern of such theorists as Appleton (1990), Kellert and Wilson (1993), Orians (1986), Heerwagen and Orians (1993), and Ulrich (1993). My goal is more modest—to call attention to an early writer whose work has been overlooked by current theorists and researchers.

Quantz wrote at a time when anthropology seemed capable of providing reliable information about peoples unexposed to Western influence, in this way providing valuable opportunities for experiments in nature. Today we make no such assumption, and when researchers describe a people living in isolation, the separation is assumed to be relative rather than absolute.

There are many intriguing observations of fears and aversions in regard to trees and forests, a theme later developed by Tuan (1979). Quantz considers fear of being in the woods a relic of times when forests and darkness were associated with danger. Rocking

children to sleep is seen as a reflection of an earlier evolutionary stage of life as tree dwellers, as expressed in the nursery-rhyme lyric "Rock-a-bye baby in the tree top." The climbing instinct of boys and girls is viewed as a residue of former habits, and babies show "in remarkable degree, an insane desire to climb up stairs" (1897, p. 465). Games such as hide-and-seek make play out of the formerly serious business of finding shelter during times of danger among tree trunks "behind which the body would be hidden, the eyes protruding for a momentary glance at the enemy, and then quickly withdrawn again" (p. 463).

Quantz provides a lengthy discussion of dendrolatry (tree worship) by indigenous peoples and residuals of these practices in Western nations. He suggests that a belief in tree spirits is as old as human civilization. "The earliest nations of history worshipped trees and the semi-civilized peoples of today offer sacrifices and gifts to the tree spirits" (p. 467). Quantz traces religion to sacred groves, observing that "the groves were God's first temples" (p. 471). The sound of rustling leaves has been interpreted as the oracular speech of tree spirits (p. 480) and the divining rod used for detecting water derives from the sacred tree with its magic powers. Planting and dedicating trees to the memory of heroes and great events is considered a modern residue of dendrolatry. However, this section included several word origins that could not be confirmed. Quantz observes that "temple originally meant *wood*" (p. 471), and the holly tree used in Christmas decoration was equivalent to "holy tree" (p. 473). These meanings were not found in the dictionaries of word origins that I checked, leading me to wonder if some of the other cited historical sources unavailable to me were accurately interpreted.

Quantz discusses the special characteristics of three somewhat overlapping concepts: the *life tree*, the *world tree*, and the *paradise tree*. Variations of these concepts appear in current accounts of sacred trees, such as Altman (1993) and Davies (1988). The *life tree* is host to a spirit that establishes relationships with humans. In some instances, humans are created from these trees; in other instances, mortals are transformed into trees. Numerous myths and legends from around the globe incorporating these concepts are cited. From these two concepts—creation from trees and transformation into them—arises the more specific notion of a sympathetic connection between the

life of a person and that of a particular tree. The recent book by Hill (2000) is a contemporary illustration of the bond formed between an individual and a specific tree. Sometimes, Quantz describes, an entire group will suffer if something happens to a sacred tree, or an entire tree species may die if something happens to a favored person, as in Shakespeare's lines "'Tis thought the king is dead; we will not stay. The bay-trees in our country all are withered" (p. 483). The aspen, according to legend, having supplied the wood of the cross, has never ceased to tremble.

Ancient belief systems frequently include a *world tree* that arose to explain how the heavens and stars are supported. This tree has its canopy in the sky, its trunk in the terrestrial world, and its roots in the underworld. When questioned, some children state that tree tops hold up the sky. Closely related to this is the *paradise tree*, often growing in a consecrated grove or garden of the gods. Sleeping beneath the boughs of other species, such as the laurel, or resting on a mattress made from laurel leaves, would produce prophetic visions. Many societies independently developed myths about ascending to heaven by climbing a tall tree.

In addition to the use of bark, leaves, or fruit in potions, trees have been imbued with medicinal qualities. One form of treatment was the supposed transfer of the ailment from person to tree. If the illness could be passed into a tree, the person would be relieved. At the time this approach was practiced, diseases were imagined to be evil spirits that could be induced to leave the human body when another suitable habitation was found. Several nations had folk beliefs that passing a child through split branches will cure certain ailments. A space formed naturally by the growing together of two branches was considered especially efficacious for this type of treatment. Trees also were considered to have magical properties in the prevention of disease. Wearing a piece of a particular species of wood as an amulet or charm would ward off illnesses.

The penultimate section, "The tree in child life," is the first in the article to employ primary data. Quantz was given access to interviews with children and teachers conducted by Clark University President G. Stanley Hall. Children ascribed to trees reasoning, intelligence, emotions, and morality. Trees possessed feelings and suffered when trimmed or cut. Children found parallels between the tree and the human body: the limbs, trunk, and roots are its arms and feet; the

leaves its clothing; the bark its skin, from which sap oozed as blood when the tree was injured. Children reported that trees reciprocate their own feelings: Trees like to have little children around and will cry when lonesome, make shade just for little boys and girls, watch over the house, and talk to children who can understand what trees are saying. Some children considered all trees to be good, but the majority restricted goodness to those providing some specific benefit, such as shade, fruit, or protection to birds. Children in this sample showed a particularly high regard for the oak. It is not known if these children were questioned about acacia-shaped trees, which are preferred over other shapes, although the oak form is in second place (Sommer and Summit 1996; Sommer 1997). Some children expressed sympathy for crooked trees, but others considered deformity to be retribution for bad actions. They believed trees put on new dresses during seasonal changes and are ashamed when all their leaves fall off.

Quantz concludes with the educational implications of the special rapport between children and trees. He recommends that teachers and parents build upon this natural preference, specifically that "Our training of children must contain enough *letting alone* to allow this attitude to continue. This reverence for nature, and feeling of *at-home-ness* with her, is one aspect of the childlike spirit which surely need never be outgrown" (pp. 479–480). Biophilia theorists (Kellert and Wilson 1993) will appreciate his recommendation: "It is surely worth our efforts to help children retain their naïve attitude toward their world, by encouraging their direct contact with nature and by furnishing them with myth and legend to keep the actual from breaking in too early and too rudely upon them" (p. 497). He feels children's endowing trees with human qualities to be partly responsible for the success of Arbor Day and other tree planting programs. Quantz regards sympathy for trees as a corrective to homocentric attitudes, an opportunity for teachers and parents to instill in children respect for nature and for life.

CONCLUSIONS

Even after a century of neglect, Quantz's article contains many intriguing ideas. Things change but stay the same; a useful theory continues with changed terminology. Although we rely less today upon anthropological investigations for information as to humankind's common biological inheritance, legend and myth remain valuable sources for archival investigations of early attitudes. Research on children's beliefs about trees is another fruitful direction for researchers. Most studies of attitudes toward trees, preference for particular species, and the effects of community participation in tree planting (Sommer et al. 1994) have not included children. Quantz's recommendations to retain and build upon children's natural sympathies toward trees have current relevance for teachers and parents, and for arborists engaged in educational programs.

LITERATURE CITED

- Altman, N. 1993. *Sacred Trees*. Sierra Club Books, San Francisco, CA.
- Appleton, J. 1990. *The Symbolism of Habitat*. University of Washington Press, Seattle, WA.
- Davies, D. 1988. The evocative symbolism of trees. In Cosgrove, D., and S. Daniels (Eds.). *The Iconography of Landscape*. Cambridge University Press, Cambridge, England.
- Heerwagen, J.H., and G.H. Orians. 1993. Humans, habitats, and aesthetics, pp 138–172. In Kellert, S.R. and E.O. Wilson (Eds.). *The Biophilia Hypothesis*. Island Press, Washington, DC.
- Hill, J.B. 2000. *The Legacy of Luna*. Harper, San Francisco, CA.
- Kellert, S.R., and E.O. Wilson (Eds.). 1993. *The Biophilia Hypothesis*. Island Press, Washington, DC.
- Orians, G.H. 1986. An ecological and evolutionary approach to landscape aesthetics, pp 3–25. In Penning-Roswell, E.C., and D. Lowenthal (Eds.). *Landscape Meanings and Values*. Allen and Unwin, London, England.
- Quantz, J.O. 1897. Dendro-Psychoses. *Am. J. Psychol.* 9:449–506.
- Sommer, R. 1997. Further cross-national studies of tree form preference. *Ecol. Psychol.* 9:153–160.

- Sommer, R., F. Learey, J. Summit, and M. Tirrell. 1994. The social benefits of resident involvement in tree planting. *J. Arboric.* 20:170–175.
- Sommer, R., and J. Summit. 1996. Cross-national rankings of tree shape. *Ecol. Psychol.* 8:327–341.
- Tuan, Yi-Fu. 1979. *Landscapes of Fear*. Pantheon New York, NY.
- Ulrich, R.S. 1993. Biophilia, Biophobia, and Natural Landscapes, pp 73–137. In Kellert, S.R. and E.O. Wilson (Eds.). *The Biophilia Hypothesis*. Island Press, Washington, DC.
- Wilson, E.O. 1998. *Consilience*. Vintage, New York, NY.

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Résumé. J.O. Quantz a été un jeune psychologue qui a publié un article intrigant sur les origines de l'attachement humain envers les arbres. En se basant sur des sources anthropologiques et des entrevues avec des enfants, cet article est précurseur des théories courantes en évolution sur la préférence des arbres.

Zusammenfassung. J.O. Quantz war ein früher kanadischer Psychologe, der einen interessanten Artikel über die Ursprünge der Beziehung von Mensch und Baum veröffentlicht hat. Basierend auf anthropologischen Quellen und Interviews mit Kindern, ist dieser Aufsatz ein Vorreiter der gegenwärtigen Theorien über die Bevorzugung von Bäumen.

Resumen. J.O. Quantz fue un psicólogo canadiense pionero quien publicó un interesante artículo sobre los orígenes de las ligas del hombre con los árboles. Con base en fuentes antropológicas y entrevistas con los niños, el artículo es un precursor de la evolución de las teorías actuales acerca de la preferencia humana por los árboles.