

Original Practices for Becoming and Being Human¹

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Narvaez, D. (2019). Original practices for becoming and being human. In Narvaez, D., Four Arrows, Halton, E., Collier, B., Enderle, G. (Eds.), [*Indigenous sustainable wisdom: First Nation knowhow for global flourishing*](#) (pp. 90-110). New York: Peter Lang.

One must go outside of written history of civilizations to realize that human behavior seen in Westernized industrialized nations is not representative of humanity generally. We all know vicious people or characters in stories--people who are routinely self-centered, cruel, domineering, or exclusionary--people whose "hearts" seem to be missing, who are soul-less, mind-less, grasping for power or control, or those who withdraw from relational connection self-medicate with consumerism, physical pleasures, media, drugs, monetary or even intellectual pursuits. Why are there so many people like this in the USA? Why has industrialized culture promoted these outcomes?

For some time, theorists from Rousseau to Freud, Fromm, Mumford, and Montagu have noted the discontentment and even alienation of industrialized humanity.² Freud thought civilization necessary to control the wild id in every individual, with the side effect of unhappiness presumably due to thwarted impulses.³ Others pointed to the alienation from living or working among strangers. Still others pointed to the way the industrialized system, then

¹ Personal note: It is difficult to hear and take in the viciousness of the recent centuries. I have a multicultural background, not only from experiences living around the world but with heritages from Germanic, Spanish, Jewish, Arab and Native peoples (Taino, we believe, since my father and his family were from Puerto Rico). Like all of us, my body has recollections of the trauma that our ancestors inflicted and received, passed to us through our parents (epigenetic inheritance). It is unclear to me why I am alive at this time when certain cultures of humanity are accelerating the destruction of manifest Life on the planet, except to help connect the dots on what contributes to such blind rapaciousness and suggest ways to prevent such madness in our children.

² Sigmund Freud, *Civilization and its Discontents* (London: Penguin, [1929] 2002); Erich Fromm, *To Have or to Be?*, (New York: Harper and Row, 1976); Ashley Montagu, *Anthropology and Human Nature* (New York: McGraw-Hill, 1963); Lewis Mumford, *Technics and Civilization* (Chicago: University of Chicago Press, [1934] 2010).

³ Freud, *Civilization and its Discontents*.

capitalism, undermines what makes humans truly happy—close family relationships, enjoyable work and leisure, plus enough resources to make those possible. But most industrialized people seem to assume “there is no other way to be,” and that whatever is happening is “the price of progress.” We are all quite immersed in this worldview, making it difficult to realize that the view is recent and rare in the history of the human species.⁴

The backdrop for discussions in this chapter and book is the whole of humanity and its nature. The setting is an earth community devastated by a particular worldview and cultural practices that uphold and perpetuate it. According to Redfield, there are two basic worldviews: an ancient one that considers the cosmos unified, sacred and moral, and the other that considers the cosmos fragmented, disenchanting, and amoral.⁵ The latter, a particular damaging worldview, evolved in the Old (Western) World, with seeds in Mesopotamia, only a few thousand years ago with the rise of the Abrahamic religions. Taking a stance against embodied life, they pushed their god out of nature as well as themselves. Historian Frederick W. Turner masterfully points to the cultivated fear of wilderness, of animals and nature, and their connotation with evil and depravity, initiated by the sky-god patriarchies that formed in the middle east.⁶ Their nature-divorced god pulled the human narrative off the earth and into a numinous realm to be fully experienced after death. On the earth, all was *desacralized*. Infiltrating Europe and encouraged by Biblical texts, soon the elites believed that only humans had value, making all else objects for human use.⁷ With time, this shifted to a grand scale of imperial entitlement in Western Europe,

⁴ Marshall Sahlins, *The Western Illusion of Human Nature* (Chicago: University of Chicago, 2008).

⁵ Robert Redfield, *The Primitive World and its Transformations* (Ithaca, NY: Cornell University Press, 1953); Robert Redfield, *Peasant Society and Culture: An Anthropological Approach to Civilization* (Chicago: University of Chicago Press, 1956).

⁶ Frederick Turner, *Beyond Geography: The Western Spirit against the Wilderness* (New Brunswick, NJ: [1980] 1994).

⁷ Jeremy Lent, *The Patterning Instinct: A Cultural History of Humanity's Search for Meaning* (New York: Prometheus Books, 2017).

which combined with Enlightenment science, formed a culture was like no other-- none “more materialist...more expansionist, more volatile and energetic, more linked to growth and progress, and almost everywhere without the kinds of moral inhibitions found in the world’s other high cultures.”⁸ Historian William Woodruff noted:

“No civilization prior to the European had occasion to believe in the systematic material progress of the whole human race; no civilization placed such stress upon the quantity rather than the quality of life; no civilization drove itself so relentlessly to an ever—receding goal; no civilization was so passion-charged to replace what is with what could be; no civilization had striven as the West has done to direct the world according to its will; no civilization has known so few moments of peace and tranquility.”⁹

What breeds such restlessness and such passion for domination? In regards to the natural world, Western culture also was unusual:

“Its fundamental regard for nature was more hostile and antagonistic than was true for any other developed civilization... nowhere else was the essential reverence for nature seriously challenged, nowhere did there emerge the idea that human achievement and material betterment were to be won by *opposing* nature, nowhere any equivalent to that frenzy of defiance and destruction that we find on the Western record...the central religions of neither the Asian nor the American civilizations permitted a separation from, or an attitude of dominion over, the natural beings and patterns of the nonhuman world.”¹⁰

⁸ Kirkpatrick Sale, *The Conquest of Paradise: Christopher Columbus and the Columbian Legacy* (New York: Penguin Plume, 1990), 91.

⁹ William Woodruff, *Impact of Western Man: Study of Europe's Role in the World Economy* (Lanham, MD: Rowman & Littlefield, 1982), quoted in Sale, *The Conquest of Paradise*, 91.

¹⁰ Sale, *Impact of Western Man*, 88.

Daniel Quinn in his novel, *Ishmael*, makes an insightful summary of principles underlying the treatment of the natural world, comparing what he calls Taker culture (settled societies dependent on monoagriculture) and Leaver culture (nomadic foragers).¹¹ The book's protagonist identifies how Taker or civilized culture defies the laws of nature. Unlike every other lifeform, civilized humans not only perceive other creatures as competitors but want to: (1) Exterminate competitors; (2) Systematically destroy competitors' food to make room for humanity's food; (3) Deny competitors access to food; and (4) Store food extensively only for themselves. We could add to his list: (5) Consider the rest of the natural world to be "resources" reserved only for them; (6) Use biocides to kill "pests" (which harm the web of life generally). Clearly it is these attitudes and behaviors that contribute heavily to the dire straits in which humanity and Life on the earth find themselves.

This "spirit against the wilderness" was brought by the Old World invaders to the New World with a grasping for profit or control at any cost and an inability to appreciate what they encountered.¹² Many of the invaders were *malcriados* (ill-bred from a human virtue standpoint) who demonstrated the vicious temperaments apparently admired at the time by their cohorts—arrogant, rapacious, tough, exploitative, cruel. Robbins pointed out that many who took over the land were speculators rather than settlers who, like the conquistadors before them, would carve up the newly plundered lands and then move on.¹³ In the introduction chapter, we mentioned that the invaders acted to chop down, burn or exterminate the living across the land—whether plant, animal or human. What breeds such restlessness? What breeds such repudiation of the unfamiliar other?

¹¹ Daniel Quinn, *Ishmael* (New York: Bantam, 1992).

¹² Term used in Turner, *Beyond Geography*.

¹³ Roy M. Robbins, *Our Landed Heritage: The Public Domain, 1776-1936* (Princeton, NJ: Princeton University Press, 1942); Turner, *Beyond Geography*.

Natives peoples of the Americas showed a very different worldview and human nature.¹⁴ According to Arowak scholar, Frank Bracho, happiness according to the Indigenous worldview was a matter of *being* more than of *having*—“being in the form most conducive to happiness was linked to the greatest possible integration with Creation, with the Natural Order and its laws”.¹⁵ Old World fear of living and dying clashed with this earth-centric worldview practiced among native peoples which exhibited a joyous appreciation of life in all its forms and a respect for nature’s life-death-life cycle which included humans themselves. The nature of the New World natives was remarked upon by explorers and first contact diarists, with a common assessment of their nature. What did Columbus say about the natives he first encountered? He wrote to the sovereigns, Isabella and Ferdinand, about 10 weeks into his first visit: “They are so affectionate and have so little greed and are in all ways so amenable that I assure your Highnesses that there is in my opinion no better people and no better land in the world. They love their neighbors as themselves and their way of speaking is the sweetest in the world, always gentle and smiling.”¹⁶

Such gracious attitudes were not accompanied by gracious behavior. Columbus nearly immediately started to kidnap and enslave natives. Bartolome de Las Casas, churchman then priest then landowner, was eyewitness to the developments in Caribbean islands from 1500 on, watching the arrival of “criminals and hoodlums” to populate the place, the enslavement and rape of the natives, the importation of Africans as slaves to replace the dwindling population of natives.¹⁷ After about 15 years, Las Casas had second thoughts about the whole enterprise, reversing his earlier belief that the New World provided an opportunity for Christian evangelism.

¹⁴ Vine Deloria, *The World We Used to Live In : Remembering the Powers of the Medicine Men* (Golden, Colo.: Fulcrum, 2006). Tom Cooper, *A Time before Deception: Truth in Communication, Culture, and Ethics* (Santa Fe, NM: Clear Light Publications, 1998).

¹⁵ Frank Bracho, “Happiness and Indigenous Wisdom in the History of the Americas” in *Unlearning the Language of Conquest*, ed. Four Arrows (Austin, TX: University of Texas Press, 2006) 42.

¹⁶ Turner, *Beyond Geography*, 129.

¹⁷ Turner, *Beyond Geography*, 140.

He began instead to express admiration for the Indian cultures, their rightness for Indian souls, unlike the imported tortures of the Christian invaders.¹⁸

Native peoples were astonished by the European invaders who behaved viciously, unlike any human beings they had known. For example, Acuera, the Timucua chief, had this to say to the Spanish explorer Hernando de Soto around 1540:

“Others of your accursed race have, in years past, poisoned our peaceful shores. They have taught me what you are. What is your employment? To wander about like vagabonds from land to land, to rob the poor, to betray the confiding, to murder in cold blood the defenceless.”¹⁹

As another read into the nature of the natives, note what a philanthropist “friend of the Indians” said of the native in the 19th century:

“*We need to awaken in him wants. In his dull savagery he must be touched by the wings of the divine angel of discontent...Discontent with the tepee and the starving rations of the Indian camp in winter is needed to get the Indian out of the blanket and into trousers—and trouser with a pocket in them, and with a pocket that aches to be filled with dollars!*”²⁰

In other words, unfettered greed was considered normal, and the natives had to be taught to be greedy.

Whence the origins of these disparate worldviews? Paul Shepard argued that Western/civilized culture arrested development in adolescence due to the lack of challenging

¹⁸ N.B.: Like the Spanish, the English were also blind to the beauty and opportunity for spiritual and imaginative expansion that the New World offered. See Roxanne Dunbar-Ortiz, *An Indigenous People's History of the United States* (Boston: Beacon Press, 2014).

¹⁹ Bob Blaisdell, *Great Speeches by Native Americans* (Mincola, NY: Dover Thrift Editions, 2000), 3.

²⁰ Robert Berkhofer, *The White Man's Indian: Images of the American Indian from Columbus to the Present* (New York: Knopf, 1978) quoted in Turner, *Beyond Geography*, 287.

initiation rites that bound the individual to the cosmos.²¹ I agree but think that the notable arrested development starts earlier, in early childhood when a deep sense of insecurity towards self, others and the world is fostered, and the child carries throughout life dysregulation and illfittedness, with human and other-than-human worlds (unless later significant events alter established patterns), leading to the many psychopathologies that psychoanalysts and others have documented.²²

Among the many practices that were denigrated and dismissed by European invaders to the Americas was the tender way that children were raised, documented recently among small-band hunter-gatherer societies around the world.²³ My contention here is that the differences in worldview and human nature begin with early life experiences that shape the brain in a species-typical or atypical manner. What caused civilizations to move away from meeting children's needs is a complicated story I do not address here. However, what is important to note are the differences between societies that do and do not provide for children's full basic needs. Those who provide for children's needs raise adults who live in relative harmony and happiness. Let's see why that is the case.

The Importance of Early Nurturing

Ethnographies of societies that live as nomadic foragers--the type of society in which the

²¹ Paul Shepard, *The Tender Carnivore and the Sacred Game* (New York: Scribners, 1973).

²² R.D. Laing, *The Divided Self* (London: Penguin, [1959] 1990); David Shaw, *Traumatic Narcissism: Relational Systems of Subjugation* (New York: Routledge, 2014); Donald Winnicott, *The Child and the Family* (London: Tavistock, 1957).

²³ Barry Hewlett and Michael Lamb, *Hunter-Gatherer Childhoods: Evolutionary, Developmental and Cultural Perspectives* (New Brunswick, NJ: Adline, 2005), reviewed in Turner, *Beyond Geography*. Perhaps this is why thousands of European newcomers fled to live with the natives, or whom after capture and (forced) rescue, returned to lived with natives at the earliest opportunity.

human genus spent 99% of its history and was common to many native American tribal groups—show us a different view of humanity than do civilized accounts. In these societies, children are affectionately raised by the whole community. Infants form relationships with multiple members of the community. For example, they are held by multiple caregivers within the two-hour windows observed and then, past 18 months, spend time with mother only about 40% of the time.²⁴ Native Americans also demonstrate the community raising of children. John Mohawk pointed out: “the group was responsible for life and death. From the moment you were born, they were responsible for you. Not your mother, but the whole group. From the moment you’re born, they’re all paying attention; it’s usually women who are paying attention to you when you’re very small. As you get older, especially if you’re a male, then the males take over at some point.”²⁵ In fact, one of the most important evolutionary inheritances humans have may be the cooperative raising of children.²⁶ This forms part of developmental systems that humans, similar to all animals, evolved to optimize the normal development of their offspring.

Humans are part of the tree of life, sharing many biological characteristics with other animals and inheriting many things from their ancestors beyond genes, including aspects of the human body that resemble those of fish, plants, mammals. Nurturing is a large part of our mammalian heritage.

Humans are born highly immature compared to other hominids (and should be in the

²⁴ Gilda Morelli, Paula Ivey Henry, and Steffen Foerster, “Relationships and Resource Uncertainty: Cooperative Development of Efe Hunter-Gatherer Infants and Toddlers” in *Ancestral Landscapes in Human Evolution: Culture, Childrearing and Social Wellbeing*, ed. Darcia Narvaez, Kristin Valentino, Agustin Fuentes, James J. McKenna, and Peter Gray (New York: Oxford University Press, 2014), 69-103.

²⁵ John Mohawk, “From the First to the Last Bite: Learning from the Food Knowledge of Our Ancestors,” in *Original Instructions: Indigenous Teachings for a Sustainable Future*, ed. M.K. Nelson (Rochester, VT: Little Bear & Co., 2008), 172.

²⁶ Sarah Hrdy, *Mothers and Others: The Evolutionary Origins of Mutual Understanding* (Cambridge, MA: Belknap Press, 2009).

womb at least another 18 months!).²⁷ As a result, most brain development occurs after birth. Because we are born so immature, with only 25% of adult brain size, much of our brain and body functions are established after birth through a combination of epigenetics and plasticity interactions with the child's maturational schedule. A child's relational world starts with mother's body, attention and care. The child's proper development depends on maternal bonding and continued entrainment with her physiology in the first months and continued responsive care in the first years. An immature infant learns neurobiological self-regulation and grows social capacities from calming, affectionate care. Thus, humans evolved to expect particular type of care, an intense level of support on the part of the mother and community, a situation that was available throughout most of humanity's existence.²⁸

As ethological observation has noted, all animals provide a nest that matches up with the maturational schedule of their young in order to optimize normal development.²⁹ Humans are no different. Humans evolved a particular nest to provide the intensive care a newborn needs.³⁰ Nurturing begins with the evolved nest.

How do we know what humanity's evolved nest looks like? Substantive evidence comes from extant studies of foraging communities around the world, the type of society in which the human genus spent 99% of its history.³¹ Nomadic foragers raise their children in a similar way

²⁷ Wenda Trevathan, *Human Birth: An Evolutionary Perspective*, 2nd ed. (New York: Aldine de Gruyter, 2011).

²⁸ William Greenough and James Black, "Induction of Brain Structure by Experience: Substrate for Cognitive Development," *The Minnesota Symposia on Child Psychology* 24 (1992): 155-200; Urie Bronfenbrenner, *The Ecology of Human Development* (Cambridge, MA: Harvard University Press, 1979); Hrdy, *Mother and Others*.

²⁹ Gilbert Gottlieb, "On the Epigenetic Evolution of Species-Specific Perception: The Developmental Manifold Concept," *Cognitive Development* 17, no. 3 (2002): 1287-1300; Mary Jane West-Eberhard, *Developmental Plasticity and Evolution* (New York: Oxford University Press, 2003).

³⁰ Melvin Konner, "Hunter-Gatherer Infancy and Childhood: The !Kung and Others," in *Hunter-Gatherer Childhoods: Evolutionary, Developmental and Cultural Perspectives*, ed. Barry S. Hewlett and Michael Lamb (New Brunswick, NJ: Transaction Publishers, 2005) 19-64.

³¹ Hrdy, *Mothers and Others*; Melvin Konner, *The Evolution of Childhood* (Cambridge, MA: Belknap Press, 2010)

wherever they have been observed around the world.³² Anthropologists summarize the shared caregiving for infants and young children across these groups:

“young children in foraging cultures are nursed frequently; held, touched, or kept near others almost constantly; frequently cared for by individuals other than their mothers (fathers and grandmothers, in particular) though seldom by older siblings; experience prompt responses to their fusses and cries; and enjoy multiage play groups in early childhood.”³³

To this list can be added soothing perinatal experiences and the positive social support noted earlier.³⁴ These nest components are vital for normal development as a human being.

Why does early nurturing matter so much? Because it shapes the functioning of the body/mind. As embodied creatures to become a (full) human being, one’s neurobiology must be well developed because how well one’s biology functions influences one’s sociality. One expects capacities for social self-regulation, prosociality and perspective taking. It establishes the psychosociobiological nature of the individual that is carried forward, without intervention, throughout life. A well-raised individual shows social fittedness and self regulation “all the way down,” displaying both cooperation and calmness.

I briefly note effects of the evolved nest. It is important for mothers to *avoid stress and distress during pregnancy* as these negatively influence the personality and physiology of the child.³⁵ Under normal, *naturalistic birth* conditions, mother does not want to put down baby. She

³² Hewlett and Lamb, *Hunter-Gatherer Childhoods*.

³³ Hewlett and Lamb, *Hunter-Gatherer Childhoods*, 15.

³⁴ Darcia Narvaez, "Baselines for Virtue," in *Developing the Virtues : Integrating Perspectives*, ed. Julia Annas, Darcia Narvaez, and Nancy Snow (New York, NY: Oxford University Press, 2016).

³⁵ Elysia Davis and Curt Sandman, “The Timing of Prenatal Exposure to Maternal Cortisol and Psychosocial Stress is Associated with Human Infant Cognitive Development,” *Child Development* 81, no. 1 (2010): 131-148; Elysia Davis, Laura M. Glynn, Christine D. Schetter, Calvin Hobel, Aleksandra Demet-Chicz, and Curt Sandman, “Prenatal Exposure to Maternal Depression and Cortisol Influences Infant Temperament,” *Journal of the American Academy of Child and Adolescent Psychiatry* 46, no. 6 (2007): 737-746; Peter Gluckman and Mark Hanson, *The Fetal Matrix : Evolution, Development, and Disease* (New York: Cambridge University Press, 2005).

and the baby become magnetized to one another from reward centers being activated in the first hour or so.³⁶ Babies needs should be met without question (*responsivity*). They should be kept calm as their physiological systems set their parameters and thresholds for functioning.³⁷

Breastfeeding should go on for years in order to develop the proper physiology of the child, such as the immune system which does not reach adult functioning until around age 5.³⁸ Babies expect *affection*, including to be held and carried virtually all the time --- their physiological development requires it.³⁹ Babies need constant in-arms support, which of course cannot be easily accomplished by a mother alone. In fact, isolating mothers and babies is a recent, health-undermining practice. Mothers in our prehistory were always mothering *with other mothers* who shared care and even breastfeeding when necessary.⁴⁰ All mammals (and other animals too) *play*, a sign of health and sense of safety.⁴¹ When young mammals play they build self-control and social skills.⁴² Children expect to play from birth.⁴³ Banter (sometimes called “gossip”), a more

³⁶ Sarah J. Buckley, *Hormonal Physiology of Childbearing: Evidence and Implications for Women, Babies, and Maternity Care* (Washington, DC: National Partnership for Women and Families, 2015).

³⁷ E.g. Stephen W. Porges, *The Polyvagal Theory: Neurophysiological Foundations of Emotions, Attachment, Communication, Self-Regulation* (New York: W.W. Norton., 2011).

³⁸ A.S. Goldman, “The Immune System of Human Milk: Antimicrobial Anti-Inflammatory and Immunomodulating Properties,” *Pediatric Infectious Disease Journal* 12, no. 8 (1993).

³⁹ Martin Reite and Tiffany Field, *The Psychobiology of Attachment and Separation* (Orlando [Fla.]: Orlando Fla. : Academic Press, 1985); Syndey Schanberg “The Genetic Basis for Touch Effects,” in *Touch in Early Development*, ed. Tiffany Field (Mahwah, N.J.: Lawrence Erlbaum Associates, 1995); M. A. Hofer, “Early Social Relationships as Regulators of Infant Physiology and Behavior,” *Child Development* 58, no. 3 (1981).

⁴⁰ Hrdy, *Mothers and Others*.

⁴¹ Gordon Burghardt, *The Genesis of Animal Play: Testing the Limits* (Cambridge, MA: MIT Press, 2005).

⁴² J. Burgdorf et al., “Uncovering the Molecular Basis of Positive Affect Using Rough-and-Tumble Play in Rats: A Role for Insulin-Like Growth Factor I,” *Neuroscience* 168, no. 3 (2010); Nakia S. Gordon et al., “Socially-Induced Brain ‘Fertilization’: Play Promotes Brain Derived Neurotrophic Factor Transcription in the Amygdala and Dorsolateral Frontal Cortex in Juvenile Rats,” *Neuroscience Letters* 341, no. 1 (2003); Jaak Panksepp, “Can Play Diminish Adhd and Facilitate the Construction of the Social Brain?,” *Journal of the Canadian Academy of Child and Adolescent Psychiatry* 16, no. 2 (2007).

⁴³ Colwyn Trevarthen on play at birth: Colwyn Trevarthen, “Musicality and the Intrinsic Motive Pulse: Evidence from Human Psychobiology and Infant Communication,” *Musicae Scientiae* 3, no. 1 Special Issue (1999); “Communication Cooperation in Early Infancy: A Description of Primary Intersubjectivity.,” in *Before Speech: The Beginning of Human Communication* ed. Margaret Bullowa (London: Cambridge University Press., 1979).

verbal form of play, is what characterizes human relationships in our ancestral conditions.⁴⁴

Indeed, small-band hunter-gatherer communities, most of life is spent *communally*, in social leisure (minimal work is done for food-gathering) which includes song, dance, storytelling and teasing. The evolved nest meets mammalian social-emotional needs, structuring body systems in the first years of life, whose effects last through the lifespan.

One of the most important growth points in early life is the right hemisphere, the dominant half of the brain that governs self-regulation and implicit social relations.⁴⁵ This has deep implications for worldview. The indigenous worldview understands that spirit pervades all things, that all are related and that humans have much to learn from the elders in the world—the plants and animals. These are capacities supported by the right-brain hemisphere, capacities that are shaped from early life experience, when the RH is scheduled to grow more rapidly. The RH governs self-regulatory processes as they develop in early life and shapes our awareness of the dynamic uniqueness of lifeforms we encounter.⁴⁶

Under species-typical conditions, children extend their relational bonding from mother to two more groundings early on. First, the child finds and builds relationships with members of the community of older members through attraction and responsive interaction. These are the allomothers that support the child's flourishing. Second, the child becomes rooted in the other-than-human community, which at first offers the backdrop for human relationships but then becomes a deeper set of relationships with animals and plants through attraction and interaction. "Animals have a magnetic affinity for the child, for each in its way seems to embody some impulse, reaction, or movement that is 'like me'. In the

⁴⁴ Robin Dunbar, *Grooming, Gossip, and the Evolution of Language* (London: Faber and Faber, 1996).

⁴⁵ Allan N. Schore, "Effects of a Secure Attachment Relationship on Right Brain Development, Affect Regulation, and Infant Mental Health," *Infant Mental Health Journal* 22, no. 1-2, 7-66; Allan N. Schore, *Affect Dysregulation & Disorders of the Self* (New York: Norton, 2003).

⁴⁶ Jill Bolke Taylor, *My Stroke of Insight* (New York: Viking, 2008).

playful, controlled enactment of them comes a gradual mastery of the personal inner zoology of fear, joy, and relationships. In stories told, their form spring to life in the mind, re-presented in consciousness, training the capacity to imagine.”⁴⁷ In hunter-gatherer societies, adolescents move into a lifelong study of reciprocal relationships with the other-than-human world. Their lives depend on staying connected and fostering the wellbeing of the local biocommunity. Although civilized nations are more distant from the natural world, it turns out that their wellbeing also requires the wellbeing of the biocommunity.

The Nested Community

Ninety-nine percent of humanity’s existence was spent in nomadic foraging communities. In extant studied communities and in reports by first contacts, they held a common worldview, that all things are alive with agency and purpose. There was a common adult personality –generosity, happiness, calmness and high intelligence.⁴⁸ Indeed, it was not only infants and children who benefitted from the evolved nest; all age groups were embedded in a nest of support for a lifetime. Anthropologists have noted the intense social fabric of simple hunter-gatherer societies, documenting the prevalence of positive social interactions, such as the frequency of laughter (which has beneficial effects on immune systems), singing (which has improves well-being), and constant socializing which can be related to better health outcomes.⁴⁹ Moreover, children and

⁴⁷ Paul Shepard, *Nature and Madness* (Athens, GA: University of Georgia Press, 1982); Paul Shepard, *Coming Home to the Pleistocene* (Washington, DC: Island Press, 1998), 7.

⁴⁸ For reviews see Tim Ingold, “On the Social Relations of the Hunter-Gatherer Band,” in *The Cambridge Encyclopedia of Hunters and Gatherers*, ed. Richard Lee and Richard Daly (New York: Cambridge University Press, 2005); Darcia Narvaez, “The 99%--Development and Socialization within an Evolutionary Context: Growing up to Become ‘A Good and Useful Human Being,’” in *War, Peace, and Human Nature: The Convergence of Evolutionary and Cultural Views*, ed. Douglas Fry (New York: Oxford University Press, 2013), 643-6772.

⁴⁹ Takashi Hayashi, Satoru Tsujii, Tadao Iburi, Tamiko Tamanaha, Keiko Yamagami, Rieko Ishibashi, Miyo Hori, Shigeo Sakamoto, Hitoshi Ishii, Kazuo Murakami, “Laughter Up-Regulates the Genes Related to NK Cell Activity in Diabetes,” *Biomedical Research* 28, no. 6, 281-285; Rosie Stacy, Katie Brittain, and Sandra Kerr, “Singing for Health: An Exploration of the Issues,” *Health Education* 102, no. 4 (2002), 156-162; Elizabeth Valentine and Claire Evans, “The Effects of Solo Singing, Choral Singing and Swimming on Mood and Physiological Indices,” *British Journal of Medical Psychology* 74, no. 1 (2001): 115-20; Norman Brown and Jaak Panksepp, “Low-Dose Naltrexone for Disease Prevention and Quality of Life,” *Medical Hypotheses* 72, no. 3

adults in nomadic foraging societies experienced purposeful social egalitarianism in the midst of natural dominance patterns—there were no strict culturally imposed social hierarchies.⁵⁰ In fact, studies across species, including human children and adults, find negative reactions to perceived unequal treatment.⁵¹ Un-nested environments may contribute to decreased well-being in adolescents and adults as well as in infants and children.

Consequences of the abandoned nest.

When humans, like other animals, don't receive their species-typical evolved nest, they become abnormal specimens--just like Harry Harlow's monkeys deprived of maternal love who became autistic and antisocial.⁵² Just like a species-typical nest is necessary to foster a species-typical individual, whether monkey or elephant or whale, the evolved nest is fundamental to becoming human. Species-typical animals learn their place in the biocommunity and live cooperatively with other species. It may be best illustrated this way. Think about raising a wolf in a human family: you will end up with a wolf. But if you raise a human in a wolf family, you end up with a wolf-child (as has happened numerous times in known history): an individual

(2009): 333-37; e.g. Daniel Leonard Everett, *Don't Sleep, There Are Snakes: Life and Language in the Amazonian Jungle*, 1st ed. (New York: Pantheon Books, 2008).

⁵⁰ Douglas P. Fry, *The Human Potential for Peace: An Anthropological Challenge to Assumptions about War and Violence* (New York: Oxford University Press, 2006); Robert Knox Dentan, *The Semai: A Nonviolent People of Malaya* (New York: Holt, Rinehart, and Winston, 1968).

⁵¹ e.g. Marc Bekoff, "Wild Justice and Fair Play: Cooperation, Forgiveness, and Morality in Animals," *Biology and Philosophy* 19, no. 4 (2004): 489-520; Sarah Brosnan, "Nonhuman Species' Reactions to Inequity and Their Implications for Fairness," *Social Justice Research* 19, no. 2 (2006): 153-85; Sarah F. Brosnan and Frans B. M. De Waal, "Monkeys Reject Unequal Pay," *Nature* 425, no. 6955 (2003): 297-9; Ernst Fehr, Helen Bernhard, and Bettina Rockenbach, "Egalitarianism in Young Children," *Nature* 454, no. 7208 (2008): 1079-83; Richard G. Wilkinson, "Socioeconomic Determinants of Health: Health Inequalities: Relative or Absolute Material Standards?" *British Medical Journal* 314, no. 7080 (1997): 591; For example, Inequality in social experience influences propensities toward drug use in monkeys; specifically, contemporaneous social experience such as ranking affects dopamine receptor binding and increases susceptibility to drug use in lower ranked monkey, (Drake Morgan, Kathleen A. Grant, H. Donald Gage, Robert H. Mach, Jay R. Kaplan, Osric Prioleau, Susan H. Nader, Nancy Buchheimer, Richard L. Ehrenkauf, and Michael A. Nader, "Social Dominance in Monkeys: Dopamine D2 Receptors and Cocaine Self-Administration," *Nature Neuroscience* 5, no. 2 (2002): 169-174.

⁵² Harry F. Harlow, "The Nature of Love," *American Psychologist* 13, no. 12 (1958): 673-85.

missing many characteristic human attributes like walking on their feet instead of all fours, language and social skills. Humans are greatly affected by their experiences after birth. Human physiology and psychology are highly shaped by post-natal experience, more so than for any other animal.⁵³ Neurobiological systems important for all a human becomes are shaped at this time. This includes the development of sociality and moral values (and Darwin's moral sense).⁵⁴

The USA today especially undermines the provision of what young children need, impairing optimal development at virtually every step of the way. There is *little expectation of calm pregnancies* in the USA these days as all women are expected to work up to the birth (and even return to work shortly after birth) and medicalized birth in the USA is a clear and present danger for normal mothers and at every step tends to traumatize the mother and baby (separation, painful procedures, sensory shock to the infant), undermining normal mother-child bonding and entrainment.⁵⁵ The USA is the only advanced nation whose practice of *infant circumcision* is both widespread and condoned by medical professionals.⁵⁶ The USA is the only advanced nation and one of the few in the whole world *without paid maternal leave after birth*, which with an expectation of women at work and no child care support at work, undermines the evolutionarily "designed" mother-child relationship. Babies in the USA are often sent to child care centers where they are unlikely to receive the *affection, carrying and responsive care* needed. USA

⁵³ Aida Gómez-Robles, William D Hopkins, Steven J Schapiro, and Chet C Sherwood, "Relaxed Genetic Control of Cortical Organization in Human Brains Compared with Chimpanzees," *Proceedings of the National Academy of Sciences of the United States of America* 112, no. 48 (2015): 14799-804.

⁵⁴ Charles Darwin, *The Descent of Man* (Princeton, NJ: Princeton University Press, [1871] 1981). See Darcia Narvaez (in press), "Evolution, Early Experience and Darwin's Moral Sense," in *Routledge Handbook of Evolution and Philosophy*, ed. R. Joyce (London: Routledge).

⁵⁵ Sarah J. Buckley, *Hormonal Physiology of Childbearing*; Marsden Wagner, *Born in the USA How a Broken Maternity System Must Be Fixed to Put Mothers and Infants First* (Berkeley: University of California Press, 2006); Gómez-Robles, Relaxed Genetic Control of Cortical Organization in Human Brains Compared with Chimpanzees."

⁵⁶ See "Newborn Male Circumcision," American Academy of Pediatrics, <https://www.aap.org/en-us/about-the-aap/aap-press-room/pages/newborn-male-circumcision.aspx>.

cultural pressures to not ‘spoil the baby’ or let baby ‘control you,’ eat away at mother’s instincts to be responsive.⁵⁷ A mother must have great resolve to shut out this mistaken and harsh advice. A frequently distressed baby will develop stress-reactivity, a low threshold for getting upset, which they take forward into the rest of life.⁵⁸ USA capitalism has prioritized money over family and relationships, breaking up extended family life, and undermining basic trust children have toward the world through the practices mentioned earlier. Babies necessarily become distrustful of the world from the denial of their need for mother’s mothering. Only about 15% of US hospitals are “baby-friendly” which refers to mostly *breastfeeding*-friendly practices (i.e., circumcision is not addressed), such as not separating mom and baby, not giving formula or sugar water.⁵⁹

In all these ways and many others, the USA undermines the evolved nest, so we should not be surprised if its citizens display above average illbeing, aggression and antisocial behavior⁶⁰ and an inability to feel connected to other peoples and other-than-humans. It should not be a surprise that a child undercared for would become an adult who reflects, believes in, and perpetuates the dominant Western worldview: that individuals are rational, self-contained, and autonomous, “locked within the privacy of a body,” “standing against” and competing for the “rewards of success” with “an aggregate of other such individuals.”⁶¹ What else does the child know than feeling insecure in a dangerous, untrustworthy world?

⁵⁷ Angel Braden and Darcia Narvaez (in preparation), *Primal Parenting* (New York: Oxford University Press).

⁵⁸ Sonia J. Lupien, Bruce S. McEwen, Megan R. Gunnar, and Christine Heim, "Effects of Stress throughout the Lifespan on the Brain, Behaviour and Cognition," *Nature Neuroscience* 10, no. 6 (2009): 434-45.

⁵⁹ See "Baby-Friendly Usa," Baby-Friendly USA, Inc., <https://www.babyfriendlyusa.org/>.

⁶⁰ Organisation for Economic Cooperation and Development, *How's Life? 2013: Measuring Well-Being* (Paris: OECD Publishing, 2013), <http://dx.doi.org/10.1787/9789264201392-en>; Innocenti Research Centre, “An Overview of Child Well-Being in Rich Countries,” *UNICEF* (2007), https://www.unicef-irc.org/publications/pdf/rc7_eng.pdf.

⁶¹ Ingold, “On the Social Relations of the Hunter-Gatherer Band,” 407.

The atypical human being, now widespread in most Western-industrialized societies, does not learn his place in the biocommunity because such learning was thwarted repeatedly in early life. The denial of the evolved nest teaches the child to deny himself, to distrust the world and to deny respect for others. It seems logical then to assume that a person raised outside the evolved nest feels “not of this world”—the world that rejected him so early. It is easy for him to believe that this is an alien place, and that there is someplace better. It is easy to adopt a mentality of “we are here only temporarily” and we will soon escape from the earth to something better. It takes a great deal of insight and healing to repair such early toxic damage.

CONCLUSION

How do we reenchant humanity with its heritages of living with the biocommunity and our evolved nest? Surely both are required for a sustainably wise life. The contributors to this volume remind us of what was and what we might do to return to sustainable wisdom. Jon Young points out the connectedness model that forms the basis of the original instructions of living together on the earth—with humans and other-than-humans.⁶² The sense of connectedness is established at conception and, in traditional first nation societies, is maintained throughout life. It is a broad web of connections. Indigenous societies that existed for hundreds if not thousands of years around the world behaved according to “what worked.” They lived intersubjective lives with the particular landscape of plants, animals and other entities which taught them how to live well in that place. They also followed the “original instructions” for raising human beings to live well on the earth. And are adapted to living on the earth, following the laws of mother earth.

⁶² Jon Young, Ellen Haas, and Evan McGown, *Coyote’s Guide to Connecting with Nature* (Santa Cruz: Owl Link Media, 2010).

These include the raising of a human being.

How do we return to the heartminds that governed our sustainable ancestors? We build individual self confidence with the following types of practices. We provide the evolved nest to babies, children and adolescents, following ancient ways for becoming a full human being. We recognize, respect and resonate with babies and young children as their brains and bodies construct themselves around such experiences. We allow children to follow their heart of hearts instead of a set of rules or principles others have devised. We give people experience “in the wild” of their local landscape. We help children and adolescents apprentice into the important aspects of a good life: foraging, growing and cooking one’s food; creative skills for making needed things (e.g., carpentry, sewing), alleviating the need for purchased items. We arrange children’s lives around play and self-directed learning (Maria Montessori brought some of these ideas to schooling). We provide extensive social support for people of all ages.

Thomas Berry, a noted spiritual father of the environmental movement, suggested that what is needed to transform human communities are not priests, intellectuals or prophets—he actually pointed to education and religion as dominant failures of the 20th century.⁶³ Rationality has led humanity in the wrong direction and the cultural resources that depend on rationality have lost their integrity, leading instead to planetary destruction. Instead shamanic education is needed, by which he means returning to our human instincts, our wildness, our authentic spontaneity, from which a sustainable human culture will emerge. Our pre-rational resources will help us reinvent human culture. Our pre-rationality is fostered by the evolved nest, which includes close connection with the rest of the natural world—all our relations. Humans are embedded in human communities but also unique landscapes of a biocommunity full of other-than-humans. Each place in the world has its own language and resonance, ecological

⁶³ Thomas Berry, *The Dream of the Earth* (San Francisco, CA: Sierra Club Books, 1988).

balance. These communities influence how well our biological needs are met and how well our neurobiology functions. As enactive creatures, our biopsychosocial experiences influence all our capacities. We recognize our connections and responsibilities to the more-than-human. We apprentice one another into partnering with the needs of the local biocommunity. In this way we can return to being human and raising good human beings, using “original practices” that served us and our other-than-human relations for most of human history.

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