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# Overcoming Climate Havoc with Inner Development from Deep Nestedness

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## Abstract

*With climate havoc, many are realizing that an emphasis on policy and institutional change has been inadequate to foster needed changes. Consequently, activists have realized that something more is needed, specifically psychological transformation. However, discussions of inner development typically focus on adult transformation, overlooking when inner aspects of being are seeded and how they are cultivated in early life. The focus of this article is on how species-normal nurturing in babyhood is essential for fostering the inner capacities needed. The lifeways of egalitarian hunter-gatherers who represent 99% of our genus history show us a different human nature, one with full inner capacities and behaviors to match. We also find a different context for living, deep nestedness, comprised of communal, intergenerational, spiritual, and ecological nestedness. Communal nestedness in the early months and years of life sows healthy inner capacities; when experienced throughout life, it meets basic needs and sustains a cooperative human nature. With intergenerational nestedness, ancestral wisdom is maintained into the future. Spiritual nestedness keeps individuals and communities aligned with universal energies. Ecological nestedness undergirds respectful partnership with local landscapes and nature's ways. Deep nestedness is humanity's species-normal pathway for wellness, integrating inner and outer dimensions for responsible, regenerative lifeways. The misdevelopment of human nature that occurs in modernized societies where nurturing has been eroded has contributed to climate havoc. Must we return to hunter-gatherer lifeways to counter climate havoc? No, but we need to understand which aspects of the species-normal lifeway are critical for the restoration of human capacities. Key Words: Evolved nest—Inner development—Child development—Wellness—Trauma—Hunter-gatherers*

Scientists, scholars, and activists have been warning for decades about humanity's dangerous pathway, a pathway that is "dismantling the very qualities that constitute the living world: variety of life forms, complexity of life's interrelations, abundance of native beings and unique places on Earth, and diversity of nonhuman forms of awareness" (Crist, 2019, p. 11). As a result, the planet is now experiencing climate havoc or global weirding (McKibben, 2011). Yet despite the availability of technologies, policy instruments, and resources to make appropriate changes, the world has not moved very far or fast in applying methods and practices to address the polycrisis underway. Climate denialism may be an indicator that *sustainability* and *resilience* are failed concepts (Albrecht, 2019). As a result, activists for regenerative human and planetary futures are starting to realize that something more is needed, something deeper than policy recommendations and something that addresses the human psyche. Hence, the development of the Inner Development Goals framework (2021) emphasizes five inner dimensions: being, thinking, relating, collaborating, and acting.

Earth4All (Bristow et al., 2024) has pointed out that the inner dimension of system change is usually absent from solution analysis, even though it may play a central role in creating and maintaining the current crises. Bristow and colleagues define the "inner" as "the domain of cognition, emotion, consciousness and culture; a complex interplay between individual subjective experience, unconscious processes and neurophysiology, interpersonal relationships, collective beliefs and social constructs" (Bristow et al., 2024, p. 3). They describe the "inner" as comprised of mindsets, values, identity, religion and spirituality, states, and traits; they suggest that what is needed is to liberate attention, overcome bias, and cultivate heart, mind, and imagination; and that what must be promoted is psychological resilience against threat reactivity and othering, as well as body awareness, emotional intelligence, and radical love.

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All this is vital to point out, but the target for interventions is primarily adults. Advocates have typically overlooked *when* all these aspects of being are seeded and *how* they are cultivated. The truth is they are grounded in the relational neurobiology coconstructed by experiences in the early months and years of life. “What the human organism requires most for its development is a nutriment of love; the source of virtually all health is in the experience of love, especially within the first six years of life” (Montagu, 1955, 292). The focus of this article is on how species-normal nurturing in early life, and beyond, is fostered by a loving, nurturing, deep-nested community. Nestedness is essential for shaping a regenerative, relational eco-consciousness and the knowhow to go with it.

We know now that the dominant culture has been following a trauma-inducing pathway, one that undermines human development and capacities (Tarsha & Narvaez, 2022, 2023).

Climate havoc has come about from the misguided worldview and lack of knowhow that result from species-atypical, unnurturing lifeways. This is especially apparent in the western culture of the last centuries, which has come to dominate most of the world through colonialism and capitalistic globalization. Its founding myths have been imposed across the world through imperialistic narratives, structures, and practices and the lure of its technologies. It purveys myths that include individualism, human selfishness, survival-of-the-fittest competition as necessary for evolutionary progress, and human separation from nature. All these myths are false.

- Individualism? We have never been individuals (Gilbert, Sapp & Tauber, 2012). No human exists alone. Everyone has a mother and relies on the community for survival. That community includes humans and nonhumans, such as trillions of microorganisms keeping each human body alive (Collen, 2016). We are symbionts (Haraway, 2016; Margulis, 1998).
- Human selfishness? Studies of public goods games around the world show that people instinctively cooperate and share (Rand, 2016). When there are natural disasters, people pitch in to help one another (Solnit, 2010). Even babies instinctively help strangers when they see a need (Warneken & Tomasello, 2007).
- Competition as evolution’s tool? Yes, there is some genetic competition among organic life, but nearly all genes are conserved across generations and most activity is cooperative, shown by countless studies and observations about plants, animals, and all life forms (e.g., Haraway, 2016; Kropotkin, 2006; Sheldrake, 2021;

Worster, 1994). Life is more about partnership than opposition, a survival of the friendliest (Hare & Woods, 2020).

- Separation from nature? Humans *are* nature, like everything else on the planet. One may *feel* separated, due to various neurobiological underpinnings and guiding ideologies, but it is an impossibility.

The best indicator of the falsity of these myths is our ancestral context, hunter-gatherer civilization, where *homo sapiens* spent 95% of its existence as a species, and which still exists today (Fry, 2006). In these communities, there is no sense of individuality but of “us-together,” a basic “we-ness” that includes the nonhuman and the unmanifest in the local vicinity (Bird-David, 2017). Nature is perceived to be imbued with subjectivity—a living, sentient world (Redfield, 1953).

Sharing is expected by all for all, including nonhumans. Sharing with others is like sharing with self—an extended self (Belk, 2010), a nonegocentric action that Bird-David (2005, p. 207) pairs with “entangled identities” or “joined lives.” Sharing with no immediate expectable return is the norm, so much so that in most Indigenous languages there is no word for sharing. “Sharing is understood here as the social practice of enabling access to what is valued on the basis of shared demands. . . . Sharing is allowing others to take what is valued,” understanding the precarity of life (Widlok, 2017, p. xvii).

Selfishness is considered disordered and insane. Discussing non-Westernized cultures around the world, Marshall Sahlins (2008, p. 51) writes: “Natural self interest? For the greater part of humanity, self interest as we know it is unnatural in the normative sense; it is considered madness, witchcraft or somesuch grounds for ostracism, execution or at least therapy. Rather than expressing a pre-social human nature, such avarice is generally taken for a loss of humanity.”

Although among hunter-gatherers there may be competition in hunting wild animals, animal lives are received as gifts, after rules of respect. Separation from nature is inconceivable. Domination of nature is incomprehensible.

What happened to these ancestral attitudes, perceptions, and behaviors, common all over the world before western civilization’s expansion (Taylor, 2005)? Why do modern societies contain individualistic, selfish, competitive people who act as if they are separated from nature (especially among the more economically privileged)? The modern lifeway system is saturated with the aforementioned myths, affecting infrastructures and structures, from child raising to schools and from work to home life. The myths have become embodied in species-atypical child raising and embedded in institutions, while media convey over and over their desirability

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and even “truth.” That climate havoc has come about should be no surprise.

Contemporary initiatives to convey stories of unity and oneness challenge the dominant myths (e.g., Unitive Narrative). Such initiatives are important for shifting attention and energy into mindsets of communal imagination (Narvaez, 2014). But urging adults to change their minds and perspectives will not be enough to address and mitigate climate havoc. Why might this be? As biosocial creatures, our biology is coconstructed by social experience in early childhood and our sociality, correspondingly, is grounded in the functioning of that shaped biology (Ingold, 2013). Will it be a biology of love or a biology of fear (Maturana & Verden-Zoller, 2008)? The contention presented here is that when we undercare for babies and young children, we foster a species-atypical inner human nature. We build in insecurity. With undercare, individuals preverbally anchor around early experience-shaped beliefs such as *I am unsafe; I am alone and will always be; I’m unlovable; and I can’t trust the world or anyone.*

Unhealed, undercare splits the child’s mind from body, self from nature, and starts the individual on a search for beliefs that offer certainty and superiority with their accompanying practices of control (Narvaez, 2014).

Thus, the endeavor to change adult worldviews must be accompanied by a focus on the formative shaping of capacities and worldviews in childhood. We must start at the malleable outset of each person’s life where the formation of inner human nature begins. Human body and mind worldviews are epigenetically and plastically shaped from the ground up, by the kind of experiences provided in early life and during sensitive periods throughout life (Narvaez, 2014). Understanding and embracing the nurturing practices of our ancestors can help us avoid the impaired inner dimensions that have contributed to climate havoc.

### Baselines for Human Becoming

The human genus has been around for about 6 million years, the *homo* line for about 2 million, *homo sapiens* for about 300,000 years, and civilization for about 10,000 years (1% of human existence and only among a small percentage of societies until recently).

Humanity spent 99% of its existence in small-band hunter-gatherer societies, nomadic foragers, which have been well studied by ethnographers (Ingold, 2005; Lee, 1979, 1990, 2018; Lee & Daly, 2005; Power, 2022; Thomas, 1989; Woodburn, 1982). Nomadic foragers are immediate-return societies—that is, they find and consume food resources as needed and have virtually no possessions. They

migrate along established routes and are deeply entangled with nature’s ways. They are fiercely egalitarian, roughly tease down ego inflation, tolerate no coercion, and are highly cooperative.

For centuries, anthropologists, psychologists, explorers, and others have commented on how peaceful, happy, and healthy members of egalitarian hunter-gatherer societies appear to be (Prescott, 1996; e.g., the Piraha, Everett, 2009; the BaYaka, Lewis, 2008; the Mbuti, Turnbull, 1974).<sup>1</sup> In fact, Abraham Maslow shifted his research to the study of human potential after spending some time with the Blackfoot Nation, noting their good health and happiness and lack of neuroticism (which was assumed to be a human species norm; Brown, 2014; Maslow & Honigmann, 1938). Jon Young (2019) spent decades of work all over the world examining and promoting nature connection based largely on principles learned from the San Bushmen. The San Bushmen and their culture have been in existence for at least 150,000 years (Suzman, 2017) and carry humanity’s genetic heritage (Henn et al., 2011). Young (2019) described the flourishing he observed among the Bushmen, those who are still able to live deeply with nature, identifying eight characteristics:

- Quiet mind and full presence with sensory integration
- Inner joy that is childlike, fresh, gleeful, and full of wonder
- Vitality and abundance of energy
- Unconditional listening and mentoring, which includes listening deeply without judgment
- Empathy and deep feeling toward nature
- Truly helpful where personal gifts are activated in service to others
- Fully alive with an awareness of the sacredness of life
- Unconditional love and forgiveness

Uncolonized Indigenous communities across the world share similar inner and outer capacities (Lee & Daly, 2005). They fit into the landscape, hardly changing it but living off its abundance (e.g., Biesele, 1993). Embedded deeply in Earth’s cycles and systems, through their daily decisions and practices, they maintain the well-being of animal, plant, and land bases (Descola, 2013). We can add to these list observations from other ethnographers. For example, the “preconquest” communities (precivilization and precolonization) that E.R. Sorenson (1998) lived with around the world were

<sup>1</sup>Like industrialized societies before 1850, they have a high child mortality rate of 50% before age 15.

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honest and trusting, believing what even the youngest child expressed. Enhancing one another's happiness was the ongoing practice of interbeing.

### *How do these societies raise a thriving inner human nature and an ecocentric community?*

There are four aspects of our ancestral lifeway described here whose absence plays a role in derailing inner development and contributes to climate havoc. Moderns can restore these practices to help reverse the destructive pathway that they have been following. First, immersion in *communal evolved nestedness* is vital for healthy development of the human child. Communal evolved nestedness is deeply relational for all ages, maintaining respectful connection to life, to nature, to community, and to self. Second, communal nestedness is grounded in *intergenerational* nestedness where elders and others support mothers and children; ancestral wisdom is passed on and honored; and actions aim for the well-being of future generations, human and nonhuman. Third, *spiritual* nestedness connects each and all to universal energies and holistic meaningful purpose. And fourth, these experiences foster *ecological* nestedness, a grounding in nature's ways, partnering with the local biocommunity. These four aspects comprise *deep nestedness*, heritages that many moderns have forgotten or never experienced. Each is briefly described, with an emphasis on the first, communal nestedness.

### **Humanity's Heritage of Nestedness**

Deep nestedness is humanity's longstanding inheritance, involving communal, intergenerational, spiritual, and ecological nestedness. Deep nestedness promotes human wholeness, as well as social and ecological fittedness as an Earthling in good standing. Studies of hunter-gatherer societies all over the world have identified the shared characteristics for child raising and for community life—communal nestedness—noting the cooperative, sustainable human nature it fosters (Narvaez, 2013).

#### *Communal evolved nestedness*

Like every animal, humans have a developmental system that optimizes normal development as it matches the maturational schedule of the young (Oyama, 1985). It is one of several human inheritances beyond genes (Jablonka & Lamb, 2005; Stotz & Narvaez, 2018; West-Eberhard, 2003). Unique in the ape lineage, humanity evolved cooperative child raising (Hrdy, 2009), which simultaneously fostered characteristics that distinguish humanity from its chimpanzee

cousins: greater epigenetic sensitivities (Gómez-Robles et al., 2015) and a large social brain with capacities for mindreading, egalitarianism, and lifelong sharing with others (Burkart, Hrdy & van Schiek, 2009).

Ethnographers have identified humanity's communal nest characteristics worldwide among hunter-gatherer societies (Hewlett & Lamb, 2005; Konner, 2005). In psychology studies, it has been called the evolved developmental niche or evolved nest (Narvaez, Gleason et al., 2013; Narvaez, Wang et al., 2013; Tarsha & Narvaez, 2019). First, life centers around the well-being of mothers and young children (Hrdy, 2009). At the same time, all members provide and share the communal nest, benefitting from being nested together throughout life. Second, humanity's communal evolved nest is especially intensive for the young because human infants at full term are born with only 25% of adult brain volume, resembling fetuses of other animals until nearly 2 years of age (Montagu, 1968; Trevathan, 2017). For young children, communal evolved nest characteristics include soothing perinatal experiences and infant-directed breastfeeding for several years. The rest of the nest components are vital for healthy development until adulthood (nearly age 30) and are experienced by all ages throughout life (Narvaez, 2024). These include a mutually enhancing, welcoming social climate; affectionate touch and no negative touch; social free play with multiaged others; responsive relationships; allomothering or mentoring; nature immersion and connection; and regular restorative healing practices. Converging evidence indicates that each of these practices cultivates a healthy brain and body in early life (for reviews, see: Gleason et al., 2021; Narvaez, Braungart-Rieker et al., 2016; Narvaez, Valentino et al., 2014; Narvaez, Panksepp et al., 2013; Tarsha & Narvaez, 2022, 2023; 2024).

The critical aspect of communal nestedness for young children is that it is ongoing and constant, such as breathing oxygen, not an off-and-on-again experience. In every moment throughout the day and night, someone in the nested community is available to meet the needs of the child. Needs are satiated instead of denied or minimized so that a peaceful, nonneurotic personality is fostered. Importantly, there is no coercion nor inducement of pain or fear. Nest practices cultivate trust in self, others, and nature.

The communal nest represents love in action, shaping inner human nature with a biology of love, which archeological studies confirm in our deep ancestry (Spikins, 2015). Loving treatment shapes the child's biopsychosociality to be one of a loving nature (Maturana & Verden-Zoller, 2008). Growing up with *ubuntu*, "I am because we are," is foundational to species-typical human being



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and becoming (Nagel, 2024). In this view, everything of import is rooted in relationship; the depth, breadth, and qualities of connections influence all one is and does. From the beginning of life to its end, loving interbeing fosters well-being, at the psychological, biological, and social levels. For example, vagus nerve function, which innervates every major body organ and facilitates social engagement, is shaped by breastfeeding, comforting touch, and play in early life (Tarsha & Narvaez, 2024). Indeed, communal nest components support the development of prosocial behaviors in children (Narvaez, Gleason et al., 2013, 2021; Narvaez, Wang et al., 2014; Narvaez, Woodbury et al., 2019; Tarsha & Narvaez, 2024) and in adults (Narvaez, Gleason et al., 2016; Narvaez, Wang & Cheng, 2016). Nestedness, then, provides a cultural commons for the development of a prosocial human nature (Narvaez, 2014) and the flourishing described earlier.

### *Intergenerational nestedness*

Intergenerational nestedness honors the basic needs of community members, including nonhumans. It also respects the ancestors, human and nonhuman, and their wisdom (Deloria, 2006). Not only do hunter-gatherers live in multiage groups much of the time, they maintain connection with deceased ancestors, express gratitude through ceremony, and by following longstanding traditions such as the communal evolved nest. Wise elders are critical to community well-being. They provide considerable amounts of nest provision (allomothering), especially for young children. They have the experience and the stories that can guide decisions and actions. Intergenerational nestedness also means acting in such a way that attends to future generations, human and nonhuman, and does not imperil their well-being.

### *Spiritual nestedness*

Deep nestedness involves knowhow for establishing and maintaining an ongoing renewal of spiritual connection. Community ecstatic experiences, which simultaneously foster healing and embrace the unmanifest, are routinely practiced in extant hunter-gatherer cultures, such as those of the San People (Katz, 2017; Katz, Biesele & St. Denis, 1997). These practices preserve a sense of humility, and an ongoing awareness that the self is “inseparable from the web of relationships that sustain it” (Macy, 148). Humility is a developmental process that is initiated at the beginning of life, coconstructed by family and community members who are humble before the needs of the child, providing the communal evolved nest

(Narvaez, 2019). Humble adults raise humble children who are ready to fit into their human and ecological communities.

### *Ecological nestedness*

Extant hunter-gatherers move respectfully among the entanglements with all life (Forbes, 2008; Wolff, 2001). Living in a web of kinship, deeply nested individuals develop instinctive biophilia and receptive intelligence, a listening orientation to land and life (Topa & Narvaez, 2022; Van Horn, Kimmerer & Hausdoerffer, 2021). The community lives regeneratively with Earth in mind, always responsive to nature’s ways. The human species, such as all species, evolved to coordinate with Earth’s cycles and systems. Traditional Native American communities maintain nature connection and respectful actions through ceremonies that follow the rhythms of the day, the month, and the season (Hogan, 1994). They ask permission to harvest and then listen to the answer (Kimmerer, 2013). Sharing, gifting, and gratitude are habitual (Kimmerer, 2024). The other-than-human entities have been on Earth much longer than human beings and have much to teach.

“Each animal has its own power or gift to convey because they were so endowed by Wakan Tanka. Does not a mountain lion tell us that we can become independent and walk those lonely chasms of change undaunted? Doesn’t a portrait of the owl, the eagle of the night, tell us not to fear the dark or mysterious places? Surely the beaver conveys a serene security and pace brought forth by a steady endeavor if we can be so fortunate to find our own bliss. And yes, we all need endless scenes of the freedom of hawks, eagles, wolves, and the great orcas of the seas to forever implant a resolve that we must never lose our connection with the vast soothing solitude of nature. Each winged, four-legged and finned has a meaning to convey that can be beneficial to our intricate two-legged lives. Yes, even a common field mouse or a disciplined, dedicated badland ant has a message to convey if we will stop to study and look for it” (McGaa, 1995, pp. 36–37).

Deep nestedness thus is comprised of communal, intergenerational, spiritual, and ecological nestedness. Among those who still live in our ancestral context of hunter-gatherer civilization, deep nestedness is lifelong, shaping inner capacities for a holistic ecological relational consciousness (Narvaez, 2024). Notice how deep nestedness fosters Earth4All’s inner dimensions, embodied in attitudes and behavior, from heart-minded imagination to resilience against othering. Still today, these communities follow a pathway rooted in deep nestedness that promotes human and nonhuman wellness, a clear contrast with the dominant culture’s ways.

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### Climate Havoc from Eroded Baselines

Most people today are living in trauma-inducing cultures where one or more basic needs are not met early on, resulting in an inflamed, stress-reactive physiology and an underdeveloped psyche (Maté & Maté, 2022). Many human beings are languishing instead of flourishing, and the dominant cultural system is forcing similar trauma on nearly all other life forms (e.g., Kolbert, 2014; Millennium Ecosystem Assessment, 2005; Nibert, 2013; Orr, 1994; Peterson, 2015; Terborgh, 1999; van Dooren, 2015; Wuerthner, Crist & Butler, 2014). At the same time, the resulting widespread misery is justified as an unfortunate but inevitable side effect of human “progress” (Berry, 1999; Kidner, 2007). In fact, psychologists and pharmaceuticals play a large role in helping clients adapt to and support a culture that is not nourishing (Kidner, 2001, 2012). Understanding the stress-reactivity that has become normalized, “trauma-informed practices” have become more widespread in business and education, attempting to avoid triggering stress responses (Center for Substance Abuse Treatment, 2014). How did we slip so far from the flourishing individuals and communities observed among hunter-gatherer communities?

Scholars debate the exact reasons some humans shifted from egalitarian hunter-gatherer (and later, village) lifestyles to hierarchical settled agriculture. Climate change? Population bubble? The shift occurred slowly in different places around the world, long after horticulture emerged. Mono-agriculture’s surplus of grains is associated with the rise of city states, private property, forced labor, slaves, militarism, taxation, and debt (Graeber, 2013; Graeber & Wengrow, 2021; Harman, 2017; Scheidler, 2020; Scott, 2017). As access to Earth’s gifts became exclusionary and individuals lost autonomy, communal nestedness deteriorated. Across hierarchical civilizations, children experienced neglect and abuse which became normalized (deMause, 1995). Motherhood was professionalized (Berman, 2000), putting the burden of child raising primarily on mothers, sometimes assisted by extended family members.

The western world’s theological break from the sacredness of humanity and nature in the first and second millennium BCE, removing holiness to an external sky god (Schneidau, 1976), was a contributing factor to the decline of species normality. This was followed by the pessimistic interpretations of sacred texts by Christian patriarchs (e.g., Augustine, 426 AD, 2025) whose views trickled down into western European culture: humans are responsible for bringing evil into the world; both humans and nature are fallen, corrupted, and depraved; “desires of the flesh” are disgusting; babies are born with original sin and need correction; but with

intellect and reason, humanity can rise above matter and their animal nature (Cassirer, 1963; Sahlins et al., 1996). These species-atypical ideas and sensibilities actually take root in species-atypical babyhood when separation and other forms of perceived punishment split the psyche of the child, encouraging dissociation from the body/self/others (Fairbairn, 1952), impairing the development of “inner” capacities essential for living with nature instead of against it.

### Communal unnestedness

In the modernized context, the species-normal needs of the very young are often overlooked or minimized. In fact, the dominant system’s structural enforcements of infant disconnection may be one of the most fundamental causes of the destructive orientation to life especially visible in the last few hundred years. These days it begins in early life with traumatizing birth (Bergman, 2014) in “baby-unfriendly” hospitals (Baby-Friendly USA, 2025) that separate babies from mothers and, for example, give them sugar water to keep them quiet, undermining the healthy development of the microbiome (immune system; Mokhtari et al., 2024). At home, hospital practices of physical isolation and adult-scheduled care continue, encouraged by professionals. Too often, parents lack community support and are unable to provide nurturing companionship care.<sup>2</sup> Forced by social structures (e.g., low wages and high costs of living), many parents return to work, sending newborns to daycare when a few weeks old where they do not receive species-normal moment-to-moment, baby-directed care. Instead of 24/7 physical connection to caregivers, babies spend a great deal of time isolated and untouched, especially at night, as some parent advisers still condone or recommend (e.g., Oster, 2019). The dominant cultural narrative that children are born to be resilient and who they become is largely guided by genes. Babies thus spend time in despair right when their worldview and capacities are being shaped (Winnicott, 1990) and when neuronal connections are growing or being pruned from lack of experience (Sakai, 2020). The body keeps the score, with early stress sowing inflammation, the source of all diseases (Karr-Morse & Wiley, 2012; McEwen, 2012; van der Kolk, 2014). Babies develop existential anxiety (Schore, 2009) and a worldview of isolation, greatly contradicting *ubuntu*.

<sup>2</sup>Traditional communal nest practices are found in some communities more than others, such as among Black, immigrant, Latino, and Queer families.

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Whereas a nested life shapes a biology of love, a degraded communal nest can shape a biology of fear that persists into adulthood (Karr-Morse & Wiley, 1997; Lanius, Vermetten, & Pain, 2010; Maturana & Verden-Zoller, 2008). A biology of fear, rooted in early experiences of infant terror and felt abandonment (Perry and Pol-lard, 1998), leads to habits of dissociation, absencing oneself from one's body or treating it like an object (Diseth, 2005; van der Kolk, 2014). Habitual numbness, an extinction of spirit and emotional presence, may result. Toxic stress in early life leads to a propensity to brace against the world rather than be open to learning from it (Porges, 2011). Unnestedness promotes implicit biologies and psychologies of fear, aggression, and/or arrogance (Maturana & Verden-Zoller, 2008). Habitual excessive stress in babyhood leads to self-protectionist habits in the face of stressors later (Narvaez, 2014; van der Kolk, 2014). Self-protectionist orientations rely on innate, prehuman, primate propensities, such as domination and submission, psychologically manifested as superiority or inferiority (Panksepp, 1998). One builds large ego defenses to survive the disregard experienced as a child. Ego defenses impair capacities for kinship consciousness and the "Common Self" consciousness of the Indigenous or kinship worldview (Martin, 1999; Topa & Narvaez, 2022). The growth of social-emotional intelligence and receptive intelligence toward nature, which occurs after birth, is impeded (Louv, 2005; Schore, 1996, 2001, 2002).

The "othering" of babies is just the beginning of a detached life-style where splitting from the inner dimensions of self, from others and from nature, becomes "natural." When children experience being treated as objects instead of persons-in-the-making, they learn to treat others similarly. Nature becomes an "other," distant, and inferior. Mindsets and actions of domination are attractive (Narvaez, 2014). Human entitlement toward nature is a step away and climate havoc a few steps further.

### *Intergenerational unnestedness*

Modernism is about ignoring or improving upon traditions rather than honoring them (Sherry, 2017). Instead of providing the ongoing support of the community and wise elders in raising children, mothers (and fathers) are often left on their own to figure out how to raise their babies. Instead of immersion throughout life in multiage groups, parents are isolated, and children are placed in same-age classrooms. These are contrary to our species' natural pedagogy of observing and informally learning from elders, human and nonhuman, in mixed age groups (Biesele, 1993; Hewlett et al., 2024). Moreover, consideration for future generations—for example,

seven generations of both humans and nonhumans—is a low priority when work and profits take priority. In a secularized society, money became sacred rather than the living Earth (Korten, 2015).

### *Spiritual unnestedness*

Although there are various interpretations of humanity's "fall," historian Calvin Luther Martin (1999) indicted the loss of spirit—the loss of faith that the spirits of Earth would take care of the community, and the disbelief that animal relatives would give themselves as gifts. With urban life, humanity walled itself away from the living rhythms of the local landscape, spending less and less time in touch with nature and cosmos. Western European culture increasingly lost connection with a sentient Earth (Harvey, 2017), becoming inattentive or unwilling to learn the language and songs of plant and animal kin, a fundamental attribute of prequest consciousness: "by learning the songs of other-than-human beings, one became joined to them—more properly, one recollected one's ancient kinship (communion) with these beings" (Martin, 1992, p. 18). With an emphasis on material wealth and extractivist, utilitarian use of Earth, it became commonplace to believe that only humans have spirit, that the rest of nature is largely an inert set of resources for human purposes, and that humanity can separate itself from natural laws (and live ignorant of them) without risk (Redfield, 1953). With a "spirit against the wilderness" (Turner, 1994), "icy and detached" settler-colonialists reaching Turtle Island created "a civilization strangled by fear, measuring everything in fear," knowing nothing of the spirit of each entity, forgetting the ethic that nature conserves us, instead of the other way around (Martin, 1999, p. 151, 107).

Two years before he passed, ecologist Paul Shepard gave a talk called, "The Origin of the Metaphor: The Animal Connection."<sup>3</sup> His talk concluded with "a letter delivered to me by a Bear," which was addressed to humanity from the others, the animals.

Dear Primate P. Shepard and interested parties:

"We are marginalized, trivialized. We have sunk to being objects, commodities, possessions. We remain meat and hides, but only as a due and not as sacred gifts. They have forgotten how to learn the future from us, to follow our example, to heal themselves

<sup>3</sup>This was part of the "Writings on the Imagination" lecture series at the Museum of Natural History in NYC. It can be downloaded from <https://paulhoweshepard.wordpress.com/twotexts/> The full text was included in *The Others*, Shepard, 1996, pp. 331–333.)

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with our tissues and organs, forgotten that just watching our wild selves can be healing. Once we were the bridges, exemplars of change, mediators with the future and the unseen.

Their own numbers leave little room for us, and in this is their great misunderstanding. They are wrong about our departure, thinking it to be a part of their progress instead of their emptying. When we have gone they will not know who they are.

Supposing themselves to be the purpose of it all, purpose will elude them. Their world will fade into an endless dusk with no whippoorwill to call the owl in the evening and no thrush to make a dawn.”

### *Ecological unnestedness*

Theodore Roszak (1992, p. 320) wrote that “repression of the ecological unconscious is the deepest root of collusive madness in industrial society.” He noted that *animism* may be the critical lost feature that “disciplines the relationship of humans to their environment, imposing an ethical restraint upon exploitation and abuse. . . *Is it possible that the loss of this sensibility accounts not only for our ecological crisis, but for our crazy-making discontent?*” (Roszak, 1992, p. 82). The disconnection from knowing and relating to the local landscape, to its well-being, has become commonplace and is an area ripe for transformation (Grenz, 2024). Eileen Crist (2019) points to human supremacy as the deepest cause of ecological destruction. “In a world dominated by Western civilization, industrialization, and domestic animals, human supremacy has come to manifest as three invisible shared beliefs: that Earth belongs to humanity’ that the planet consists of resources for the betterment of people’ and that human beings are of distinguished stature by comparison to all other species” (Crist, 2019, p. 51). The human supremacy assumption is powerful because it is tacit and unspoken but acted upon without awareness. And it is violent, inflicting grave harm on others with a sense of entitlement to use others at will. “The human-supremacist worldview is the deepest causal layer of the biosphere’s plight, for it makes humanity’s expansionism appear acceptable and inevitable” (Crist, 2019, p. 47). For example, Columbus expressed the European view that as a God-directed colonizer he had the right to modify a tropical climate by cutting down the forest to make it more temperate for colonizing forces (Fressoz & Locher, 2024).

What does it mean to understand and practice partnership with the rest of nature? It begins early. Mothers and other nurturers are the bridge to relational connection and trust (or distrust) of others, including the rest of nature. Notice the difference between how an

Indigenous mother introduces her baby to the rest of nature in comparison to a non-Indigenous mother, as described by Cordova (2007, p. 82):

“My daughter and a non-Native American school friend both gave birth to their first child in the early fall. On a sunny spring day the two young women came together to give their infants their first outing. My daughter’s friend has the backseat of their car loaded with the paraphernalia she thinks necessary for the outing. My daughter has only her son.

At a nearby park my daughter places her son on a grassy area and he begins to crawl and inspect the strange territory. The friend, on the other hand, leaves her son in a car seat while she spreads out a blanket for the child and then proceeds to dump onto the blanket an assortment of familiar toys. Once the child is on the blanket, he is admonished about touching the ground—the grass is “yucky,” he will get “dirty”—and the mother distracts the infant from exploring by handing him various toys. Occasionally the mother takes the infant’s hands and walks him about on the blanket.

My daughter follows her infant as he crawls on the ground, introduces him to trees, flowers, clouds, the wind on his face.

The non-Native American mother introduces her child into a potentially hazardous and alien environment; she offers him “safe” alternatives through the presence of the blanket and the toys. Everything else is “dirty.”

My grandson, on the other hand, is encouraged to touch, taste, and explore a new and delightful place. The non-Native American infant is taught to confront his environment; our child is shown what the world contains.

This is the stuff of which a worldview is built. Without language, without explanation, each of the young women is saying to their infant: this is where you live. Each child is introduced into the “real” world: one carries with him a man-made environment that proclaims safety amid a potentially hostile Earth; the other into a strange but interesting place that he is expected to “know” intimately.”

The westernized parent’s introduction to the rest of nature encourages the “othering” of nature, perhaps thereby promoting nature deficit disorder (Louv, 2005) which results from a lack of familiarity with or alienation from local landscapes. In contrast, the Indigenous parent’s approach encourages the opposite, kinning (Van Horn, 2021). Helping children fall in love with their landscape, with Earth as kin, starts in babyhood if not before. Anthropologist,



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Colin Turnbull (1984), documented Mbuti mothers singing to the child in the womb a unique song about the forest's goodness and protection, a song that continued to be sung to the child as they grew up.

Animism, the sense that all is alive, is supported (rather than derided as magical thinking by scholars, e.g., Piaget, 1929), encouraging the development of the animal mind, the intuitions and receptive intelligence of being an Earthling (Song, 2016).

Overall, the dominant culture has driven us into deep *unnestedness*. Thus, it is important to recognize the trauma-inducing pathway that civilized humanity has been following. The dominant culture's practices and policies reflect a slippage in baselines for what is species-typical, not only for raising children but also for human well-being generally, both in terms of treatment and outcomes. When nestedness is degraded in early life, the body is inflamed and set on a trajectory for ill-being, and the psyche takes forward a sense of alienation from the matrix of life. Living against nature encourages a sense of separation, which is bolstered by a sense of superiority from the advancement of machines and technology employed against Earth, leading to an increasing waste world instead of a promised technological wonderworld (Berry, 1999).

But, as Martin (1999) pointed out, humans only left Earth and their nested ways in their "fevered imaginations." Humans are not separate from nature but part of it, a part that makes consequential decisions.

Having moved away from species-normal *ecocentric* baselines, cultural attitudes and practices have impaired outer and inner dimensions for living well as members of the Earthling community. Nearly every modern institution, from family to work life, is designed *against* developing humanity's *ecocentric* inner dimensions. What can we do?

### Next Steps

Climate havoc awakens us to the need to not only change policies and institutions but also restore humanity's inner capacities for regenerative lifeways. The focus here has been on the *origins* of inner capacities and their *rootedness* in neurobiology shaped by *community nestedness*. For millions of years, humanity followed a wellness-promoting pathway with practices that are now scientifically documented to foster inner and outer well-being. The wellness pathway meets basic needs and maintains holistic well-being throughout life, fostering holistic human nature ready to live a regenerative lifestyle with others. Importantly, the wellness

pathway shapes an inner landscape that becomes pluripotential, with powers to perceive and respond flexibly to a living, pulsing *worldscape* (Sorenson, 1998). *Participatory consciousness*, a sense of embeddedness in a thickly composed living world of entangled relations, is embraced with confidence, allowing polysemy, the ability to merge with multiple others, human and nonhuman, shape-shifting identity instead of being stuck in a rigid identity (Bram, 2002). Polysemy is the product of *de-differentiation*, finding oneness with others rather than difference and separation. *Dedifferentiation* allows for pluripresent community feeling where the inner landscape aligns with the outer landscape of the Common Self (Martin, 1999).

Human young require the wholeness of humanity's deep nest to foster belongingness to place and the capacities to accompany the rest of nature as partners. The *communal* evolved nest coconstructs a healthy psychobiology in individuals and cultivates in the community an egalitarian relational sociality (Narvaez, 2014). *Intergenerational* nestedness situates communal nestedness as the lasting story of existence, humbling individuals to their responsibilities across time and place. *Spiritual* nestedness keeps each connected to the elevating powers of the universe. *Ecological* nestedness grounds humanity in a living, sentient Earth community. All together, they comprise the deep nestedness that is essential for shaping a regenerative, relational eco-consciousness and the knowhow to go with it.

### Three pathways

There are three simultaneous pathways for nurturing the inner dimensions needed to address climate havoc. First, we start with adults, with our narratives and models. We embrace our intergenerational nest, relearning our species-normal baselines and practices for development and flourishing (Narvaez, Moore et al., 2022; Narvaez & Witherington, 2018). We understand the contrast between the dominant (postconquest) worldview and the Indigenous or kinship (preconquest) worldview and move ourselves toward embodying the life-giving latter (Topa & Narvaez, 2022; <https://worldviewliteracy.org>). We open our senses to a relational, sentient world. We awaken to the intelligence and wisdom of plants and animals and learn to treat them with respect (e.g., Bekoff & Pierce, 2017; Gagliano, 2018). "The arts for living on a damaged planet demand sympoietic thinking and action" (Haraway, 2016, p. 67). We learn and share the stories of our evolved nested heritage, how it is aligned with animal nests tens of millions of years old (Narvaez & Bradshaw, 2023). We learn how nestedness shapes human nature. We understand that our intuitions and worldviews

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are shaped by experiences, whether intentional or by, so we pay attention to the environments in which we place ourselves and our children (Hogarth, 2001). We understand how a society’s structures and institutions, its stories and rationalizations, are built on intuitions grounded initially in childhood experience. We understand that communal nestedness provides the social infrastructure from which a species-typical cooperative society is built.

Second, we honor the chain of development. We understand that to be responsive to children’s needs is to provide the communal evolved nest, love in action. We learn what deep nestedness looks like and how best to provide it, especially to babies, children, and youth. We ensure that babies and young children always, in every moment, feel connected to loving others, thereby avoiding splitting the child’s mind from body, being from nature. Instead, children learn the “us-ness” of being. Babies are ready to dive into IDG’s (2021) being, thinking, relating, collaborating, and acting (Delafield-Butt & Reddy, 2025). At the same time, each child’s unique developmental unfolding is honored, with adults providing companionship scaffolding but not manipulation (Trevarthen & Bjørkvold, 2016). Adults are provided guidelines for offering each nest component in their own and their families’ lives and in the institutions and policies they support. Mother, baby, and child well-being are centralized in policy and practice. Babies are brought to every boardroom to remind adult decision makers of their responsibilities. Children are recognized as having much to teach adults. Systems of care at birth and beyond are reordered and redesigned to promote wellness. Every infant, mother, and family is enveloped in nestedness rather than in distress and disconnection. Every child’s birthright is to be immersed in natural environments where they can develop participatory consciousness and sensibilities toward a dynamic living world, building the intuitions of their “animal mind” (Song, 2016). Throughout childhood, children are given the opportunity to learn and practice respectful and responsible actions toward more than human (e.g., Medin & Bang, 2014). In these ways, they develop the skills for IDG’s being, thinking, relating, collaborating, and acting capacities. Although a book could be written, see Table 1 for a few more suggestions for children’s nestedness.

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Third, changes in awareness, perception, worldview, and caring are accompanied by *knowhow* for ecological nestedness. It is not enough to know things intellectually. Ignorance about *how* to respect the nonhuman around us has become widespread. Although it is easiest when cultivated from babyhood, with time and attention we can learn to sense the lifeforce in the nonhumans around us. One must *feel into* them in such a way that it fosters skilled behavior

**Table 1. Short List of Policy and Institutional Changes to Support Child Inner Development by Deep Nest Aspect (Communal, Intergenerational, Spiritual, Ecological)**

Communal nest
<ul style="list-style-type: none"> <li>• Universal health care that does not rely on profit from efficiency (e.g., at birth) promoting well-being for all</li> <li>• Universal baby-friendly hospitals</li> <li>• Universal paid parental leave for 1–3 years</li> <li>• Parent and community education about the evolved nest and the malleability of young children             <ul style="list-style-type: none"> <li>◦ Education includes breastfeeding, safe bedsharing and co-sleeping, and respect for mobile children’s autonomy</li> </ul> </li> </ul>
Intergenerational nest
<ul style="list-style-type: none"> <li>• Babies-to-work initiatives, with childcare centers in every large workplace</li> <li>• Housing ordinances that allow more than two generations in a household</li> <li>• Multiage classrooms</li> <li>• Child carers and grandparent education about the evolved nest and the malleability of young children</li> <li>• Include children in decision-making</li> </ul>
Spiritual nest
<ul style="list-style-type: none"> <li>• Wild nature immersion without interference</li> <li>• Joyful self-transcending community events (communitas)</li> <li>• Community grieving events</li> <li>• Prepared vision quests</li> <li>• Landscape listening</li> <li>• Music making and dance</li> <li>• Celebrations of lunar, solar cycles</li> </ul>
Ecological nest
<ul style="list-style-type: none"> <li>• “Animal” instincts are fostered</li> <li>• Receptivity to animal and plant kin promoted</li> <li>• Forest kindergartens that follow nest provision practices</li> <li>• Outside play unsupervised</li> <li>• Naturalistic parks every few city blocks</li> <li>• Education with Earth in mind</li> <li>• Nature nurture</li> <li>• Buildings preserve and integrate the rest of nature</li> <li>• Foraging</li> <li>• Gardening</li> </ul>

(Polanyi, 1958)—like the experienced mother who *feels* the state of the baby and acts to meet the need expressed, or like the mechanic who *feels into* the misrunning of the machine and knows where to

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tinker. For deeper wisdom on how to behave as Earthlings, we seek deeper connections to land and all our relations—the insects, animals, and microorganisms. We get back into our bodies, developing embodied relational intuition. A “daily practice of place” fosters intimate knowledge so that any changes in the landscape would be immediately discerned (Grenz, 2024, p. 121). We relearn how to listen to the animals, plants, and landscape and make the effort to nurture them as a human responsibility (Grenz, 2024). We empty ourselves of the “socially indoctrinated belief system that prescribes the boundaries of how we are expected to perceive and behave” (Gagliano, 2018, p. 16). We learn from plants and other nonhumans that “plants and nature can be heard. They are not property to be owned. They need not custodianship, but a commitment to a non-hierarchical respect, a space of communion in which we come to understand the world and take the pathway toward understanding each other” (Gagliano, 2018, p. 36). In fact, “we breathe each other in and out of existence, one made by the exhalation of the other” (Gagliano, 2018, p. 15). With our situated nonhuman kin, we learn and practice how to live respectfully, responsibly, and appropriately in that place (Grenz, 2024). We learn from native wisdom garnered over centuries through respectful relational science and ask for assistance from our Indigenous/First Nation cousins who have generations of landscape-based knowledge (Cajete, 2000; e.g., of the importance of regular brush burning in forests to prevent out of control wildfires). For significant decisions, we set up a “council of all beings,” with animals, plants, soil, and waterways represented by human representatives who speak for them (Macy & Brown, 2014). We use our imaginations for an inclusive communalism in the structures we design and the practices we endorse.

Ultimately, the interaction of worldview, actions, and knowhow shape our ethics, the behaviors we take that we think are good and right. When we fully embrace the Indigenous worldview, our perceptions change, as does our behavior. We nest together, grow together, and fulfill our humanity together. We foster biologies of love in our children and in one another. We act with love toward all our relations. We reconnect to the life force in all. No longer do we treat the rest of Earth’s entities as dumb or inert objects for our use. We respect our nonhuman kin as subjects with their own purposes (Gagliano, 2018; Kimmerer, 2013). We restore our closeness to our landscapes, joining “in an intricate configuration of sacred associations with the spirit of place” (Shepard, 1998, p. 7). We behave relationally, ecologically, and spiritually, returning to *soliphilia*: “the love of the totality of our place relationships” with the “willingness to accept the political responsibility for protecting and conserving them at all scales” (Albrecht, 2019, p. 121).

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1

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