17 Grounding Moral Psychology in Evolution, Neurobiology, and Culture

Darcia Narvaez

A moral psychology grounded in evolution, neurobiology, and cultural influence is vastly different from a moral psychology that is not so grounded. Each of these three topics is discussed in this chapter. To attend to *evolution* means to take into account humanity's deep history, not just recent civilizations and theories (Henley et al., 2019). It means drawing on humanity's social mammalian heritage, including the social mammalian system for raising the young (Narvaez et al., 2013). Taking into account *neurobiology* means to understand the human individual's profound immaturity at birth, the influence of social experiences on neurobiological structures in early life, and the individual's long maturational schedule (till nearly age 30) (Bethlehem et al., 2022; Montagu, 1968). It means understanding human beings as biosocial creatures, whose sociality is highly influenced by their biology, a biology shaped by caregivers and community (Ingold, 2013). It means understanding how neurobiology shapes dispositional moral orientations and situational mindsets. Finally, to address *cultural* influences means to attend to the stories a culture conveys along with its daily practices, especially in regard to the raising of children (Narvaez, 2014). Nature does not make "bad" (dysregulated, disconnected, irresponsible) creatures, but culture can – within one or multiple generations, child raising can change and epigenetic effects can take hold (Maté & Maté, 2022; Wolynn, 2016). Culture can undermine the development and maintenance of what will be described as species-typical psychosocial neurobiology, upon which is built species-typical sociality and morality (Narvaez, 2021).

Before moving forward, a definition of optimal morality would be helpful. I take a view inspired by the hints at the importance of early development that Aristotle and Mencius provided. The lasting effects of early experience are now supported by contemporary biological sciences. From a transdisciplinary perspective, optimal moral intelligence represents comprehensive virtue, defined here as holistically coordinated physiological, psychological, spiritual systems oriented toward holistic communal harmony, social attunement, receptivity, and interpersonal flexibility (Narvaez, 2014). These are rooted in well-functioning neurobiological structures and multiple intelligences. Virtue entails the full coordination of intrapersonal capacities and responsibilities to balance with interpersonal needs in the moment (relational attunement) and that guide imagined possibility and planning that takes into account the web of life (communal imagination). There are multiple processes or capacities that are required for virtuous moral

intelligence in action (Narvaez, 2010; Rest, 1983). The overall categories for these processes include moral perception, moral sensitivity, moral reasoning/judgment, moral motivation, moral identity, moral action capacities, as well as ego strength (the ability to persevere to action completion against all obstacles and discouragement).[1] All these must function in coordination for virtuous moral behavior to take place. With well-constructed neurobiology and social support throughout life, virtue becomes a combination of social *wu-wei*, effortless action with and for the other in the moment (Slingerland, 2014), and social *yu-wei*, using abstracting capacities to plan inclusively. We evolved to develop such capacities naturally, within a supportive community (Narvaez, 2016), though details vary by locale and culture. I follow the traditional, earthcentric Indigenous worldview and consider the full web of life as part of interpersonal moral concern (Narvaez, Four Arrows, et al., 2019; Topa & Narvaez, 2022). Table 17.1 contrasts aspects of this worldview with the dominant worldview rooted in Western Enlightenment culture.

In order to outline different moral paths and their development, we need to address three aspects: realism, idealism, and pragmatism (Lodge, 1944). First, we take a realistic assessment of what sort of creature we are, how we are shaped into our nature, and how things can go wrong. To understand the realms of possibility for our nature and capacities, to lay out the ideals, we can examine what is optimal functioning for our species, from a holistic perspective. At the same time, we can examine pragmatics: What did we evolve to reach our optimal functioning? What do communities provide to maintain our moral optimality?

The overall argument is this: Childhood experience matters for psychosocial neurobiology, shaping basic orientation-by-situation schemas toward social trust or distrust, openness to the other, or self-protectionism. Optimal functioning encompasses what helps individuals and diverse communities (human and other than human) flourish in a balanced, give-and-take, mutualistic manner via meeting basic needs through sharing and gifting, as was predominant in traditional nonindustrialized societies around the world (Widlok, 2017). Basic need fulfillment through our species' developmental system of support fosters and maintains the nature of the species (Narvaez, 2018). The end is balance – balance in individual, relational, and ecological systems. As we will describe, to grow a healthy virtuous human being, our species' evolved nest in early childhood is required, or else extensive sanctions or healing interventions will be

[1] Although others have examined the evolution of reasoning and judgment (Krebs, 2005), I do not follow that example here for several reasons. First, the abstracting kind of reason that Westerners emphasize represents a recent phenomenon in the history of *Homo sapiens*, reflecting a shift away from concrete know-how and away from presence (Abram, 1996; Ong, 2002). Second, Western views of reasoning (typically emotionally and relationally detached) are Western cultural adhesives, meaning they do not represent the kind of reasoning human beings typically employ outside of calculative schooling that Westerners advocate (e.g., Luria, 1976). Third, abstracting reason is not representative of humanity's highest form of being, moral virtue, which involves a coordination of emotion, perception, intuition, reason, and concrete know-how applied in the right way at the right time.

Table 17.1 *Morally relevant aspects of human existence contrasted in traditional earthcentric Indigenous societies and the dominant worldview based in Western Enlightenment*

	Traditional, earthcentric, Indigenous societies	Dominant worldview based in Western Enlightenment
Self-regulation	Facilitated and coached	Coerced (e.g., sleep training, punishment)
Empathy	Experienced, modeled, expansive to include other than humans	Expected for kin and in-group
Relationships	Define being human	Utilitarian
View of rest of natural world	Treated as sentient role models, teachers	Treated as inert, dumb, or inferior
Perception	Holistic, inclusive of manifest and unmanifest beings and energies	Underdeveloped, focused on materialistic human interests
Intuition	Well-educated emotions and lifeway know-how	Underdeveloped and thus often untrustworthy
Sensitivity	Manner of relating to web of life	Diminished, anthropocentric
Reasoning/ judgment	Distrusted unless based in concrete experience; communal with biocommunity in mind to seven generations	Emphasized but detached from relationship and emotion, anthropocentric
Motivation/focus	Enhancement of community and web of life	Getting ahead of the competition
Action	For community	For me and mine

needed later. What I describe then is a developmental ethics. Virtue is the result, not as a trait but as holistic moral intelligence, meaning a flexible, dynamic set of capacities for responding and acting appropriately – a coordination of emotion, perception, intuition, reason, and concrete know-how applied in the right way at the right time. What is required shifts from situation to situation because all situations are unique. An individual may have a person-by-situation signature at the gross level of analysis, consistent with social-cognitive personality theory, but within each situation specific action will vary. Now let's examine broad evolutionary theory.

17.1 Developmental Evolutionary Psychology Theory

Evolution refers to the shift of planetary ecologies across time, shifts in ecology (e.g., climate patterns), ecosystems, and species changing dynamically through symbiosis, gene exchange, and natural selection (Jablonka & Lamb, 2006). Evolution by natural selection, put forward by Charles Darwin (1859/1962), refers to one mechanism, now understood as genetic adaptation. Across generations, most genetic characteristics are conserved, operating adaptively. Few genetic mutations are selected for because prior adaptations are working

well enough. That is, the vast majority of genetic information is conserved into the next generation. Retrospectively, it is possible to observe that a particular genetic mutation was correlated with survival in comparison to rival genes across multiple generations. Making it to reproduction is not enough. Individuals must not only survive but thrive to reproduction and then their offspring must outcompete rivals with different genetic mutations, for multiple generations. What is often overlooked is that survival and thriving depends on a well-constructed creature. For mammals like us, early life undercare and/or trauma are not conducive to survival, thriving, or outcompeting rivals across generations, as research on adverse childhood experiences is demonstrating (e.g., Felitti & Anda, 2005).

The story of evolution has been co-opted by the cultural forces that benefit from emphasizing "survival of the fittest," misunderstanding human evolution so much to conclude that the selfish survive best (Midgely, 2010). Some scientists have truncated how natural selection works and emphasize getting to reproduction as the end game. Thus, it is a "win" for natural selection if a child has a baby at age 8. They are confusing *functional* adaptation (reactions within a particular life) versus *evolutionary* adaptation by natural selection (outcompeting rivals across generations; Narvaez, Gettler et al., 2016). The accurate and parsimonious position understands that having a baby at age 8 is a sign of early developmental disruption, specifically, endocrine disruption from pollution (e.g., BPA plastic), biopsychosocial stress, and/or excessive caloric intake or other experiential factors (Fisher & Eugster, 2014).

To attend to *evolutionary systems* means to take humanity's deep history into account, not just recent civilizations. We need to shake the newish cultural dust off our feet and look farther back whence we came (Henley & Rossano, 2022; Henley et al., 2019). First, humanity's cooperation is rooted in nature's vast collaboration (Worster, 1994): every day, scientists are uncovering the expansive networks of cooperation that exist among different species in forests, waterways, soil, and human bodies through symbiosis and mutualism (e.g., Sheldrake, 2021; Simard, 2021). Competition plays a lessor role in comparison. Human groups evolved to take part in Nature's gift economy, as through a maternal gift economy that provides for the unequal needs of community members with no expectation of reciprocation (Vaughan, 2007, 2019; Widlok, 2017).

Second, we note the significance of humanity's break 6–7 million years ago from the great ape (hominid) line to humanity's hominin line. Humanity's huge social brain and cooperative child raising coevolved, moving humanity away from ape-like dominance hierarchies to the egalitarian social structures with "un-apelike selflessness, a degree of hypersociality reflected in a concern for others, eagerness to share food and information with others, and cooperation in a wide array of contexts, even with nonrelatives and near-strangers" (Burkart et al., 2009, p. 175). This shift increased opportunities for social learning and teaching, mindreading, language, and cumulative cultural evolution (Power et al., 2017). In fact, Darwin (1871/1981) noted the "moral sense" as a fundamental characteristic of human nature (a combination of social pleasure and

social concern, empathy, and habit control; Narvaez, 2017), observing how it was more apparent in Native Peoples around the world than in his British compatriots. This is not a surprise when one understands how childhood experience influences moral personality and how British child raising was notoriously brutal and cold (deMause, 1995; Turnbull, 1984) whereas Native Peoples followed our evolved system for raising children (more later).

Third, we attend to the fact that our bodies carry trillions of microorganisms that keep us alive (over 90 percent of the genes we carry are theirs; Dunn, 2011). We share nearly 99 percent of our DNA with bonobos and chimpanzees, as well as 50 percent with mushrooms, and 60 percent with bananas. We are not completely new earth creatures but have biological linkages to virtually everything on earth.[2] We are embedded in a cooperative natural world; traditionally, the decomposition of our bodies moves into the next generations to form new life (hence, worries about genetic competition are highly overplayed). Fourth, we attend to the multiple inheritances we receive beyond genes,[3] such as cell and body plans, epigenetic programming, developmental plasticity, basic needs and the developmental niche to meet them, self-organization, maternal ecology and microbiome, the local ecology, the moral sense, and culture (e.g., Darwin, 1871/1981; Jablonka & Lamb, 2006; West-Eberhard, 2003).

A *developmental* evolutionary theory offers a broad view of evolution's impact on who humans are, emphasizing the complexity of multiple inheritances, appropriate baselines for the dynamic nature of development and human plasticity, and the provision of our species' developmental niche (Narvaez et al., 2022). When discussing the nature of human beings and their moral potential, we must understand what kind of organism we are, what influences our development, what qualities help us lead a full life, and what kinds of capacities make each a proper member of the species (Foot, 2001; Narvaez, 2021; Thompson, 1995). We need to establish some baselines instead of being pushed to and fro from some new isolated discovery or experiment.

17.2 Morally Relevant Questions about Our Species

To make judgements about human nature, we must examine our assumptions. And we must clarify the source of our assumptions.

[2] I will leave aside how human beings differ from other animals. This is not a typical focus of most of humanity through time, rather, dedifferentiation of self from others along with polymorphism, no fixed identity of anything, was typical (e.g., Bram, 2002, 2018).

[3] We often get distracted by information about genes and genetic evolution and start to think that genes make the person. Far from it. As traditional societies understood, it takes many years for a child to grow their humanity (Sahlins, 2008) and it does not happen from coercion but through support, specifically, the evolved nest (Narvaez et al., 2013). Genes have some influence but do not predict psychology and personality; they are inert without experience (Abdolmaleky et al., 2005).

17.2.1 What Kind of Creature Are We?

We are a subtribe (*hominia*) over 6 million years old, a genus (*homo*) over 2 million years old, with speciation to modern anatomy about 300,000 years ago. Only in the last 10,000 years or so have we moved away from what was adaptive for our ancestors: living at least part of the time in bands of 5–50 people (kin and nonkin), immediate return economies (few possessions or accumulation), egalitarian and peaceable, with extensive enjoyable social leisure (e.g., Boehm, 1999; Fry, 2006; Graeber & Wengrow, 2021; Lee & Daly, 2005; Sahlins, 1968). In these communities, members are both highly communal and highly autonomous (Gowdy, 1998; Ingold, 2005; Narvaez, 2013; Sorenson, 1998) with little tribalism (i.e., out-group suspicion; for reviews, see Eisler & Fry, 2019; Fry, 2006, 2013).[4] The multiage, supportive lifestyle of the evolved nest likely contributed (see Section 17.3 and Section 17.4).

17.2.2 What Qualities Do We Need to Live a Full Life?

For any animal, species-typical development is associated with healthy self-regulatory systems, from the immune system to the stress response (López-Otin & Kroemer, 2021), along with species-normal intelligence to find one's way in the world and in cooperation with conspecifics. Human fulfillment comes from social fittedness and a supportive community. Our species' original value orientation is relational – our brains are designed to be addicted to people (Panksepp, 1998). We evolved to value the fun and playfulness of the interpersonal dance that changes in every situation, which is apparent in our ancestral context of hunter-gatherer communities (e.g., Sorenson, 1998).

17.2.3 What Kinds of Capacities Make Each a Proper Member of the Species?

Each species has a nature, a set of typical characteristics. Skillful self-regulation and skillful social cooperation are critical social mammalian adaptations over the course of evolution (Hrdy, 2009). Humans evolved to be highly social and interdependent with one another but also with the natural world, on whom all species depend (Shepard, 1998). However, in this day and age we have let baselines slip for what we think is species-normal human nature and species-normal human development. It is hard to recognize how far we have fallen from optimization unless one examines societies that maintain a wellness orientation to child raising (more later).

[4] Lest the reader think somehow an evolutionary perspective falls into a "golden age fallacy," not in this case. The comparisons of child raising and outcomes are done with contemporary groups from around the world, species-typical human beings who demonstrate a different nature from unnested groups – more holistically intelligent and cooperative. And we can observe the differences in social capacities, behaviors, and attitudes (see Topa & Narvaez, 2022; Narvaez, 2013).

17.2.4 What Influences Our Development?

Every animal evolved a "nest" or system of development that supports the optimal development of the young, fostering its species-typical nature. We know, for example, that the species-typical nature of a puppy (kitten, monkey, any mammal) can be ruined if you take it away from its species-typical nest prematurely. Humans are no different, except for being much more influenced by experience because of vast immaturity at birth (25 percent of adult brain volume) with the longest maturational schedule (about three decades; Bethlehem et al., 2022). Humans are complex social mammals who resemble fetuses of other animals until at least 18 months of age (Montagu, 1968; Trevathan, 2011), with greater initial plasticity and rapid brain development than found in related species (Gómez-Robles et al., 2015).

Thus, the most critical influence on human development is our species' *evolved nest* (aka *evolved developmental niche*, or EDN; Narvaez, 2014; Narvaez et al., 2013). Most components of the EDN have been around for over 70 million years (Weaver et al., 2021). Components of the EDN include soothing gestation and birth, extensive breastfeeding and affectionate touch (and no negative touch), welcoming social climate of multiple stable supportive responsive caregivers, self-directed social play with multiple aged mates, nature immersion and connection, routine healing practices that help the individual and community rebalance (Hewlett & Lamb, 2005; Young, 2019). Converging evidence from the sciences shows how important each component is for shaping the mind–psyche–behavior of individuals and communities (e.g., Narvaez, 2014, 2018; Narvaez et al., 2013).

Childhood experience matters for psychosocial neurobiology and moral functioning. The impacts of nest components on moral development are briefly described in Section 17.3.

17.3 Human Nature and Moral Development

Developmental neuroscience research is now demonstrating that child well-being is highly influenced by the quality of early life experiences (Garner et al., 2021; Hambrick et al., 2019; Shonkoff & Phillips, 2000). It is also becoming clear that well-being in early life influences moral development (Narvaez et al., 2021; Narvaez, Wang, & Cheng, 2016). Triune ethics metatheory (Narvaez, 2008, 2014, 2016) addresses how neurobiological development in early-life care constructs capacities for sociality and morality. Ideally, with evolved nest provision by the community, children develop well-regulated physiological, psychological, social, and emotional systems that undergird a flexible, relationally attuned, compassionate morality where abstracting capabilities are used to promote communal well-being.[5] In contrast today, most

[5] The belief that humans are highly exclusionary, that they cannot move beyond favoring their in-group, is part of the dominant worldview which is based on "unnested" samples. Out-group

children are not provided the evolved nest, resulting in various forms of dysregulation, underdeveloped emotional, social, and moral skills, and an orientation to self-protectionism.

How are virtue and well-being intimately linked with early childcare practices? Here are two examples. Various forms of self-control are regulated by different physiological systems. One such system increasingly studied is the functioning of the vagus nerve, the tenth cranial nerve, which innervates the major organs of the body. Its functioning is shaped by the quality of early life care, meaning that EDN-consistent care helps it grow properly to promote well-functioning immune, digestion, heart, respiration, and brain systems; but it also undergirds the social engagement system, allowing for intimacy, and expressions of compassion (Eisenberg & Eggum, 2009; Porges, 2011; Tarsha & Narvaez, 2023). My laboratory's work at the University of Notre Dame examines effects of early experience on vagus nerve function (vagal tone) – for example, the negative effect of women's adverse childhood experiences on vagus nerve function is buffered by greater evolved nest childhood experiences (Tarsha & Narvaez, 2021).

Another system influenced by early experience is the stress response. The stress response (e.g., fight–flight–freeze–faint) is trained up by prenatal and postnatal experience. When early life is toxically stressful (e.g., through routines of being left alone or left to cry), the stress response system develops a low threshold that is carried forward into the rest of life (Lupien et al., 2009). At the same time, extensive distress impairs normal development of sociality and other forms of self-regulation. When the stress response is activated, it shifts blood flow away from the brain and to the muscles for mobilization (Arnsten, 2009). Toxically stressed children are conditioned to activate the stress response easily from perceived threat, undermining growth, learning, and sociality. As a result, moral functioning is oriented to self-protectionism rather than relational attunement, snowballing into less social interaction and fewer opportunities for social skill building (Narvaez, 2014). In this case then, early experience establishes the value of (and leaning toward) self-protectionist ethics – an orientation to survival through social domination or withdrawal. What often looks like immoral personality is the shielding of protectionism a child has had to develop to survive in an unsupportive environment (Niehoff, 1999). They clothe themselves in a biology of self-protection from immersion in social impoverishment. When social and emotional life are impoverished, so is the value of relationships. When life is unenriched, so is value. Instead, one develops a survival

distrust may be true where humans are raised harshly, where they learn to put up barriers against others for self-protective survival, when they have to develop a large ego because their evolved needs were not met early on, and when they must express their anger at parents indirectly by targeting an out-group. It is not humanity's evolved heritage. In-group favoritism was not a characteristic of Indigenous peoples around the world at first contact. Fear of outsiders among Native Americans came after harsh experience with explorers and settlers – e.g., it took less than two weeks of Columbus's first encounter with Caribbean Natives for them to go from extreme friendliness and generosity to extreme fearfulness and running away (Siepel, 2015).

system theory of value because of the neurobiological structures that were enhanced and others underdeveloped. Instead of growing the species' evolved cooperative, self-controlled nature, one demonstrates threat reactivity, self-centeredness, unskillful social orientations, and susceptibility to addiction of one kind or another from unmet needs (Maté, 2010; Narvaez, 2014).

All phenomena in the psychological realm emerge from biological properties (Kagan & Fox, 2006). The type of nature we develop emerges not only from our genetic history but our life history. Early life shapes bodies and systems, psyche and personality. The vast majority of learning occurs implicitly throughout life, that is, according to "nonintentional, automatic acquisition of knowledge about structural relations between objects or events" (Frensch, 1998), molding responses, habits, and dispositions. We can see from attachment and clinical research that personalities can misdevelop in various ways depending on which brain systems are damaged or neglected when and how the individual adapts (Schore, 2003a, 2003b). When babies do not get their needs met, they first rage for assistance as the sympathetic nervous system has mobilized to guard the baby's life (Henry & Wang, 1998). A baby who regularly gets help only after raging may develop an angry personality (since that works for getting needs met). Or, if the baby is punished for raging or is not helped even when raging, the baby will despair, emotionally withdraw, and shut down in order to preserve energy and life. The baby who regularly reaches this stage may develop into a shy, withdrawn personality who easily shifts into numb dissociation. Babies who have inconsistent parents (sometimes intrusive, sometimes neglecting, mismatching with baby's needs) may withdraw emotionally (impairing right brain development) and learn to intellectualize life – that is, be dismissive of vulnerability and soft emotions (Crittenden, 1995; Narvaez, 2014).

17.4 Child Raising as Central to Morality

Ethical naturalism emerges from a transdisciplinary understanding of human development, starting "with the assumption that human moral agents are human animals whose values emerge in ongoing interactions with their physical, interpersonal, and cultural environments" (Johnson, 2014, p. 14). What the child experiences and practices is what the child becomes. Childhood shapes orientation: protectionism or openness, distrust or trust, a propensity to feel safe or unsafe (Carter & Porges, 2013; Erikson, 1950). In our studies, child well-being is associated with greater relational cooperation and ill-being with less (Narvaez et al., 2021); evolved nest provisioning fosters well-being and moral capacities (Narvaez, Woodbury et al., 2019).

In other words, child raising might be considered central to scholarship in morality. Most famously, feminist theorist Virginia Held (1993) suggested just that: Child raising is best considered the center of moral activity and "should concern itself first of all with this activity, with what its norms and practices ought to be, and with how the institutions and arrangements through society

and the world ought to be structured to facilitate the right kinds of development of the best kinds of new persons" (p. 56). Other feminists also emphasize mothering and the maternal gift economy of providing for child needs (e.g., Pulcini, 2019; Vaughan, 2007). The flourishing of children comes about from meeting their basic needs, which forms the foundation for flourishing communities (Narvaez, 2014, 2018). By contrast, there are also feminist voices that dismiss the importance of early experience in shaping moral capacities. Some feminists, emphasizing work and career, are contemptuous of nurturing and instead are focused on controlling children and minimizing their needs (e.g., Chua, 2011; Oster, 2019). Such a misunderstanding corresponds to a simultaneous misunderstanding of the EDN.

The EDN is *community* provisioned, not the responsibility of one mother or the parents alone. Mothers need help feeding the big social brains of their children, which helps explains the existence of postmenopausal females, unusual for most mammalian species except whales, who assist in provisioning children's calorie-intensive needs (the "grandmother hypothesis"; Hawkes & Coxworth, 2013). In fact, as a result of culture and brain coevolution, cooperative caregiving fostered characteristics only human have: a preference for egalitarianism, capacities to teach intentionally, systematized targeted helping, declarative language and communication, along with cumulative cultural evolution (Burkart et al., 2009). Children grow capacities enabling flexible relations with multiple others (not just with mother), leading to a wide set of attachments that includes the natural world, and develop an implicit shared intentionality (the latter of which chimpanzees lack; Tomasello, 2019).

Why do some argue still that we are more like chimpanzees than our own sharing, egalitarian ancestors (e.g., Wrangham & Peterson, 1996)? It is my contention that the move away from cooperative child raising and EDN provision has underdeveloped our species' evolved nature, shifting brain functioning back to our primate mind, to our survival systems, to an emphasis on ape-like dominance and hoarding. What replaced species-typical moral development? Let's examine, as an illustration, two forms of child moral development.

17.5 Two Varieties of Moral Development

We can identify two different orientations to moral development, one emerging primarily from Western civilization and one more characteristic of First Nation societies around the world. A commonly held belief in Westernized societies is that children need to learn to suppress their own desires and impulses and learn respect by submitting to the authority of adults. Immanuel Kant (1724–1804) discussed two intertwined attitudes among Europeans that are still evident today among WEIRD (Western, educated, industrialized, rich, democratic; Henrich et al., 2010) populations. First, humans are persons because they display autonomy – the ability to act based on principle, not desire – through the imposition of law on themselves. This "rationality" gives humans special status over other animals: the capacity to act morally (from principle instead of

from desire), an autonomous morality. Second, in order to learn to follow law instead of desire, children must be coerced into obedience. Before they develop autonomy to act morally, children must practice "heteronomy," submitting to rules imposed by adults. This prepares them for the self-discipline of autonomy, submitting to rules they choose for themselves. According to Kant and this view, only when you display autonomous morality are you a real person and have intrinsic value. With autonomous morality you are able to make appropriate laws that take into account the perspective of all persons, according to Kant's categorical imperative (i.e., treating other people as persons rather than as instruments you use for your own goals). Philosopher John Watson (1847–1939) explained Kant's perspective: "At first everyone is under apparent bondage to his superiors in the family relation, but in reality this is the means by which a measure of freedom is attained"; through obedience (and punishment to obey) the child learns "to free himself from an undue accentuation of his own individual desires" (Watson, 1988, pp. 37–38). Notably, this is contrary to what we know about child development today and leads instead to a withered self, dissociated from emotional awareness and presence, reactively conformist and even authoritarian (Milburn & Conrad, 2016; Narvaez, 2014). Studied for decades, corporal punishment (spanking) is considered an adverse childhood experience because it is linked to decreased mental health and increased antisocial behavior and aggression (e.g., Gershoff & Grogan-Kaylor, 2016).

Nevertheless, the dominant moral psychological development theories in the twentieth century followed a similar understanding to Kant's. They were cognitive-developmental and focused on moral judgment and reasoning (Kohlberg, 1981, 1984; Piaget, 1932/1965; Turiel, 1983). Piaget's (1932/1965) *heteronomous* morality was seen to develop in children first, where rules are perceived to exist externally with some fear of immanent justice (automatic punishment for breaking rules). This type of morality of constraint aligned with Freud's view of superego development from parental socialization and later identification, presumed necessary brakes for a civil society.

Piaget's second moral orientation was the more sophisticated *autonomous* morality, characterized by internalized rules with a sense that rules are contractual and subject to changes through mutual agreement of group members. Kohlberg (1981, 1984) expanded Piaget's two orientations to a six-stage, staircase model. These theories stressed progressive construction of explicit verbalizable reasoning from social experience with particular attention to justice and fairness. Scores are highly correlated with Western schooling (Gielen & Markoulis, 1994). These theories must be understood as part of the Western civilized model of morality as conscious decision making, but whose examination shows a frequent chasm between judgment and action (Blasi, 1980). The emphasis on conscious, explicit reasoning is contrary to understandings of knowledge by contemporary cognitive science as an embodied (biopsychosocial capacities rooted in experience), embedded (situationally based), and enacted (effected action possibilities) (Narvaez et al., 2022) *know-how*. Ethical know-how fits better with Indigenous knowledge systems (Topa & Narvaez, 2022; Varela, 1999).

A more organic development of morality is apparent among traditional peoples. One can observe an organic moral intelligence in the adults which bears striking similarities in egalitarian Indigenous communities around the world: calm, generous, with high individual autonomy, high communalism and sharing, placefulness or at-home-ness in the landscapes in which the group migrates (Ingold, 2005; Lee & Daly, 2005; Narvaez, 2013).[6]

The Indigenous perspective of child raising contradicts that of Western civilization (Graeber & Wengrow, 2021; MacPherson & Rabb, 2011). Rooted in the Indigenous worldview (Topa & Narvaez, 2022), the non-Western-Enlightenment view common around the world offers an alternative pathway for the development of moral intelligence. First, the notion of personhood is much more expansive. Kant's conscious rationality is not an indicator of personhood. Rather, Earth is full of persons, only some of whom are human (Harvey, 2017). Human beings share personhood with all other Earth entities, including animals, plants, waterways, and mountains. Each has its own intelligence and agency, its own contribution to the harmony of the whole. Humans are to accept and celebrate diversity and coordinate peaceful coexistence with all beings through respectful attitudes and behavior. This is one of many contrasts in worldview between that of the dominant culture and Indigenous perspective (Redfield, 1953, 1956; Topa & Narvaez, 2022).

Second, children develop sociomoral intelligence by being welcomed into a community that respectfully meets their needs in childhood, when human nature is extensively shaped. The child grows up in and with a supportive, guileless environment (that continues throughout life). Describing his experience with the Fore hunter-gatherers of New Guinea, anthropologist E. Richard Sorenson (1998) noted:

> I was astonished to see the words of tiny children accepted at face value – and so acted on. Over months I tried to find at least one case where a child's words were considered immature and therefore disregarded. No luck. I tried to explain the idea of lying and inexperience. They didn't get my point. They didn't expect prevarication, deception, grandstanding, or evasion. And I could find no cases where they understood these concepts. Even teenagers remained transparently forthright, their hearts opened wide for all to gaze inside. (p. 97)

In First Nation/Indigenous communities around the world, where egalitarianism remains the norm, children do not subordinate their wills to the wills of others, but learn to shape them in prosocial ways, coordinating nonverbal impulses in a manner that enhances relational connection (Sorenson, 1998). First Nation/Indigenous societies typically cherish and honor children, notably supporting but not interfering with children's development and growth. Children are considered humans-in-the-making with much to learn through their own decision making. Children are assumed to be guided by inner spirits such that coercive actions by others is likely to interfere with the internal,

[6] Of course, physical life was challenging, fasting was frequent, with a high mortality rate before age 15.

wellness-oriented guidance. Children are often treated as reincarnated ancestors with their own agency (Sahlins, 2008). It is understood that if adults interfere with the development of the child by coercing them away from their impulses, then they may need guarding the rest of their lives – their self-confidence and inner compass for action having been damaged. Instead, children learn respectful behavior through immersion in a respectful, wellness-oriented community.

Children learn culturally appropriate behaviors through stories, rituals, and imitation of community members. McPherson and Rabb (2011) describe how in Native communities elders speak indirectly, using stories as guidance for behavior instead of rules (e.g., Basso, 1996), what they call "interventive-noninterference" (p. 105). This, they write, is contrary to a Kantian approach. Instead, noninterference is a sign of respect for personhood. It fosters self-reliance and independent thinking rather than dependency on rules. Ordering, bossing, or criticizing others is inappropriate.

Over the lifespan, individuals are surrounded by respectful role models – in story or real life. Individuals also take up one or more vision quests. Vision quests are essential for harmonizing self with cosmos, feeling a part of the Whole, part of the commonself. "With this comes the knowledge that willing the good of others is not in any sense a form of self-sacrifice given the enlarged sense of self acquired in the journey into non-ordinary reality" (McPherson & Rabb, 2011, p. 100). This form of attachment – ecological attachment – is typically absent among "civilized" peoples and may in part explain the ecologically devastating decisions and actions that the dominant culture has brought about (Narvaez, 2020a, 2020b).

The disparity between the Kantian and the First Nation/Indigenous approaches to child raising can be seen in an account from *The Jesuit Relations*, which provides descriptions of the French missionaries' experiences in the Americas. In 1633, Paul Le Jeune described an incident that occurred when an Algonquin man was curious about and approached a French boy beating a drum:

> As the Indian approached close to see him better, the little boy struck him a blow with one of his drumsticks and made his head bleed badly. Immediately all the people of his nation who were looking at the drummer took offense upon seeing this blow given. They went and found the French interpreter and said to him: "One of your people has wounded one of ours. You know our custom well; give us presents for this wound." As there is no government among the Indians, when one among them kills or wounds another, he is (assuming he escapes immediate retaliation) released from all punishment by giving a few presents to the friends of the deceased or wounded one. Our interpreter said: "You know our custom: When any of our number does wrong, he is punished. This child has wounded one of your people, and so he shall be whipped at once in your presence." The little boy was brought in, and when they saw that we were really in earnest, that we were stripping this little boy, pounder of Indians and of drums, and that our switches were all ready, they immediately asked that he be pardoned, arguing that he was only a child, that he had no mind, that he did not know what he was doing. As our people were going to punish him nevertheless, one of the Indians stripped himself entirely, threw his robe

> over the child, and cried out to the man who was going to do the whipping: "Strike me if you will, but you will not strike him"; and thus the little one escaped. All the Indian nations of these parts – and those of Brazil, we are told – cannot punish a child, nor allow one to be chastised. How much trouble this will give us in carrying out our plans of teaching the young! (Greer, 2000, p. 36)

Native interlocuters were astonished that an adult would punish a child. The rashness of the French was among many characteristics that indicated to the Natives how immoral the French were. The French Jesuits were told that their observed immorality (e.g., always fighting and complaining) was due to their focus on property and money (Graeber & Wengrow, 2021), rather than on community well-being.

Children are in fact the center of the Indigenous community (as is apparent among our more peaceful cousins, the bonobos; Hare & Yamamoto, 2017). According to the Indigenous worldview, with proper support children learn healthy community membership without coercion. In contrast, during and after colonization, Native children were forcibly schooled in residential schools where they were punished and abused, with the supposed aim of taking the "Indian" out of the child, intentionally breaking the circle of development and nurturing between children, elders, and community (Adams, 2020). The trauma Native children experienced, due in part to the European-imported view that children must obey adult whims or be punished, still clings to generations of First Nation peoples.

17.6 Moral Consequences of Unnestedness

Early life shapes moral propensities because morality is embedded in brain/body systems, psyche, and personality. When *physiologically* optimal, early experience provides a sense of competence and security that forms the base of the self-in-the-world. The individual can be open to novelty, exploring new things without anxiety. When early life is *socially* optimal, the individual builds skills as an embedded community member, well connected to kin and neighbors, and capacious in getting along with others. When early experience is physically or socially *suboptimal*, such capacities are impaired. A self-protectionist orientation may become habitual and dominant, limiting one's free will in the present (Henry & Wang, 1998; Mikulincer & Shaver, 2007). Although there may be some plasticity in one's cognitive-affective orientation to the world after the initial groundwork is laid, flexibility may be minimal. The self-protectionist ethic is based largely in closed systems that are difficult to influence once they are conditioned in early childhood (e.g., stress reactivity), although with brain-wide rewiring, as in intense therapy or psychedelics, there can be revamping (e.g., Doidge, 2007).

When children start out with experiences that undermine their species-typical becoming, their moral motivations too are shifted. They move away from favoring relational attunement (peaceful engagement), the predominant moral

orientation visible in societies that provide young children with what they evolved to need – small-band hunter-gatherers (Narvaez, 2013). Instead, with a break in the continuum of safety and comforting support (conveyed by caregiver absence, socially and physically), motivations become oriented away from social and communal commitment. Detachment from intimacy is practiced and, over time, preferred – an orientation that mainstream USA culture now considers to be normal (Klinenberg, 2012). Toxically stressed early on so as to miss developing key foundations for sociality, the child automatically shifts to favoring social and moral self-protectionism (Gabel, 2018). Missing is the flexible and adept sociality that was central to human evolution (Burkart et al., 2009).

Triune ethics metatheory (TEM; Narvaez, 2014) describes the etiology of both subjective and objective morality. Everyone has a subjective morality – aiming for what is perceived to be good in the moment, whether saint or criminal. The attitudes and behaviors of the self-protectionist ethic are rarely included as moral orientations in moral theories, except in ethical egoism or Rand's objectivism (Weiss, 2012), and so the justifications for such behaviors by agents often are reinterpreted as outside of morality. But just because a psychobiosocial self is malformed or does not follow evolved expectations, it does not mean a person does not have morality, but they do not have our species' optimal morality. In comparison to a well-formed self, a malformed self just sees the good differently. It does however mean that species' fullest moral capacities as a human being are not on full display.

Although TEM acknowledges reasoning development generally with cognitive/brain maturation and experience, it also emphasizes how reasoning changes by context within shifting global brain states. One is always susceptible to motivated cognition where emotions and framing drive perception and interpretation (Jost et al., 2003), interacting with reasoning and neurobiological functioning primarily established in early life. When under threat, blood flow shifts away from higher-order thinking, simplifying reasoning to black-and-white, us-against-them thinking. The whole self is thrust into a different mindset, influencing perception, affordances, attractive rhetoric, and goals (Narvaez, 2010, 2014). In fact, many aspects of morality that concern philosophers are affected by such shifts in global mindsets, for example: free will, decision making, view of human nature, favored belief, egoism, emphasis on utilitarianism, habit formation, adoption of moral rules, motivations, and preferred virtues (Tomkins, 1965). And, Hobbes's list of human traits is upregulated by early undercare and trauma: self-seeking, appetitive, and competitive drives. Moreover, it can be argued that the seven deadly sins are promoted by unnested child raising.[7]

[7] Undercare or lack of evolved nest provision can lead to 1) insatiability of certain needs that were not met at the scheduled time and their replacement with gluttony and/or 2) a sense of scarcity, leading to greed; 3) self-dissatisfaction and competitiveness (envy); 4) self-doubt and self-protectionism (pride); 5) enhanced basic mammalian emotion systems like lust, or 6) rage; 7) low energy and lack of self-regulation (sloth).

Most moral philosophers seem to focus on ego-consciousness and calculative intelligence (cleverness), often crediting these with human uniqueness. This contrasts with how 4E cognitive science now understands human functioning as *embodied*, *embedded*, *extended*, and *enacted* (Newen et al., 2018). Rationality as conscious decision making and ego satisfaction is a left-hemisphere driven focus, often *dis*embodied, *dis*embedded, and unenacted. According to TEM, *embodied* moral intelligence is often underdeveloped because of a misunderstanding of how children's capacities develop in childhood (e.g., through responsive care and social play rather than through books). Children's *embeddedness* in the world has been limited by walled-in life experience, impairing ecological intelligence. *Extended* intelligence has been routed to technological devices instead of to the rest of the natural world. Compared to those who live in earthcentric communities, we don't have much knowledge to *enact*. Thus, the undercared-for mind fails to display our species-typical, integrated-brain or earthcentric moral intelligence.

17.7 First-Nature Desires: Broken or Fulfilled?

First human nature is often discussed as our basic biology (in contrast to second human nature shaped by culture). However, we now understand that our biology is constructed by early life care. The nature of those early experiences is governed by the childraising culture our adult caregivers adopt and by their own early life experiences, which they tend to repeat. Thus, our first nature is biosocially constructed. Our inherited biological human propensities are shaped by developmentally relevant experience which used to be universally provided within a narrow range of variation. Given that a child is not fully developed until around age 30, the power of experience and relationships is extensive. Unfortunately, civilization has developed the habit of impairing our first nature (Gabel, 2018; Maté & Maté, 2022). The result is dysregulation: physiologically – poorly performing systems (e.g., stress response, vagus nerve, immune system); psychologically – a diminished self, an inflated false ego (for self-protection), and misdirected motivations from basic need unfulfillment (Narvaez, 2014). The true self is covered up by habits taken up to alleviate distress from the broken continuum of support that brought about the broken first nature.

Our caregivers shape not only our physiological and psychological functioning but our desires, again, based on their treatment of us. We learn to desire experiences that fit the biosociality that was co-constructed by our childhood experiences. Our capacities for social and moral life are shaped by what we ourselves experienced in practices with our caregivers. In our evolved context, we become addicted to relational attunement and mutual enhancement – our mammalian endogenous opioid systems are designed for this (Panksepp, 1998). Our desires orient to community harmony for which we develop many skills from our immersion in communities that have those skills. We can observe the

common relational characteristics seen in EDN-providing communities: social enjoyment, empathy, generosity, forgiveness, love (Ingold, 2005; Narvaez, 2013; Widlok, 2017).

Desires are shaped differently in industrialized civilization. Children are forced to detach from their caregivers (e.g., through sleep training and many hours spent alone or untouched) and to instead attach to things, such as teddy bears or screens (Narvaez, 2014). If we grow up with neglect or violence, we will expect it and transfer it to others (Menakem, 2017). Desires can appear inherited because of intergenerational effects – treatment by their parents shaped this generation of parents. Community members shape many of a child's desires, including acceptable desires. A boy might have been ridiculed when he expressed interest in fashion, for example, causing him to suppress those desires (Porter, 2021). When adolescence offers more freedom, individuals with their aching empty souls (missing the species-normal addiction to relational attunement) often take up measures to distract from the pain, to self-medicate, using nicotine, alcohol, drugs, sex, work – things that often become addictions and impair adult health, leading to disease, disability, and even early death (Felitti, 2010; Maté & Maté, 2022).

17.8 Conclusion

The move away from organic moral development results from a set of shifted baselines pervasive in Western and Westernized societies (Narvaez, 2016, 2019, 2020a; Narvaez & Witherington, 2018). There is no single cause but a host of causes, named briefly here, for modern humanity's poor moral showing (Doris, 2005) – for example, bottom-up causes such as trauma and undercare (degraded evolved nest) and their effects on capacities; and top-down causes (cultural stories, delusions about causes) and their products (e.g., traumatized parents passing on their trauma to their children). The shifts away from millions-years-old species-typical child raising, especially since industrialization, has led to impaired physiology for good health and neurobiological foundations for sociality and morality. These alterations have led to shifts in cultural assumptions about human capacities, human nature, and human potential, including moral potential. Whether the evolved nest is provided to a society's children depends on the practical experience and ideology of the culture. Humans are innately prepared to be deeply social, to respond to social signals in gestures and faces, to reason about and predict social behavior in others. But these capacities must be honed in the post-birth world. Modern Western culture often stresses infants and young children "for their own good," not realizing the long-term impairments that can ensue.

As a result of these trends, the orientation in most Western minds is to consider morality to be only about human persons and human communities, largely conducted in the intellect or between conscious minds. Moreover, the dominant culture considers the natural environment something to overcome,

something to be humanized by what lies in the particular human imagination (Ingold, 2011). The dominant worldview not only reflects impaired human morality, it has contributed to the degradation of other-than-human life generally and has brought about the planetary crises we are facing today.

But there is hope. Phronesis (practical wisdom) represents our ability to take charge of our being and our further becoming. Second-order desires, desires about our desires, can be changed and influence our initial, socially shaped desires. As a result of new learning and awareness, we can choose to adopt new second-order desires and thereby alter desires earlier experiences instilled. For example, we can learn self-calming, social enjoyment, and communal imagination (Narvaez, 2014). We can learn to love the natural world through immersive activities (Young et al., 2010). We can adopt the Indigenous worldview and learn to partner with Nature through the nestedness we provide children and ourselves (Topa & Narvaez, 2022).

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