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IN SEARCH OF BASELINES

Why psychology needs cognitive archaeology

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The societies where psychology has its deepest roots are those that have promoted the devastation of biocultural diversity around the world and led us to the brink of planetary disaster (Amel, Manning, Scott, & Koger, 2017; Steffens et al., 2018; Trout, Stockman, Rubinstein, & Maiorana, 2019; Turner, 1994). Yet, the institutions of contemporary psychology do not systematically critique these societies or their institutions; rather, they instead help citizens to "adjust" to a life-destroying culture (Kidner, 2001). The inability to critique one's own fishbowl is not a surprise, but psychology may play a significant role in perpetuating the systems that destroy life around the world, based on a web of myths in which they swim. Now that we have reached a critical point on the planet, it is imperative to re-think the assumptions, emphases, and orientation of psychology. Cognitive archaeology is poised to offer critical corrections and insights.

Ghost theories and fishbowl views

The strange pathway of psychology is haunted by the ghost theories that are rampant in Western culture, shadowing science generally (Small, 2008). Multiple myths undergird psychology's worldview, and although there is a lot of backstory for each, there is room only to mention them briefly. Here is a short list of misguided theories, some of which are ghostly and others that seem to be fully embraced.

Foreshortened view of humanity

Although rejected by science the literalist biblical interpretation of a brief existence of the universe and humanity – around 6,000 years – continues to be the time period of concern to most scholars investigating human psychology. In fact,

associating itself with civilization and writing, Western scholarship has a tendency to take seriously only the earth-detached cultures of the last millennium (sometimes dipping into ancient Greek philosophy for virtue studies).

Negative view of human nature

As part of the emphasis on civilization, most scholars in most fields narrow their scope to the characteristics of the members of dominant Western empires, presumably believing that they are the most advanced on the progress pathway. Yet even with a secular focus, the otherworldly religious belief in the "original sin-fulness" of humanity is still deeply embedded in Western assumptions. Too often we hear that humans *need* civilization (i.e., hierarchical order within agricultural settlement) to behave properly and control selfishness and aggression (Hobbes, 1651/2010; Pinker, 2011) – i.e., civilization made humanity and not the other way around (Small, 2008). Such cultural biases often lead to a misinterpretation of Palaeolithic evidence that then becomes popular and "goes viral," reverberating as a meme about humanity's negative, deplorable past. A choice illustration is the work of Dart (1949), who interpreted head trauma among cave remains of Australopithecine skeletons as conspecific murder with three-pronged clubs (generating the cartoon stereotype of the club-wielding caveman). The more parsimonious interpretation is that the humans were prey whose skulls bore marks of leopard teeth (for discussion, see Fry, 2006). Such misinterpretations are easily passed on without critical examination if they support the view that humans are naturally flawed and must be controlled with civilization (as depicted in the film *2001: A Space Odyssey*). In the Western mind, civilization represents progress.

Bias toward literacy

Psychology has its roots in Western philosophy, which is deeply grounded in the writings of (usually Western) civilization, a few millennia old. As Small (2008) states: "[T]he insistence on the written is a patronizing denigration of the oral, a persisting and blind denial of the fundamental role of memory as an archival and historical medium in all Postlithic societies" (pp. 58–59). The denigration of oral culture may be due in part to the deterioration of memory capacities among modern humans who rely extensively on external memory aids and so do not know what they are missing. In comparison to those from literate societies today, members of nonliterate societies show astounding endogenous memory and little ego-self awareness (Ong, 2002; Wolff, 2001; van der Post, 1961). In fact, reading and writing appear to alter the nature of cognition and ways of thinking. In writing and reading, humans detach from embeddedness in the present moment and focus attention in a narrow manner rather than holistically. They begin to intellectualize more, a capacity that religious traditions and ~~first nation~~ societies distrust (Bourgeault, 2003; Deloria, 2006).

Negative view of prehistory

Although the predominant view of prehistory among those subscribing to linear history and human progress is negative, when the negatives of *modern* over prehistoric life are examined they focus typically on the physiological or social differences that occurred with the development of settled societies and mono-agricultural fields. For example, many have noted that as civilization evolved it brought about impairment after impairment in human health (e.g., shorter stature, epidemic disease, dental decay, diabetes) (Cohen & Armelagos, 2013; Larsen, 2006; Wells, 2010); increased aggression, territoriality, and warfare (Johnson & Earle, 1987); and deteriorating status and wellbeing of women (Whyte, 1978). But then, when for some malady caused by civilization a remedy is invented, it is hailed as a sign that civilization is better than anything in the past. Such remedies only treat the symptoms and not the cause – civilization itself.

Misunderstanding of human potential

Psychological differences between industrialized and small-band hunter-gatherer (SBHG) life, representative of 99% of human genus existence, often are minimized or ignored. For example, leaders in what I call the Hobbesian version of evolutionary psychology contend that "humans are the same everywhere" (Tooby & Cosmides, 1990). But humans are not the same everywhere. There are considerable psychological differences between the industrialized and SBHG that characterized most of human species' existence. The contrast between civilized and indigenous (~~first nation~~) peoples the world over could not be starker. First ~~nation~~, peoples perceive themselves as part of the fabric of life, always situated relationally, dynamically in relation to the natural world; they have small egos but large selves (Descola, 2013; Ingold, 2005; Redfield, 1956). SBHG and similar societies show a great deal of extra-human awareness and interconnection, showing expanded capacities to take the perspectives of local animals and other-than-animal life (plants, rivers, mountains). This multiperspectivalism is fostered in the communities by local story and practices like trances through dancing and singing. Entrancement allows for receptive attunement to life energies in the vicinity, often as a means to promote balance and flourishing within the biocommunity but also to remind the humans that they are part of the circle of life, not separate or superior (Descola, 2013; Katz, Biesele, & St. Denis, 1997; Kohn, 2013; Mann, 2016; Shepard, 1998).

Bias toward individualism

Psychological theorizing and research have largely focused on the type of human psychology one finds within civilized societies, particularly industrialized societies, making it logical to favor Western culture's individualistic orientation. Children are forced into individualism with poor neurobiological development in

early life, leading to social disconnection (Narvaez, 2014). As David W. Kidner points out:

> Ideological convergence between psychology and industrialist society has two major effects. Firstly; it makes psychology's assumptions about a particular style of individualism seem natural and unremarkable, since we ourselves are constantly making the same assumptions; and secondly, it obliterates psychology's potential capacity to comment on and critique the particular forms of personhood, behavior and experience that are accepted as "normal" within the modern world. And this is the major source of psychology's inability to contribute to any radical environmentalist critique of modernity; for it is precisely these "normal" forms of personhood, behavior, and experience that are implicated in the exploitation and dismemberment of the natural order.
>
> *(2001, p. 50)*

Civilization, especially the Western version, has increasingly set itself in opposition to the natural world, from the first enslavement of plants and animals to the intentional extermination of "pests" (Merchant, 2003; Turner, 1994).

Bias toward abstraction

Language matters. Psychology has been dominated by the nature of modern languages, which emphasize abstraction and viewing the world as full of objects ("tree") instead of as full of movement and living beings, as is common in, for example, Native American languages ("tree being"). Along with the type of neurobiological development described later, such languages make it easy to assume that order is imposed by language and that humanity thus orders nature, standing apart and without constraint from nature (Kidner, 2001). Kidner opines: "Academia has long been a faithful advocate of this project, following the guidelines of a long philosophical tradition stemming from Plato, through Kant, to postmodernism, that sees order as necessarily imposed by human understanding" (p. 20). Worse, psychology has imposed its own order on human nature, inventing human beings as individuals detached from the rest of the living world: "This substitute person created by the psychological experiment, the modern counterpart of the dispassionate Cartesian 'knower,' is a thinking, deciding creature which . . . is relatively unemotional and unsocial and is notably detached from the world it relates to as a passive, formless background to its decisions" (p. 49). Detachment and disconnection are what moderns drag through their lives.

The values psychologists hold implicitly or explicitly emerge from these same biases and guide their fact-finding. Western psychology has followed the narrowed scope of scholarship predominant among all fields about what data to take seriously and what is normal, as if only recent and familiar ways of learning and being are acceptable forms. Western and Westernized scholarship has long been criticized

as narrow and hegemonic for the contemporary worldscape. The vast, worldwide insights from visions and dreams transmitted orally among pre-civilized peoples through narratives over generations, for example, are dismissed even when they are confirmed by contemporary scientifically derived conclusions (Deloria, 2002). Thus, consistent error is repeated and perpetuated through psychology when it uses its own narrow frameworks of perception and interpretation.

One of the reasons for the twisted path of psychology is that the field lacks reliable baselines and parameters for species-typical functioning and potential. Psychology has adopted the narrow scope of Western philosophy, which sets baselines within the period of civilization with a focus on extant writings (i.e., from Europe). By ignoring worldwide insights through human species history, it misleads. Cognitive archaeology can help shed light on what appropriate baselines might be.

Establishing baselines

A notion that emerged from oceanography is that of "shifting baselines" (Pauly, 1995). It was found that the assumed baseline for what was deemed normal in ocean health was what the scientist experienced in his or her childhood. As a result, scientists were blinded to the changes that were occurring generation by generation (e.g., the decrease in number and variety of species; ocean ecology is set to collapse by 2048; Worm, 2006). I think something similar occurs across virtually all areas of Western scholarship.

Currently, psychology ricochets among arbitrary baselines and limited parameters of behavior, often unconsciously selecting one or another as "normal" for the human species (e.g., war, rape, male dominance; Lewis, Al-Shawaf, Conroy-Beam, Asao, & Buss, 2017). Often the only data relied upon are data the field of psychology itself has generated, despite its relative infancy. Embracing a positivistic orientation, psychological scholarship does not advance unless a convincing experiment has been done (e.g., we cannot know whether a mother's breast milk is better for a baby's intelligence than the scientist's formula, even though breast milk has thousands [versus dozens] of tailored [versus nonhuman], mostly alive [versus non-living] ingredients and is a multi-million-year adaptation [versus multi-million-dollar endeavor]; Braden & Narvaez, in press).

One key shift causing changes in psychological capacities and orientation is the deterioration of care and experience that young children receive, a deterioration that has continued over the last millennia, centuries, worsening in recent decades (Narvaez, 2019b). Elsewhere, I contend that baselines for children and their developmental outcomes continue to shift downward at multiple interacting levels within Western-based societies and social sciences: (a) what is considered normal child raising environments, (b) capacities for self-regulation and wellbeing expected to develop in children, as well as levels of wellbeing and wisdom expected in adults, (c) the cultural supports adults design for human development, and (d) capacities for connection and orientation to nature (Narvaez, 2014, 2018). Baselines for normality have shifted across the board. The shift starts with the evolved nest, the

developmental system that evolved to match up with the maturational schedule of the young.

The evolved nest

Every animal has its nest, a set of characteristics routinely provided to the young to optimize normal development. As social mammals, humans have a set of basic needs that are particularly important to meet in early life, because of great plasticity and epigenetic effects at that time (Gómez-Robles, Hopkins, Schapiro, & Sherwood, 2015); the individual's brain and body are being co-constructed by a built-in maturational schedule and expected biosocial experience (Narvaez, 2016a; Narvaez, Panksepp, Schore, & Gleason, 2013). For humans the evolved nest includes responsive care to keep the young child optimally aroused; several years of on-request breastfeeding; constant then frequent affectionate physical touch; multiple responsive adult caregivers; positive support for mother and child; positive social climate; self-directed free and social play in the natural world; as well as soothing perinatal experience (Konner, 2005; Narvaez, 2018). My lab finds that the evolved nest is related to wellbeing and morality in children and adults (e.g., Narvaez, 2016b; Narvaez, Gleason et al., 2013; Narvaez, Wang, & Cheng, 2016; Narvaez, Wang et al., 2013; Narvaez, Woodbury et al., 2019). The evolved nest provides the buffer for genetic variation, supporting healthy outcomes and the kind of cooperative, calm, and generous personalities that adults worldwide display in cultures that provide the evolved nest, small-band hunter-gatherers (Ingold, 2005; Narvaez, 2013). The evolved nest then can be described as a "cultural commons" for the development of a cooperative human nature (Narvaez, 2014).

With data on the lifeways of still extant uncivilized groups, scholars note their sustainable lifeways and their aims for flourishing. For example, the San Bushmen of southern Africa have existed for at least 150,000 years (Suzman, 2017). The awareness that some human groups have existed for such a length of time opens the eyes to the possibility of sustainable societies, contrary to the view that humans are by nature prone to destroy their environments because they are part of a dog-eat-dog world. When these societies are examined for their practices, they show the ingredients for sustainable living, many of which are matched by nomadic foragers the world over: fierce egalitarianism, high autonomy paired with high communalism (Hewlett & Lamb, 2005; Ingold, 2005; Narvaez, 2013). Providing the nest supports these outcomes (Narvaez, 2013, 2014). A degraded nest undermines the course of human development, in ways such as the following.

Shifts in intelligence and sociality

The endogenous capacities of right-hemisphere function develop unperturbed within the cultural commons of the evolved nest – capacities for "moving with" others, empathy, self-regulation, higher consciousness. The nest offers the neurobiological, social, and cultural cultivation of receptive intelligence, the capacities for

tuning into and responding to the dynamism of living systems and communications from other-than-human entities. Nested childhoods encourage full development of human capacities (Turnbull, 1984). Perception and worldview are shaped in early life by movement and play in the social and other-than-human landscape. The child discovers the way the world is made (Cobb, 1978). The indigenous worldview orients to living, dynamic relationships and can be said to be "right hemisphere driven" (Narvaez, 2014). The roots of multiperspectivalism, shape-shifting, and multiplicity of thought – expanded cognition among living beings – are established in childhood and nurtured life-long. Traditional intelligence is less about a mental capacity situated within an individual than a joint property shared with the physical world (Ingold, 2011). The individual human must be attuned to the signals within the physical world in order to interact intelligently with it. Perception is multiperspectival. Thought represents forces outside the self. For example, the Inuit artist follows intuitions about how to carve the ivory, wondering, asking "who are you," as they reach for the inner form. The artist releases the inner form of the stone, ivory, or wood; they do not "create" or "make" the resulting figure (Carpenter, 1973). Industrialized minds tend to dismiss or even obliterate such forms of intelligence to maintain the monopoly of disembodied ("objective") rationality taught in schools and assumed necessary for living a proper life. Of course, the enforcers themselves do not know what they are missing, that there are alternatives, but fear the wild, unnamed, uncontrolled "otherness" of a different way of being.

Fragmented cultural narratives

The missing capacities among the civilized may have much to do with the worldview that has colonized the world. According to Robert Redfield (1956), there are essentially two worldviews. In one, the more ancient and primary, the cosmos is considered moral, sacred, and unified. It turns out that this is an orientation guided by the right hemisphere (Taylor, 2008). This way of being and perceiving is a mostly slow, intuitive process that requires development and trust of right-hemisphere capacities, while quieting the explicit, verbal mind. The other worldview, species-rare but dominant today in civilized nations, considers the cosmos to be amoral, fragmented, and disenchanted, impressions that follow left-hemisphere-directed perception – the detached, categorizing, serial thinking way of being (McGilchrist, 2009). The takeover of the left hemisphere in, especially, Western civilization has led to consistently limited understandings about the human species and its potential.

Adult underdevelopment

Modern humans are missing many capacities that are shaped and formed in early life when most brain development occurs. "Many traditional connections to the natural world are of a felt, visceral nature, and these have often been displaced by more immediately striking visual/rational modes of relating" (Kidner, 2001, p. 28). With undercare of young children, the right hemisphere is underdeveloped, and one

must rely instead on left-hemisphere preferences: vision, categorization and conscious deliberation – left-hemisphere favorites (McGilchrist, 2009).

Today's central disorder: nature disconnection

One of the most striking differences between traditional societies and modern civilizations is a breakdown in nature connection. The shift away from nature connection seems to have begun with the shift to agriculture and "enslavement" of particular fast-growing weeds (chosen from a minority of plants that are willing to grow in disturbed soil) for a controlled food supply, but also through the enslavement of animals through domestication, dumbing them down to shadows of their ancestors (Martin, 1992; Scott, 2017). The move to cities necessitated the takeover of other people's lands for supplies but also decreased familiarity with and connection to other-than-human wildlife, increasing a sense of fear of wildness (Turner, 1994). Humans began to think of themselves as separate from nature and then superior to it (Merchant, 2003). In the last millennia, a detached view of living with the natural world was encouraged among intellectuals and colonizers. Arguably, although capitalism of the last few hundred years has brought about planetary-level devastation (Bollier, 2014), the roots of the crises underlying modern life were formed in ancient civilizations such as the Greek and Hebrew. For example, the Greek Parmenides emphasized a static view of the world and ended up triumphing over his rival Heraclitus' dynamic view ("you never step into the same river twice"). Parmenides' view can be described as "left hemisphere driven," documented to be attracted to static, inert views of the world, shaping the type of science and technology to come. In more recent centuries this detachment from nature accelerated with the feverish rise of industrialization, unfettered capitalism, and colonialism. The mechanistic view of the world was encouraged by the dominance of the left-hemisphere orientation in Western human life (McGilchrist, 2009). Perceiving the rest of the world as a set of objects makes domination and control seem logical. Controlling nature still is viewed as "progress."

Fundamental to the Western world of the last centuries has been the separation of society (Western European) from nature (the natural world, women, other cultures) (Moore, 2015). As Moore (2016) notes, Western philosophers guided Western expansion with the idea that society and nature were separate and that nature is inert, inferior, and full of objectified resources to be used at human will. And the assumption was that only the conquering Europeans were part of society. All other humans were part of "nature," to be exploited for the use of "society." As civilized humans distanced themselves more and more from nature's ecological cycles and fought against them, they forgot how to live respectfully with nature so that it flourishes along with human beings (Merchant, 2003; Song, 2016). Thus, one of the major flaws of civilization is its anthropocentrism, its narcissism, leading to a degradation of status of other-than-human entities, from plants and animals to mountains and streams, altering their perceived nature from sentient agents to objects. For over four centuries, dominant societies considered nature as inert or dead (Plumwood, 2002).

This attitude is also known as human supremacy (Jensen, 2016), human exceptionalism (Smith, 2014), human chauvinism (Routley & Routley, 1979), human exemptionalism (Dunlap & Catton, 1979), speciesism (Singer, 1975), and resourcism (Orton, 2011). These are accompanied by biocidal practices, which have characterized Western European explorer and settler practices (Scott, 2017; Turner, 1994).

Lacking among civilized cultures is a sense of sentience in All, that every action has an influence on the Whole, much like walking around on a trampoline or spider's web. The whole thing vibrates. Without the development of one's right hemisphere and its sensibilities of connection (in early life with the evolved nest; in later life with trance practices), the sense of connection is rare or missing. Instead of developing this holistic sensibility, the child within a degraded nest tends to develop a one-person psychology, disconnected from the All. A one-person psychology (individualism), engraved neurobiologically in early life, haunts the life of the industrialized individual (Narvaez, 2014).

Perhaps as a result of decreasing endogenous capacities from a degraded evolved nest, industrialized societies have grown mechanized external memory systems (Donald, 1991), "extending the mind" with tools and devices like computers (Clark, 2008), a more left-brain expansion than in our prehistory, with a focus on static information exchange. This latter move forms a part of the story of "human progress" through civilization, detaching further and further from receptive intelligence with living earth entities and a sense of partnership with the natural world. The detached, imperceptive orientation indisputably has led to the destruction of the ecologies of planet earth (Merchant, 2003; Moore, 2016). What most scholars seem to miss is that civilized humans have been shaping themselves away from nature connection and ecological wisdom for some time, as they have moved further and further from provision of the evolved nest (Christen, Narvaez, & Gutzwiller, 2017).

Provisioning the evolved nest used to come naturally to human communities, but has been undermined in civilized nations for a host of reasons, including the view that babies are born with original sin and must be treated harshly to shape them morally (Narvaez, 2019b). Instead of understanding babies and young children as "humans in the making" whose brains and bodies need tender care to grow into intelligent and sociable creatures, today's cultural beliefs in regions within the US (as in Nazi Germany) espouse the need for children, who are assumed naturally rebellious, to have their spirits broken – for religious (Dobson, 1992) or political (Haarer, 1934; Miller, 1983/1990) control. Unfortunately, even the scientists got in the act to advocate ignoring babies (Watson, 1928), advocating harshness (Suttie, 1935), a cultural meme still embedded in US parenting advice. In US culture today, many adults expect parents to control their children in ways that minimize their disruption of adult activities. Unfortunately, this has led to intrusive parenting (tiger moms, lawnmower parenting, baby-busting) that actually undermines the autonomy and self-development of the child. ~~A child's~~ development in ancestral settings requires dynamic learning through social interaction with natural elements. In most societies during most of human existence, the evolved nest included relational partnership with other than humans. As noted earlier, changes in child raising practices

may have been integral for the cause and consequence of degraded human capacities and the devastation of relations with nature (Narvaez, 2014).

The reluctance to integrate ethology and anthropology into psychological theory may be due to a reluctance to admit that humans are animals who share characteristics with other mammals (e.g., 20–40 million years of social mammalian history). There is also the sense that the civilized have nothing to learn from non-civilized people. Kidner notes:

> The danger here is that "understanding" becomes a rationalization of current practices, and a substitute for and an alternative to *change*, since this understanding *presumes* the split between self and world. It conceals rather than illuminates the way environmental problems are mute expressions of an incompatibility between the social phantasy systems that we inhabit and those characteristics of the natural world that we are not only unaware of, but are unaware that we are unaware of.
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> *(ibid., p. 13)*

The human nature psychologists reference becomes "the cultural artifact they theorize about rather than the natural order whose existence they are oblivious to" (Kidner, 2001, p. 9). The biases that psychologists display are woven through their work: the questions studied, data attended to, their interpretation and application. But overall, they stay within their cultural bounds and implicitly enforce their framework as natural or normal.

The promise of cognitive archaeology

Understanding where we have been can help us figure out how to move forward. Cognitive archaeology can provide species-typical grounding for assessing human development and wellbeing and the parameters for human potential. These efforts are vital in the age of the Anthropocene – or more appropriately perhaps, the Capitalocene (Moore, 2016), because it is not all humans that have brought us to the brink of planetary disaster, as the term "Anthropocene" implies, but only a subset of humans guided by eco-destructive notions, some of which were briefly described earlier. Cognitive archaeology can help shed light on alternative ways of being.

Can cognitive archaeology make us less anthropocentric? Surely, we can acknowledge the cooperative nature of Nature, the intricate mutualisms that pervade every intact ecological system, ~~more and more~~ lauded by scientists and writers (Bronstein, 2015; Margulis, 1998; Paracer & Ahmadjian, 2000). Interlocking sharing goes on at every level. For example, older trees in forests act as parents to younger trees, even those of different species, sending nourishment through their roots (Wohlleben, 2016). Humans themselves carry mostly nonhuman genes (90–99%) from the trillions of microorganisms that keep them alive (Dunn, 2011). Cognitive archaeology has been able to discern the spread of adult milk-drinking across Europe where hunter-gatherers were wiped out by cattle raising groups (Curry, 2013). The next

step is to assess the effects of this change on human cognition. The nature of one's microbiome, reliant on what ecologies we are exposed to, influences mental capacities and even personalities (Bercik et al., 2011; Bravo et al., 2011; Clarke et al., 2012; Denou et al., 2011). Cognitive archaeology in its broadest sense promises to open wide our perspective on humanity's movements and perhaps also its predicaments (overpopulation, ecological devastation, anthropocentrism).

Cognitive archaeology counters the foreshortened view of human history and the emphasis on civilization's unmitigated progress. Can it go further? Instead of taking for baselines anything from civilized societies as representative of typical human species behavior, cognitive archaeology allows us to see more broadly. Cognitive archaeology can lengthen our view of humanity by extending into deep history. We can find out a lot about humanity from sources other than writing, such as the early traces of language and DNA sharing. Biological archaeology has brought about awareness of connection to other forms of life – shared DNA with mushrooms and bananas extends our understanding of humanity's integration with the rest of nature. Cognitive archaeology can help reset baselines in psychology by expanding our imaginations. Social mammals emerged around 20–40 million years ago with humans showing up around 6 million years ago. That is a lot of history relevant to human psychology from which psychology could profit. Perhaps psychology needs the hand holding of cognitive archaeologists to expand what counts as data and scholarship into human nature. Cognitive archaeologists can help psychologists learn to honor and integrate all of human experience. Understanding human nature before writing was invented may provide new avenues for moving away from the philosophies and psychologies of the "European raiding culture" (B. Mann, 2019) that has led to planetary destruction. After all, both psychology and cognitive archaeology are aimed at understanding the singularity of humanity.

Cognitive archaeology allows us to take seriously all the various alternative ways of being members of the earth community that anthropologists and others have identified among non-industrialized societies around the world. Instead of categorizing them as barbarian primitives, we can see that the barbarians are us. We are the ones destroying the planet from a lack of connection and entwinement and an inability to take the multiple perspectives and ways of being in nature (Washington, 2019). We civilized persons have lost the connection to the otherness, a multiplurality of nature, that the natural world provides and that is needed for proper human nature development and sustainable coexistence (Shepard, 1982).

There are several things that cognitive archaeology may have more difficulty providing evidence for, such as the importance of relationships. Nature operates on a gift economy – each creature taking a little (food) and giving back food for others (waste, extra young) in endless interdependent cycles. Mutual sharing often occurs in exclusive partnerships, as with each orchid and its insect partner (Haraway, 2016). Maternal gifting is central to the human species (Vaughan, 2015). Instead of genes determining outcomes, experience does (Narvaez, 2019a). What records of these things are there? This is where perhaps ethology

offers more guidance. As humans are social mammals, we can study the species-typical nest and observe how those characteristics are related to better and worse outcomes. Nevertheless, cognitive archaeology has promise to expose human cooperation: Extensive caring for the disabled has been found in ancient remains (Spikins, 2015).

A second related aspect of uncivilized life difficult to discern is dissolved artifacts. Human evolution in its broadest sense is about coordinating human niches with those of the rest of nature – a symbiotic mutualism (Fuentes, 2014). Is it possible to note how a society followed or not nature's economy/laws? Uncivilized societies, which tend to be less anthropocentric as a matter of survival, often do not leave lasting marks for archaeologists to find later (though see Balter, 2012). However, representatives of our evolutionary ancestors are still here, allowing us to learn more about the centrality of human cooperation. Unlike most great apes, the human species is known for food sharing (e.g., Isaac, 1978) even with non-kin groups at a great distance (Hill et al., 2011).

Conclusion

The "agrologistic" shallow thinking about human behavior that guides dominant cultures is accompanied by fishbowl beliefs that keep us on the pathway to self-destruction (Morton, 2018). Cognitive archaeology can help break the fishbowl and lead us to swimming in earth's waterways instead. The bias toward individualism and abstraction can be questioned. Cognitive archaeology can lengthen the view of humanity and propel a more positive view of human nature and human potential with a brighter, clearer lens of prehistory. Cognitive archaeology can help us understand that nature *predates* human beings, by billions of years, which may relieve our tendency toward hubris and the belief that humans impose order on nature. Most importantly, in this era of planetary destruction, the orientation against nature can be understood as an aberration in the course of human and planetary existence.

A return to the indigenous worldview and sustainable lifestyles is critically needed if the human species is to survive as a social mammal (Narvaez, Arrows, Collier, Halton, & Enderele, 2019). Expanding our imaginations, or re-rooting them in the otherness of nature, makes us realize our oneness with the natural world. We can once again understand the world to be made up of

> eternal and recurring patterns, to which fertility and fatality are crucial, hence death is positive and recyclic. Time is synchronous: the past and future are enfolded in the present. Metamorphosis is central but oriented to stability rather than change. Nothing is fortuitous. The principles of totality, predictability and regularity are important. Nature and culture are in sacred symbiosis; alien cultural systems are merely different expressions of that same embeddedness. Man is at home in the world.
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> *(Shepard, 1982, p. 56)*

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