

Running Head: MOTHERING AND HUMAN FLOURISHING

The Centrality of Mothering for Human Flourishing

Darcia Narvaez, Angela M. Kurth, Mary S. Tarsha

University of Notre Dame

Author Note:

Contact the first author at Department of Psychology, University of Notre Dame, Notre Dame, IN 46556; dnarvaez@nd.edu

Darcia Narvaez is professor of psychology at University of Notre Dame who studies lifespan flourishing and moral development. She is a fellow of the American Psychological Association and the American Educational Research Association. Her book, *Neurobiology and the Development of Human Morality: Evolution, Culture and Wisdom* won the APA's William James book award and the Expanded Reason Award for research.

Angela M. Kurth is an assistant professor in the Department of Psychology at the University of St. Thomas. She studies emotion regulation and moral development in the context of parent-child relationships.

Mary S. Tarsha is a doctoral student in the Kroc International Institute for Peace Studies and the Department of Psychology at University of Notre Dame. She investigates the neurobiology of moral development, including peaceableness, cooperation, and prosocial/antisocial morality with a particular focus on how early life facilitates (or not) the biosocial construction of wellbeing and sociomorality, specifically the mechanisms of action by which the Evolved Developmental Niche (or Evolved Nest) promotes human flourishing and peaceable children, families and societies.

Abstract

Mothers form the foundation of any society. No society exists or persists without mothers. To understand how critical mothering is, a transdisciplinary purview is needed, from neurobiology to sociology and psychology, from evolutionary theory to anthropology, philosophy and economics. Because of vast immaturity at birth and long maturation, each child needs intensive nurturing to reach full potential. But mothers are not meant to carry the challenges of raising a child alone or exclusively. Motherers also have the power to empower that baby with full humanity from their postnatal co-construction of baby's body, brain, psyche and spirit. When the community adopts their children and becomes a village of motherers, they create a society with individuals who can reach their human potential. We consider mothering: its evolution, its character and effects, its obstacles and its reparation. The challenges that humanity faces, mostly human caused, show the need for mothering.

Mothers form the basis of society. No one exists without a mother. No society persists without mothers. But it is not just the physiological-genetic aspect that is important about mothers, but their behavior. They *mother*. Because of vast immaturity at birth and long maturation, each child needs intensive nurturing to grow well and reach full potential. As a dynamic system, each child is shaped biologically by social experience; “nature” and “nurture” are inextricably intertwined during the long maturational schedule of a human being (until around age 30) during which extensive epigenetic and trajectory shaping effects occur. Mothering provides the appropriate support needed. Mothering not only facilitates an individual’s human potential, it empowers societies by fostering well-functioning citizens. However, to understand how mothering matters, a transdisciplinary perspective is needed. For example, a microscopic view of a single parenting characteristic or experience is insufficient to understand its importance and, can even be misleading; a single discipline’s frame is also inadequate. To understand mothering and its effects, we need a wide scope that includes neurobiology, sociology and psychology, as well as evolutionary theory and anthropology, philosophy and economics, and a lifespan view of its effects on all aspects of being human.

We propose a definition, then examine relevant evolutionary history, the nature of good mothering and its effects, and mothering’s downfall, obstacles and reparation. We write in honor of Genevieve Vaughan, who has opened our eyes to the vital foundations of society and wellbeing found in the gifts of motherers.

What is mothering? Nurturing? Yes, it involves nurturing but it is a special kind of nurturing, one that allows the child’s needs and uniqueness to guide particular mothering behavior. Building on Genevieve Vaughan’s (2015) notion of mothering as an economic practice of gift-giving, we expand the definition. A motherer is one who has developed skills and

knowhow to meet those needs. Motherers instinctively want babies to have the best possible start in life and know that human beings are shaped by the care they receive. Motherers have a well of knowhow, implicit knowledge about how to care for children, that guides response. Mothering is about engaging and growing full human capacities in the other, including fostering a deeper sense of connection with others and with the larger All. Motherers honor children (Cavoukian & Olfman, 2006) with a deep respect for the vocation of mothering and the practice of motherhood. Mothering is intrinsically connected to respect for self, respect for others, respect for nurturing in and of itself.

Mothering brings together the art and science of relational living. Motherers are attuned to the signals and needs of the infant who moves “with rhythms of prospective awareness from birth, show[s] insight for learning what the world affords, and share[s] their feelings of imaginative vitality in affectionate adventures with other persons” (Trevarthen and Bjorkvold 2016 28). In a mothering environment, a child is gradually socialized into her culture with relational interactions: “By three months, a baby may participate in simple conventions of a culture, inviting older playmates to play games with routines and rituals, joining in narratives of purpose with feeling” (Trevarthen and Bjorkvold 2016 29). Babies are deeply social creatures who expect companionship as part of growing well (Brazelton 1979; Brazelton and Sparrow 2007). Babies expect a certain kind of companionship, based on evolution’s design.

Humanity’s Mothering Heritage

Humans are social mammals, named for their breastfeeding, a lineage that emerged over 30 million years ago. Like all animals, humans evolved a nest for their young to optimize development (Gottlieb 2002). Most characteristics of the nest are over 30 million years old, indicating how important they are for proper development. Recurring characteristics have been

documented by anthropologists studying extant small-band hunter-gatherer bands, who represent the type of society in which humanity spent 99% of its genus history.

What does the evolved human nest look like (aka, hunter-gatherer childhood model, Konner 2005; or, basal human childrearing pattern, Endicott and Endicott 2014)? Here is the set of common characteristics identified by anthropological studies of small-band hunter-gatherers around the world (Hewlett and Lamb 2005) with a couple of logical additions to their list (#s 1, 6, 7):

1. Soothing birth experience (no separation of mother and baby, no induced pain)
2. Breastfeeding on request for 2-5 years (average age of weaning is four years), typically the task of a mother, but other females in the community can step in when needed
3. Affection and constant touch or physical presence (according to child's desires)
4. Responsiveness to needs to keep baby from becoming distressed
5. Multiple adult responsive caregivers (motherers)
6. Positive social support for mother and baby
7. Self-directed play throughout childhood in nature with multi-age playmates
8. Relational connection with the natural world

Each of these components influence positive health and wellbeing, as well as sociality, on the neurobiological as well as psychosocial level (e.g., Narvaez, Panksepp et al. 2013b; Narvaez, Valentino et al. 2014).

Why might these practices be so important? The intensity of the human nest evolved with the maturational schedule of the child. Human infants are born highly immature, resembling the fetuses of other animals until about 18 months of age (Trevathan 2011), with only 25% of adult brain size at full-term (40-42 weeks gestation). Volume is not everything though. The way things

are connected or not, how many receptors there are, the thresholds for their activation, all matter too for a well-functioning brain. These, along with brain volume, are influenced by early experience. So, although development per se proceeds in an evolved order, timing and sequence, how well it goes depends on external factors, primarily caregiving.

For mammals, mothering is essential. We know now more than ever that the child's body "*is the result of mothering and being mothered*" (Vaughan 2015 38). Human biology and sociality are designed to be largely shaped *after birth*. Early experience shapes the trajectory of a child's wellbeing (Cole et al. 1994), through plasticity and epigenetic effects—to a greater extent than for any other hominid (Gomez-Robles et al. 2015), from stress response (Lupien et al. 2009) to vagus nerve (Porges 2011). Mothering is essential for proper development of endocrine systems, neurotransmitters, self-regulatory systems and much more (Narvaez, Panksepp et al. 2013a). All biological systems set their parameters and thresholds based on postnatal experience, shaping the trajectory of the child's wellbeing. When children receive evolved-nest care, their well-being and sociality develop optimally. Capacities for self-regulation and sociality, governed by the right hemisphere, are scheduled to lay their foundations in the first years of life (Schoore 2013). That is, immunity, sociality, intelligence, and morality are undergirded by the physiological processes shaped in early life. Individual personality, sociality and morality are through and through dynamic—influenced by experience, especially early experience—from epigenetic and plasticity effects that shape the nature of a self-organizing being (Narvaez 2019). Early life is especially important for establishing neurobiological foundations and developmental trajectories, and boys are especially affected by poor care or trauma (Schoore 2017). One primary focus in modern developmental psychological research is the growth of attachment, a signal that

things have gone well enough in the first years of life.¹ Humanity's evolved nest provides what the baby's body and brain expect, the best start in life.

Good mothering is communal. In order to understand more fully the best start in life and the evolved nest, nature's backdrop of nurturing is vital. If we step back, mutualism predominates in the natural world (Bronstein 2015; Margulis 1998). The natural world runs on a "gift economy," where entities take what they need and give back in ways that mutualistically meet the needs of others (Worster 1994). Similarly, in mutually-related cultures, there is no sense of ownership over any planetary entity (e.g., rivers, land, animals, plants) or other humans (Nelson 2008). Instead there is a cycling relationship of giving and taking and giving with All (Bird-David 1992).

For children, initially, mothering is about unilateral gift-receiving. The mother is the first conveyer of attention and support from the community. This gift economy is built into natural nurturing and child raising: The child is a "product of gift-work" (Vaughan 2015 39). A supported mother (from her own supported mother and back through the generations, from her childhood and thereafter) will give the gifts of love, kindness, and compassion, giving them unilaterally to the child until the child is able to reciprocate (Vaughan 2015).

Yet mothering is built into the whole of traditional cultures. As a central focus of society mothering is performed by most if not all members. That is, the evolved nest is provisioned by a community, not just the mother. Communal mothering was critical for human evolution

¹ John Bowlby (1982) identified two attachment systems. The first is the child's attachment system, which develops during the first year of life, and is typically studied as secure or some form of insecure attachment. The second is the caregiver's attachment system which sometimes is triggered prenatally but generally at birth barring interference or trauma. Caregiver attachment leads to nurturing behaviors that shape the child's attachment system. However, there appear to be sensitive periods for maternal attachment. Brain reward systems are set to be mutually reinforced immediately after birth, perhaps in both child and mother. Interruption of their time together can undermine this powerful bonding. (for a review see Buckley 2015; also Klaus and Kennel 1983) The Baby-Friendly Hospital Initiative (of the World Health Organization, recently adopted in the USA) promotes keeping mother and neonate together, which influences the opportunity for mother-child bonding and for breastfeeding success.

(cooperative breeding; Hrdy 2009). Grandmothers or other postmenopausal women are typical key providers (Hrdy 2009). The grandmother hypothesis suggests that the reason women live long after menopause, unlike other animals, is to have a hand in the raising of grandchildren (Hawkes and Coxworth 2013).

Children then are a cooperative affair, raised by the village of support. In some groups, after the first 18 months or so, young children spend as much time with other responsive caregivers as with mothers (e.g., Endicott and Endicott 2014). In prehistory and in societies that remain nomadic foragers in the historical period, childhood is one of companionship with the community, where social play and banter are common, with options to assist in the gathering activities. The majority of work (gathering, hunting) is performed by those 20-40 years old (Sahlins, 1968). Nevertheless, all ages of the band (25-50 members on average) spend a great deal of time in leisure—in banter, play or music making. Fathers are intimate caregivers in many nomadic communities (e.g., Hewlett 1991). Researchers in modern societies have started to focus on the importance of fathers for child wellbeing (e.g., Hewlett 1992). For example, children who develop a secure attachment with both mothers and fathers are rated higher in social competence and exhibit fewer behavior problems in kindergarten than children who have a secure attachment with neither or only one parent (Verschueren and Marcoen 2003).

Mothering takes skill. Motherers are nurtured by motherers: being mothered (or not) becomes a part of how mothers relate to the next generation. Motherers learned to cooperate initially by receiving from motherers what they needed as embodied creatures, body to body, gradually reciprocating with mini-gift giving back to the motherer with the same type of attention received (shared resonance of feeling, games, and communication; Vaughan 2015). Skillful, wise mothering requires extensive cultivation as does any area of mastery. We propose

the notion of “enactivist caregiving.” From extensive observation and practice with babies while growing up, good motherers have learned enactivist² caregiving—the sensorimotor coupling of readiness for caring action that an infant requires. Just like a soccer player learns to recognize patterns of openings in the field and couple physiological responses with those opportunities, a motherer has learned enactivist responses to patterns in the child’s behaviors. Enactivist caregiving involves spontaneous knowledge about how to soothe an infant, treat her gently, keep her in optimal mood, and how to be responsive without developing bad habits in the parents (e.g., waiting till crying emerges before acting) or in the baby (using screaming to signal needs).³ Enactivist caregiving means taking the perspective of the child such as, for example, keeping the child from making the wrong associations (a negative expertise). For example, motherers understand (from their extensive experience) that introducing two things at once will be associated in the mind of the baby, as Winnicott (1957) noted about adequate mothers⁴ who, for example, do not introduce new food and a new caregiver at the same time which taints the new food with the stress of a new caregiver. Such accidental couplings can possibly undermine appropriate development. A motherer has long practiced, prior to their own parental roles, a responsive, compassionate mindset towards children’s needs so that when a breakdown of action flow occurs (i.e., unexpected situation), the motherer can extend compassionate feeling into that situation and respond appropriately, without ego eruptions (blocked care; Hughes and Baylin 2015), just as a virtuous person does (Mencius 1998).

² Enactivism is the sensorimotor coupling of understanding and action within a particular situation. Cognition, embodied knowing and situation are inseparable. For a recent review, see Di Paolo, Buhrmann & Barandiaran, 2017.

³ See Jean Liedloff’s (1973) account of her experiences with the Yequana in South America, in *The Continuum Concept*.

⁴ Winnicott (1957) called them ‘good-enough mothers’ but according to our definition of mothering, to be “good enough” much more may be needed than what he described so we avoid using his term here.

Good mothering means not hanging onto rigid scripts of self-as-parent or ideal-child, but going with the flow of events and children’s needs. Of course, a caregiver can get ego involved and overcontrolling or withdrawn at times, signaling to the child the “badness” of their needs. (Hopefully, wise elders are nearby to intervene in the case of a young child who would be much more impacted than an older child.) When a caregiver responds cacostatically (too strongly or too weakly), a motherer has learned ways to move back to centered parenting—responding in the right (supportive) way for the situation. For example, if a parent withdraws from compassionate instincts, which can happen if he follows advice telling him not to give in to his caring instincts but instead coerce the child into independence, enactivist caregiving (which is humble to the needs of the child from vast experience in a community of such caregivers growing up) acknowledges the mistake and moves back to centered parenting (Hughes and Baylin 2015). Enactivist caregiving, in our ancestral context, would have been guided by the wisdom of elders.⁵

Mothering on the Decline

Mothering is part of the overall gift-economy of the natural world a cycle of gift economy that runs the natural world under normal conditions (Worster 1994). But things have changed. Nature’s gift economy has been thwarted and degraded in recent millennia. Domination instead of partnership towards humans and other-than-humans has spread over generations.

⁵ When there are wise elders around, we don’t need experiments for us to know such things. In contrast, lacking the wisdom of the elders which guided societies of the past, psychologists set up experiments to test what was known from personal experience previously. For example, John B. Watson, father of radical behaviorism, tried to prove the power of psychological science with experiments on human conditioning. Famously, he exposed a child, referred to as “Little Albert” in textbooks, to a white rat and other furry objects with simultaneous loud noises in an effort to show that he, the scientist, could make the child associate white furry things with fear. Indeed, Little Albert became afraid of all furry white things. A wise elder would have known this would happen and no experiment would be needed.

Disconnected, non-nurturing behavior, overly common among dominant males and elites, is about grasping or hoarding with a sense of entitlement.

“It is crucial to understand the reasons why an integrated gift approach has not been widespread before now in the West; these have to do with the hegemony of patriarchy and the market...the market...replays the logic of gift-giving in reverse. The superstructure and view of the world coming from the market hide gift-giving/mothering, contradict it and, meshed with patriarchy, further plunder it. ...the market and money function as conceptual mechanisms that distort and denature gift-giving...For our patriarchal capitalist society, Nature and mothers both give without exchange so they are indeed ‘closer’ to each other, more similar than they are to those men who force gifts (making others give in or give up!) and impose market exchange. Nature is exploited and devastated, just as mothering and gift-giving are exploited and devastated because both are aspects of a gift economy located within a context of exchange and patriarchal domination.” (Vaughan 2015 43)

The political and ecological backdrops for nurturing or its impairment must also be taken into account when discussing how to modify the context for mothering and taking the steps to move away from the undercare common in child raising today. In order to understand how the nurturing environment has shifted to the minimalistic form predominant today, we must look at the history and prehistory of human development.

In humanity’s prehistory (99% of human genus existence), matrilineal societies were predominant (Gimbutas 1991), with a focus on earth-centric lifestyles. Among small-band

hunter-gatherers studied in modern times, who represent the lifestyle of 99% of human genus history, bilateral systems of descent (matrilineal and patrilineal) are typical (Fry and Souillac 2017). Matrilineal societies are egalitarian and peaceful, lacking the pressures against nurturing children and avoiding the use of force to maintain hierarchies that are characteristic of patriarchal societies (Eisler 1988). Patriarchal societies became dominant in humanity's historical period, reflecting the move to hierarchical, usually settled, societies. The Neolithic shift to settled, mono-agricultural societies was accompanied by decreased health (e.g., height decreased significantly; infectious disease became common; Cohen and Armelagos 1984) due to more limited diets and close quarters with one another and with domesticated animals. What also shifted was the nature of childhood. Mothering by mothers declined when all adults had to work in the fields.

Restoring Mothering

Women can take up the power to shift our priorities to growing and nurturing people who feel connected to the earth, fully in tune with the rhythms of Life, with a sense of responsibility to foster flourishing of the Whole. This is humanity's heritage, undermined in recent millennia by patriarchal, industrialized and capitalistic systems. It is time to envision ways to move back to fostering our full human nature and women can take the lead. Women have the power of life creation. Unlike men, women have the power "to grow eyeballs" (Hunt 2017) and a whole fetus. Motherers have the power of life promotion; they can empower the baby with full humanity, to help the "eyeballs" see the world properly with compassionate vision. Although mothers initially provide a critical context for a child's wellbeing, the womb, postnatally, mothers are not meant to carry the challenges of raising a child alone. When communities support mothers and children they create a society of individuals that can flexibly cooperate with others who are different. We

offer several suggestions for moving back to a society focused on meeting basic needs and fostering individuals' full potential.

The restoration of motherhood includes supporting women before they become mothers, during pregnancy and the many years after birth. Emerging research demonstrates that the preconception period may be a sensitive time that influences the development of the pregnancy and later, child health outcomes. Social support is especially helpful for the transition into motherhood (Logsdon and Davis 2003; Wilkins 2006). Family support has been found to enhance maternal self-efficacy and mental health for first-time mothers at 6 weeks postpartum (Leahy-Warren et al. 2009) while lower levels of social support were related to higher depression (Leahy-Warren et al. 2009; O'Hara and Swain 1996; Glasser et al. 2000; Inandi et al. 2002; Surkan et al. 2006; Ege et al. 2008; Gao et al. 2008). More education is needed to foster respect, support and sensitivity towards women who are pregnant and who are mothers of children of all ages, safeguarding against a calloused or dismissive disposition.

Conclusion

Mothering concerns the act of entering into a relational, gift-giving of self to the child. It requires a village of support so that mothers can "let go" into the process of raising a human being, a transformative experience for both. The process of restoring motherhood needs to begin with unearthing mistaken beliefs by encouraging women to not be afraid but rather, to enter into the transformative and augmenting experience of motherhood, accompanied by a village of motherers who assist in the development of a species-normal human being.

Works Cited

- Bird-David, Nurit. "Beyond "The Original Affluent Society": A culturalist reformulation."
Current Anthropology, 33,1, 1992, 25-47.
- Bowlby, John. (1969/1982). *Attachment and loss: Vol. 1. Attachment (2nd ed.)*. Basic Books, 1969.
- Brazelton, T. Berry. "Evidence of communication during neonatal behavioural assessment."
Before Speech: The Beginning of Human Communication, edited by M. Bullowa, Cambridge University Press, 1979, 79-88.
- Brazelton, T. Berry and Sparrow, Joshua D. *The Touchpoints Model of Development*. Brazelton Touchpoints Center, 2007. www.touchpoints.org
- Bronstein, Judith L, editor. *Mutualism*. Oxford University Press. 2015.
- Buckley, Sarah J. *Hormonal physiology of childbearing: Evidence and implications for women, babies, and maternity care*. Washington, D.C.: Childbirth Connection Programs, National Partnership for Women & Families, 2015.
- Cavoukian, Raffi, and Olfman, Shama, editors. *Child honoring: How to turn this world around*. Praeger, 2006.
- Cohen, Mark, and Armelagos, Geroge. *Paleopathology and the origins of agriculture*. Academic Press, 1984.
- Cole, Pamela M., et al. (1994). "The development of emotion regulation and dysregulation: A clinical perspective." *Monographs of the Society for Research in Child Development*, 59, 2-3, 1994, 73-100.
- Ege, Emel, et al. "Social support and symptoms of postpartum depression among new mothers in Eastern Turkey." *Journal of Obstetric Gynaecologic Research*, 34, 2008, 585–593.

Eisler, Riane. *The chalice and the blade*. Harper One, 1988.

Endicott, Kirk M., and Endicott, Karen L. “Batek childrearing and morality.” *Ancestral landscapes in human evolution: Culture, childrearing and social wellbeing*, edited by In D. Narvaez, K. Valentino, J. McKenna, A. Fuentes & P. Gray. . Oxford University Press, 2014, pp. 108-125.

Fry, Douglas P., and Souillac, Genevieve. “The original partnership societies: Evolved propensities for equality, prosociality, and peace.” *Interdisciplinary Journal of Partnership Studies*, 4, 1, 2017, Article 4

Gao, Ling-ling, et al. “Depression, perceived stress and social support among first-time Chinese mothers and fathers in the postpartum period.” *Research in Nursing & Health*, 32, 2008, 50–58.

Gimbutas, Maria. *The Civilization of the Goddess: The World of Old Europe*. HarperCollins, 1991.

Glasser, S., et al. “Postpartum depression in an Israeli cohort: demographic psychosocial and medical risk factors.” *Journal of Psychosomatic Obstetrics and Gynaecology*, 21, 2000, 99–108.

Gómez- Robles, Alda, et al. “Relaxed genetic control of cortical organization in human brains compared with chimpanzees.” *Proceedings of the National Academy of Sciences*. 12, 2015, 14799-14804. doi: 10.1073/ pnas.1512646112

Gottlieb, Gilbert. “On the epigenetic evolution of species-specific perception: The developmental manifold concept.” *Cognitive Development*, 17, 2002, 1287–1300.

Hawkes, Kristen and Coxworth, J. E. “Grandmothers and the evolution of human longevity: A review of findings and future directions.” *Evolutionary Anthropology*, 22(6), 2013, 294-302.

Hewlett, Barry S. *Intimate fathers: The nature and context of Aka Pygmy paternal infant care*. University of Michigan Press, 1991.

Hewlett, Barry S., editor. *Father-child relations: Cultural and biosocial contexts*. Aldine, 1992.

Hewlett, Barry S., & Lamb, M.E. *Hunter-gatherer childhoods: evolutionary, developmental and cultural perspectives*. Aldine, 2005.

Hrdy, Sarah. *Mothers and others: The evolutionary origins of mutual understanding*. Belknap Press, 2009.

Hughes, Daniel A., and Baylin, J. *Brain-based parenting: The neuroscience of caregiving for healthy attachment*. Norton, 2015.

Hunt, Samantha. “Samantha Hunt on her short stories in 'The Dark Dark'” (Interview on National Public Radio, July 22, 2017. Downloaded on March 30, 2018 from:
<https://www.npr.org/2017/07/22/538705532/samantha-hunt-on-her-short-stories-in-the-dark-dark>

Inandi, Tacettin, et al. “Risk factors for depression in postnatal first year, in eastern Turkey.” *International Journal of Epidemiology*, 31, 2002, 1201–1207. doi:10.1093/ije/31.6.1201

Klaus, Marshall H., and Kennell, J.H. *Maternal-infant bonding: The impact of early separation or loss on family development*. C.V. Mosby, 1976/1983.

Konner, Melvin. “Hunter-gatherer infancy and childhood: The !Kung and others.” *Hunter-gatherer childhoods: Evolutionary, developmental and cultural perspectives*, edited by B. Hewlett & M. Lamb, Transaction, 2005, 19-64.

Leahy-Warren, P., et al. "First-time mothers: social support, maternal parental self-efficacy and postnatal depression." *Journal of clinical nursing*, 21, 3-4, 2012, 388-397.

Liedloff, Jean. *The Continuum concept*. Perseus Books, 1977.

Logsdon, Mimia and Davis, D. "Social and professional support for pregnant and parenting women." *MCN, American Journal of Maternal Child Nursing* 28, 2003, 371–376.

Lupien, Sonia J., et al. "Effects of stress throughout the lifespan on the brain, behaviour and cognition." *Nature Reviews Neuroscience*, 10, 6, 2009, 434-445.

Margulis, Lynn. *Symbiotic planet: A new look at evolution*. Sciencewriters, 1998.

Mencius. *Mencius* (transl. by D. Hinton). Counterpoint, 1998.

Narvaez, Darcia. *Neurobiology and the development of human morality: Evolution, culture and wisdom*. Norton, 2014.

Narvaez, Darcia. Moral development and moral values: Evolutionary and neurobiological influences. *Handbook of personality*, edited by D. P. McAdams, R. L. Shiner, & J. L. Tackett. Guilford, 2019, 345-363.

Narvaez, Darcia, et al., editors. *Evolution, early experience and human development: From research to practice and policy*. Oxford University Press, 2013a.

Narvaez, Darcia, et al. The value of using an evolutionary framework for gauging children's well-being. *Evolution, Early Experience and Human Development: From Research to Practice and Policy*, edited by D. Narvaez, J. Panksepp, A. Schore, T. Gleason Oxford University Press, 2013b, 3-30.

Narvaez, Darcia, et al., editors. *Ancestral landscapes in human evolution: Culture, childrearing and social wellbeing*. Oxford University Press, 2014.

- Nelson, Melissa K. *Original instructions: Indigenous teachings for a sustainable future*. Bear & Co., 2008.
- O'Hara, Michael and Swain, A. "Rates and risk of postpartum depression-a meta-analysis." *International Review of Psychiatry* 8, 1996, 37–54.
- Porges, Stephen W. *The polyvagal theory: Neurophysiological foundations of emotions, attachment, communication, self-regulation*. Norton, 2011.
- Sahlins, Marshall. "Notes on the Original Affluent Society." *Man the Hunter*, edited by R.B. Lee and I. DeVore, Aldine Publishing Company, 1968, 85-89.
- Schore, Allan N. "Bowlby's "Environment of evolutionary adaptedness": Recent studies on the interpersonal neurobiology of attachment and emotional development." *Evolution, Early Experience and Human Development: From Research to Practice and Policy*, edited by D. Narvaez, J. Panksepp, A. Schore & T. Gleason, Oxford University Press, 2013, 31-67.
- Schore, Allan N "All our sons: The developmental neurobiology and neuroendocrinology of boys at risk." *Infant Mental Health Journal*, 38, 2017, 15-52. doi: 10.1002/imhj.21616
- Surkan, Pamela, et al. "The role of social networks and support in postpartum women's depression: a multiethnic urban sample." *Journal Maternal and Child Health Journal*, 10, 2006, 375–383. doi: 10.1007/s10995-005-0056-9
- Trevarthen, Colwyn, and Bjørkvold, J-R. "Life for learning: How a young child seeks joy with companions in a meaningful world." *Contexts for Young Child Flourishing: Evolution, Family and Society*, edited D. Narvaez, J. Braungart-Rieker, L. Miller-Graff, L. Gettler, & P. Hastings, Oxford University Press, 2016, 28-60.
- Trevathan, Wendy R. *Human birth: An evolutionary perspective, 2nd ed.* Aldine de Gruyter, 2011.

Vaughan, Genevieve. *The gift in the heart of language: The maternal source of meaning*.

Mimesis International, 2015.

Verschueren, Karine and Marcoen, A. "Representation of Self and Socioemotional Competence in Kindergartners: Differential and Combined Effects of Attachment to Mother and to Father." *Child development*, 70, 1, 2003, 183-201.

Wilkins, Carol "A qualitative study exploring the support needs of firsttime mothers on their journey towards intuitive parenting." *Midwifery*, 22, 2006, 169–180.

Winnicott, Donald W. *Mother and child. A primer of first relationships*. Basic Books, 1957.

Worster, Donald. *Nature's economy: A history of ecological ideas (2nd ed.)*. Cambridge University Press, 1994.