

## **The Emotional Foundations of High Moral Intelligence**

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CITATION: Narvaez, D. (2010). The emotional foundations of high moral intelligence. In B. Latzko & T. Malti (Eds.). *Children's Moral Emotions and Moral Cognition: Developmental and Educational Perspectives, New Directions for Child and Adolescent Development*, 129, 77-94. San Francisco: Jossey-Bass.

### **Abstract**

Moral intelligence is grounded in emotion and reason. Neuroscientific and clinical research illustrate how early life co-regulation with caregivers influences emotion, cognition and moral character. Triune ethics theory (TET; Narvaez, 2008) integrates neuroscientific, evolutionary and developmental findings to explain differences in moral functioning, identifying Security, Engagement and Imagination ethics that can be dispositionally fostered by experience during sensitive periods but also situationally triggered. Mature moral functioning relies on the integration of emotion, intuition and reasoning, which come together in adaptive ethical expertise. Moral expertise can be cultivated in organizations using the Integrative Ethical Education model (IEE).

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Moral theory was much simpler when the human was viewed as a mind-spirit caged in a body wracked by passions (Plato's view). Morality came about through the development of reasoning as a means to control those wayward emotions. Similarly, there was a long tradition of viewing the human as an inherently selfish (and sinful) creature (Augustine's view). Accordingly, morality developed through a painstaking process of punishment and coercive training of good habits. Both approaches adopted a dualistic view—that mind and body, reason and emotion, are separate and separable. Although such views still infuse popular and academic approaches to parenting, education, and moral development theory, these perspectives no longer stand the tests of empirical science.

First, although imagination and other deliberate processes affect moral functioning (like “dangerous ideas,” Eidelson & Eidelson, 2003), the dominance of reasoning in behavior is undermined by empirical evidence showing that much of behavior is initiated before conscious thought or decision (e.g., Bargh & Ferguson, 2005; Libet, 1985). Second, although individuals cannot help but use the self as the base for perception and action, anthropological and primate research offer convincing evidence for long histories of social cooperation and altruism in human and other species (for reviews, see de Waal, 1988; 2009; Fry, 2006). Thus the premises of dualistic views appear to be flawed. The emerging view is that character or personality is rooted in emotion systems shaped by enactive interaction with the social world early in life (Greenspan & Shanker, 2004; Schore, 1994) and influenced by social experience throughout life (Cacioppo & Patrick, 2008; Zimbardo, 2008). These and other new understandings suggest that much more complicated moral theory is needed. A new theory should take into account how understanding is grounded in physical experience (Lakoff & Johnson, 1999) and, most importantly for this paper, how particular lived experience early in life builds and wires the infant brain for later functioning. Early life may establish an optimal or a suboptimal trajectory for emotional and moral intelligence (e.g., Schore, 1994; Crabbe & Phillips, 2003). This paper examines the roots

of morality in early experience, the embodied nature of moral learning, and the importance of emotional social experience for moral functioning throughout life.

### **Early Experience Shapes Affective-Moral Systems**

The profound and malleable influence of early experience has been implicated in cognitive, emotional and moral development at least since mid-20<sup>th</sup> century when first Hartman (1939) then Bowlby (1951; 1988) alerted psychologists to its importance. Bowlby postulated the “environment of evolutionary adaptedness” (EEA) as formative for brain development. More recently, anthropologists have identified many of the critical characteristics of the EEA for infants and young children (see Hewlett & Lamb, 2005, for a review). These match up with mammalian ape needs generally and include breastfeeding 2-5 years, nearly constant touch in the first years of life, prompt response to fusses and cries, multiage play groups and multiple adult caregivers. All of these elements contribute to optimal physical and emotion development (see Narvaez & Panksepp, 2010, for a review), influencing personality dispositions and moral functioning (see Narvaez, 2008, for a review).

More recently, neuroscientific and clinical research paradigms have been able to illustrate how early life construction and “tuning up” of emotion systems influences character (Cozolino, 2006; Schore; 1994; 2001a, 2001b; Siegel, 1999). By “character,” I mean the person-by-context patterned or habitual responses, developed from life experience, that a person brings to a situation. First, as demonstrated by numerous animal experiments, early experience establishes the structure and functioning of the mammalian brain and body systems (e.g., Harlow, 1986; Meaney, 2001). This has been often characterized as “attachment” (Bowlby, 1951), a term that does not capture how integral early experience is to all of functioning.<sup>1</sup> The intersubjectivity and mutual co-regulation with caregivers set up the neuroendocrinological systems that underlie emotional functioning. “Development may be conceptualized as the transformation of external into internal regulation” where the “progression represents an increase of complexity of the maturing brain systems that adaptively regulate the interaction between the developing organism and the social environment” (Schore, 2001, p. 202). For example, maternal touch can lower an infant’s heart rate during a distressing experience, helping the child form a more adaptive response to stress (Calkins & Hill, 2007). On

the other hand, when separated, a mother's absence can cause stress hormone release and disruption in multiple physiological systems in the offspring (Hofer, 1987; 1994; Polan & Hofer, 1999). In primates, chronic distress is related to a permanent change in brain stress response systems towards oversensitivity and overreactivity (Anisman Zaharia, Meaney, & Merali, 1998), leading to multiple health problems (e.g., diabetes, hypertension, depression; Chrousos & Gold, 1992). Stress response reactivity influences emotion and cognitive development and, hence, the functioning of character. A person in personal distress is less likely to be able to focus on others.

Not only does parenting influence the structure and wiring of physical and psychological systems, it effects epigenetic change on hundreds of genes, one of which has been mapped by Michael Meaney and his lab. Using rats, Meaney and colleagues (Weaver et al, 2002) have demonstrated that high nurturing maternal behavior during a critical period in early life turns on a receptor gene that encodes glucocorticoid receptor protein, critical for alleviating distress. Low nurturing mothers (low-licking) do not turn on the receptor gene in their offspring who go on to have elevated stress responses for the rest of their lives. Cross-fostering studies show that the effect is environmental and not genetic; experience influences gene expression ("epigenetics;" Crabbe & Phillips, 2003; Francis et al., 1999). The same neurological differences have been demonstrated in human adults who had been abused as children and committed suicide (McGowan et al., 2009).

Emotion underlies cognition and guides behavior generally (Greenspan, 1979). Emotions "give birth" to the ability to think and invent symbols (Greenspan and Shanker, 2004, p. 1). "Sensory and subjective experiences... are the basis for creative and logical reflection" (p.2). In order to develop symbolic thinking, humans must learn to transform basic emotions into increasingly complex emotional signaling in "reciprocal, co-regulated emotional interaction" with the caregiver (p. 30). As they co-regulate with a caregiver, children learn to self-regulate, one of the key components of successful development (Shonkoff, & Phillips, 2000). The child signals intent and the sensitive caregiver responds to the intent, helping the child regulate strong or "catastrophic" emotions, before direct action is taken. The ability to signal back and forth solves problems that would otherwise result in direct action (e.g., biting when hungry). Emotional signaling eventually allows the separation of an image or desire from immediate action. Ideas are images that are invested with emotion but have been set free from fixed or immediate action. Individuals who are unable to signal with their

emotions, act impulsively on their intense emotions, or engage in fragmented or polarized thinking. When emotional signaling is thwarted by factors like a depressed mother (or perhaps even by small cultural elements like the use of strollers that face away from the caregiver; Zeedyk, 2008), developmental delays may ensue (Tronick, 2007; Zuckerman, Bauchner, Parker, & Cabral, 1990).

In older normal children, it becomes more obvious that reflective thinking is grounded in “lived emotional experience” (Greenspan & Shanker, 2004, p. 233). Children with higher levels of social experience develop greater emotional self-awareness and are able to use emotions effectively to think out problems, showing superior social skills, moral reasoning, and intelligence. The children are able to create ideas *from experience* (i.e., play) and organize those ideas in a broader, analytical context—Greenspan and Shanker’s definition of intelligence. Indeed, children’s play is found to be a powerful educator of both emotions and cognition (Panksepp, 2007).

The early years of life form the foundations not only of general intelligence and social competence (Greenspan & Shanker, 2004), but also of moral functioning (Narvaez, 2008). Moral functioning refers to the propensities and capacities for response to events that affect the welfare of others near and far. Moral functioning emerges from conceptual knowledge about the world, particularly the social world as experienced, and from emotional knowledge—the way that the emotions have been tuned up to guide experience. In the shaping of emotions and concepts through everyday experience, moral propensities such as conscience development are formed in the intersubjectivity of child and caregiver (Kochanska, 2002; Thompson, 2009). Triune Ethics Theory describes several basic ways that moral functioning is influenced by the emotion and cognitive structures developed during sensitive periods.

### **Triune Ethics Theory**

Triune ethics theory (TET; Narvaez, 2008; 2009) integrates neuroscientific, evolutionary and developmental findings to explain differences in moral functioning (capacities that involve noticing, feeling for, imagining, solving and acting on the needs of others). TET proposes that three basic types of affectively-rooted moral orientations emerged from human evolution and are influenced by early care and social environments: the ethics of security, engagement and imagination. Each orientation has neurobiological roots that are suggested by the structures and circuitry of human brain evolution (MacLean, 1990; Panksepp, 1998) and each prioritizes a different set of emotions. When the propensities for action in a particular orientation

trump other values, they become an ethic. That is, as a type of motivated cognition, an activated ethic influences what affordances (action possibilities) are salient, and what goals and actions are preferred. Thus, moral action emerges from the affective stance underlying the ethic that imbues ongoing experience with a particular moral value (Moll, de Oliveira-Souza, Eslinger, Bramati, Mourao-Miranda, Andreiulo, et al., 2002). Each ethic makes normative claims, making particular actions seem “right” based on the interaction between the particular context and the habits of mind brought to the situation by the person (character).

*Security Ethic: “Bunker” Morality.* Evolutionarily older brain structures (extrapyramidal action nervous system; Panksepp, 1998) related to morality are activated when a person is threatened, such as the anger-rage emotion system rooted in the sympathetic system and the fear-distress emotion circuit rooted in the parasympathetic system. These are useful networks for self-preservation. However, when humans use these instincts habitually to determine behavior towards others, they are acting from the Security Ethic. Laboratory studies show that a security orientation is easily primed with evocations of death and other threats, leading to less compassion for others (e.g., Mikulincer, Shaver, Gillath, & Nitzberg, 2005). Priming with a market orientation (i.e., for money) also makes the security ethic more accessible and decreases compassion (see Aquino & Freeman, 2009, for a review).

The EEA characteristics noted above no longer pervade the early years of life (or any age) in the USA, suggesting that optimal prosocial emotion systems are not being nurtured (Narvaez & Panksepp, 2010). Indeed, anxiety and depression exist in epidemic proportions across the country (USDHHS, 1999). Persons with suboptimal emotion systems will more easily trigger the security ethic when under stress. Personal distress becomes the dominant focus, making empathy towards others and compassionate response difficult (see Eisenberg & Eggum, 2008, for a review). Perception and action choices narrow to those related to “fight/flight” (Henry & Wang, 1998), and will opt to make moral decisions based on “what’s good for me and mine” (Personal Interest Schema; Rest et al., 1999), lacking the perspective taking and empathy that underlie more advanced forms of moral reasoning. In fact, in recent research with the Defining Issues Test, the Personal Interest Schema (Kohlberg’s stages 2 and 3) is increasing among U.S. college students across the country while postconventional reasoning (Kohlberg’s stages 5 and 6) is decreasing (Chung, Bebeau, Thoma & You, 2009).

*Engagement Ethic: Harmony Morality.* The Ethic of Engagement involves the emotional systems (the visceral-emotional nervous system on the hypothalamic-limbic axis; Panksepp, 1998) that allow for intimacy and “limbic resonance,” mind-to-mind coordination vital for mammalian brain functioning (for a review, see Lewis et al., 2000). The Ethic of Engagement is oriented to face-to-face emotional affiliation with others, particularly through caring relationships and social bonds. The Ethic of Engagement underlies compassionate response and self-sacrifice for others. For example, moral exemplars are typically propelled by affiliation and compassion values when they take committed or risky action for others (Oliner & Oliner, 1988; Walker & Frimer, 2009). With an upbringing that more closely matches the EEA, the Engagement Ethic develops fully and leads to values of compassion and openness towards others (see Eisler & Levine, 2002, for a similar view). For example, children with responsive mothers are more likely to display early conscience development, agreeable personalities, and prosocial behavior (e.g., Kochanska, 2002), pointing to the importance of empathy development in the first years of life (Latzko, this volume; Maxwell & DesRoches, this volume).

*Imagination Ethic: Mindful or Heartless Morality.* The Imagination Ethic is grounded in more recently evolved brain capacities (i.e., prefrontal cortex) that are shown to be fundamental for social and moral functioning in complex societies. The Ethic of Imagination uses humanity’s fullest reasoning capacities to adapt to ongoing social relationships and to address concerns beyond the immediate. Unlike the ethics of Security and Engagement, the systems underlying the Imagination Ethic allow an individual to envision alternatives to what exists and make plans and guide action for change. However, the Imagination Ethic can be harnessed by either the security ethic—oriented to self/group protection against imagined outsiders and detached from empathy, creating a “heartless morality,” or the engagement ethic—oriented to collaboration with imagined outsiders or future generations, a “mindful morality.” Like the systems that underlie the Engagement Ethic, the prefrontal cortex is sensitive to environmental input early in development early (Anderson, Bechara, Damasio, Tranel, & Damasio, 1999; Kodituwakku, Kalberg, & May, 2001) and late in development, such as emerging adulthood (Newman, Holden, & Delville, 2005). Triune Ethics theory underscores the importance of early life in establishing brain structures and interconnections that allow for deep compassionate relational commitment to others and the intellectual capacities for complex moral reasoning and perspective taking. Children’s moral dispositions are formed by immersed social experience in

combination with the cultural narratives that explain the experience (see *Gutzwiller-Helfenfinger, Gasser, Malti*, this volume).

### **Development of Moral Functioning**

Although early experience of secure attachment and mentoring can provide an advantage for adult psychological well-being (McAdams, 2009) and moral exemplarity (Walker & Frimer, 2009), brain plasticity and changing experience offer a chance to continuously build capacities for moral functioning. In other words, early life experience has a great impact on brain structures and wiring, but is not all that “makes the man.” Cognitive transformation occurs throughout life, and may be more influential during sensitive periods in life after childhood (e.g., early adolescence, late adolescence/emerging adulthood, psychotherapy).

Emotions form the foundations of brain functioning in terms of motivation and intelligence, but these are not enough for mature moral functioning. Although some have argued for the dominance of intuitive emotion for moral functioning (e.g., Haidt, 2001), much of intuitionist research has examined naïve or seat-of-the-pants intuition rather than educated or well-formed intuition (Narvaez, in press-b). Well-formed intuition, from deliberative practice in appropriate environments, relies on the conceptual structures that derive from experience. Novice-to-expert learning describes this process (Bransford, Cocking & Brown, 1999).

#### *Adaptive Ethical Expertise*

Moral psychology has spent most of its time examining special cases of decision making (e.g., Heinz dilemma, trolley problems, eating dog). As a result we know very little about “everyday ethical coping” (Appiah, 2008; Dreyfus & Dreyfus, 1990). From his neuroscientific studies of patients with brain damage, Goldberg (2002) showed that there are two types of decision making, veridical and adaptive. In veridical decision making, the details of a scenario are prearranged. (e.g., what should Mary do [in this scenario I have devised for you?]). In adaptive decision making, the agent herself must try to make sense of the ongoing flow of information, a complex task that requires attending to and sorting stimuli, prioritizing, weighing actions and effects, plus a multitude of other executive functions. Some have called this the real work of moral functioning (Appiah, 2008), capacities for which vary among individuals based on expertise (Narvaez & Lapsley, 2005).



In most domains in life we can see a range of capacities that runs from novice to expert (Bransford, Brown & Cocking, 1999; Sternberg, 1999). Expertise refers to a refined, deep understanding that is evident in practice and action. Experts and novices differ from one another in three basic ways. First, experts in a particular domain have more and better organized knowledge than novices (Chi, Glaser, & Farr, 1988; Sternberg, 1998). Expert knowledge is of several kinds that interact in performance: for example, declarative (what), procedural (how), and conditional (when and how much) knowledge. Second, experts perceive and react to the world differently, noticing details and opportunities that novices miss (Feltovich, Ford & Hoffman, 1997; Johnson & Mervis, 1997). Third, experts behave differently. Whereas novices use conscious, effortful methods to solve problems, many expert skills are highly automatic and effortless (Feltovich, Prietula & Ericsson, 2006).

The notion of expertise development applies to the moral domain as well (Narvaez, 2005; 2006; Narvaez & Gleason, 2007). Paraphrasing the ideas of Aristotle and Mencius, Francisco Varela (1999) wrote: “a wise (or virtuous) person is *one who knows what is good and spontaneously does it*’ (p. 4, emphasis added). In fact, moral exemplars often speak as if perception and action are linked (e.g., “what else could I do?” Monroe, 1991). Moral experts demonstrate holistic orientations in one or more psychological capacities (Rest, 1983; Narvaez & Rest, 1995). For example, experts in Ethical Sensitivity are better at quickly and accurately ‘reading’ a moral situation and determining needs and potential responses. They are able to control personal bias in an effort to be morally responsive to others. Experts in Ethical Judgment are skilled at reasoning about duty and consequences and assessing which potential action is most moral for the situation. Experts in Ethical Focus cultivate ethical self-regulation and ethical self-reflection. They foster an ethical identity that foster habituated ethical concern (Narvaez, in press-b). Experts in Ethical Action know how to marshal their courage to stay on task and take the necessary steps to get the ethical job done. Experts in a particular excellence have more and better organized knowledge about it, have highly tuned perceptual skills for it, have deep moral desire for it, and benefit from multiple automatized capacities. In short, they have more *content* knowledge and more *process* knowledge, more implicit and explicit conceptual and emotional knowledge. (See Narvaez, 2006, for greater detail.)

More recently, the education of children has been viewed as the development of expertise in each of many domains (Bransford, Brown & Cocking, 1999). How does expertise come about? Experts in training

have extensive, focused practice in particular contexts (Ericsson & Smith, 1991). They are immersed in the domain while at the same time are guided by someone with greater expertise who “whispers in the ear” about what to notice, what to practice and how to act and why (e.g., Abernathy & Hamm, 1995). Good caregiving provides just such guidance in multiple domains, as is often seen with young children (“Where do we put our boots when we take them off?” “Why do we eat our vegetables before eating our dessert?”). But such guidance should cut across all ages and domains based not on age but level of expertise. Aristotle advocated having a mentor until the individual is able to mentor the self (Urmson, 1988). Thus, good intuitions, from immersion, are cultivated at the same time as conscious understanding, from explicit guidance. Expertise involves “reflexively activated, context-specific schemata” (Richart & Perkins, 2005, p. 789) whose development requires more than the usual everyday amount of exposure to a domain, typically requiring thousands of hours of deliberate study (Ericsson, 2006; Ericsson & Charness, 1994).

Education for moral expertise fosters moral reasoning and moral intuitions simultaneously within particular contexts. Through the course of expertise training, perceptions are fine tuned and developed into chronically accessed constructs (Lapsley & Lasky, 1999; Narvaez et al., 2006); interpretive frameworks are learned and, with practice, applied automatically; action schemas are honed to high levels of automaticity (Hogarth, 2001). “Skills” or capacities form an embodied cognition (Varela, Thompson, & Roach, 1991), a holistic and contextualized understanding that engages the entire brain-mind-body system. Virtues arise from immersed practice beginning with caregiver co-regulation early in life which establishes trajectories for future functioning (Churchland, 1999; see Greenspan & Shanker, 2004, for a review). As for all of social life, emotional wherewithal underlies ethical expertise. But empathy alone is not enough either. Empathy without discipline is useless to those in need (Stout, 2009). With a set of deeply attuned knowledge and cultivated habits, experts “know what to do and do it,” displaying a seamless interface between perception and committed action.

This adaptive ethical expertise approach fits with philosophies of multiple traditions. In emphasizing the foundational importance of emotion for moral functioning, emotivist theories are acknowledged. In advocating cultivation of deliberate processes like reasoning and reflection, the deontological and utilitarian theories are integrated. And in emphasizing the cultivation of ethical capacities from novice to expert functioning, virtue theory is highlighted. Virtue theory more holistically emphasizes multiple individual

capacities or virtues (actionable understanding) as well as the relation of the individual to the community group. Dewey's pragmatism (see Fesmire, 2003, for a review) offers a similar holistic view of individual development within communal experience. As a result, both pragmatism and virtue theory may offer more psychologically veridical views of moral development (Casebeer, 2003; 2005; Churchland, 1999; Fesmire, 2003) than other theories, including the dualist theories mentioned at the beginning of this paper.

### **Emotional and Ethical Expertise Development in Schools and Youth Organizations**

When applied to the classroom, adaptive ethical expertise development and triune ethics theory suggest an integrative approach to cultivating moral character such as that described in the Integrative Ethical Education model (IEE). IEE takes into account the centrality of emotion in motivation and learning, emphasizing relationships, emotional signaling, adult guidance, personal autonomy and self-actualization within the community.

**Caring relationship.** Designing environments for children that match as much as possible the EEA is assumed to be optimal. This means that teachers ought to establish a secure relationship with each child. Sometimes this is difficult with children who have experienced poor caregiving or trauma in the past; but with patience and persistence, it can happen (Watson & Eckert, 2003). For an individual to be open to ongoing experience, their needs and individuality need to be acknowledged and taken into account. Just as within the parent-child relationship, the responsive teacher expresses openness to mutual influence and models 'unconditional positive regard' (Rogers, 1983) for the child's "becoming" a prosocial member of the community. In such a relationship, the child can thrive as a person and as a student.

**Supportive climate.** Climates or cultures comprise the practices and expectations shared by members of an organization. Learning climates vary, fostering different mindsets, perceptions and habits towards school tasks (Watson, 2008). When students perceive teachers emphasizing performance (e.g., grades, competition), students are more likely to adopt performance goals themselves (looking good, or not looking bad; Urdan, Midgley & Anderman, 1998) whereas when students perceived teachers emphasizing understanding, they are more likely to adopt a mastery orientation to learning (Urdan & Midgley, 2001). A mastery orientation, regardless of performance orientation, is related to prosocial attitudes and reported

behavior (Vaydich, Khmelkov & Narvaez, 2007). Different social climates foster different attitudes towards self and others (DeVries & Zan, 1994). Caring community classrooms provide the support students need for achievement and prosocial behavior, as so well demonstrated by the Child Development Project (Battistich, 2008). A sustaining climate offers a caring mastery learning environment but also fosters human potential through intentional guidance for purposeful, democratic participation (see Narvaez, in press-a) where students care for one another's welfare (Power & Higgins-D'Alessandro, 2008).

**Ethical skills through a novice-to-expert pedagogy.** When teachers (and parents) view children with a growth mindset (instead of a fixed mindset; Dweck, 2006), they realize that students require structured guidance to foster development in a host of skills needed to live a good life (Lave, 1988). Children today often are isolated from adult life and lack good role models. Along with immersion in experience for developing intuition (Hogarth, 2001), deliberate, intentional instruction is required to foster moral problem solving skills, which include social and emotional learning (Elias et al., 2008).

The Minnesota Community Voices and Character Education project (Narvaez et al., 2004)<sup>2</sup> identified sets of ethical skills that can be taught in public schools. Using the novice to expert approach described above, the teacher provides guidance at each of four levels of novice-to-expert instruction. The example of emotion regulation is used here as an illustration. In level one, immersion, the teacher provides multiple examples of capable skill performance at developmentally appropriate levels. The teacher could demonstrate emotion regulation or show story characters who successfully regulated emotion (in ways appropriate for their culture and age). Students learn to attend to the 'big picture' of the skill domain (e.g., noticing that a particular emotion was being regulated). Sometimes, anti-heroes (the opposite of exemplary performance) are useful in illustrating the importance of the skill. So the teacher might also show examples of poor self-regulation. In level two, the educator draws attention to particular subskills that the students can practice in class. Students might practice counting to ten and other skills for when they get upset. In level three, practice procedures, the teacher models skill sets (e.g., while thinking aloud) and students practice in role play and in actual everyday situations (e.g., counting to ten when they get upset in class). Students help one another remember the steps to take. In level four, integrating learning across contexts, the educator sets up ways for students to practice problem solving in multiple settings, in order to learn how to adjust skill application to different situations.

Students could practice counting to ten on the playground, at home, in the cafeteria and keep a journal of their success.

**Fostering Self-Authorship.** Autonomy is a fundamental characteristic of intellectual and moral maturity (Piaget, 1932) and is particularly important for moral functioning (Narvaez, in press-b). Moral self-authorship capacities include executive functioning capacities like moral self-monitoring (am I taking all sides into account in making my decision?) and moral self-reflection (does this action align with my moral identity?). Those with good self-monitoring are able, for example, to change strategies when a particular course of action is not working, whether working a math problem or a moral problem.

**Restoring the Ecological System of Support.** Reinvigorating and coordinating the child's network of support among family, community, and neighborhood institutions means that each area aligns goals to build assets and foster flourishing in the child and neighborhood (Lerner, Dowling & Anderson, 2003). It is in the community that children and youth practice and apply ethical competencies. After all, moral development is about learning for life (Dewey, 1938). Each community has its own approach to moral character and must be engaged in fostering the flourishing of the young.

#### *Mature Moral Functioning*

Moral self-authorship continues throughout life and extends into the deepening of a moral self-identity (Lapsley, 2008). As described more fully elsewhere (Blasi, 2009; Narvaez, in press-b), mature moral functioning involves the interplay of emotions, intuitions and reasoning in moral imagination, along with committed empathic concern, and metacognitive skills such as moral self-regulation, moral self-reflection and moral locus of control, among other developed capacities.

### **Conclusion**

Moral structures are shaped, like all embodied structures, by early experience. Newer understandings of mammalian needs and the environment of evolutionary adaptedness suggest ways to foster optimal human and moral development. Current societal childrearing policies and practices for early life do not match what humans need for flourishing (see Narvaez & Panksepp, 2009). The view here is that these suboptimal environments are fostering a more primitive type of morality, the security ethic, which

predominates in environments of extreme social stress. In these environments humans look like they are naturally violent. Nevertheless in circumstances of social support, our ancestors were largely peaceful and cooperative (Fry, 2006), an orientation that is more visible among the populace during natural disasters when individuals typically go out of their way to help others at personal cost (Solnit, 2009).

From birth, learning best takes place through immersion in supportive environments with guidance from more-experienced mentors. In moral development, the caregivers first provide the relational environment that wires the brain for sociality. Ideally, early experience provides a responsive, co-regulating structure that fosters deep pleasure in sociality. The brain is a pleasure machine and will find ways to get pleasure from experience. For optimal moral functioning, it may be best to learn the ways of our ancestors—to foster pleasure from enjoyable relationships (Fry, 2006). The engagement ethic builds on pleasure from social relationships and in conjunction with the imagination ethic can be a powerful force for prosocial behavior. Thus the view here is that if we pay attention to what human mammals need for optimal moral functioning, providing environments that foster intimate social relations and cultural narratives for the ethics of engagement and imagination, we may be able to reach peaceful coexistence again.

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## Footnote

## FOOTNOTE

1 For example, maternal responsiveness, a key component of “attachment parenting,” is related to vagal nerve establishment. The vagus nerve, part of the parasympathetic nervous system, is related to all sorts of body systems including cardiac, digestive, respiratory, as well as moral (e.g., Donzella et al., 2000; Propper et al 2008; Stam et al., 1997). Non-responsive parenting is related to poor vagal tone (e.g., Calkins, Smith, Gill & Johnson, 1998; Porter, 2003). Vagal tone is related to feelings of compassion (Eisenberg & Eggum, 2008, for a review).

2 From 1998-2002, the Minnesota Department of Education (formerly the Department of Children, Families, and Learning) implemented the Community Voices and Character Education Project (CVCE) with funds from the U.S. Department of Education (USDE OERI Grant # R215V980001). Project materials may be obtained from the author.