NEUROBIOLOGY, MORAL EDUCATION AND MORAL SELF-AUTHORSHIP

INTRODUCTION

The field of moral psychology is in a state of empirical abundance with handbooks and compendiums galore. On the one hand we know more about moral functioning than ever before. We understand that humans have competing moral sentiments (Narvaez, 2008b, 2009b), that moral goals can be influenced by the situation (Zimbardo, 2007; Van IJzendoorn & Bakermans-Kranenburg, this book), and that moral personality dispositions drive moral behavior in a person by context interactions (Lapsley & Narvaez, 2004; Narvaez & Lapsley, 2009). On the other hand while moral psychology research perhaps has never been more prolific, individual moral and social functioning may be on the decline. For example, moral judgment scores appear to be decreasing longitudinally in US college students (Thoma & Bebeau, 2008), as is empathy (Konrath et al., 2011) and cheating is widespread (Callahan, 2004). Youth appear to be less capacious when they reach adulthood (Bauerlein, 2008), with one of four at risk for an unproductive adulthood (Eccles & Gootman, 2002). Although psychology has provided more insights into the causes of psychopathology, depression and anxiety are more prevalent now than 50 years ago, and the USA has more people in prison than any other nation (Pew Center on the States, 2008).

How did we get to this point? Is there something fundamentally awry that is causing these poor outcomes? In my view, a critical factor in the decline of US adult morality and children’s wellbeing in the USA (Heckman, 2008) is the abandonment of evolved principles of childrearing, established more than 30 million years ago (Konner, 2010). Child rearing has profound effects on brain functioning that can last a lifetime. The quality of early care shapes the functioning of multiple systems, from neurotransmitters, to immunity and stress response, to moral imagination (Narvaez, 2011b). Good early care fosters optimal (flexible, functioning) systems, but such care is rare in the USA. Poor care influences not only cognitive and physiological capacities but also expectations for community and social life. Moreover, current cultures of childrearing in most if not all Western societies emphasize left brain development, at the expense of the more holistic, contextualized, emotional intelligence inclusive of the right brain (McGilchrist, 2009; Schore, 1994).
Ecological contextualism identifies how multiple social systems (e.g., family, neighborhood, parental work life, school, societal culture) influence children’s development (Bronfenbrenner, 1981). Most recently, scholars are discovering how deeply biological these effects are. Co-construction of a child’s capacities begins from conception, when the developing embryo reacts to the environment provided by the mother; she in turn is affected by the community support she receives during pregnancy (and afterwards) (Hrdy, 2009). The mother’s expectations for the child are conveyed through stress hormones and other neurobiological mechanisms in the womb affecting how the baby’s body is constructed (Gluckman & Hanson, 2005). If a mother is stressed early in pregnancy, it has detrimental effects on the child’s health in multiple ways (Davis & Sandman, 2010). Maternal depression and anxiety during pregnancy are associated with a reactive stress response and with children’s subsequent rates of hyperactivity, impulsivity, and emotional and behavioral problems (e.g., Lundy et al., 1999).

Neuromoral education effects also take place at birth. Mammalian babies that are separated from the mother at birth are less attuned with the mother and more socially awkward in later life (e.g., Bystrova et al., 2009). If the baby is subjected to pain, he or she reacts with a stress response that kills neurons and may form a stressed brain (Henry & Wang, 1998); the baby also may learn to associate social life with pain and react to others with rage and/or fear, or detachment.

After birth, physiological as well as psychological education continues as early care shapes the functioning of all physiological systems through epigenetic and plasticity effects. For example, children who are neglected have more poorly functioning neurotransmitter, neuroendocrine, immune, and stress response systems (Lanius, Vermetten & Pain, 2010). When these are poorly functioning, the individual has less energy for prosociality. Much of who we become is established during the first years of life, including whether we are more agreeable, open, and conscientious (Kochanska, 2002). Although the brain is plastic, it becomes less so with age, so early patterns are foundational to later functioning (Lanius et al., 2010). Modern Western humans have culturally erased most of the practices of infant and child care that evolved to fixation, practices that are ‘expected’ by human brains and bodies and whose lack has detrimental effects on development (Narvaez, Panksepp et al, in press).

What are the characteristics of good early care? Anthropologists have identified the human version of this care, only slightly changed from catarrhine mammalian practices that emerged 30–40 million years ago (Konner, 2010), which reflect part of our ancestral human mammalian milieu (AHMM) (Narvaez & Gleason, in press). Along with natural childbirth (no drugs) and no separation of infant from mother, these characteristics include child-directed breastfeeding 2–5 years (4 years on average), constant touch in the first years of life, prompt response to needs, fusses and cries, multiple adult caregivers, free play in nature with multi-aged mates (Hewlett & Lamb, 2005; Konner, 2010).