

# The Prenatal Origins of Development and Experience Over the Life Span

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We are all survivors of our prenatal and birth experiences. Being alive now is evidence that enough resources were available (whether an abundance or only the bare minimum) to enable us to survive this earliest period of our development. No matter how we experienced the quality of the environment that surrounded us during our gestation, echoes of our experiences *from the beginning* resonate over our life span.

An individual's earliest experiences of safety, danger, and life-threat often originate in the prenatal period. The imprints of experiences from conception through birth are implicitly held in our being, and their quality may span the spectrum from a felt-sense of love and safety, to danger and toxicity. Survival-related experiences are inherent aspects of development during the prenatal period and may also occur during birth.

Neuroception (Porges, 2004) is the term used to describe how an individual, in microseconds and beneath conscious awareness, perceives and reacts to the internal and external environment. These reactions are expressed in the physiology of their neuroendocrine, cardiovascular and immune systems. Our neuroception of the environment that surrounds us after birth, (including the quality of interpersonal interactions with caregivers) may be influenced by imprints of our prenatal experiences. Imprints from the prenatal period shape an infant's psychophysiology and his or her receptivity to, or avoidance of, social engagement with their caregivers.

Autonomic nervous system (ANS) defense strategies develop during the prenatal period. These include the earlier developing ANS defense strategy of freeze/dissociation or freeze/shutdown, and the later developing fight-or-flight defense. Both of these defense strategies are repeatedly activated during gestation as the prenatate responds to its internal and external environment.

The behaviors of neonates and infants, including ANS defensive reactions, affect their caregivers' responses in their dyadic interactions. The quality of these early caregiver-infant interactions may trigger the caregiver's implicitly held memories of their own early relationship with *their* mother, and thus may also influence the caregiver's interpersonal interactions with their infant. The interpersonal neurobiology of the maternal-child relationship begins in the prenatal period. The origins and qualities of their attachment relationship have roots in this earliest period of human development and experience, well before the period that has been the focus of the majority of attachment research for decades.

A mother's experiences and psychophysiology during pregnancy and birth shape her prenatate's physiology and experience during gestation, and may shed light on the origins of difficulties in early infant-caregiver interactions, which are known to influence the ongoing development and programming of the infant's and child's neuroendocrine system. These difficulties may carry over into the offspring's interpersonal relationships over their life span.

A pregnant woman's or girl's psychophysiology is influenced by her neuroception of safety, danger or life threat in her internal and external environment. Her neuroception of her internal and external environment is also shaped by her past experiences, including past or recent trauma and/or loss,

which may have, and may continue to have, significant impacts on her psychophysiology. A female's neuroception of safety, danger or life threat during pregnancy and birth may be associated with her experience of her rapidly changing body and the internal sensations associated with the movements of her growing baby. A pregnant woman's or girl's experience of the environment outside of her body includes her interpersonal relationships with family, friends, and practitioners who provide health and mental health care, as well as the physical environments she encounters in her life.

A neuroception of danger and/or life threat may be evoked in females who have experienced physical abuse, sexual abuse, and/or other adverse childhood experiences. Implicit memories of past experiences that breeched their body boundaries and impacted the parts of their bodies now involved in conception, pregnancy, birth and infant feeding may be triggered at this time. Health care exams and medical procedures may also trigger defense system reactions in these individuals. A neuroception of danger and/or life threat may be evoked whether or not these women and girls have conscious, explicit memory of these past experiences. Consequently, experiences during the preconception, prenatal and early parenting period may activate previously abated traumatic stress symptoms, exacerbate existing symptoms, and/or or trigger new traumatic stress symptoms.

It is essential we consider the impacts of development and experience during the prenatal period in order to gain a deeper understanding of the issues facing clients, male and female, at any age. And it is imperative that practitioners, some of whom are pregnant, carefully consider the potential impacts of their interpersonal interactions and treatment interventions with pregnant clients because the psychophysiological effects of therapeutic experiences (on pregnant clients *and* pregnant practitioners) also have the potential to impact their developing babies.