

Development and research

The sensory system of a newborn is well developed soon after 24 weeks of fetal life by way of identifiable eye movement and blink-startle responses that begin prior to birth.ⁱ Higher levels of visual system structures undergo a rapid rate of development suggesting that a “reasonable level of maturity in anatomy occurs by 6 to 8 weeks of age.”ⁱⁱ

THE DEVELOPMENT OF THE VISUAL SYSTEM IS MORE SENSITIVE TO ENVIRONMENTAL INFLUENCES. DURING AN ANIMAL'S INFANCY... THE DEVELOPMENT OF SENSORY STRUCTURES AND PERCEPTUAL PROCESSES (SUCH AS MONOCULAR AND BINOCULAR VISION) ARE SUSCEPTIBLE TO CHANGE AND CAN BE IRREVERSIBLY AFFECTED BY RESTRICTIVE OR ABNORMAL EXPERIENCE, ALSO APPLYING TO THE CORTICAL NEURONS AND NEURAL CONNECTIONS. (HARWORTH ET AL, 1986)

If humans were to be raised in a situation where they were deprived of a specific kind of stimulus,ⁱⁱⁱ what would happen to the cortical cells of an infant should they be raised by means of complex interactions of genetic and experiential factors? In the example provided by the two authors cited, the kitten's cortical cells that normally react to visual movement (indicating neural responses) were disrupted because of extended duration of disuse due to restricted visual stimulation. I propose this example is an effort to postulate that human cortical cells would also be disrupted if there were extended periods of disuse, further suggesting that infants not taught to exercise the innate faculties of empathy or telepathy (or other sentient abilities) would have difficulty realizing their true potential unless trained to do so.

Research suggests that selective deprivation may cause a defective growth or development of neurons in visual pathways and the visual cortex^{iv}.

Animals raised with one eye receiving more experience than the other become severely restricted suggesting that an imbalance in the duration of stimulation may cause a... “*subsequent selective suppression of a portion of the input from the less experienced eye.*” Many cortical

neurons that are naturally sensitive to the absent orientations during rearing become nonfunctional or unresponsive thereby losing their orientation selectively. (Tumosa, Tieman, & Hirsch, 1980)

Exposure to specific orientations becomes necessary to maintain and sharpen the innate response pattern for a given impulse conducting cell within the cerebral cortex; whereas neurons deprived of activity become silent or nonfunctioning.

It is then reasonable to deduce that if a child were to be raised in such a way as to foster the child's inherent awareness and encouraged the development of the sensory system outside of normal parameters, (such as normal vision, auditory, feeling, smelling, and tasting) the neurons would be more fully functional and responsive. Exposure becomes the fundamental influence whereby we can sharpen our perception and innate responses.

Although my parents had not purposefully participated in or influenced my sensory development there were key individuals throughout my life in ways that challenged me and helped nurture the innate abilities that I use today in my practice.

4 Birnholtz, 1981; Birnholtz & Benacerrat, 1983

5 E.g., Banks & Salapctek1983

6 such as kittens reared without patterned light for two months as described by Hubel and Wiesel 1963

iv E.g. Freeman & Bonds, 1979; Rothblat & Schwartz, 1978