DISSOCIATION IN INFANTS AND YOUNG CHILDREN: A SUMMARY OF THE RESEARCH ON ITS CAUSES AND RESULTS

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Throughout the United States, family courts are not provided accurate, relevant information about the neurological, psychological and social developmental needs of children from birth to seven years of age. Family courts have, for many years, focused on the needs of the adult parents in cases of separation, visitation rights, custody and divorce, while failing to address "the best interests of the young child." As a result, decisions made by these courts have, unknowingly, imposed trauma on the child. Research has demonstrated that these family court decisions and resulting early childhood traumas have created both immediate and enduring problems for the child and later adult.

For many years, there has been a prevalent belief that most young children are able to accommodate variations in the quality of early care without their deviation from normal developmental progress, and that infants and children show great behavioral and developmental resilience in the face of adverse life experiences. This belief overlooks documented dramatic increases in childhood psychopathology, including bipolar disorder, attention deficit hyperactivity disorder (ADHD), and autism. Each of these conditions has been shown to result from right brain deficits, which are caused by early childhood traumas.

These epidemiological data, as well as current attachment and developmental neurobiological research, seriously challenge the concept of universal resilience in young children as too simplistic, if not just wrong (Lanius et al., 2010; Schore, 2003 and 2012; Szajnberg, Goldenberg, & Hatari, 2010).

It is now accepted that early childhood neglect and/or abuse specifically alter limbic system maturation, producing neurobiological alterations that act as a biological substrate for a variety of psychiatric consequences. These include emotional instability, inefficient stress tolerance, memory impairment, psychosomatic disorders, and dissociative disturbances (Schore, 2001, 2002, 2012).

Dissociation is the psychological and biological response to human trauma. A traumatic event can involve a single experience, or enduring repeated events, that completely overwhelm the child's ability to cope or to integrate the sensations and emotions involved in that experience. Dissociation is an altered state of consciousness in reaction to overwhelming psychological trauma (Loewenstein, 1996, p. 312).

Dissociation is a consequence of a 'psychological shock' (Meares, 1999, p. 1853). When psychological shock and the predisposition to dissociation occur early in life, the pattern for pathological dissociation throughout life is created.

Longitudinal attachment studies have demonstrated an association between traumatic childhood events and proneness to dissociation in adolescence and adulthood (Ogawa et al., 1997). *The most significant consequence of early relational trauma is the child's failure to develop the capacity for emotional self-regulation (Toth & Cicchetti, 1998).* The child (maturing adolescent, and later adult) will not be able to regulate their own emotional expression, emotional intensity and the duration of it (Van der Kolk & Fisler, 1994).

Studies have contributed to our knowledge of the physiological impact of psychological trauma (DeBellis et al., 2000; Foote, 1999; Southall, Plunkett, Banks, Falkov, & Samuels, 1997). These clinical research studies have looked at the long-term consequences of traumatic experiences on the nervous system. The brain continues to develop throughout childhood, adolescence, and adulthood. During the first five to seven years of life, a relationship exists between the quality of the relationship between the young child and the primary caregiver, and the youngster's physical brain growth. Childhood trauma—for example, separation from the primary maternal caregiver—distorts the optimal growth of neurologic brain patterns. It especially interferes with the part of the frontal cortex that controls and regulates emotion throughout the life cycle. A secure attachment relationship between the child and the primary maternal caregiver is necessary for this growth and development. *Tronick (2004) suggests that infants who have a history of frequent breaks of the emotional attachment bond with the primary caregiver exhibit an "extremely pathological state" of emotional apathy. Such infants ultimately adopt a communication style of "stay away, don't connect."*

The child's dissociation involves numbing, avoidance, compliance, and restricted affect. The child becomes inhibited and strives to avoid attention in order to become "unseen" (Schore, 1994, 2001b). The stressed youngster passively disengages from the world in order "to conserve energies ... to foster survival by the risky posture of feigning death, to allow healing of wounds and restitution of depleted resources by immobility" (Powles, 1992). When early trauma is experienced by the child as "psychic catastrophe" (Bion, 1962), then dissociation is a "detachment from an unbearable situation" (Mollon, 1996), "the escape when there is no escape" (Putnam, 1997), "a last resort defensive strategy" (Dixon, 1998).

Dissociative response is significantly different from other infant and toddler behavior and misbehavior. Each of the following examples reflects an infant or toddler's lack of having a secure attachment with their primary caregiver. The behavior reflects an infant's or toddler's emotional shock at having a secure relationship with their primary caregiver broken. As a result, the child exhibits one or more dissociative behaviors. The purpose of the dissociation is to escape from

intense emotional pain -- to escape from feeling the painful loss of one's primary attachment parent and the excruciating loss of the predictable, secure parent-child relationship.

Following are a few examples of early childhood behavioral manifestations of dissociation:

- ➤ Loss of postural control
- > Self-comforting behavior (petting other children, needing a security toy)
- > Reduced curiosity and play
- > Avoidance of talking
- > Avoidance of interpersonal relationships and friendships with former adult friends
- ➤ Disengagement from the attachment figure, and angry at her, yet more needful of her
- Conserves energy and becomes immobile
- ➤ Has a frozen or an absent facial expression
- > Avoids eye contact and seems beyond reach
- ➤ Fails to demonstrate emotional self-regulation, intensity and duration (gets angry easily and cries easily, becomes frightened at familiar sounds, and cries out for attachment mother (began at overnight with father)).

Children who have lost a secure primary attachment or suffered breaks in their secure primary attachment relationship develop emotional apathy. To the child, social intimacy is deemed to be dangerous because the child fears such a relationship will unlock threatening and violent emotions (Allen et al, 1998).

During the first years of life when the right brain is growing (Trevarthen, 1996) and dominant (Chiron et al., 1997), adverse influences on brain development particularly impact the right brain (Allman et al., 2005). During this time, states of the infant brain become long-term traits (Perry et al., 1995). As a result, early relational trauma and dissociation will be imprinted and embedded into the core structure of the developing right brain. Evidence shows that early relational trauma is particularly expressed in right hemisphere deficits.

Childhood trauma also affects memory, learning, social development, and the ability to empathize (Schore, 1994, 1996, 1997, 2002). The right hemisphere is dominant not only for regulation of emotions, but also for attention (Raz, 2004) and pain processing (Symonds et al., 2006). Thus, the right brain strategy of dissociation represents the ultimate defense for blocking emotional pain. Trauma victims who lack the cognitive and emotional structures to immediately assimilate the experience use dissociation to escape from the full psychological impact of the event (Schore, 1993).

The symptoms of dissociation reflect a structural impairment of the right brain's regulatory system and its accompanying deficiencies of emotional regulation. The clinical principle that

dissociation is harmful to long-term functioning (Bremner & Brett, 1997) is directly observed in many research studies of developing young children. The development of psychiatric disorders in childhood, adolescence and adulthood, according to research, derives from enduring disorganized insecure attachment imposed upon the young child (Hesse & Main, 1999; Main, 1996). Emotional dysregulation and right hemisphere dysfunction play a prominent role in all psychiatric disorders (Cutting, 1992; Taylor et al., 1997).

In summary, developmental psychologists have demonstrated a strong link between early attachment trauma and dissociation (Ogawa et al., 1997; Carlson, Yates, & Sroufe, 2008; Dutra, Bianchi, Lyons-Ruth, & Siegel, 2008). The overwhelming stress of maltreatment in childhood is associated with adverse influences on brain development (De Bellis, 1999).

Early abuse and neglect have immediate impact on the developing right brain during a critical growth period. These traumas produce an immature right brain that has a limited capacity to regulate intense emotional states. *Early trauma is the origin of an enduring predisposition to pathological dissociation and emotional disorders throughout life.*

Basic research in neuroscience and neuropsychiatry firmly supports the following principles:

- ➤ "Early adverse developmental experiences leave behind a permanent physiological reactivity in limbic areas of the brain" (Post, Weiss, & Leverich, 1994).
- Emotional and social deprivation interfere with the normal development of the synaptic brain architecture and lead to "neurological scars" which underlie "subsequent behavioral and cognitive deficits" (Poeggel & Braun, 1996; Poeggel et al., 1999).
- ➤ "Early traumatic experiences result in an increased sensitivity to the effects of stress later in life and render an individual vulnerable to stress-related psychiatric disorders" (Graham et al., 1999).

DEFINITIONS

Epidemiology: The study of the incidence, prevalence and causes of disease.

Frontal Cortex: The largest of the brain's lobes, it is sensitive to incoming stimuli and the features of each one. Deficits in its function are associated with impairment in personality changes, schizophrenia, depression and obsessive – compulsive disorder (Buchsbaum, 2004). Limbic System: Brain structures associated with emotions.

REFERENCES

Allen, J. G., & Coyne, L. (1995). Dissociation and vulnerability to psychotic experience. The Dissociative Experiences Scale and the MMPI-2. *Journal of Nervous and Mental Disease*, 183, 615–622.

- Allman, J. M., Watson, K. K., Tetreault, N. A., & Hakeem, A. (2005). Intuition and autism: a possible role for Von Economo neurons. *Trends in Cognitive Sciences*, *9*, 367–373.
- Bion, W. R. (1962). Learning from experience. London: Heinemann.
- Bremner, J. D., & Brett, E. (1997). Trauma-related dissociative states and long-term psychopathology in posttraumatic stress disorder. *Journal of Traumatic Stress*, 10, 37–49.
- Buchsbaum, M. S. (2004). American Journal of Psychiatry. American Psychiatric Association.
- Carlson, E., Yates, T. M., & Sroufe, L. A. (2008). Development of dissociation and development of the self. In P. F. Dell & J. A. O'Neil (Eds.), *Dissociation and the dissociative disorders: DSM-V and beyond*. New York: Routledge.
- Chiron, C., Jambaque, I., Nabbout, R., Lounes, R., Syrota, A., & Dulac, O. (1997). The right brain hemisphere is dominant in human infants. *Brain*, 120, 1057–1065.
- Cutting, J. (1992). The role of right hemisphere dysfunction in psychiatric disorders. *British Journal of Psychiatry*, 160, 583–588.
- De Bellis, M. D., Casey, B. J., Dahl, R. E., Birmaher, B., Williamson, D. E., Thomas, K. M., Axelson, D. A., Frustaci, K., Boring, A. M., Hall, J., & Ryan, N. D. (2000). A pilot study of amygdala volume in pediatric generalized anxiety disorder. *Biological Psychiatry*, 48, 51–57.
- Dixon, A. K. (1998). Ethological strategies for defense in animals and humans: Their role in some psychiatric disorders. *British Journal of Medical Psychology*, 71, 417–445.
- Dutra, L., Bianchi, I., Lyons-Ruth, C., & Siegel, D. (2008). The relational context of dissociative phenomena. In P. F. Dell & J. A. O'Neil (Eds.), *Dissociation and the dissociative disorders: DSM-V and beyond*. New York: Routledge.
- Graham, Y. P., Heim, C., Goodman, S. H., Miller, A. H., & Nemeroff, C. B. (1999). The effects of neonatal stress on brain development: implications for psychopathology. *Development and Psychopathology*, 11, 545–565.
- Hesse, E., & Main, M. M. (1999). Second-generation effects of unresolved trauma in non-maltreating parents: dissociated, frightened, and threatening parental behavior. *Psychoanalytic Inquiry*, 19, 481–540.
- Lanius, A., Vermetten, E. and Pain (eds.), *The impact of early life trauma on health and disease: the hidden epidemic* (33-42). Cambridge, U. K: Cambridge University Press.
- Loewenstein, R. J. (1996). Dissociative amnesia and dissociative fugue. In L. K. Michaelson & W. J. Ray (Eds.), *Handbook of dissociation: Theoretical, empirical, and clinical perspectives* (pp. 307–336). New York, NY: Plenum. Main, M. (1996). Introduction to the special section on attachment and psychopathology: 2. Overview of the field of attachment. *Journal of Consulting and Clinical Psychology*, 64, 237–243.
- Meares, R. (1999). The contribution of Hughlings Jackson to an understanding of dissociation. *American Journal of Psychiatry*, *156*, 850–1855.
- Mollon, P. (1996). *Multiple selves, multiple voices: working with trauma, violation and dissociation*. Chichester: John Wiley & Sons.
- Ogawa, J. R., Sroufe, L. A., Weinfield, N. S., Carlson, E. A., & Egeland, B. (1997).
- Development and the fragmented self: Longitudinal study of dissociative symptomatology in a nonclinical sample. *Development and Psychopathology, 9*, 855–879.
- Perry, B. D., Pollard, R. A., Blakley, T. L., Baker, W. L., & Vigilante, D. (1995). Childhood trauma, the neurobiology of adaptation, and 'use-dependent' development of the brain: How states become traits. *Infant Mental Health Journal*, 16, 271–291.
- Poeggel, G., & Braun, K. (1996). Early auditory filial learning in degus (*Octodon degus*): Behavioral and autoradiographic studies. *Brain Research*, 743, 162–170.

- Poeggel, G., Lange, E., Haase, C., Metzger, M., Gulyaeva, N. V., & Braun, K. (1999). Maternal separation and early social deprivation in *Octodon degus*: quantitative changes of NADPH-diaphorase reactive neurons in the prefrontal cortex and nucleus accumbens. *Neuroscience*, 94, Post, R. M., Weiss, S. R. B., & Leverich, G. S. (1994). Recurrent affective disorder: Roots in developmental neurobiology and illness progression based on changes in gene expression. *Development and Psychopathology*, 6, 781–813.
- Powles, W. E. (1992). *Human development and homeostasis*. Madison, CT: International Universities Press.
- Putnam, F. W. (1997). *Dissociation in children and adolescents: a developmental perspective*. New York: Guilford Press.
- Raz, A. (2004). Anatomy of attentional networks. *Anatomical Records*, 281B, 21–36.
- Schore, A. N. (1994). Affect regulation and the origin of the self: The neurobiology of emotional development. Mahwah, NJ: Erlbaum.
- Schore, A. N. (1996). The experience-dependent maturation of a regulatory system in the orbital prefrontal cortex and the origin of developmental psychopathology. *Development and Psychopathology*, *8*, 59–87.
- Schore, A. N. (1997). Early organization of the nonlinear right brain and development of a predisposition to psychiatric disorders. *Development and Psychopathology*, *9*, 595–631.
- Schore, A. N. (2001). The effects of relational trauma on right brain development, affect regulation, and infant mental health. *Infant Mental Health Journal*, 22, 201–269.
- Schore, A. N. (2002). Dysregulation of the right brain: a fundamental mechanism of traumatic attachment and the psychopathogenesis of posttraumatic stress disorder. *Australian & New Zealand Journal of Psychiatry*, *36*, 9–30.
- Schore, A. N. (2003a). Affect dysregulation and disorders of the self. New York: Norton.
- Schore, A. N. (2003c). Early relational trauma, disorganized attachment, and the development of a predisposition to violence. In D. Siegel & M. Solomon (Eds.), *Healing Trauma: Attachment, Mind, Body, and Brain* (pp. 101–167). New York: Norton.
- Schore, A. N. (2004). Commentary on "Dissociation: a developmental psychobiological perspective" by A. Panzer and M. Viljoen. *South African Psychiatry Review, 7*, 16–17.
- Schore, A. N. (2012). The Science of the Art of Psychotherapy. New York: Norton.
- Southall, D.P., Plunkett, M.C.B., Banks, M.W. et al (1997). *Covert video recordings of life-threatening child abuse: lessons for child protection*. Journal of Pediatrics. American Academy of Pediatrics.
- Symonds, L. L., Gordon, N. S., Bixby, J. C., & Mande, M. M. (2006). Right-lateralized pain processing in the human cortex: An fMRI study. *Journal of Neurophysiology, 95*, 3823–3830. Szajnberg, N., Goldenberg, A., and Hatari, U. (2010). *Early trauma, later outcomes: results from longitudinal studies and clinical observations*. In R. A. Lanius, E. Vermetten and Pain (eds.), The impact of early life trauma on health and disease: the hidden epidemic (33-42). Cambridge, U. K: Cambridge University Press.
- Taylor, G. J., Bagby, R. M., & Parker, J. D. A. (1997). *Disorders of affect regulation: Alexithymia in medical and psychiatric illness*. Cambridge, UK: Cambridge University Press Toth, S. C., & Cicchetti, D. (1998). Remembering, forgetting, and the effects of trauma on memory: a developmental psychopathologic perspective. *Developmental and Psychopathology*, *10*, 580–605.
- Trevarthen, C. (1996). Lateral asymmetries in infancy: implications for the development of the hemispheres. *Neuroscience and Biobehavioral Reviews*, 20, 571–586.

Tronick, E. Z. (2004). Why is connection with others so critical? Dyadic meaning making, messiness and complexity governed selective processes which co-create and expand individuals' states of consciousness. In J. Nadel & D. Muir (Eds.), *Emotional Development*. New York: Oxford University Press.

Van der Kolk, B. A., & Fisler, R. E. (1994). Childhood abuse and neglect and loss of self-regulation. *Bulletin of the Menninger Clinic*, *58*, 145–168.