

# [Neurobiology and attachment assignment](https://assignbuster.com/neurobiology-and-attachment-assignment/)

In a perfect word the organism experiences just the right amount of stress and frustration to prepare the system to handle the hardships and isappointments of living, while allowing the developing person to take in, assimilate, and integrate information in an ever unfolding march towards complexity. The world is not perfect and overwhelmingly stressful events create trauma-reactions, and these events and the trauma that results “ throws a wrench in the wheel” of normal development.

Linda O’Neill, et. al. in ‘ Am safe here and do you like me? ‘ Understanding complex trauma and attachment disruption in the classroom (201 0), write that it is interpersonal attachments that both spur and make healthy development possible, and the uthors cite assertions that the heart of attachment relationships is to provide the function of self-regulation the ability to manage, organize, and sooth internal experience (O’Neill, Guenette, & Kitchenham, 201 0, p. 92). Further cementing the idea of the supreme importance of a secure attachment and outlining what contributes to this attachment, Hillary Mayers, in Treatment of a traumatized adolescent mother and her two-year-old son (2005), writes, “ The critical element in secure attachment is a responsive caregiver whose availability is consistent and predictable” (Mayers, 2005, p. 420, citing Bowlby, 1 969, 1973, 1980).

In this paper I will touch on the lives of Rachel (age 1 1) and Amanda (age 4) ” two girls that suffered trauma ” and comment on how their attachment relationships were impacted by their respective traumas. will also take a closer look at the neurobiology of trauma in order to shed light on the inner workings of the human brain in relation to human development and maturation, with a special focus on attachment and trauma. What is the nature of Amanda’s and Rachel’s attachment relationship to the caretaking figures in their lives, and how were these attachment relationships impacted by trauma?

Rachel’s original raumatic experience occurred when she was 19 months old, and was encoded in her right-brain implicit memory, pre-verbally (Child Welfare Information Gateway, 2010, p. 5). The traumatic encoding lay dormant, affecting her mental state minimally through precipitants like fireworks and the color red, but otherwise her relationship to her grandmother (her primary caretaker) or her functioning overall appeared fairly intact.

This changed when Rachel was 11-years-old; a rock was thrown through her bedroom window, causing the dormant, out of awareness implicit memory that previously only tossed to-and-fro in relatively minor symptoms, to be jogged ut of its latent state, much like a cold sore flares up, and she began to experience severe symptoms consistent with a trauma-reaction. Rachel was unable to sleep alone, had severe trembling during sleep and wakes up screaming for grandmother even though grandmother sleeps right next to her, loss of appetite, inability to be alone, “ scary pictures in her head” (flashbacks), and difficulties with memory.

Judith and Allan Schore, in Modern attachment theory: The central role of affect regulation in development and treatment (2008), state that, much like O’Neill, et al. , (2010) the function of the ttachment relationship is not only to create a foundation of basic safety and security, but that the attachment relationship also serves the important function of self-regulation (Schore & Schore, 2008). Trauma disrupts attachment, much like a virus insidiously disrupts health (Bloom & Farragher, 2013).

Rachel’s trauma impacted her attachment to her grandmother as evidenced by the fat that even though they were sleeping in the same bed, this was not enough to soothe and regulate her she would awaken screaming. Rachel could no longer be adequately soothed and regulated by her grandmother’s presence, a hallmark of the trauma-response. Though identifying the nature of Rachel’s attachment style is beyond the scope of this paper, when I read about this girl I think of the insecure disorganized attachment style, a style that in Rachel’s case clearly is affected by the early trauma she experienced.

Before leaving Rachel, a comment about the picture she drew of mom, grandmother, and a nameless, faceless man. Had been present and witnessed Rachel draw this I would have asked about men in Rachel’s life in order to try to understand how a faceless man appeared in a picture meant to show the people in Rachel’s life. What then, of Amanda? Amanda had witnessed both loud arguments between her parents and episodes of physical abuse where her father was violent with her mother.

Of particular note is the incidence where Amanda is in an elevator with her parents, and she witnesses her father slam her mother’s head against the elevator wall, whereupon the balloon Amanda is holding onto slips out Of her hand, hits the elevator ceiling and makes a very loud noise, which causes Amanda to “ tremble and sob uncontrollably” (p. 78). Following this incident, Amanda exhibits symptoms that include perseverating on the balloon that opped (symbolic of mothers head being banged against the elevator wall), sleep difficulties including nightmares, separation anxiety, more “ push)/’ with her sister, and being “ extremely frightened” (p. 8). One of the clearest examples of how Amanda’s trauma impacted her attachment relationship to her mother was when she became afraid that she would be sent away after having hit her sister (p. 85). It could be argued that this fear on Amanda’s part is a purely behavioral, conditioned response type phenomena where Amanda knows that her father hit and was sent away, and so because she hit she might be sent away too.

The incident highlights a deeper phenomenon, however – it reveals how the security and safety that a secure attachment with her mother ought to provide had been eroded by the trauma of witnessing her mother on the receiving end of her father’s violent actions. Indulging in speculation with insufficient information, my musings of Amanda’s attachment style take me to the insecure ambivalent/resistant type, as there seems to be a push-pull quality to her interactions.

Enter a marvel of complexity the human brain. Schore and Schore stress that it is the right brain-to-right brain connection between mother and infant that creates the ttachment so central for the development of the child. The authors also stress that the mother’s attunement to the child, the invariable misattunement, and the re-attunement, or repair, is what leads the infant to “ achieve a psychological birth” (Schore & Schore, 2008, p. 11). When this repair does not occur, trauma results.

O’Neil et. al. astutely address the issue of the importance of when trauma occurs. Early in life “ the nervous system is undergoing tremendous maturational and organizational [sic] change,” and with sufficient stress, the physiology of the brain can be altered both structurally and functionally (O’Neill, Guenette, & Kitchenham, 2010, p. 190). How is this? When a child encounters a threatening environment, the “ stress response” is activated, which prepares the child to freeze, fight, or flee.

When environmental threats are severe and frequent, this stress response can become chronic, even when external threats go away. Susan Cole, et. al. , In Helping Traumatized Children Learn (2005), puts it this way, “ UnableDto regulate heightened levels of arousal and emotional responses, they [traumatized children] simply cannot turn off the survival strategies that their rains have been conditioned to employ (Cole et al. , 2005, p. 17). Hyperarousal, one of the main symptoms of the trauma-response and central to post-traumatic stress disorder (PTSD) comes to mind.

One of the key features of trauma seems to be the disconnect that occurs between the somatic and emotional, danger-detecting parts of the brain (right hemisphere limbic system including the amygdala), and the meaning-making, language- centered, linear left-hemisphere Of the brain. The trauma response appears to create a split be?? een these two functions, so that anxiety-reactions, omatic symptoms, and other trauma-related symptoms appear to “ come out of left field” without any clear narrative or perspective on the experience.

The hippocampus is responsible for declarative memory and otherwise seems involved in the act of putting words to emotions and other experiences, which explains why involving this function as well as other higher order executive functions via the frontal lobe/prefrontal cortex is typically done in treatment of traumatized individuals (Cole et al. , 2005, p. 24, 31 Helping traumatized individuals find words and make meaning of their experiences is typically very elpful.

Internal working models are the framework of expectations and assumptions about relationships that children form based on their earliest interactions with those in their environment. The concept bears importance in any discussion of attachment and human development. Findings suggest that one of the key difference between those with insecure attachments internal working models with negative expectations of others – and those with secure attachments, is that those in the insecure category view others as “ neither consistently positive nor consistently negative (Pietromonaco & Barrett, 2000, p. 58). This finding gives a picture that those with insecure attachments and internal working models negatively impacted by trauma view the world as unpredictable and constantly shifting, which if true, would make sense of the constant sense of fear and vigilance that the are part and parcel of the state of hyperarousal. The stories of Rachel and Amanda gave a window into the impact of trauma on attachment relationships and the symptom picture that followed. Due to effective therapeutic intervention and treatment, the prognosis for both girls appears to be good.