

Suggested APA style reference: Meyer, D. (2011). *Neuroplasticity as an explanation for the attachment process in the therapeutic relationship*. Retrieved from http://counselingoutfitters.com/vistas/vistas11/Article_52.pdf

Article 52

Neuroplasticity as an Explanation for the Attachment Process in the Therapeutic Relationship

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Cain (2006) established a therapeutic foundation for the reprocessing of attachment. Cain reported that in order to treat an insecure attachment, exhibited by reactive attachment disorder, it was necessary to recreate the attachment by utilizing activities related to how the attachment was first learned. For example, in reestablishing the attachment, it was recommended that the child become completely dependent on the caregiver again. By becoming completely dependent, the child, regardless of age, was dependent on the caregiver for all tasks such as feeding and dressing. This replicated the original process of attachment between the caregiver and infant, however old the child was. Thus, a new attachment bond was formed to replace the previous attachment pattern.

Similarly, Doidge (2007) reported a case study in which an individual who had experienced a massive stroke resulting in loss of ability to speak, walk, and all other common activities was able to regain cognitive and motor functioning to the extent that he was able to go back to his career as a college professor. This and the ability to learn a new attachment pattern was possible because of the process of neuroplasticity, or the ability for the brain to rewire or reorganize itself. Throughout the lifespan, the brain is capable of adapting to environmental stimuli. The adaption results in physical changes to the brain where new neuronal connections are formed; thus, making it possible from a biological standpoint, to continue to acquire new skills throughout life. It is important to note that just like in the formation of learning the new attachment, the individual who had experienced the stroke had to relearn skills in the manner in which it was initially learned. For example, in order for the victim of the stroke to learn to walk, the victim had to learn to crawl. From this case study and a treatment process for reactive attachment disorder, one could extrapolate that for the counseling to reflect the neuroplasticity process, counseling also needs to reestablish a foundation based on principles of how functions were originally learned. Mundo (2006) supported this notion that counseling initiates neuroplasticity and reported measurable changes are found in the brain as a result of counseling.

Many mental health disorders can be traced back to the quality of the attachment between the infant and primary caregiver. Psychopathology is often developed by the initial attachment (Mundo, 2006). For example, antisocial personality disorder is

characterized by an individual's inability to care about others and feel remorse. These individuals may not have learned how to connect with others as a result of the quality of the attachment relationship with the primary caregiver. If an individual does not learn how to connect with others early on, he or she may be vulnerable to an inability to connect in social relationships. Therefore, in terms of psychopathology, repeating the attachment process may be a necessary component of counseling. In order to aid in the attachment process, it may be necessary for clients to relearn how to form a bond or attachment to another individual. In these situations, the counselor may need to be a new attachment figure. Thus, an important task of the counselor is to form an attachment with the client that establishes a secure attachment and from which the client could use this relationship as a secure basis for other relationships. While it may not be important to mimic the entire attachment process as was utilized for reactive attachment disorder, it might be helpful to model other more therapeutically relevant aspects of the attachment process in counseling such as affect regulation and attunement.

Attachment Theory

Attachment Theory postulates that infants have an innate, survival instinct to attach to another individual (i.e., the primary caregiver; Bowlby, 1988). According to this theory, attachment is considered an enduring and deep bond between two individuals (Levy & Orlans, 1998). The attachment relationship between an infant and primary caregiver has been categorized into four styles: a secure type and three insecure types, including anxious-avoidant, anxious-resistant, and disorganized-disoriented (Ainsworth, Blehar, Waters, & Wall 1978; Main & Solomon, 1986). These attachment styles between the infant and primary caregiver are thought to become the attachment style that the infant will take on throughout his or her lifespan. Thus, basic suppositions of attachment theory state that these early attachment styles will become a pattern of attachment behaviors that, later in life, the infant will continue to act out in other relationships (i.e., a romantic relationship; Bowlby, 1998; Hazan & Shaver, 1987).

Individuals seek out attachment figures during times of stress. In fact, when the infant is in distress, the infant's behavior is such that it brings the caregiver physically close to the infant. In a securely attached relationship, the presence and behaviors of the attachment figure to the infant will help soothe the infant. However, in insecurely attached relationships, the caregiver may be the source of the distress such as with the disorganized-disoriented attachment pattern, or the caregiver may be incapable of soothing the infant such as with the anxious-avoidant or anxious-resistant attachment patterns. When an infant is brought up with a securely attached relationship, the infant learns that comfort can be socially achieved. On the other hand, if the infant has only insecure attached relationships, the infant will not learn how to engage others in a mutually fulfilling manner.

Quality of Attachment Relationship

The quality of the relationship or attachment style between the infant and primary caregiver is thought to influence not only the social development, but also the cognitive and emotional development of the infant (Bowlby, 1988; Levy & Orlans, 1998). On the contrary, difficulties in emotional, social, and cognitive development may be a reflection

of an insecure attachment to a primary caregiver. For example, according to Levy and Orlans (1998), securely attached individuals have higher self-esteem; greater resiliency; greater emotional management; more long-term friendships; greater coping skills; stronger relationships with their family and individuals in positions of authority; greater trust, affection, and intimacy in relationships; and greater behavioral performance and academic success. Thus, forming a secure attachment is related to most developmental successes. For individuals with difficulties in any of these areas, counselors might need to examine the quality of early attachments in order to help the client.

Although establishing an attachment occurs as an infant, attachment patterns will continue to affect an individual for the remainder of his or her life. The need to form an attachment persists throughout the lifespan (Fishbane, 2007). Even adults need individuals to form an emotional bond with in order to support healthy psychological functioning. In fact, often times in counseling, the individuals with the most difficulty with psychological distress tend to have the least amount of social support. For these individuals, then, forming a secure attachment is fundamental for mental health.

Attachment and Neuroplasticity

As the attachment process between the infant and caregiver is occurring, the infant's brain is developing and, therefore, the formation of the brain is reliant upon this relationship between the infant and caregiver. From a neurobiological perspective, one of the key areas in the brain that is associated with attachment is the middle prefrontal cortex (Siegel, 2007). In addition to attachment, the middle prefrontal cortex is also involved with affect regulation, attunement with another individual, empathy, fear modulation, intrapersonal insight, intuition, behavioral and emotional response flexibility, and morality (Siegel, 2007). Due to the malleability of the infant's brain, much of the early development of the brain is dependent upon those early experiences. These early experiences are providing the initial foundation for the biological basis of attachment. From a biological perspective, if an insecure attachment was formed, these will be the biological responses to attachment patterns that will need to be adjusted later in life and perhaps the focus of counseling.

Suomi (1999) reported that the capacity to alter previously imprinted attachment patterns occurs throughout life. Thus, even if a secure attachment was not initially formed, thanks to the process of neuroplasticity, attachment patterns can be changed and secure attachments can be formed at any time. If secure attachments are formed in the counseling process, the brain is changed to increase integration between neural networks, greater responsiveness to stress, and coping (Cozolino, 2006). These changes, then, increase social and psychological functioning (Cozolino, 2006). Thus, the process of forming a secure attachment will assist the client's progress in counseling.

Therapeutic Relationship

Early on in the development of Client Centered Therapy (Rogers, 1951), parameters around the therapeutic relationship were established. Conditions such as building rapport, providing the client with an environment where emotional expression is encouraged, acceptance of the client, and helping the client become autonomous were defined as fundamental to the counseling process (Rogers, 1940). Clients were

encouraged to explore their psychological distress with the safety of a trusted counselor. The counselor, in turn, would work to maintain the relationship and ensure that the client felt secure by the warmth of the relationship. In this manner, Rogers was a pioneer for the acknowledgment of the significance of the therapeutic relationship.

Following Rogers' lead, the therapeutic relationship became a focus in mental health counseling. Like Rogers, Bordin (1979) established fundamental counselor conditions. Bordin acknowledged the importance of the therapeutic relationship between the client and counselor and among the essential components of the therapeutic relationship was the emotional bond between the client and counselor. Bordin posited the effectiveness of counseling was dependent upon the client/counselor relationship; thus, the stronger the emotional bond between the counselor and client the greater the likelihood that the client would progress in counseling. Lambert (1992) was able to substantiate this claim. Lambert attributed 30% of client change to be dependent on the therapeutic relationship. Therefore, not only was there anecdotal evidence for the importance of the therapeutic relationship, but empirical research provided the same evidence.

From this early perception of the therapeutic relationship, many mental health professionals began to view the therapeutic relationship as a reflection of the attachment relationship exhibited between an infant and the primary caregiver as conceptualized by Bowlby (1988). Bowlby further supported this idea that the therapeutic relationship should reflect the attachment relationship and reported that the role of the counselor was to be the substitute attachment figure for the client. Thus, the counselor provides the secure base needed in order for the client to process his or her current psychological functioning. It is not uncommon, then, for clients to become attached to their counselor in a similar manner as they were attached to their primary caregiver. Providing further validation of this idea, clients participating in a study conducted by Parish and Eagle (2003) consistently reported that their counselors were viewed as attachment figures.

Farber and Metzger (2009) indicated, however, that while the counselor cannot possess all of the characteristics of the attachment from early in life, the counselor does need to possess characteristics that are consistent with a secure base. A counselor embodying characteristics of a secure attachment figure may provide a necessary therapeutic milieu that is safe for client exploration (Farber & Metzger, 2009). It is important to note that within the counselor/client relationship, the counselor needs to repeat those patterns that initially fostered a secure attachment (Farber & Metzger, 2009). In the initial attachment relationship, the infant is completely dependent on the caregiver. When the infant experiences discomfort or distress, the infant seeks out the attachment figure to help regulate the discomfort. In order to form a secure attachment, the attachment figure needs to tend to the distress of the infant. This same process is mirrored within the counseling relationship. The counselor needs to be capable of tending to the distress of the client and help the client learn to cope in stressful situations.

Counseling is also an opportunity for the client to learn about him or herself through self evaluation. Fonagy, Gergely, Jurist, and Target (2000) suggested that a secure attachment encourages self reflection. Perhaps, this is an indication of the acceptance of oneself that is often associated with a secure attachment. It is hypothesized that a strong bond between two individuals helps an individual to be more accepting of him or herself. This, then, allows the individual to evaluate him or herself while knowing

whatever is revealed in the self reflection will not jeopardize the relationship with the secure attachment figure. Thus, it is important for the counselor to be supportive and accepting during self reflection. This will encourage the self reflection of the client.

Therapeutic Relationship and Neuroplasticity

Social influences organize how our brains will be structured (Cozolino, 2006). When counselors and clients form a relationship, the process of neuroplasticity facilitates the bond. Within the brains of clients, new neuronal pathways are developing during the counseling process (Scheinkman & Fishbane, 2004). Thus, the relationship assists in rewiring of the brain. Additionally, because the new neuronal pathways can be utilized on a regular basis (e.g., the weekly counseling sessions) the changes made in the brain can be upheld. This has also been supported in the research conducted by Suomi, Harlow, and McKinney (1972). In their study with socially incompetent monkeys, the social deficits displayed by the monkeys were decreased when interacting with more socially advanced monkeys. Thus, in this study, the monkey brains were rewired and the socially deficit monkeys learned how to interact with other monkeys. This same process can be repeated with individuals and the relationship between the counselor and client can help rewire the brain in order to increase social skills.

When assessing how the therapeutic relationship mimics the initial attachment bond, three important features of those early experiences should be considered: the role of implicit memory, attunement, and affect regulation. These three components are essential to the counseling process and integrating new attachment patterns through the therapeutic relationship. Furthermore, these components are interrelated. Cozolino (2006) acknowledged the attachment process as a result of attunement and affect regulation were grounded in implicit memory. Therefore, each of these three components are a reflection of relearning the attachment process with the counselor as the new attachment figure. The process of neuroplasticity will make forming the new attachment possible and the brains of the clients will reorganize themselves to support the new attachment pattern.

The role of implicit memory. Memory can be categorized as either explicit or implicit. Explicit memory is the recall of events and information whereas implicit memory represents emotions, procedural activity, attachment, and motor activity. From birth to about 18 months, the only memories that are created are implicit (Fishbane, 2007). Thus, attachment was originally learned as an implicit memory. Implicit memory is the foundation for psychological functioning. Therefore, counselors need to work through the implicit memory in order to propel the client towards mental health and wellness. It is thought that the counseling process involves implicit memory. This theory has been empirically supported by the Boston Process of Change Study Group (1998) where changes reported as a result of counseling occur in implicit memory.

Mundo (2006) reported the focus of counseling to be on implicit memories that are related to the early experiences one had in life. The relationship between the counselor and the client may form in the client a new implicit memory of attachment; thus, replacing the previously stored attachment experiences in implicit memory (Mundo, 2006). Implicit memories can be unconscious. Related to counseling, one's emotions and attachment patterns are remembered without the context of understanding why the emotions and attachment were produced. The implicit memory may be triggered by an event (Cozolino, 2006). The event may elicit an emotional response and the client may be

unaware of etiology of the feeling. Thus, the client does not know how the emotional memory was formed or the context in which it was formed. The role of counselor, then, is to work with the client in order to integrate implicit memories into conscious awareness (Cozolino, 2006). While some implicit memories may never be recalled or understood, what can be understood are common triggers and emotional responses. Once the client can identify the process, then the counselor can help the client to cope and alter his or her responses to the stimuli. This helps the client learn new emotional responses when confronted with previous situational triggers.

Attunement. Attunement is a process that develops over the course of a relationship. Attunement begins with focused attention on one another (Siegel, 2007). By focusing on each other, individuals learn to recognize affect experienced by one another and this moves into a process where one can identify with the affect displayed in each other. Here, the connection between two individuals allows feelings to be felt by both individuals (Siegel, 2007). Attunement moves from external awareness of another individual and facilitates internal awareness between two individuals. Therefore, attunement involves both external attunement and internal attunement. This process is how infants and primary caregivers attach to one another and also how later the client and counselor will attach to one another. Therefore, because of attunement, the individuals experience empathy for one another. When clients perceive the empathy of the counselor, it enhances the bond between the counselor and client. Clients will be encouraged that the counselor will feel their experience and trust that it will be appropriate to share feelings in the context of the counseling session.

Attunement results from emotional and physiological resonance and accurate empathy (Goleman, 2006). When the resonance with another individual is mutually perceived and accurate, then a secure attachment to an individual is fostered. McClusky, Hooper, and Miller (1999) further substantiated this by addressing the importance of the counselor attuning to the client's verbal content and nonverbal communication. In the relationship between the infant and caregiver, the infant needs consistency with the attunement process. The client will also need this same consistency with the counselor. In order for the counselor to display the attunement consistency, empathy is necessary throughout the course of treatment. Empathy will nurture the counselor/client relationship. When the client feels that the counselor empathizes with him or her, then the client will feel comfortable and be able to continue to express his or her thoughts and feelings.

Affect regulation. Affect regulation is defined as both a conscious and unconscious process with the goal of managing mood towards more pleasant emotions (Kooze, 2009). According to attachment theory, affect regulation begins with the relationship between the infant and the primary caregiver (Bowlby, 1988). Initially, the infant turns to the caregiver to mirror emotional responses (Siegel & Hartzell, 2003). This process evolves from the interregulation between the caregiver to the infant until the infant develops self-regulation of affect. Thus, affect regulation evolves from an interpersonal process and develops into an intrapersonal process. The relationship and interactions between the caregiver and infant are developing in conjunction with the development of the brain (Siegel & Hartzell, 2003). The relationship between affect regulation and attachment has been supported from a neurobiological perspective (Schore, 2001). Cozolino (2006) further acknowledged the importance of the role of the

caregiver in building the neural pathways in the infant associated with affect regulation. Thus, the biological basis for affect regulation is experience dependent and is strongly influenced by the interactions between the infant and primary caregiver.

Emotions are an important component of counseling. The counselor explores emotions with the client with such interventions as encouraging clients to express feelings, the counselor labeling feelings, helping the client learn to label his or her feelings, and helping the clients learn how to manage his or her feelings when they arise. These skills then are transferred outside of the counseling session and help the client learn to regulate affect on his or her own. In the securely attached relationship with the counselor, the client learns it is acceptable to explore distressing emotional content in the counseling session. When psychological discomfort arises, the counselor can help the client through the emotional distress and help the client develop new coping skills. This will help the client regulate his or her own affect outside of the counseling session.

Implications for Counselors

As an infant, the brain is not yet completely formed. Patterns of interacting with the primary caregiver will influence the development of the brain. From these interactions, emotional and behavioral responses are forming. The relationship between the infant and primary caregiver forms an attachment between the two individuals. The responses of the caregiver to the infant will form the perception of the quality of the relationship from the infant's perspective. Here the infant has the potential of forming a secure attachment or one of the three other insecure attachment patterns. These early attachment patterns then influence relationships the infant will have throughout his or her life. If a secure attachment is formed, this may be useful in social interactions. However, if an insecure pattern is formed, this may be reflected in the root of psychopathology.

Even if the learned attachment responses do not prepare the infant to handle social situations, the attachment process may be repeated in counseling. Because of the process of neuroplasticity or the ability for the brain to reorganize itself, the brain is not subject to the early patterns learned, but the brain can learn a new manner of interacting in relationships. When learning a new attachment pattern, it might be necessary to repeat interactions that helped initially form the attachment patterns such as attunement and affect regulation in the safety of a secure relationship.

Needless to say, developing the therapeutic relationship is essential to the counseling process. The relationship should be such that the client feels that the counselor displays genuine warmth for him or her, the client feels accepted by the counselor, the counselor is able to empathize with the client, and the counselor is able to attune to the external and internal affect of the client. These qualities are fundamental, regardless of the client's presenting issue. However, dependent upon the pathology of the client, the relationship may be even more formidable than with other clients.

Prior to beginning the counseling process, counselors need to be thorough during the intake of information from the client. From an attachment perspective, it will be necessary for the counselor to inquire about the quality of the relationship between the client and his or her primary caregiver and other caregivers. However, counselors should be aware because the attachment relationship is an implicit memory and formed at such a young age, the client may not be able to verbalize the quality of the relationship and or

remember what the relationship was like with the caregivers when the client was younger. Basic tenets of attachment theory, though, state that attachment patterns are enduring through the lifespan. Therefore, in order to uncover the quality of the early relationship, an attachment instrument such as the Experiences in Close Relationships – Revised (Fraley, Waller, & Brennan, 2000) might be helpful.

If results from the test suggest the client may have an insecure attachment pattern, then sensitivity in developing the relationship with the client will be necessary. Sensitivity might involve careful attention to attuning with the client. Here it would be appropriate for the counselor to check in with the client to confirm that how the counselor understands the external and internal emotional state of the client is the accurate client experience. Furthermore, even though the counselor may think he or she is displaying empathy through verbal and nonverbal behavior, the counselor needs to confirm that the client feels validated and perceives the counselor as empathic. This will help build rapport with the client, help the counselor to attune with the client and thus, foster a secure attachment with the client.

Finally, if the client has a presenting issue or pathology related to affect or if the client has an insecure attachment, teaching the client how to regulate affect may be necessary for the success of counseling. It is important to note that treating affect regulation is a process that will evolve overtime. Initially, the counselor should not be surprised if the client has difficulty identifying what he or she is feeling. In order to gain a greater understanding of the feelings experienced by the client, it might be helpful to begin with when the client experiences the feeling and how the client is experiencing the feeling in his or her body. The process of affect regulation may then progress to the counselor labeling the feeling for the client. Once the client is comfortable with this and feelings, the client may then begin to identify his or her own feeling. Then the client will need to learn how to regulate his or her affect in the session. When the client learns affect coping skills that help regulate his or her affect, then the client will be able to apply these skills outside of session.

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Note: This paper is part of the annual VISTAS project sponsored by the American Counseling Association. Find more information on the project at: http://counselingoutfitters.com/vistas/VISTAS_Home.htm