

On The Road To Neuroplasticity – published November 23, 2014

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Recently I have been reflecting on what has brought about the passion I have regarding neuroplasticity. It may have started much earlier than a decade ago, but what comes to mind was my first exposure to EMDR (Eye Movement Desensitization and Reprocessing). I realized that I was having negative over-reactions to people that I loved dearly. I sought out a psychotherapist who was able to guide me in the process of creating new connections in my brain so that I did not feel so threatened when I was trying to communicate with people that I loved. Thank you Janis for your guidance!

In case anyone needs the definition (from Merriam-Webster), Neuroplasticity is the...

"Capacity of [neurons](#) and neural networks in the [brain](#) to change their connections and behaviour in response to new information, sensory stimulation, development, damage, or dysfunction. Rapid change or reorganization of the brain's cellular or neural networks can take place in many different forms and under many different circumstances.

Neuroplasticity occurs when neurons in the brain sprout and form [synapses](#). As the brain processes sensory information, frequently used synapses are strengthened while unused synapses weaken. Eventually, unused synapses are eliminated completely in a process known as synaptic pruning, which leaves behind efficient networks of neural connections.

Neuroplasticity occurs during development in childhood, following physical injury such as loss of a limb or sense organ, and during reinforcement of sensory information such as in [learning](#).

Neuroplasticity forms the basis of research into brain-computer interface technology, in which computers are designed to interact with the brain to restore sensation in people with an impaired sense such as the loss of vision.

Research on neuroplasticity is also aimed at improving scientists' understanding of how to reactivate or deactivate damaged areas of the brain in people affected by [stroke](#), emotional disorders, chronic [pain](#), psychopathy, or social [phobia](#); such research may lead to improved treatments for these conditions."

Since that experience over a decade ago I have continued searching for other ways that we can experience neuroplasticity. My future posts will be about my experiences on this journey. It will be a fun ride!