Reconsolidation of Traumatic Memories

A New Treatment for PTSD

This article is presented in three parts. The first describes research into underlying mechanisms of the brain that result in the formation of the disorder. The second introduces the basis for a unique state-of-the-art treatment based on that research. The third part demonstrates how the technique is applied. Throughout these articles certain words are highlighted with links to additional information if you want to read more.

Part 1: The Symptoms of PTSD

> *Alex retired from the Army following two deployments to Iraq. Although he had returned home to a loving wife and two young daughters, Alex is having trouble adjusting to civilian life. He feels guilty that he can't seem to find a job. There have been too many arguments with his wife about money, and he is increasingly irritable about little things. He has trouble sleeping; sometimes even the thought of going to bed makes him nervous, because of the nightmares that leave him sweaty and shaking. He can't get the memory of the sight of three of his buddies after their PC hit a land mine out of his head. He feels his life is spinning out of control and wonders if he is going crazy.*

Like many other returning veterans, Alex is suffering from symptoms of Post-Traumatic Stress Disorder (PTSD). In order to be diagnosed with PTSD, an individual must have experienced a traumatic event or events that resulted in or threatened death, serious injury or bodily harm, and the person's response to the event was intense feelings of horror, fear or helplessness. This experience resulted in specific clusters of symptoms that cause significant distress or discomfort and often impact the individual in many areas of life long after the original trauma.

> *Alex sits in a comfortable chair in the office of a therapist who specializes in PTSD treatment. He is a little nervous, but his wife insists that he try, because their good friend had gone through the process and in just a few sessions had made incredible progress.*

The therapist spends a few minutes talking with Alex. Alex finds the guy is OK and decides he will give this a go. The therapist asks him several questions about his symptoms and makes notes in a file. "Yes," he says, "you meet the criteria for a PTSD diagnosis." Then he tells Alex that the NLP process involves visualizations and asks Alex to picture a few things in his mind. At one point he tells Alex to imagine himself doing something he enjoys. While he doesn't know the point of the exercise, he goes along with it just the same and remembers a fun day at the beach with his family when he was a young teen.

Part 2: The Anatomy of PTSD

While there have been numerous attempts to explain how traumatic experiences result in the clusters of symptoms of PTSD, one model in particular defines the mechanisms of the brain involved. Writing in the journal *Traumatology*, Richard M. Gray and Richard F. Liotta reviewed the research behind the *temporal dynamics model of emotional memory processing*. This research shows that during extremely traumatic events, certain parts of the brain responsible for creating memories become highly active while other parts almost shut down. It is this sequence of turning on and shutting down regions of the brain that results in the memories associated with PTSD. These memories differ from normal memories in several significant ways.

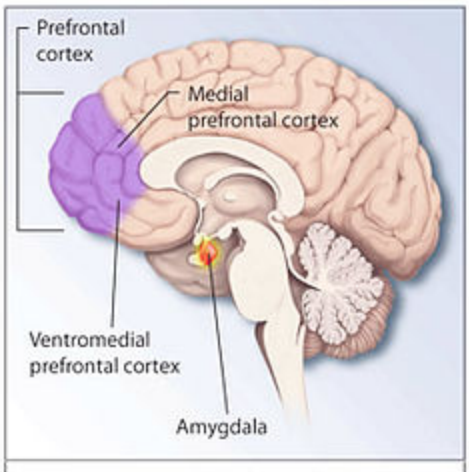

Figure 1: Image from National Institute of Mental Health

The problem with these approaches stems from the resilience of the memories created at the time of the trauma and the nature of extinction. Since extinction does not remove or alter the target memories, they tend to re-emerge over time and in other contexts. The only other alternative, then, would be to somehow alter or eliminate the original problem memory.

This is precisely what Gray and Liotta suggest. Citing the relevant research on memory in their article in Traumatology, they describe a physiological mechanism that actually changes memories using what is called reconsolidation. They describe studies with humans that clearly

demonstrate that the emotional component of a traumatic memory can be permanently modified or eliminated while leaving memory intact.

Researchers discovered that for a brief window of time after a traumatic memory is recalled, it becomes unstable and receptive to having additional "information" added to it. Then, once it "reconsolidates" itself, it has changed and retains that additional information. The addition of new information effectively removes the extreme emotional response so that the next time it is remembered, it won't have the negative emotional impact the original memory had.

> *Now that Alex is relaxed again, the NLP therapist asks him to imagine he is sitting in a movie theater looking at a picture of himself up on the movie screen in a comfortable situation before his first deployment. Then he surprises him by asking Alex to imagine he is floating away from himself in the theater and that he floats up to the projection booth where he can see himself sitting in the movie seat watching the picture of himself on the screen. Alex struggles briefly to picture this, then closes his eyes and indicates that he is there in the booth watching the scene below.*

> *Squeezing his arm gently, the therapist says "Good job. You're doing great. Now, if at any time you start to feel anxious, I will squeeze your arm like this to remind you that you are watching from behind the glass in the projection booth, OK?"*

> *At this point, the therapist takes Alex through a series of visualizations of the events that triggered his PTSD memories, changing the "movie" to black and white, running it forward and backward, and speeding it up and rewinding it. As he goes through the exercises, Alex begins to become aware that he is less and less upset by the images in his mind. It is as if the events are actually becoming "just a movie" instead of real traumatic experiences.*

Gray and Liotta propose specific treatment protocols for what is known as the Visual-Kinesthetic Dissociation (V/KD) technique that has been successfully used by practitioners of Neuro-Linguistic Programming (NLP) for over a quarter of a century to eliminate the fear-

related emotions associated with phobias and PTSD. With the help of a number of NLP experts including Steve Andreas and Tim Hallbom, the Research and Recognition Project developed a standardized, researchable version of the protocol titled Reconsolidation of Traumatic Memories (RTM). The process uses a simple imaginal procedure where the individual is first asked to briefly remember the troubling memory. This opens the window to the now unstable memory. Then the individual is directed to picture himself watching himself watch a movie of the traumatic experience. The individual is then asked to alter the scene in a number of specific ways. These procedures actually restructure the original memory so that as it is reconsolidated, it carries these revisions with it.

The next time something triggers the memory, it will become conscious, but without the traumatic emotions that were originally associated with it. Research, according to Gray and Liotta, shows that these revised memories tend to strengthen over time. In addition, the process introduces a renewed sense of control that is often missing in PTSD clients. Unlike current PTSD treatment regimens that can take weeks, months or years to complete, the V/KD technique can be completed in only a few sessions.

Alex returns to the therapist a few days later with his wife who tells him she is relieved that Alex seems much more relaxed than he has been since he returned. The nightmares stopped right after the last session and haven't come back. Alex and his wife return a month later for a "check-up" and again after three months, and each time they report that things continue to get better.

The treatment techniques described above, while they sound simple, can only be successfully applied by someone trained and certified in the procedure. There is a group of professionals that have designed a number of research programs to scientifically demonstrate the effectiveness of this technique at three research sites: Bradley University in Illinois, the Brain Resource Center in NY, and at Ohio University. To find out more about this promising technique and to donate to the funds needed to complete this research, please go to the NLP Research & Recognition Project at www.researchandrecognition.org.