JUXTAPOSITION AND RECONSOLIDATION

By John Freedom, CEHP.

Some of you may be familiar with Bruce Ecker's work with Coherence Therapy. Formerly called 'Depth Oriented Brief Therapy,' Coherence Therapy is a 'unified set of methods and concepts for individual, couple and family work that enable a therapist to foster profound change with a high level of consistency.' For years Ecker, like Eugene Gendlin before him, has been studying the phenomenon of why some people experience profound change in psychotherapy. Most of the time these shifts and changes are infrequent and unpredictable.

Ecker and his colleague Laurel Hulley asked themselves the question, *"What moments or interactions during therapy resulted in sudden breakthrough and transformational change?"* When dramatic shifts occurred, they studied both the sessions 'external ingredients' – the exchanges in the client-therapist interaction, and its 'internal ingredients' – the client's thoughts and feelings. After years of exploring the minute details of clients' shifts, they identified a well-defined sequence of experiences necessary to catalyze profound change. They gradually reshaped their therapeutic methods to foster these key steps, and according to Ecker (2011), *"lasting change events became more frequent in our practices. Liberating results normally expected to take years of in-depth work often happened in a few sessions, and we came to refer to this methodology as Coherence Therapy….."*

It has been known for many years that emotional memories are extremely difficult to change, if not indelible. Core beliefs and mental models formed in the presence of intense emotion during childhood tend to be locked into neural circuits by extraordinarily durable synapses that continue throughout the person's life. Ecker (2011) observes that *"the tenacity of such symptoms reflects the durability of the underlying emotional schemas, which persist through decades. These schemas are made up of our own living knowledge, acquired in emotionally intense episodes of life, yet they're largely or completely unconscious and nonverbal. ….. one's own schemas respond to situations autonomously, without our conscious awareness of either the knowledge they retain or the experiences that originally formed them."*

One popular therapeutic strategy has been to suppress and override the 'negative' behavior by counteracting it with a preferred "positive" response designed to compete against the unwanted one. Common examples in psychotherapy are learning a relaxation technique to counteract anxiety, or cultivating new beliefs to counteract existing ones. Counteracting 'negative' beliefs and behaviors has become a major strategy of most therapies, such as the cognitive-behavioral, solution-focused and "positive" therapies now in widespread use.

It is important to recognize, however, that *an unwanted implicit memory circuit is still fully intact even when it is successfully 'blocked' through counteractive methods.* The old response

can get re-triggered, and so ongoing vulnerability to relapse is an inherent weakness of these approaches.

What is changing both clinical theory and practice are recent discoveries in neuroscience re: *reconsolidation,* a form of neuroplasticity which allows an emotional schema stored in long-term implicit memory to be actually extinguished, not just overridden and suppressed by learning a preferred response. When a schema is re-triggered and engaged, there is a short window during which it is labile and changeable, before it reconsolidates again. If a sufficiently strong therapeutic action challenges and contradicts the memory-schema before it reconsolidates, the memory can change ---- permanently.

Writing in the journal *Learning and Memory* (2004), researchers Pedreira, Perez-Cuesta and Maldonado state, *"According to the reconsolidation hypothesis, a memory recalled by the presentation of a reminder enters a vulnerability phase (labilization) during which it is transiently sensitive to disruption, followed by a process of stabilization (reconsolidation) that returns memory to its former consolidated state. This hypothesis, initially supported by results obtained with rodents, was then confirmed with chickens, fish, freshwater snail, and crab. Learned behaviors of phylogenetically diverse species proved to share the phenomenology as well as its molecular requirements, and such demonstration of universality provides a strong support for the hypothesis."*

The specific molecular mechanics involved in extinction and reconsolidation were first discovered in animal experiments, where administration of a chemical agent (cycloheximide) to block reconsolidation was used to test the lability state of memory at different time points. Cycloheximide and other chemical agents are effective at interrupting memories during the brief labilization window, but not after, once reconsolidation has occurred (Pedreira et al, 2004). As there are many parallels in neural functioning between animal species and humans, neuroscientists have little doubt that they carry over to humans as well. Initial studies on reconsolidation were conducted with animals and chemicals, but at least six studies using human subjects and no chemicals have been published, showing the erasure of an implicit learning in humans (Ecker et al, 2012). In 2005 a study by Lissa Galluccio and Carolyn Rovee-Collier at Rutgers University found that extinction of implicit memories could be achieved experientially ---- in infants.

Describing their research in the journal *Developmental Psychobiology,* Galluccio and Rovee-Collier reported that, "In three experiments, sixty-two 3-month-olds learned to move a distinctive mobile by kicking, forgot the training memory, and then received a reminder that reactivated it. Immediately afterward, they were passively exposed to a novel mobile. We found that passive exposure to novel information could modify reactivated memories that were older ….. Although exposure to a novel mobile occasionally produced only retroactive interference, memory modification never occurred alone, suggesting *that response suppression to the original cue is prerequisite for the modification of reactivated memories.* We propose that memory distortion (modification) is not an anomaly but is an adaptive, updating mechanism that ensures that behavior will be guided by memories containing contemporaneous information."

Ecker et al (2012) describe three steps necessary for consciously engaging the labilization-reconsolidation process:

1) vividly accessing emotional memories that are involved in the targeted symptom,

2) concurrently activating an experience that contradicts implicit models or conclusions drawn from the original experiences—i.e., a "juxtaposition experience," and

3) verifying that the change has occurred.

In a recently-published paper (*Energy Psychology Journal,* 2012), "What Does *Energy* Have to Do with Energy Psychology?," David Feinstein points out how EP protocols implicitly utilize these steps. TAT, for example, directs clients to access a memory or issue, while stimulating energy via the TAT pose and holding/considering positive affirmations such as *"It's over and I'm OK now," "I forgive myself and everyone else involved," "all the parts of me that were getting something out of this are healing now,"* etc. TFT juxtaposes activation of a disturbing memory or issue with tapping acupressure points, which is believed to reciprocally inhibit the arousal associated with the issue. EFT utilizes juxtaposition in two places: in tapping on points (just described), and in the setup phrase, where the client holds (juxtaposes) the issue *("Even though I have this ……"),* with internal resources of love and acceptance *("I deeply and completely love and accept myself.")*

Many people associate 'negative' experiences with anxiety, guilt and shame, believing that they 'caused' or were somehow 'responsible' for them. Even simply recalling these experiences may re-trigger old feelings of fear and guilt. Recalling such an experience while repeating, *"….. I deeply and completely love and accept myself,"* followed by the tapping-induced relaxation response, creates the kind of 'experiential disconfirmation' (i.e. a mismatch between their former expectations and their current experience) resulting in extinction of the old response and reconsolidation of the new one.

Ecker et al further describe four clinical observations which support the juxtaposition - reconsolidation hypothesis:

1. "The process followed in Coherence Therapy is manifestly and verifiably the same as that used by neuroscientists --- reactivation of the target memory followed by an experiential disconfirmation of the reactivated, retrieved memory.

2. "In response to successful facilitation of that process, a client's symptom of mood, behavior or thought ceases abruptly, and remaining symptom-free is then effortless.

3. "In response to successful facilitation of that process, the intensely negative, compelling emotional schema retrieved from implicit memory at the start of the process now cannot be re-evoked by cues that easily re-evoked it before completing the process.

4. "…. the retrieved emotional memory remains compelling and reactive and associated symptoms persist, as they did before retrieval made the implicit material conscious. When the disconfirming juxtaposition experience is finally created, abruptly the longstanding, intense material loses all force and symptoms cease. The shift is clearly felt and described by the client. In the room, the client's shift is remarkable to witness and feel, because a major, lifelong source of personal torment has disappeared.

"Those four observations taken together are a significant indication of possible memory deletion, even by neuroscientists' standards. It is not proof, certainly, but it lends plausibility to the hypothesis that Coherence Therapy dispels existing, unwanted emotional responses by inducing reconsolidation…."
(http://www.coherencetherapy.org/discover/reconsolidation-FAQ.htm)

This *"… reactivation of the target memory followed by an experiential disconfirmation of the reactivated, retrieved memory…."* is accomplished in many EP protocols by tapping or holding acupoints (or chakras), which is theorized to trigger the Relaxation Response by sending inhibitory signals to the amygdalae, thereby downregulating limbic hyperarousal (Feinstein, 2010). In Ecker's terminology, re-activating an emotional schema while calming the limbic system creates an 'experiential disconfirmation' of the emotional schema, i.e. a juxtaposition. The brain experiences this as cognitive dissonance, and during the narrow window of lability, changes and upgrades the memory-schema before the next cycle of reconsolidation re-locks it in permanently.

The parallels between Ecker's observations re: Coherence Therapy, and practitioners' experiences with EP are both fascinating and clear. These hypotheses and research studies point to a neurological basis for the efficacy and rapidity of EP modalities. It is also interesting that other methods (e.g. Coherence Therapy) which do not utilize any form of energetic stimulation can produce similar results, and possibly by utilizing the same neurological mechanisms. Further research in this area will shed more light on these issues, and assist us in understanding and fine-tuning both EP and other cutting-edge modalities.

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