Unlocking the Emotional Brain: Memory Reconsolidation, Therapeutic Effectiveness, and the Future Evolution of Psychotherapy  
Bruce Ecker, MA, LMFT

### Unlocking the Emotional Brain
Memory Reconsolidation, Therapeutic Effectiveness, and the Farther Evolution of Psychotherapy

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COHERENCE PSYCHOLOGY INSTITUTE

### Two Kinds of Change

<table>
<thead>
<tr>
<th>Counteractive, incremental change</th>
<th>Transformational, liberating, profound change</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Partial symptom reduction</td>
<td>• Total elimination of symptom</td>
</tr>
<tr>
<td>• Effort to maintain</td>
<td>• Effortless to maintain</td>
</tr>
<tr>
<td>• Relapses occur</td>
<td>• Permanent, no relapses</td>
</tr>
</tbody>
</table>

### Brain’s Built-In Process of Transformational Change

- Identified independently by clinicians and by neuroscientists
- **Memory reconsolidation:** Brain’s process for erasing an existing piece of emotional learning / conditioning

### Symptoms Dispelled in Therapy by the Memory Reconsolidation Process

<table>
<thead>
<tr>
<th>Aggressive behavior</th>
<th>Food / eating / weight problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agoraphobia</td>
<td>Grief and bereavement problems</td>
</tr>
<tr>
<td>Alcohol abuse</td>
<td>Guilt</td>
</tr>
<tr>
<td>Anger and rage</td>
<td>Hallucinations</td>
</tr>
<tr>
<td>Anxiety</td>
<td>Inaction / indecision</td>
</tr>
<tr>
<td>Attachment-pattern-based behaviors &amp; distress</td>
<td>Low self-worth, self-devaluing</td>
</tr>
<tr>
<td>Attention deficit problems</td>
<td>Obsessive thoughts</td>
</tr>
<tr>
<td>Codependency</td>
<td>Panic attacks</td>
</tr>
<tr>
<td>Complex trauma symptomology</td>
<td>Perfectionism</td>
</tr>
<tr>
<td>Compulsive behaviors</td>
<td>Post-traumatic symptoms / PTSD</td>
</tr>
<tr>
<td>Couples’ problems of conflict / communication / closeness</td>
<td>Process/organization / friction</td>
</tr>
<tr>
<td>Depression</td>
<td>Psychogenic / psychosomatic pain</td>
</tr>
<tr>
<td>Family and child problems</td>
<td>Sexual problems</td>
</tr>
<tr>
<td>Fidgeting</td>
<td>Shame</td>
</tr>
<tr>
<td></td>
<td>Underachieving</td>
</tr>
<tr>
<td></td>
<td>Voice / speaking problems</td>
</tr>
</tbody>
</table>

### Ramifications of Memory Reconsolidation

- **Enhanced effectiveness** of individual clinicians and of the field as a whole
- **Psychotherapy integration:** Unified understanding of core process in diverse therapies
  - **Role of attachment** in therapy is clarified
  - Empirical process of profound change refutes **nonspecific common factors theory**

### Convergence of clinical observations and memory research

<table>
<thead>
<tr>
<th>1995</th>
<th>2004</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depth Oriented Brief Therapy</td>
<td>Memory reconsolidation</td>
<td>Unlocking the Emotional Brain</td>
</tr>
</tbody>
</table>

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**Emotional Learnings**

- Learnings formed in the presence of strong emotion
- Content: How the world functions so as to cause suffering or pleasure
- Nonverbal, implicit knowing (knowings we don’t know we know)
  - Verbal, explicit knowing (knowings we know we know)

**Emotional Learnings**

Examples (after becoming explicit):
- If I feel sad or hurt or scared I’ll be attacked and humiliated.
- Dad never talking to me or playing with me means I’m too worthy to matter.
- If I try for what I really want, the world will crush it, so I better not try for or even feel what I really want.

**Extinction Research Implied Emotional Learnings Are Indelible**

For example:

**Memory Reconsolidation**

- Overturned the tenet of one-time consolidation and indelibility of emotional learning based on a century of extinction research
- 1997–2000: Conclusive detection
- Synapses unlock (de-consolidate) and after about 5 hours they re-lock (re-consolidation): “reconsolidation window”

**Meaning of “Erasure”**

- No loss of memory of events in one’s life
- Dissolution of meanings, models, core beliefs formed in response to events
- Cessation of emotional states and behavioral tactics driven by those meanings/models/beliefs
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**Core Process for Schema Erasure**

1. Reactivate the target emotional schema.
2. Guide a contradictory experience.
   *This juxtaposition unlocks (de-consolidates) the target schema’s memory circuits. (“Mismatch”/“prediction error” experience.)*
3. Repeat contradictory experience in juxtaposition with target schema.
   *This re-writes and erases target schema.*

**Preparation for Core Process**

A. Symptom identification.
   *What / when: specific behaviors, emotions, thoughts, somatizations.*
B. Retrieve underlying emotional schema.
   *Implicit → Explicit*
C. Find contradictory experience.

**Therapeutic Reconsolidation Process**

A. Symptom identification
B. Schema retrieval
C. Find contradictory experience
   1. Reactivate target schema
   2. Evoke contradictory experience in juxtaposition
   3. Repetitions of step 2
   V. Verification of erasure

**Markers of Schema Erasure**

- **Non-reactivation**
  *A specific emotional activation no longer gets triggered.*
- **Symptom cessation**
  *Behaviors, emotions, thoughts and somatics disappear.*
- **Effortless permanence**
  *Non-recurrence continues without counteractive or preventative measures of any kind.*

**Translation of Reconsolidation Research into Therapy**

~~~~~~~~~~~~~~~
Therapy following the same process yields the same markers of change as in reconsolidation research
~~~~~~~~~~~~~~~

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Many Therapies Congenial to TRP

Such as... AEDP, Coherence Therapy, EFT (both of them), EMDR, Focusing, Gestalt Therapy, Hakomi, IFS, Imago, IPNB, NLP, SE, TIR

Memory Reconsolidation as a Framework for Psychotherapy Integration

ABC-123-V is evident in AEDP, Coherence Therapy, EFT, EMDR, IPNB...

...and maybe all other therapies of transformational change?

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Case Example: Enduring Abuse At Work

His retrieved emotional schema:
Life suddenly took away and crushed the top-notch life that I worked so hard for and deserved and was going to have. I've got to never again really want anything or really try for anything I want, because then life could crush me again! If I want or try for a better job, it could happen to me again—so, no, thank you.

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**Nonspecific Common Factors Theory**

- 75 years of randomized controlled trials (RCTs):
  - 14+ different therapies have about equal, modest efficacy.
- RCT statistics imply:
  - 15% of efficacy is due to specific factors
  - 85% of efficacy is due to nonspecific common factors.
- **Nonspecific common factors theory asserts:**
  - Specific methods and processes can never be the cause of powerful therapeutic effects.

**Psychotherapy Process Studies Show Specific Factor Dominance**


**Specific Factors Shown To Be Potently Effective in Controlled Studies**

- Facilitation of an emotional experience previously avoided, plus attention to emotional meanings —strongly fulfilled by Step B of therapeutic reconsolidation process.
- Memory reconsolidation process:
  - steps 1-2-3 are a specific procedure shown by research to produce profound change.

**Erasure in Human Studies via Specific Factor of Reconsolidation Process**


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